

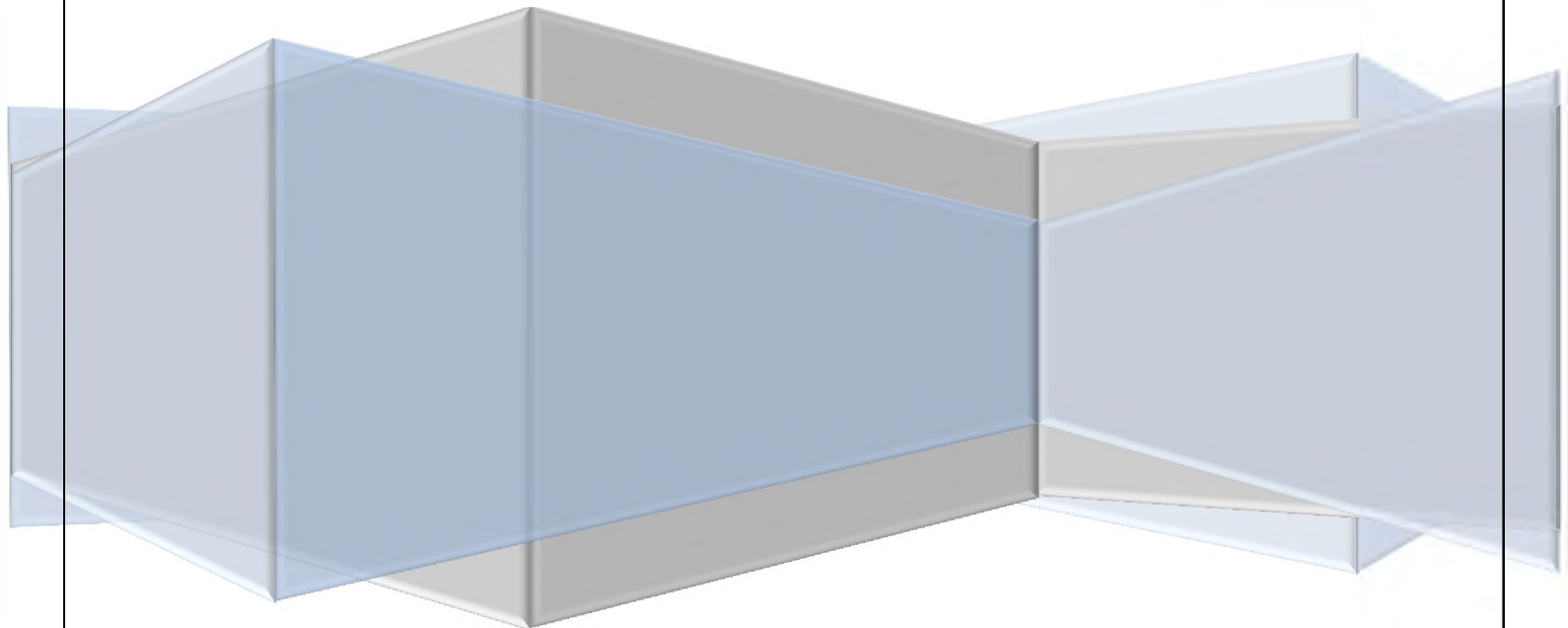


वस्त्र मंत्रालय
MINISTRY OF
TEXTILES

Study on “Garment Sector to understand their requirement for Capacity building”

January 2018

Annexures



technopak

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ANNEXURES

Annexure 1 – Country Profiles and Apparel Industry

1.1 India - Country Profile and Apparel Industry

India is the seventh largest economy after the United States, China, Japan, Germany, UK and France. The gross domestic product (GDP) for 2015 at current prices stands at USD 2.095 trillion¹ which accounts to 3%¹ of the world economy. Critical economic factors such as oil prices, foreign investments, government's intent for reforms etc. have tilted in favor of the economy. India has become the fastest growing economy in the world with GDP growth rate of 7.6%² in 2015 and projected growth rate of 6.6%², 7.2%² and 7.7%² in 2016, 2017 and 2018 respectively.

The GDP per capita of India at constant prices was recorded at US \$1598³ in 2015. India lags behind the other emerging economies like Brazil, China, and Russia etc. in per capita income, nevertheless with the change in the social and economic framework India's per capita income is expected to increase. Also middle class population which forms a huge chunk of private consumption is expected to increase. As per the World Bank population estimates, the emerging middle class is expected to reach about 60% of the total population of the country by 2025, thus making India the fifth largest consumer market in the world.

India is among the leading textile and apparel manufacturing and exporting countries in the world. The Indian textile and apparel industry is characterized by its strong vertical integration with presence in almost all the sub-sectors of the industry starting from fiber to apparel retail and exports.

India's capability of producing both natural and man-made fiber based textile and apparel, its manpower availability coupled with entrepreneurial spirit reflect the robust ecosystem thus ensuring sustainable long term growth prospects of Indian textile and apparel sector. In 2016, Textile industry contributed to 10%⁴ of manufacturing industry, 2%⁴ of India's GDP and 13%⁴ of country's export earnings.

¹ World Bank (<http://data.worldbank.org/country/india>), Technopak Analysis

² International Monetary Fund – World Economic Outlook, updated in Jan 2017 (<https://www.imf.org/external/pubs/ft/weo/2017/update/01/pdf/0117.pdf>)

³ World Bank, Technopak Analysis

GDP per Capita – India and World

<http://data.worldbank.org/indicator/NY.GDP.PCAP.CD?end=2015&locations=IN&start=1960&view=chart>

<http://data.worldbank.org/indicator/NY.GDP.PCAP.CD>

⁴ Textile Ministry Annual Report 2016-17 – 1.1 Overview (Page 1)

Apparel retail accounts for 7-8%⁵ of the total Indian domestic retail market and is expected to grow at a CAGR of 10%⁵. The Indian fashion retail market has witnessed several significant changes in recent years. One of the significant growth factor is emergence of e-commerce fashion business which has witnessed high growth rate in the last couple of years. With increasing FDI & disposable income, growing middle class and private consumption of 59.6%⁶ of the GDP, the apparel market is likely to grow over the years.

Along with domestic market, apparel exports have shown significant growth over past five years. In 2015, the apparel export was recorded to be worth USD 17.1⁷ billion and is expected to grow at CAGR of 10%⁵ over next five years. Major exporting partners for India's apparel are USA, UAE, UK, Germany and France, accounting to ~64%⁷ of the total apparel exports. India's share in global apparel trade accounted for ~4.2%⁷ in 2015.

Apparel Exports, India

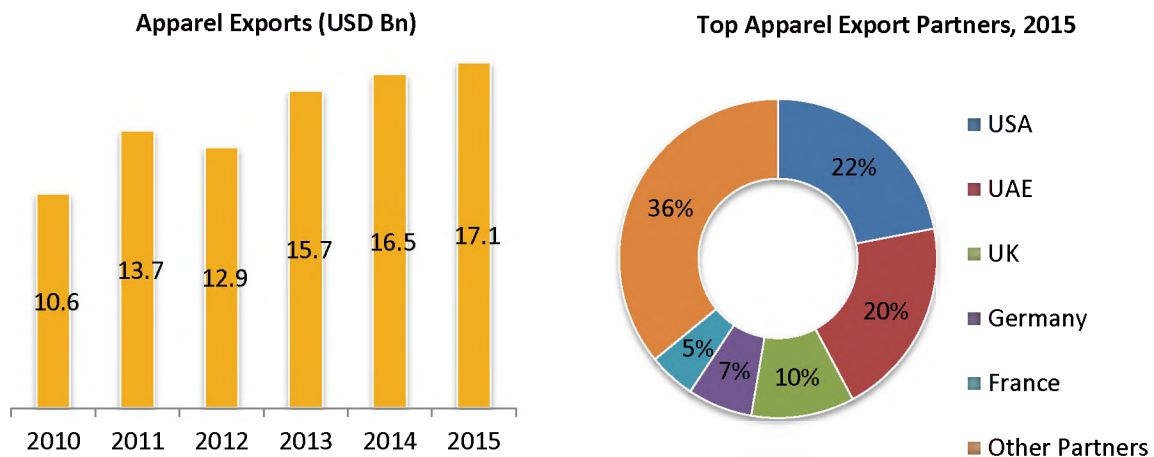


Exhibit 1: Indian Apparel Exports – Value and Key Markets Source ITC Trademap; Technopak Analysis

⁵ Technopak Analysis

⁶ World Bank - <http://data.worldbank.org/indicator/NE.CON.PETC.ZS>; Technopak Analysis

⁷ ITC Trademap, Technopak Analysis

1.2 China – Country Profile and Apparel Industry

China is the second largest economy after United States of America. The gross domestic product (GDP) for 2015 at current prices stands at USD 11.008 trillion⁸ which accounts to 15%⁸ of the world economy. It is one of the upcoming robust economies in the world and has recorded real GDP growth of 6.9%⁹ in 2015. China’s GDP is expected to grow at the rate of 6.7%⁹ in 2016, 6.5%⁹ in 2017 and 6.0%⁹ in 2018.

China’s apparel market remains one of the fastest evolving markets in the world. GDP Per capita in 2015 in China was USD 8027.70¹⁰ and private consumption accounted for 37%¹⁰ of country’s GDP. International brands and private labels are entering tier II cities like Dalian (Liaoning province), Jinan, Qingdao, Nanjing, Wuhan, etc., apart from four fashion hubs of Shanghai, Beijing, Guangzhou and Hong Kong.

China is the largest apparel exporter accounting for ~37%¹¹ (USD 162.3 Bn) of the world’s total apparel exports in 2015. Apparel exports are ~7%¹¹ of the nation’s total exports. Apparel exports have grown at CAGR of ~6%¹¹ during the period of 2010-15. It is worth noting that there has been a decline of 6.4%¹¹ in apparel exports during 2014-15, resulting from rising labor cost, devaluation of Yuan and global economic slowdown. The leading export partners for apparel are USA, Japan, U.K, Germany and South Korea accounting for ~44%¹¹ of the total apparel exports.

China has dominated global textile and apparel industry for decades; however, lately it has been facing challenges. Rising wages in China have led to shift of business from China to emerging markets in South and South East Asia. The supply chain dynamics is changing across the world with new trade agreements favoring emerging markets with cheap labor and comparatively lower manufacturing costs.

Apparel Exports, China

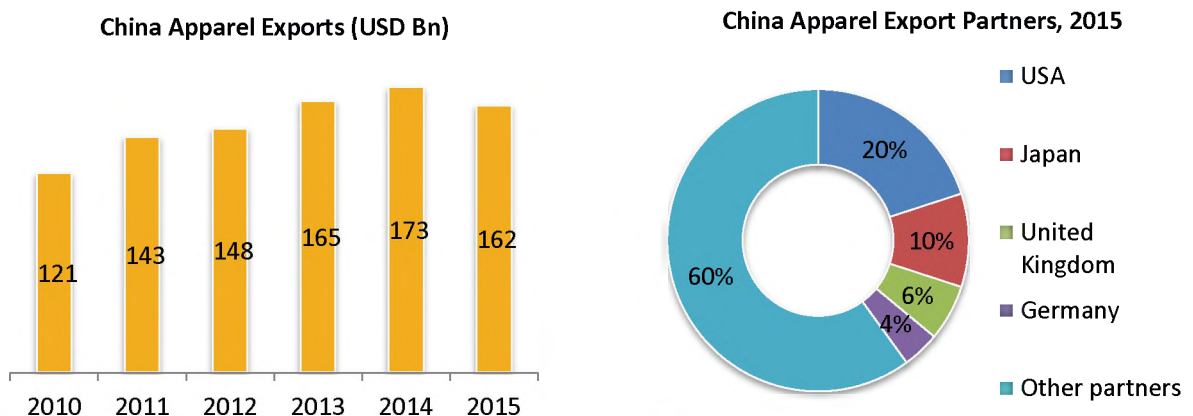


Exhibit 2: China Apparel Exports –Source ITC Trademap; Technopak

⁸ World Bank (<http://data.worldbank.org/country/china>), Technopak Analysis

⁹ International Monetary Fund - <https://www.imf.org/external/pubs/ft/weo/2017/update/01/pdf/0117.pdf>

¹⁰ World Bank (<http://data.worldbank.org/indicator/NE.CON.PETC.ZS>), Technopak Analysis

¹¹ ITC Trademap, Technopak Analysis

1.3 Vietnam – Country Profile and Apparel Industry

Vietnam is another South-East Asian economy that has started showing improvement recently due its government initiatives. Vietnam’s GDP at current prices stands at USD 193 Billion¹². Vietnam has demonstrated a growth in GDP of 6.7%¹³ in 2015 and is expected to grow at the rate of 6.1%¹³ and 6.2%¹³ in 2016 and 2017 respectively. Vietnam continued to capitalize on strong demand for its exports and lead to Chinese FDI in the recent past resulting in accelerated growth. Also, Exports and FDI are expected to further grow in the near future, as Brands/Retailers in consuming markets continue to be attracted by the country’s large labor force and generally low wages. To some extent, the shift in apparel industry from China has been witnessed in Vietnam.

In 2015, Vietnam exported apparel worth USD 21.4 billion¹⁴, accounting to ~4.8%¹⁴ of the global apparel exports. The leading export partner is USA accounting for 50%¹⁴ of the total apparel exports, followed by Japan, South Korea, UK and Germany. The apparel exports have grown at CAGR of ~16%¹⁴ over the period of 2010-15. Apparel exports have a share of ~13%¹⁴ in the country’s total export.

Vietnam has become a lucrative sourcing option for textile and apparel. The key challenge faced by Vietnam’s industry is lack of self-sufficiency in terms of raw material; it needs to import variety of fabrics to support existing apparel manufacturing facilities.

With heavy FDIs from China in apparel manufacturing, Vietnam stands to gain the most from retailers moving out of China. Government initiatives are further propelling the garmenting industry on growth trajectory which could strengthen this industry to a large extent.

Apparel Exports, Vietnam

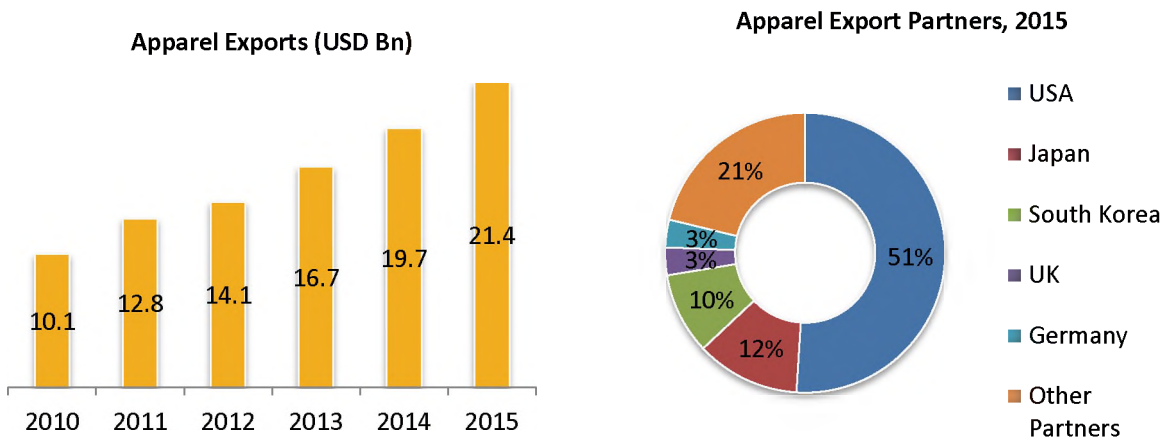


Exhibit 3: Vietnam Apparel Exports – Value and Key Markets Source ITC Trademap; Technopak Analysis

¹² World Bank

¹³ International Monetary Fund

¹⁴ ITC Trademap

1.4 Sri Lanka – Country Profile and Apparel Industry

Sri Lanka is making efforts towards economic progression, however, past two years have seen decline in country's GDP. In 2015, the GDP at current prices stood at USD ~82 billion¹⁵ and the GDP grew at rate of ~4.8%¹⁶. The real GDP is expected to grow at ~5.0%¹⁶ for both 2017 and 2018.

Despite slowing overall economy over past two years, apparel has established itself as a promising sector. Presently, Sri Lanka stands strong as one of the premier sourcing destination possessing a long established professional culture which represents ethical entrepreneurship and sustainability. Major importers of Sri Lanka's apparels are USA and European countries.

In 2015, Sri Lanka exported apparel worth USD 4.5 billion¹⁷, majorly to USA (~46%¹⁷), followed by U.K., Italy, Germany and Belgium. The apparel exports have grown at CAGR of ~ 7%¹⁷ over the period of 2010-15, although in 2015, Sri Lanka has seen lower growth rate of ~4.3%¹⁷ in apparel exports.

Sri Lanka has competitive edge in terms of availability of skilled labor force in the sector and manufacturing of high end and niche products. But it lacks in cost competitiveness in comparison to other South and South East Asian countries and in diversity across product categories outside of intimate apparel and active wears.

Apparel Exports, Sri Lanka

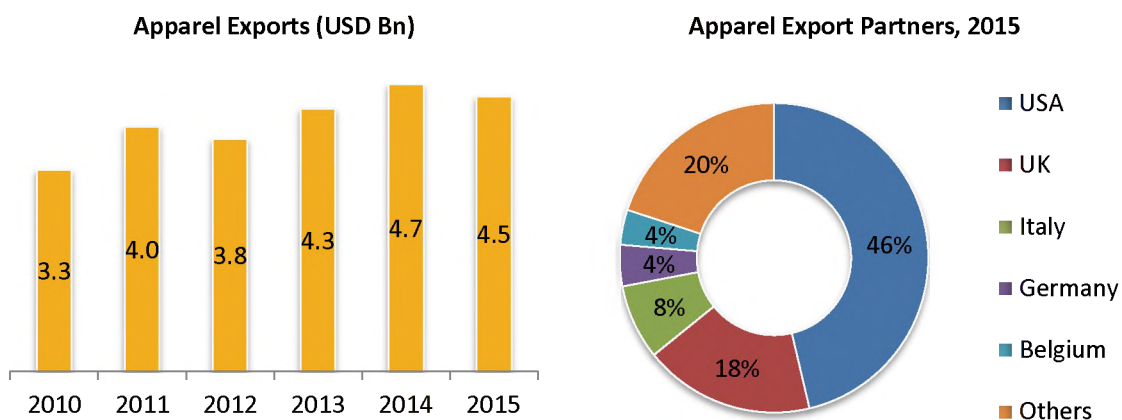


Exhibit 4: Sri Lanka Apparel Exports – Value and Key Markets Source ITC Trademap; Technopak Analysis

¹⁵ World Bank

¹⁶ International Monetary Fund

¹⁷ ITC Trademap, Technopak Analysis

1.5 Bangladesh – Country Profile and Apparel Industry

With annual GDP growth rate ~6.8%¹⁸ in 2015, Bangladesh is establishing itself as a rapidly growing economy in South Asia, with garments exports propelling the economy. GSP+ status has provided Bangladesh advantage in EU over other sourcing destinations. However, lack of safety in working environment, political unrest and increasing competition from Vietnam can act as threat to garment industry in the country. Bangladesh needs to address these issues and focus on product diversification to capture higher market share in global market.

Exports of apparel have shown CAGR of 16%¹⁹ from 2010-2015 owing to cheap labor and large scale factories. With private consumption amounting to 73.1%¹⁸, domestic apparel market is also expected to grow. In 2015, Bangladesh has exported apparel worth USD 30.5 billion¹⁹, majorly to USA (18%), Germany (16%), U.K. (10%), France (7%) and Spain (7%). In 2015, apparel exports accounted for ~87%¹⁹ of the total exports by Bangladesh.

Bangladesh needs to address its compliance and quality issues and focus on product diversification to capture higher market share in Exports.

Bangladesh is the leading player in apparel manufacturing, owing to its cost competitiveness. However, absence of backward integration in woven products, non-adherence to international standards, lack of safety measures in working environment and social compliance are the key challenges of the industry.

Apparel Exports, Bangladesh

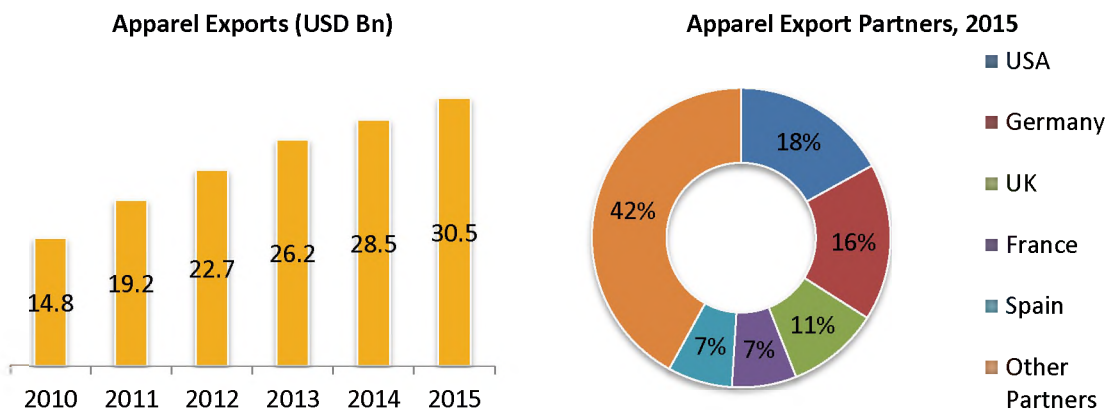


Exhibit 5: Bangladesh Apparel Exports – Value and Key Markets Source ITC Trademap; Technopak Analysis

¹⁸ World Bank

¹⁹ ITC Trademap, Technopak Analysis

ToR #1

To study the technology level of machinery installed in Garment Manufacturing Industry in comparison with any two of the major garment manufacturing countries of the region like Bangladesh, China, Sri Lanka and Vietnam etc.

Annexure 2 – Project Approach & Methodology

2.1 Project Approach

Technopak followed a 3-step approach for delivering the project

Exhibit 1: Project Approach

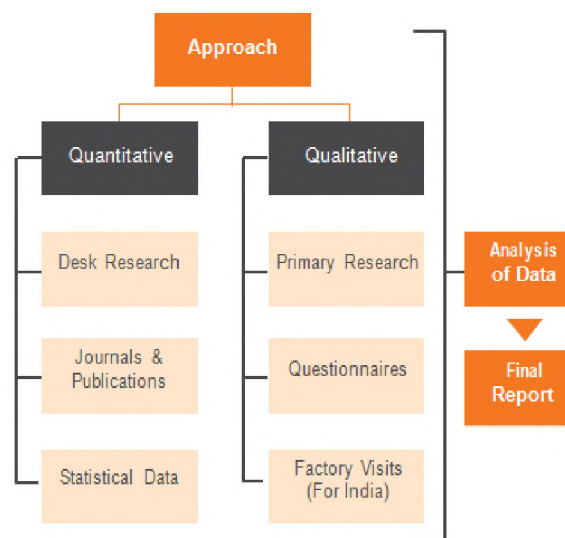


Exhibit 6: Project Approach

2.1.1 Secondary Research

- Study data from various published and related websites about the technology level, skill, labor laws, quality and tax regime in garment industry for the target countries.
- List out top five garment manufacturing units each in Bangladesh, Vietnam, and India.
- List the current government policies regulating garment manufacturing industry in the target countries.
- Identify key contact persons for primary research.

2.1.2 Secondary Research Coverage Area

- Analysis of the level of automation used in garment manufacturing units of various countries.
- Analysis of the worker skill and laws prevalent in various countries.
- Assessment of the type of skill required in the competitive market and the availability of skilled worker and raw material in target countries.

- Separate questionnaires for top manufacturers for analysing automation, skill set, labor laws, requirements and challenges faced.
- Research of selected companies in China, Sri Lanka & India through questionnaire.
- Telephonic Interview with all the selected companies in all three countries to collect information.

2.1.3 Primary Research

- Details of manufacturing units in 3 countries in form of questionnaires.
- Primary research of top manufacturing units in Bangladesh, Vietnam, and India to collect details such as production capacity, product type, location, machinery used skill matrix, etc.
- Primary research to find out the level of skill required in the domestic manufacturing units and compare with skill level of Bangladesh and Vietnam.

2.1.4 Primary Research Coverage Area

- Visits to shortlisted garment manufacturing units in India to understand the technology and skill requirement against present technology and skill set.
- In-depth personal interviews to get the quantitative questionnaires filled up as well as to get appropriate qualitative inputs for key data points
- Analysis of the government initiatives, across target countries, to upgrade the available skill set

2.1.5 Data Analysis

- Comparison of international garment manufacturers based on the level of automation and skill set available, labor laws & tax regime
- Technological and skill requirement Vs. availability, of the garment manufacturers to remain competitive in the global market
- Detailed study on labor laws and tax regimes in target countries
- A list of initiatives taken by the government to upgrade the skill of the current workforce

2.1.6 Project Deliverables (Primary Research)

The report comprises of the below content as per the RfP guidelines:

- Overview of apparel industry in the major garment manufacturing countries such as India, Bangladesh, Vietnam, Sri Lanka & China.
- Overview on the technology level/level of automation of machinery installed in Garment Manufacturing Industry in India in comparison with the major garment manufacturing countries namely Bangladesh, Vietnam, China & Sri Lanka.
- Classification of each process in garmenting emphasizing on the most challenging processes & the skill requirement for it.
- In depth analysis of type and level of skill, labor laws, quality control and tax regime/concessions for major garment manufacturers in India, Bangladesh, Vietnam, China & Sri Lanka and a compiled report for best practices based on the analysis.

- Gap analysis in terms of skill level in India and a detailed report on the possible support that can be provided to boost the exports of garments from India and the possible arrangements that can be provided for skill building.
- List of all possible forms of government intervention for skill building in garmenting

2.1.7 Level of Technology

The level of technology of a manufacturer has been assessed based on key factors mentioned below.

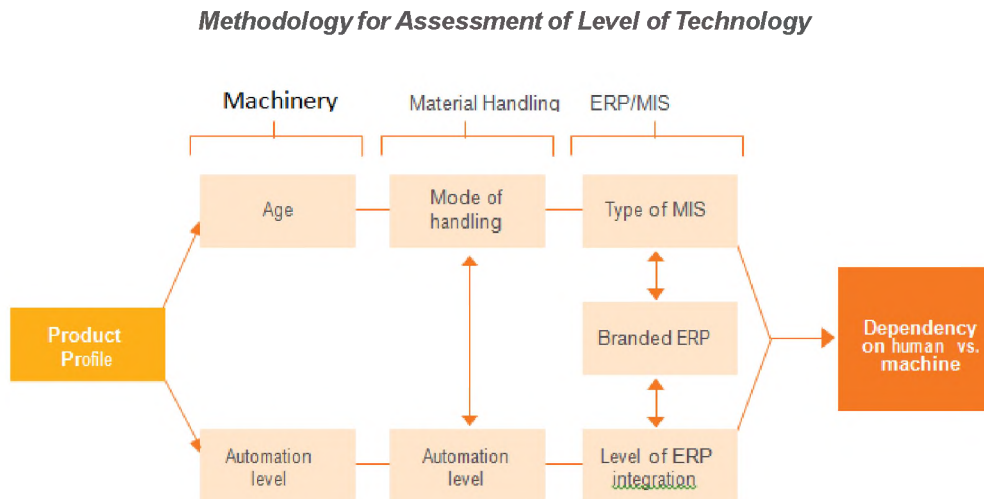


Exhibit 7: Method of Technology Assessment

Annexure 3 – Technology – Detailed Analysis

3.1 Technology in Garment Industry

Textile industry is one of the oldest industries in the world. It has provided sustainable source of income to a large section of population since the development of modern industrial age. And just like any other traditional industry, this industry also has witnessed technological advancements leading to higher productivity and efficiency.

Highly labor intensive with low investment

Garment manufacturing industry has very low barrier to entry and thus has grown in emerging and under-developed countries in the last few decades. The industry does not require huge investments in fixed cost. Anyone with few basic sewing machines can start producing garments. Hence, we can find a lot of small scale garment factories in and around almost all major metros across India.

Dynamic production process

Owing to the nature of the product, the production process is highly dynamic. Every product has different operation-break-down resulting in different costing and operational parameters. This fluidity in nature of production prevents standardization in the production process and hence leaves majority of responsibility on human intervention and skill.

Degree of product standardization

Certain products example dress shirts, formal trousers and jeans demand standard production processes and hence have allowed certain degree of automation.

High growth of the garment sector in India has happened over the last 15-16 years, owing to the National Textile Policy, 2000

Policy Environment

We see that the industry has low threshold to entry and abundance of labor. These overarching factors majorly influence capital infusion along with policy environment. In India until the year 2000, garment sector was classified under Small Scale Industries (SSI) reservation list with an investment ceiling of INR 3 Cr. and a 24% cap on FDI. With the National Textile Policy (2000), the sector was de-reserved. The high growth of the garment sector in India has taken place over the last 15-16 years.

Relevance of technology in Garment Industry

Garment industry faces limitations due to high dependence on human intervention at several stages of manufacturing process. Nevertheless, with technological advancements, the human centric industry is slowly moving towards automation. Automation is possible in certain standard operations such as button stitching, fabric cutting, loop attachment, etc., Such automation has led to higher efficiency and better production output. For instance, fabric-cutting has witnessed significant development and has grown from being a manual, time-consuming and imprecise function to a highly automated computer-controlled and standardized function.

Highly standardized manufacturing is seen in garments which are standard in terms of raw material and construction for example dress-shirts, formal trousers, suits, denim jeans etc. At the same time, producing fashion wear which has significant changes in style, fabric, embellishments, construction etc., cannot be automated, thus the need for human intervention, for example women’s fast fashion casual wear.

A typical garment could be made from a variety of fabrics ranging from light to heavy, and natural to synthetic, similar is the range of several other components. This leads to the problem of inefficient procurement, high inventory, and higher issuing of raw materials to production.

Also the assembly line process, that is employed across maximum section of the industry demands detailed management of Work-in-Progress (WIP) at each stage. This has led to implementation of Enterprise Resource Planning (ERP) solutions by some of the key players in the industry.

In order to analyze the extent of technology use in garment industry, Technopak has divided the overall process in broad phases and technology usage in to three broad levels.

Phases of Production Phases	
Phase I	Pre-Production (Order planning and maintenance)
Phase II	Production Preparatory (Cutting)
Phase III	Production (Sewing)
Phase IV	Post-Production (Finishing & Packaging)
Others	Manufacturing efficiency, method, wage and time keeping etc.)

Exhibit 8 – Phases of Production in Apparel Manufacturing

It must be noted that every country has a unique eco-system shaped by numerous factors like access to capital, skill level, labor availability, productivity, sense of quality, access to affordable technology and individual enterprise’s capacity. It is this eco-system as a whole that dictates the level of investment specifically in the sphere of technology in different production phases.

Phase I – Pre-Production (Order planning and maintenance)

In this phase India, Bangladesh and Vietnam are ‘Base to Mid’ whereas China and Sri Lanka have ‘Mid to Advanced’ technology usage.

In case of Bangladesh’s for order booking, the manufacturers are using integrated customer website for order booking which is advanced, where as other key countries use email or excel sheet to receive orders from buyers.

Besides the excel sheet used for planning and order maintenance, Enterprise Resource Planning (ERP) softwares are used. Also, Indian companies use softwares such as protostar, workxmate, crayons etc.

India and China use ERP solutions for raw material procurement; whereas Bangladesh still relies on excel sheets.

Phase II – Production Preparatory (Cutting)

In this phase India, China and Sri Lanka employ 'Mid to Advanced' levels of technology, whereas Bangladesh is 'Base to Mid' and Vietnam is 'Mid'.

Since ERP is a holistic software solution covering several aspects of production management, Indian, Sri Lankan and Chinese firms employ it in phase II as well for recording fabric receipt information.

Important part of phase II is fabric inspection and shade segregation, for which Indian, Sri Lankan and Chinese firms use mid-level technology that is fabric inspection machines and light boxes while Bangladesh firms still depend on manual inspection and shade segregation.

For Pattern making CAD software (Computer Aided Design) is widely used in India and China whereas Bangladesh still employs basic hand-made patterns. Since fabric cutting is a more automated process all three key countries employ mid-level machines (Floation Table, Straight Knife cutters, etc.)

Embroidery in all the countries, employ mid-levels of technology (Multi Head embroidery machines).

Phase III – Production (Sewing)

India, China and Bangladesh are 'Base to Mid', whereas Vietnam and Sri Lanka are 'Mid' as they are using better technology compared to other countries.

This section being among the most important of the segments witnesses use of mid-level machinery in most of the operations. However, product specific operations such as 'collar & turn-press' use basic levels of techniques (manual). Similarly other product specific operations are still performed by skilled labors.

Phase IV – Post-Production (Finishing & Packaging)

Thread cutting in India and China employ mid-levels of technology (Auto trimmers and Thread suckers). Bangladesh relies on manual thread cutting.

All the countries are 'Base' level in this phase, as this phase requires human intervention at almost every operation.

Others

Overall In this phase, all countries except Bangladesh are Mid-Level, whereas Bangladesh is in Base Level.

This phase involves various factors. In case of steam generation, Bangladesh leads with the usage of environment friendly fuel for steam generation.

Every country has a unique eco-system shaped by numerous factors like access to capital, skill level, labor availability, productivity, sense of quality, access to affordable technology and individual enterprise's capacity. It is this eco-system as a whole that dictates the level of investment specifically in the sphere of technology in different production phases.

For time record & entry of employees, and for production efficiency monitoring, Bio-metric & stand-alone software and Standard Allowed Minutes (SAM) based efficiency tools were found to be in use across all countries.

3.2 Key Observations:

Each country has some Technological advanced set-ups and some base level set-ups. Technology adoption seems to be higher in factories having large-scale operations and similar product manufactured throughout the year leading to economies of scale.

India is not competitive on cost on base products and has taken to manufacturing value added products. Such products do not present economies of scale and hence there is low incentive to invest in higher technologies.

Systems and processes define the robustness in manufacturing and any mid and large companies have invested into ERP's including those for production monitoring for improved control on processes.

The other key observations of Primary research are listed below:

- The Indian garment industry has the seasonality aspect restricting its growth potential i.e., we predominantly manufacture for certain fashion seasons. We have abundance of orders in the spring/ summer season but a lean period during the production for Fall/Winter season. The garment manufacturers investing in automated machinery enjoy benefits like improved efficiency, standardized quality products & lower cost of production, but are unable to utilize full capacities in the lean season (Autumn and Winter) resulting in higher cost of production and thus losing global competitiveness. Also, the products manufactured for winter require different types of machinery and technology which are not currently used by Indian manufacturers.
- India has the expertise in value added apparel manufacturing. India is not competitive for the base level products which are typically being made in Bangladesh & Vietnam. With the value added products being very fashion oriented, the order sizes are smaller & repeat frequencies are lesser, which becomes an impediment to use automation technology.
- The culture of the Indian garment manufacturing units, with the unskilled middle management staff show reluctance in technology adoption process of the company. The employees' non-acceptance for a novel practice instead of traditional ones is a key element to hinder implementation of advanced technology.
- Senior management should be committed to overcome the risks involved in technology adoption. Adoption of technology might not be favourable in every case. Managers should grasp in-depth understanding of whole internal, external, and adaptability situations in the factory.

Cost implications with technological advancements

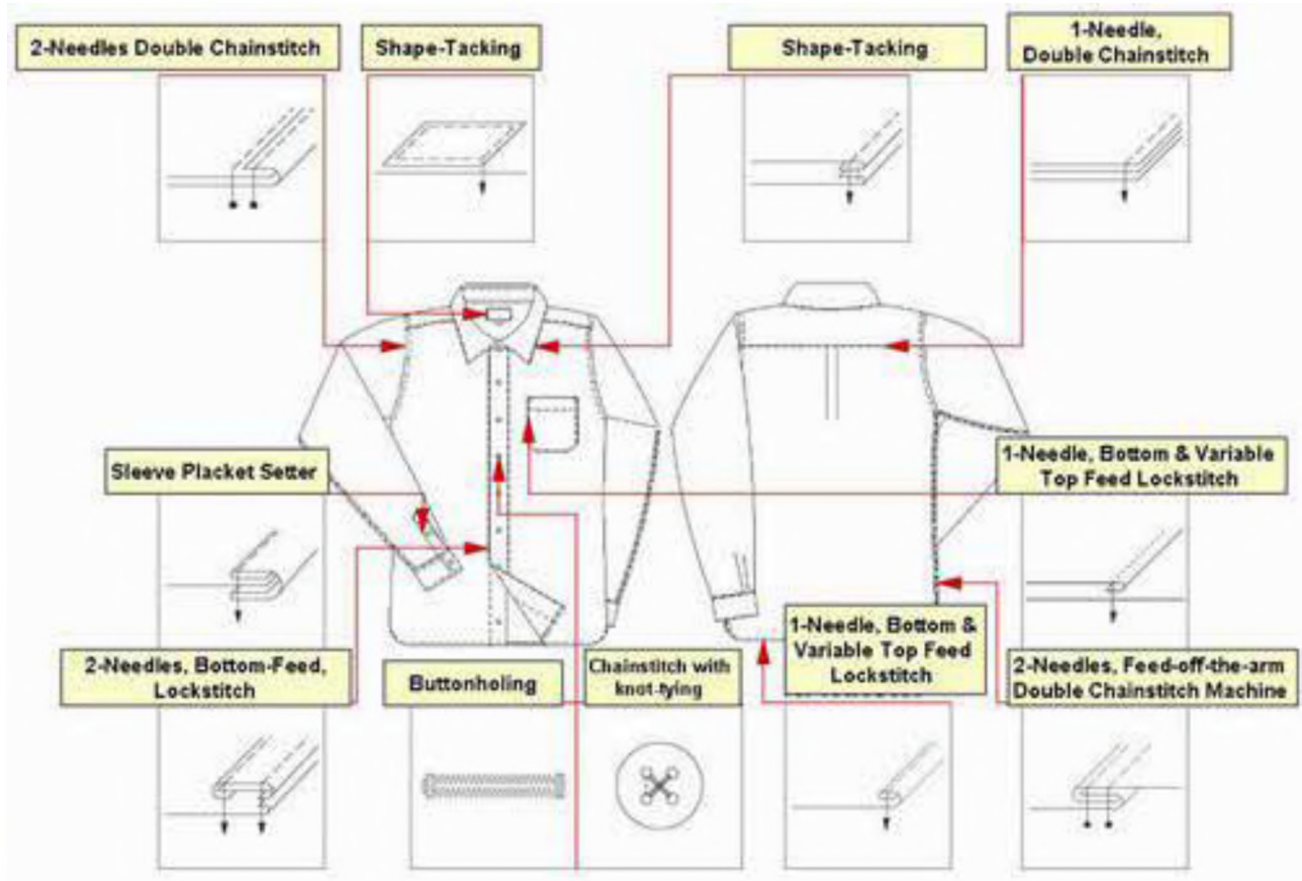
- With investments in technological advancements, cost of production goes up but at the same time, high efficiency and better quality compensates with greater profit margins, increased business opportunities and long term cost savings.

- Large economies of scale can prevail in pre-production processes where advanced technology can be used. Factories mostly invest in technology up-gradation in processes that can be standardized and tend to be repeated over various different product styles. Versatile usage of the technology helps average out the investment cost. At the same time increased efficiency and consistent quality gives the factory competitive upper hand.
- Garment Industry is affected majorly by the fashion cycle across the globe resulting in constant changes in styles/designs. Such dynamism impedes Technological investment.
- Vendor capacities are utilized in accordance to the retail seasons of larger consumer markets (US & Europe). For example large retail chains such as H&M, Decathlon etc. place orders for millions of pieces during a particular season. Mostly such large orders consume more than 100% of the vendor capacities (outsourced by the vendors) for a couple of months. On the other hand vendor capacities remain underutilized during off seasons.
- In the Indian context, Labor availability, during festivals and agricultural season fall drastically. This shortage in labor translates to reduced capacities for the vendor and even in cases of mid-sized order the vendor struggles to deliver the goods on time. It is in these circumstances that certain technological advances ease out the difficulties faced by manufacturers due to shortage of labor or the pressures of large orders.
- It has also been noted that the size of a firm in terms of workforce and sales revenue may influence the company's adoption strategy. Smaller companies tend to employ technology to gain competitiveness, whereas larger businesses regard Advanced Manufacturing Technology (AMT) as a source to lower manufacturing costs.

Annexure 4– Technology Description

Automation seeks to achieve twin objectives of increasing productivity and improving quality.

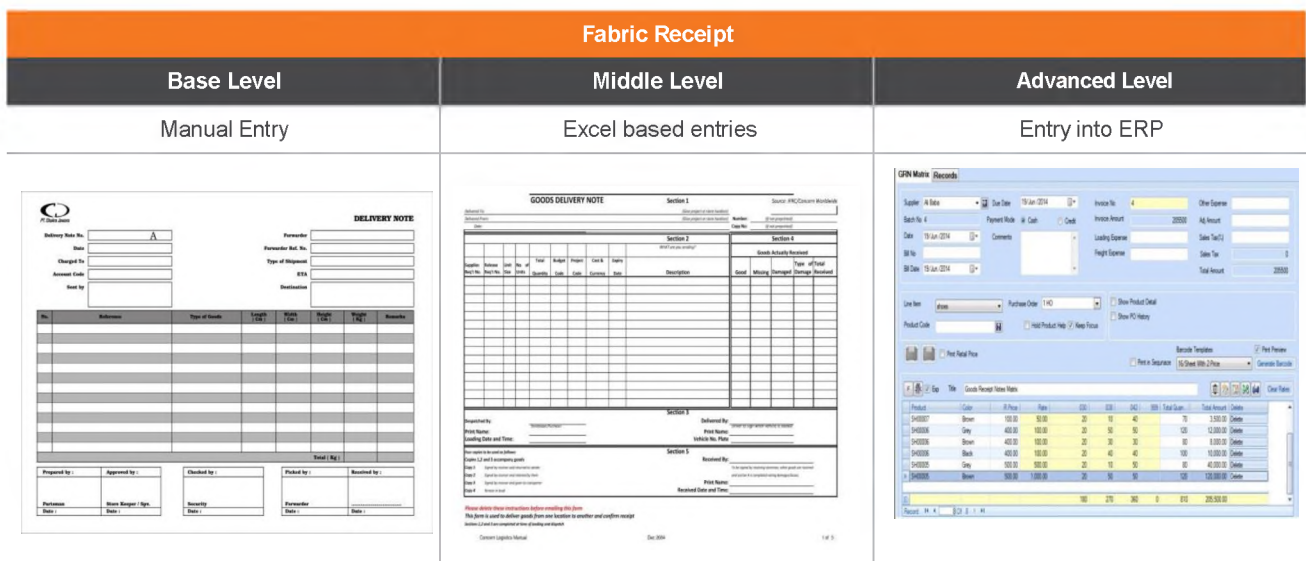
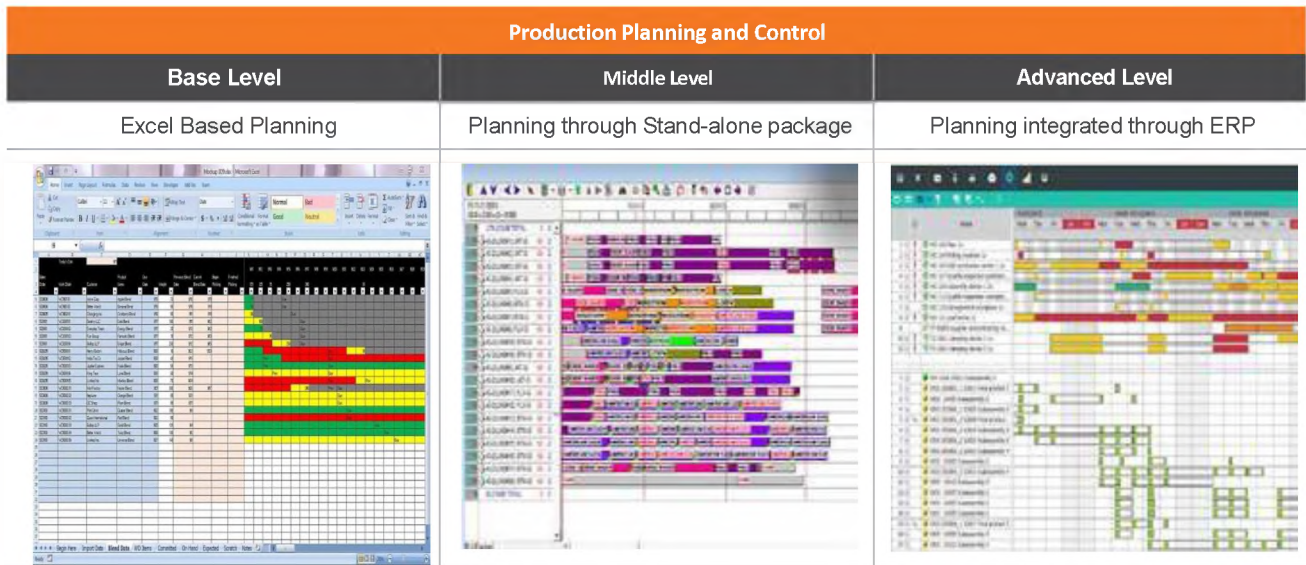
Exhibit 9 - Making of a dress shirt - Technology involved in at garmenting stage



Several kinds of machines are involved in the manufacturing of a Dress shirt. Figure above shows some of the processes. Let us have a look at the different kinds of machinery used at each of the processes.


Costing																																																																																																										
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Costing using Excel sheet	Costing using stand-alone package (STAGE)	Costing using ERP and SAM based																																																																																																								
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ERP (Enterprise resource planning) can be defined as a software solution that addresses the enterprise needs, taking the process view of the organization, to meet the organizational goals tightly integrating all functions of an enterprise. It is an industry term for the broad set of activities supported by multi-module application software that help a manufacturer or other business manages all the parts of its business.






Fabric Inspection:

Some of the initial steps in any manufacturing set up is inspection of the raw material and same goes for garment manufacturing. Fabric is inspected for variations in width, hole, stain marks, color variation with the help of machines shown in the below picture.


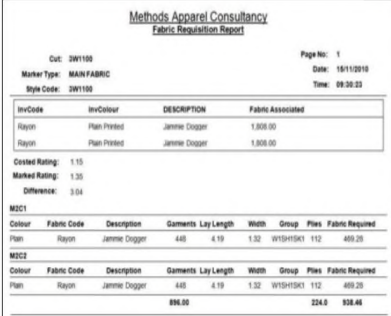
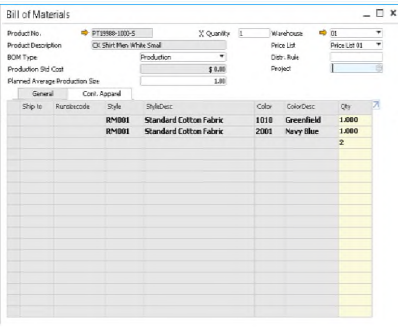
Fabric Inspection		
Base Level	Middle Level	Advanced Level
Manual Inspection	Fabric Inspection Machine	Auto Fabric Inspection Machine
		

Shade Segregation:

Fabric from different lots may have variations in shade (batch-to-batch color variation).A garment with shade variation is considered as a faulty garment. Shade variation in a garment occurs when different garment components have different depth of colors (shade), or mismatch of shades in garment parts of a same garment. Shade variation in garment comes due to shade variation in fabric of an order.

Shade Segregation		
Base Level	Middle Level	Advanced Level
Manual Inspection	Light Box	Auto shade identifier
		



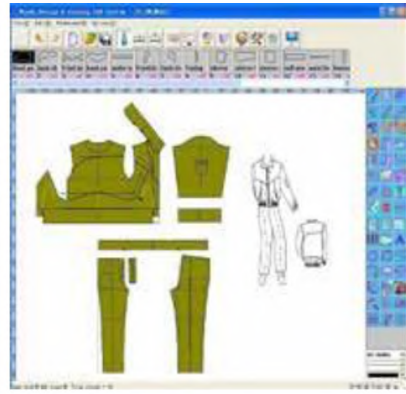
Material Issue to Shop floor for Production

Base Level	Middle Level	Advanced Level
Manual Issue through Material Request Slips (MRS)	Material Issue through Excel based(MRS)	ERP based issue
		

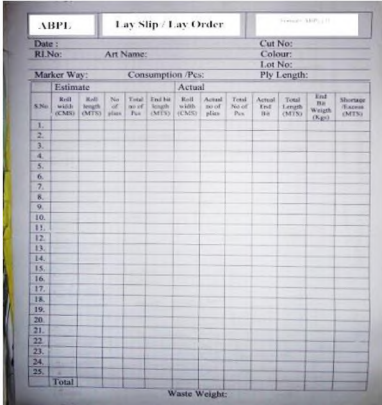
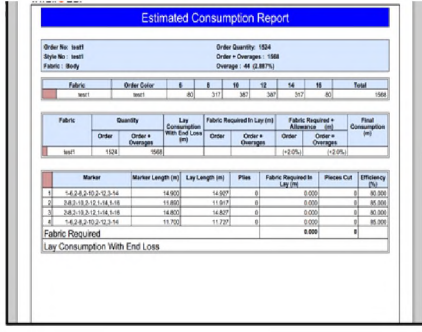
Pattern Making/Grading:

Pattern making is basically a bridge function between garment design and production. A sketch can be turned into a garment via a pattern which interprets the design in the form of the garment components.

Pattern making



Base Level	Middle Level	Advanced Level
Manual	Using CAD	Digitizing using photo image of base patterns
		

Cutting Plan

Base Level	Middle Level	Advanced Level																																																								
Manual Planning and Lay slips	Excel Based Planning and Lay Slips	CAD Based and ERP generated Lay slips																																																								
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Fabric spreading:

This is the process where fabric which is in roll form is unrolled and spread over a long flat table. This can either be done manually or with a spreading machine.

Fabric Spreading (Laying)		
Base Level	Middle Level	Advanced Level
Manual Laying	Use of Laying Cradles	Auto Spreaders
		




Marker Making and Plotting:

Post digitization, patterns are adjusted on a layer of fabric in order to cut garment components. Process is called marker making. This process involves “marker making software” and later plotting machines. A plotting machine prints a large size paper (of the size of fabric layer) with the marker. The printed marker is then put on layers of fabric (called lay) already folded manually or with a spreading machine.

Lay Marking		
Base Level	Middle Level	Advanced Level
Manual Laying	CAD Markers	Transfer of marker to CNC cutter
		




Lay Cutting:

Fabric is cut in accordance to the patterns that are already well organized in a marker form. The most advanced method of cutting fabric is with the help of computerized cutting machine that cuts fabric on the spreading table itself with laser beam or sharp blade attached to the computer controlled machine head.

Lay Cutting		
Base Level	Middle Level	Advanced Level
Manual	Floation table, Straight Knife cutters	Auto Cutter
		




Relay of Panels:

Relay process is done to take away any bowing (Skewing) from the fabric. This is due to the irregular tension of yarns during weaving. Relay is done generally to check fabrics.




Relay of check fabric		
Base Level	Middle Level	Advanced Level
Manual	Use of Pins for Relay	Pin Table and use of laser lights for relay
		

Fusing:

Certain components of the garment need to be stiff when worn (Collar, Cuff, Collar stand etc.). In order to make it stiff, the components are given an additional layer of support (Interlining). The process of joining the fabric with interlining using temperature and pressure is called "Fusing".

Fusing of Panels		
Base Level	Middle Level	Advanced Level
Manual Ironing		Fusing machine with Temperature, pressure and belt speed controllers
		

Lock stitch is one of the important stitch types among all the stitches. Plain sewing machine is used for lock stitch.

Single Needle Machine		
Base Level	Middle Level	Advanced Level
Machine with oil lubrication and manual Lifter	Machine with oil lubrication with UBT and stitch setter and servo motor	Machine with Dry head with auto presser foot lifter, UBT and Stitch setter
		




An overlock is a kind of stitch that sews over the edge of one or two pieces of cloth for edging, hemming, or seaming. Usually an overlock sewing machine cuts the edges of the cloth as they are fed through (such machines being called “sergers”).



An overlock sewing machine differs from a lockstitch sewing machine as it uses loopers fed by multiple thread cones rather than a bobbin. Loopers serve to create thread loops that pass from the needle thread to the edges of the fabric so that the edges of the fabric are contained within the seam.

Overlock		
Base Level	Middle Level	Advanced Level
Basic overlock machine	Overlock with Pneumatic attachment for suction of excess material	Overlock with auto feeder and margin sensor device
		

Feed of Arm:

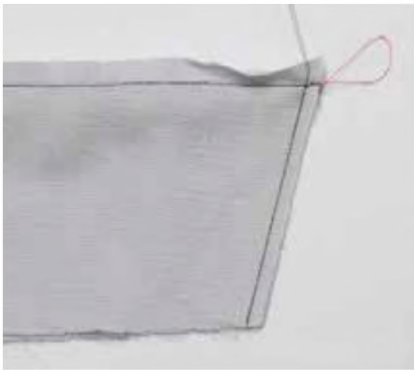


This machine is used wherever there is a closed loop of fabric. The machine is designed in the shape of the arm so as to facilitate the closing of fabric to form a loop. (Side seam in Men’s shirt, Inseam in trousers are examples in which the machine is commonly used).

Feed of Arm		
Base Level	Middle Level	Advanced Level
Clutch motor driven Feed of Arm	Feed of Arm with puller mechanism and Servo motor	Feed of Arm with Puller and suction device for proper folding of material (Fabric). Use of stackers for Material disposal
		




Welt Pocket Making		
Base Level	Middle Level	Advanced Level
Marking and using double needle machine	None	Use of Auto welt machine with stacker
		

Button Attach		
Base Level	Middle Level	Advanced Level
Clutch motor driven, CAM driven, chain stitch machine	Programmable, Multi stitch capability (No of Passes, designs, X and Y axis setting)	Programmable, Multi stitch capability machine with auto spacer and stacker attachments
		



Button positioning can be automatic. Sewing is according to the hole in button and may be cross or parallel. In fully automatic machines, button feeding and positioning inside the button clamp is performed by a hopper and pipe.

Collar run		
Base Level	Middle Level	Advanced Level
Manual sewing using marking and thread	Manual sewing using collar template and roller presser foot	Using Auto jig machine for collar run
		



Cuff run

Base Level	Middle Level	Advanced Level
Sewing following the marking	Use of template	Use of Auto jig machine for cuff run
		




Cuff Turn and Press

Base Level	Middle Level	Advanced Level
Manual Ironing	None	Use of Cuff turn and press machines
		



Collar Turn and Press

Base Level	Middle Level	Advanced Level
Manual Ironing	None	Collar Turning machine
		



Sleeve Placket creasing

Base Level	Middle Level	Advanced Level
Manual Ironing using patterns	Creasing using Fusing machine and folder	Auto Sleeve placket creasing machine with laser markings for checks matching
		



Back pocket attach (Denim)

Base Level	Middle Level	Advanced Level
Manual attach using single needle machine	None	Auto back pocket attach machine with stackers
		



Back pocket creasing (Denim)

Base Level	Middle Level	Advanced Level
Manual creasing using Iron box and pattern	None	Auto back pocket creasing machine with stackers
		




Loop attaching (Denim)

Base Level	Middle Level	Advanced Level
Manual marking and attaching	None	Auto Loop attaching machine (Pneumatic)
		

Back pocket design stitch

Base Level	Middle Level	Advanced Level
Manual stitching following the marking	None	Auto sewing using programmable machine
		




Material Handling (WIP handling in sewing Floor)

Base Level	Middle Level	Advanced Level
Use of center tables	Use of customized work-aids operation wise, Use of conveyor (Manual)	Use of Conveyor system, Automatic(takt time based)
		




Production Monitoring System

Base Level	Middle Level	Advanced Level
Manual entry of hour wise output	Barcode based bundle tracking system	RFID based production monitoring system (Centralized system)
		

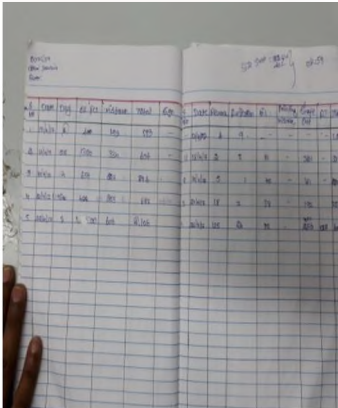
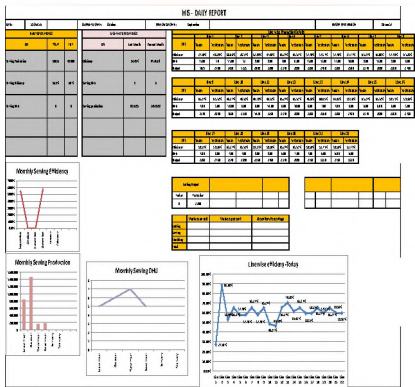
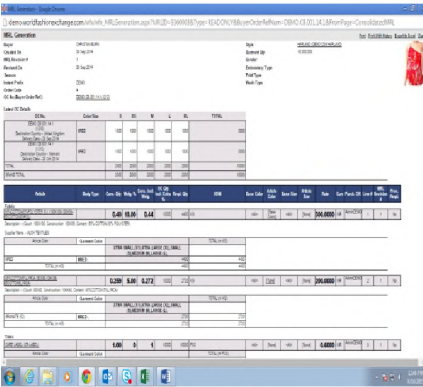
Garment Pressing




Base Level	Middle Level	Advanced Level
Manual Pressing	Manual pressing and use of conveyor for material handling	Form Finisher and conveyor
		

Carton Packing

Base Level	Middle Level	Advanced Level
Manual counting, size wise segregation	Barcode scanning	RFID and scanning
		

MIS (Management Information System)

Base Level	Middle Level	Advanced Level
Manual	Excel Based MIS	ERP based report generation
		



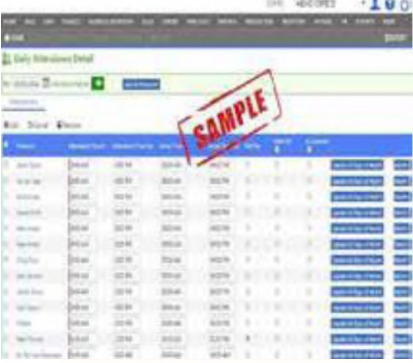
Thread		
Base	Middle Level	Advanced Level
Manual	Auto Trimmer	Sewing Machine
		

Embroidery		
Base Level	Middle Level	Advanced Level
Manual	Multi-colour multi –needle, multi-head embroidery machine	Multi-colour, multi needle with individual needle control, multi head with sequins and lace feeders
		


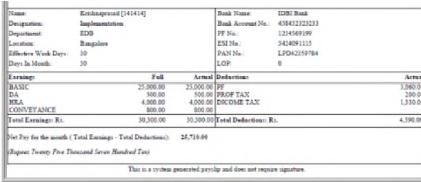
Generation of Steam

Base Level	Middle Level	Advanced Level
Use of wood as fuel for Boiler	Use of Diesel as fuel for Boiler	Use of briquettes as fuel for boiler
		

Time record entry of employees

Base Level	Middle Level	Advanced Level
Manual / Punch card	Biometric and stand-alone software	Biometric and integrated into ERP
		



Wages payment to Employees

Base Level	Middle Level	Advanced Level
Manual (Cash/ cheque)		Bank transfer
		

Manufacturing Efficiency monitoring

Base Level	Middle Level	Advanced Level																																																																																																																																																																																																																																																																																																																								
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4326</td><td>50</td><td>11</td><td>297</td><td>25</td><td>30000</td><td>7420</td><td>22.85</td></tr> <tr><td>4</td><td>Nov</td><td>GAP 4327</td><td>50</td><td>11</td><td>340</td><td>25</td><td>30000</td><td>8120</td><td>27.46</td></tr> <tr><td>5</td><td>Nov</td><td>GAP 4328</td><td>50</td><td>11</td><td>350</td><td>25</td><td>30000</td><td>6780</td><td>28.52</td></tr> <tr><td>6</td><td>Nov</td><td>GAP 4329</td><td>3</td><td>58</td><td>28</td><td>25</td><td>2400</td><td>1200</td><td>22.98</td></tr> <tr><td>7</td><td>Nov</td><td>GAP 4330</td><td></td><td></td><td></td><td></td><td>0</td><td>0</td><td>0</td></tr> <tr><td>8</td><td>Nov</td><td>GAP 4331</td><td>48</td><td>11</td><td>311</td><td>25</td><td>31480</td><td>7750</td><td>24.84</td></tr> <tr><td>9</td><td>Nov</td><td>GAP 4332</td><td>49</td><td>11</td><td>428</td><td>25</td><td>22840</td><td>12620</td><td>32.62</td></tr> <tr><td>10</td><td>Nov</td><td>GAP 4333</td><td>49</td><td>4</td><td>200</td><td>25</td><td>17440</td><td>3000</td><td>26.34</td></tr> <tr><td>11</td><td>Nov</td><td>GAP 4334</td><td>49</td><td>11</td><td>402</td><td>25</td><td>22340</td><td>12600</td><td>32.25</td></tr> <tr><td>12</td><td>Nov</td><td>GAP 4335</td><td>49</td><td>11</td><td>434</td><td>25</td><td>22340</td><td>12700</td><td>31.74</td></tr> <tr><td>14</td><td>Nov</td><td>GAP 4336</td><td>49</td><td>10</td><td>459</td><td>25</td><td>29400</td><td>9420</td><td>32.74</td></tr> <tr><td>15</td><td>Nov</td><td>GAP 4337</td><td>49</td><td>11</td><td>418</td><td>25</td><td>22840</td><td>12600</td><td>31.25</td></tr> <tr><td>16</td><td>Nov</td><td>GAP 4338</td><td>49</td><td>11</td><td>379</td><td>25</td><td>22340</td><td>5000</td><td>24.74</td></tr> <tr><td>17</td><td>Nov</td><td>GAP 4339</td><td>49</td><td>11</td><td>385</td><td>25</td><td>22340</td><td>6780</td><td>27.25</td></tr> <tr><td>18</td><td>Nov</td><td>GAP 4340</td><td>49</td><td>11</td><td>395</td><td>25</td><td>22340</td><td>6100</td><td>26.84</td></tr> <tr><td>19</td><td>Nov</td><td>GAP 4341</td><td>49</td><td>11</td><td>474</td><td>25</td><td>22340</td><td>5280</td><td>26.46</td></tr> <tr><td>20</td><td>Nov</td><td>GAP 4342</td><td>49</td><td>8</td><td>86</td><td>25</td><td>1190</td><td>0</td><td>0.06</td></tr> <tr><td>23</td><td>Nov</td><td>GAP 4343</td><td>49</td><td>11</td><td>355</td><td>25</td><td>22340</td><td>6780</td><td>27.24</td></tr> <tr><td>25</td><td>Nov</td><td>GAP 4344</td><td>48</td><td>11</td><td>298</td><td>25</td><td>24400</td><td>6900</td><td>22.54</td></tr> <tr><td>25</td><td>Nov</td><td>GAP 4345</td><td></td><td></td><td></td><td></td><td>0</td><td>0</td><td>0</td></tr> <tr><td>24</td><td>Nov</td><td>GAP 4347</td><td>50</td><td>11</td><td>333</td><td>25</td><td>30000</td><td>4020</td><td>13.74</td></tr> <tr><td>25</td><td>Nov</td><td>GAP 4348</td><td>47</td><td>11</td><td>388</td><td>25</td><td>31000</td><td>6900</td><td>22.24</td></tr> <tr><td>26</td><td>Nov</td><td>GAP 4349</td><td>47</td><td>11</td><td>450</td><td>25</td><td>31000</td><td>6000</td><td>20.44</td></tr> <tr><td>29</td><td>Nov</td><td>GAP 4350</td><td></td><td></td><td></td><td></td><td>0</td><td>0</td><td>0</td></tr> <tr><td>29</td><td>Nov</td><td>GAP 4351</td><td>47</td><td>11</td><td>451</td><td>25</td><td>31000</td><td>6100</td><td>20.74</td></tr> <tr><td>29</td><td>Nov</td><td>GAP 4352</td><td>47</td><td>11</td><td>410</td><td>25</td><td>31000</td><td>6400</td><td>20.46</td></tr> <tr><td>30</td><td>Nov</td><td>GAP 4353</td><td>47</td><td>11</td><td>420</td><td>25</td><td>31000</td><td>15000</td><td>21.57</td></tr> <tr style="background-color: yellow;"> <td>Total</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>751800</td> <td>239700</td> <td>27.88</td> </tr> </tbody> </table>			Line #	Date	Shift	No. of Operator	Working hours	Production (units/lot)	Current SAM	Line Supervisor: Ganesh		Line Efficiency %	Targeted units	Standard Allowed Minutes	1	Nov	GAP 4324	48	8	138	25	24000	448	22.7	2	Nov	GAP 4325	50	11	257	25	53000	520	21.29	3	Nov	GAP 4326	50	11	297	25	30000	7420	22.85	4	Nov	GAP 4327	50	11	340	25	30000	8120	27.46	5	Nov	GAP 4328	50	11	350	25	30000	6780	28.52	6	Nov	GAP 4329	3	58	28	25	2400	1200	22.98	7	Nov	GAP 4330					0	0	0	8	Nov	GAP 4331	48	11	311	25	31480	7750	24.84	9	Nov	GAP 4332	49	11	428	25	22840	12620	32.62	10	Nov	GAP 4333	49	4	200	25	17440	3000	26.34	11	Nov	GAP 4334	49	11	402	25	22340	12600	32.25	12	Nov	GAP 4335	49	11	434	25	22340	12700	31.74	14	Nov	GAP 4336	49	10	459	25	29400	9420	32.74	15	Nov	GAP 4337	49	11	418	25	22840	12600	31.25	16	Nov	GAP 4338	49	11	379	25	22340	5000	24.74	17	Nov	GAP 4339	49	11	385	25	22340	6780	27.25	18	Nov	GAP 4340	49	11	395	25	22340	6100	26.84	19	Nov	GAP 4341	49	11	474	25	22340	5280	26.46	20	Nov	GAP 4342	49	8	86	25	1190	0	0.06	23	Nov	GAP 4343	49	11	355	25	22340	6780	27.24	25	Nov	GAP 4344	48	11	298	25	24400	6900	22.54	25	Nov	GAP 4345					0	0	0	24	Nov	GAP 4347	50	11	333	25	30000	4020	13.74	25	Nov	GAP 4348	47	11	388	25	31000	6900	22.24	26	Nov	GAP 4349	47	11	450	25	31000	6000	20.44	29	Nov	GAP 4350					0	0	0	29	Nov	GAP 4351	47	11	451	25	31000	6100	20.74	29	Nov	GAP 4352	47	11	410	25	31000	6400	20.46	30	Nov	GAP 4353	47	11	420	25	31000	15000	21.57	Total							751800	239700	27.88
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2	Nov	GAP 4325	50	11	257	25	53000	520	21.29																																																																																																																																																																																																																																																																																																																	
3	Nov	GAP 4326	50	11	297	25	30000	7420	22.85																																																																																																																																																																																																																																																																																																																	
4	Nov	GAP 4327	50	11	340	25	30000	8120	27.46																																																																																																																																																																																																																																																																																																																	
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7	Nov	GAP 4330					0	0	0																																																																																																																																																																																																																																																																																																																	
8	Nov	GAP 4331	48	11	311	25	31480	7750	24.84																																																																																																																																																																																																																																																																																																																	
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12	Nov	GAP 4335	49	11	434	25	22340	12700	31.74																																																																																																																																																																																																																																																																																																																	
14	Nov	GAP 4336	49	10	459	25	29400	9420	32.74																																																																																																																																																																																																																																																																																																																	
15	Nov	GAP 4337	49	11	418	25	22840	12600	31.25																																																																																																																																																																																																																																																																																																																	
16	Nov	GAP 4338	49	11	379	25	22340	5000	24.74																																																																																																																																																																																																																																																																																																																	
17	Nov	GAP 4339	49	11	385	25	22340	6780	27.25																																																																																																																																																																																																																																																																																																																	
18	Nov	GAP 4340	49	11	395	25	22340	6100	26.84																																																																																																																																																																																																																																																																																																																	
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20	Nov	GAP 4342	49	8	86	25	1190	0	0.06																																																																																																																																																																																																																																																																																																																	
23	Nov	GAP 4343	49	11	355	25	22340	6780	27.24																																																																																																																																																																																																																																																																																																																	
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26	Nov	GAP 4349	47	11	450	25	31000	6000	20.44																																																																																																																																																																																																																																																																																																																	
29	Nov	GAP 4350					0	0	0																																																																																																																																																																																																																																																																																																																	
29	Nov	GAP 4351	47	11	451	25	31000	6100	20.74																																																																																																																																																																																																																																																																																																																	
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Total							751800	239700	27.88																																																																																																																																																																																																																																																																																																																	

Manufacturing Methods adopted

Base Level	Middle Level	Advanced Level
Push system, Target based manufacturing		Pull system, Internal customer concept, Need based manufacturing
		

Annexure 5 - Responses from Garment manufacturing units to the Questionnaire

India				
Questions	Mandhana	Laguna	Vardhman	
Technology				
1	No. of Machines in factory	400	960	600
2	Total manpower employed	850	1920	1260
3	Man: Machine	2.1	2.0	2.1
4	Level of integration	Level 1	Level 2	Level 1
5	% Breakup of type of machine	a. Basic Machine: 50% b. Semi-Automatic Machine: 49% c. Fully Automatic Machine: 1% d. High Technology Machine: NA	a. Basic Machine:- 5% b. Semi-Automatic Machine:- 5% c. Fully Automatic Machine:- 85 % d. High Technology Machine:- 5 %	a. Basic Machine:- 5 % b. Semi-Automatic Machine:- 85 % c. Fully Automatic Machine:- 5 % d. High Technology Machine:- 5 %
6	In which of the following departments is the ERP used	Fabric & Trims, Cutting, Sewing, Finishing & Packing, Dispatch	Fabric & Trims, Cutting & Sewing	Fabric & Trims, Cutting, Sewing, Finishing & Packing, Dispatch
7	In which of the following departments are the automated machines used	Cutting, Sewing	Sewing, Finishing & Packing	Cutting, Sewing
Skill				
8	% Breakup of operative workforce in various skill category	a. Highly Skilled : 56% b. Skilled: 11% c. Semi-Skilled: 18% d. Unskilled: 15%	a. Highly Skilled :- 1.1 % b. Skilled :- 4.2 % c. Semi-Skilled :- 53.5 % d. Unskilled :- 41.2 %	a. Highly Skilled – 10 % b. Skilled – 20 % c. Semi-Skilled – 55% d. Unskilled -15 %
9	% Shortage of skilled manpower	15%	Highlyskilled13.9% Skilled - 15.7%	25-30%
10	% Attrition & reasons of attrition	4-5%	4%-5% Marriage, Domestic issues	5-6% Wages, Living cost
11	% Absenteeism	10-12%	6%-7%	9%
12	Facility for training & re-training of workers & staff	yes	yes - focuses on training	yes
13	What is the Male: female ratio	1:9	1:6.5	2:1
Labour laws				
14	Any changes prevailing to labour laws and related policies	Change in PF policy	No	No
15	Recommendations towards government skill development initiatives	Training is needed	1. ESI facilities should be extended to all over Garments industries in all locations. 2. Bus facilities or bus passes can be made available to garment industry employees. 3. Pay scale level can be differentiated to highly skilled & Multi skilled Employees. 4. Training programs to be conducted among the employees to make them understand the process of factory and their contribution in it.	It should be more industry focused
16	Recommendations for increasing export values	More lead time trained manpower price renewal	Training needed	SEZ must be promoted
17	Any government skill development scheme for operators	ISDS	ISDS	PKMVY

18	Any government skill development scheme for middle management	NA	No	No
Quality				
19	% Rework	10%	2.52%	3-4%
20	% Rejection	3-5%	1.35%	6-7%
21	% First time pass through external inspection	100%	1.20%	87%
22	Order to ship ratio	100%	100:104	100:90
23	Which reports are generated /documented on the production floor?	Rejection, rework, needle breakage, inspection report, measurement check	Rejection, rework, needle breakage, inspection report, measurement check	Rejection, DHU, needle breakage, inspection report, measurement check
24	What AQL is being followed by the factory	2.5	1.5	2.5

India				
Questions		Mandhana	Laguna	Vardhman
General				
25	Top 3 challenges towards growth			
	a. Internal	Manpower	Scarcity of Skilled & Multi skilled man power	Lack of Skilled manpower
		Skilled labour	Rising cost of Infrastructure and transport facilities	Infrastructure
		Absenteeism		Procurement of raw material
	b. External	Availability of raw material	Transport Bottlenecks	Competition from China & Bangladesh
26	Best practices being followed	Fabric checking, panel checking, in-line checking, counter checking	<ul style="list-style-type: none"> Total employee participation Employee motivation activities Employee family factory visit Kaizen exhibition 	providing training to female workforce
27	Time required to procure Fabric &	NA	40	2 weeks
28	Time for clearance at port	NA	NA	4-5 days
29	Vessel time to US (West coast)	NA	NA	40-45 days
30	Vessel time to EU	NA	NA	22 days
31	Typical lead time from order to delivery	78-90 days	45 days	35-60 days (depending on the
32	Availability of fabric locally or imported	local	imported	Locally
33	Availability of trims locally or imported	local & imported	locally	Locally
34	What percentage of your former operators are working in the apparel manufacturing industry	~ 97%	~ 95.5%	~97.2%
Cost				
35	Average wages for operators (in USD)	120	143	110
36	Average wages for helpers (in USD)	106	125	70
37	Average wages for QCs (in USD)	162	235	230
38	Average wages for Supervisors (in USD)	176	250	200
39	Electricity cost per unit (in USD)	0.088		0.107
40	Fuel cost for boiler (in USD)	0.07		NA
41	% Efficiency	48-52%	58%	70%
42	Indicative cost per minute	0.051	0.044117647	NA
Product cost - fabric, trims, packing trims - availability (logistics) & taxes				
Conversion cost - labour cost, overheads(electricity, fuel, welfare cost, transportation, etc.)				

Data not disclosed by the factory

India

Questions	Malwa	Indian designs	Akshara	
Technology				
1	No. of Machines in factory	650	800	386
2	Total manpower employed	1050	1530	812
3	Man: Machine	1.6	1.9	2.1
4	Level of integration	Level 2	Level 2	Level 1
5	% Breakup of type of machine	a. Basic Machine: - 70 % b. Semi-Automatic Machine:- 20 % c. Fully Automatic Machine: -1% d. High Technology Machine: -9 %	a. Basic Machine: - 60 % b. Semi-Automatic Machine:- 23 % c. Fully Automatic Machine:5% d. High Technology Machine: -12 %	a. Basic Machine: - 90 % b. Semi-Automatic Machine:-10 % c. Fully Automatic Machine: d. High Technology
6	In which of the following departments is the ERP used	NA	Fabric & Trims, Cutting, IE, Sewing, Finishing & Packing, Dispatch	Cutting, Finishing Packing, IE, Partially - Fabric & Trims, Sewing, Dispatch
7	In which of the following departments are the automated machines used	Sewing, Finishing	Fabric & Trims, Cutting, Sewing, Finishing & Packing	Sewing
Skill				
8	% Breakup of operative workforce in various skill category	a. Highly Skilled – 70 % b. Skilled – 25 % c. Semi-Skilled – 5 % d. Unskilled - NA	a. Highly Skilled – 11 % b. Skilled – 40 % c. Semi-Skilled – 36% d. Unskilled -13 %	a. Highly Skilled – 27 % b. Skilled – 40 % c. Semi-Skilled – 12% d. Unskilled -27 %
9	% Shortage of skilled manpower	30-35%	60%	
10	% Attrition & reasons of attrition	3-5%	3.60%	5-6%
		Wages	Accommodation Issue	Work Environment
		Work culture	Distance from their Native place	Good Management
		Living cost	Health Issues	Providing supporting training for growth
			High Target leading to work Marriage	Good Transportation infrastructure Nice increment facilities
11	% Absenteeism	11.65%	13%	10%
12	Facility for training & re-training of workers & staff	Yes	Yes	Yes
13	What is the Male: female ratio	13:8	1:3	1:1.6
Labour laws				
14	Any changes prevailing to labour laws and related policies	NA	NA	
15	Recommendations towards government skill development initiatives	NA	Need to get trained manpower	
16	Recommendations for increasing export values	Supply chain should be more competitive as compared to China	Need to increase skilled labour	
17	Any government skill development scheme for operators	PMKVY, ISDS	NA	ISDS
18	Any government skill development scheme for middle management	No	NA	
Quality				
19	% Rework	4%	3%	3%
20	% Rejection	6%	1%	1%
21	% First time pass through external inspection	84%	98%	100%
22	Order to ship ratio	0.9:1.1	1:1	1:1
23	Which reports are generated /documented on the production floor?	Rejection%	DHU, Rejection, rework, needle breakage, inspection report, measurement check	Rejection, needle breakage, inspection report, measurement check
24	What AQL is being followed by the factory	2.5	4	4

India

Questions	Malwa	Indian designs	Akshara
General			
25	Top 3 challenges towards growth		
	a. Internal	Skilled manpower	Production delay
		Marketing related support from govt.	Skilled manpower
		Requirement of exhibition center	
	b. External	Prices from China	Fabric & trim delays
26	Best practices being followed	Focused training & development	Lean implemented lines
			Conveyor system for IKEA products
27	Time required to procure Fabric &	30-35 days	35 days
28	Time for clearance at port	3-5 days	NA
29	Vessel time to US (West coast)	35-40 days	NA
30	Vessel time to EU	20-22 days	NA
31	Typical lead time from order to delivery	60-75 days	40-50 days
32	Availability of fabric locally or imported	Locally	Both
33	Availability of trims locally or imported	Locally & Imported both	Both
34	What percentage of your former operators are working in the apparel manufacturing industry	96%	97.5%
Cost			
35	Average wages for operators (in USD)	107	125
36	Average wages for helpers (in USD)	75	110
37	Average wages for QCs (in USD)	230	221
38	Average wages for Supervisors (in USD)	185	235
39	Electricity cost per unit (in USD)	0.092 (own power plant)	
40	Fuel cost for boiler (in USD)	NA	
41	% Efficiency	65%	40%
42	Indicative cost per minute	0.026	0.037
Product cost - fabric, trims, packing trims - availability (logistics) & taxes			
Conversion cost - labour cost, overheads(electricity, fuel, welfare cost, transportation, etc.)			

Data not disclosed by the factory

India

Questions	Cotton Blossom	Premier	Orient Craft	
Technology				
1	No. of Machines in factory	2200	452	1800
2	Total manpower employed	4500	858	3500
3	Man: Machine	2.0	1.9	1.9
4	Level of integration	Level 3		Level 2
5	% Breakup of type of machine	a. Basic Machine: - 85 % b. Semi-Automatic Machine:- 10 % c. Fully Automatic Machine: -1% d. High Technology Machine: -4 %	a. Basic Machine: - 40 % b. Semi-Automatic Machine:- 57 % c. Fully Automatic Machine: -3% d. High Technology Machine: -	a. Basic Machine: - 38 % b. Semi-Automatic Machine:- 60 % c. Fully Automatic Machine: -1% d. High Technology Machine: -1 %
6	In which of the following departments is the ERP used	Fabric & Trims, Cutting, IE, Sewing, Finishing & Packing, Dispatch	Fabric & Trims, Cutting, IE, Sewing, Finishing & Packing	Fabric & Trims, Costing, Partially in Cutting, Sewing, Finishing & Packing
7	In which of the following departments are the automated machines used	Cutting, Sewing	Cutting, Sewing	Fabric, Cutting, Sewing, Finishing
Skill				
8	% Breakup of operative workforce in various skill category	a. Highly Skilled – 10 % b. Skilled – 40 % c. Semi-Skilled – 30%	a. Highly Skilled – 25 % b. Skilled – 50 % c. Semi-Skilled – 20%	a. Highly Skilled – 15 % b. Skilled – 50 % c. Semi-Skilled – 30%
9	% Shortage of skilled manpower			35%
10	% Attrition & reasons of attrition	8%	6%	3.8%
		Don't want to enroll on ESI and PF	Not interested in the job	Migrated operators from long distance
			Marriage	Relatives' Marriages
			Health problem	Seasonal festivals
			family issues	Peer member influence
			Less overtime	
11	% Absenteeism	12%	10%	9%
12	Facility for training & re-training of workers & staff	yes	yes	yes, focuses
13	What is the Male: female ratio	2:1	1:3.5	3:1
Labour laws				
14	Any changes prevailing to labour laws and related policies			Technical training of operators should be a part of the compliance
15	Recommendations towards government skill development initiatives			NA
16	Recommendations for increasing export values			Orient Craft Fashion Institute is run by the owner - in 21 cities - training a batch of 60 operators in
				trade policies should be in favour of apparel exports export duties be reduced
17	Any government skill development scheme for operators			No
18	Any government skill development scheme for middle management			No
Quality				
19	% Rework	3.50%	10%	5-6%
20	% Rejection	1.10%	5%	0.5%
21	% First time pass through external inspection	98%	90%	98%
22	Order to ship ratio	1:1	1:1	1:1.1
23	Which reports are generated/ documented on the production floor?	DHU, Rejection, rework, needle breakage, inspection report, measurement check	Rejection, needle breakage, inspection report, measurement check	DHU, Rejection, rework, needle breakage, inspection report, measurement check
24	What AQL is being followed by the factory	1.5	4	2.5

India

Questions		Cotton Blossom	Premier	Orient Craft
General				
25	Top 3 challenges towards growth			
	a. Internal			Mindset of management - Experience v/s Education
				Labour availability - seasonal issue
				Logistics
	B. External			heavy import tax on machinery
				govt. policies
26	Best practices being followed			Implementation of SOP's in every department
27	Time required to procure Fabric &			imported - 60 days; local - 35 days
28	Time for clearance at port			2-3 weeks
29	Vessel time to US (West coast)			45 days
30	Vessel time to EU			40 days
31	Typical lead time from order to delivery			40-90 days
32	Availability of fabric locally or imported			mostly imported
33	Availability of trims locally or imported			both
34	What percentage of your former operators are working in the apparel manufacturing industry			~ 96.5%
Cost				
35	Average wages for operators (in USD)			144
36	Average wages for helpers (in USD)			131
37	Average wages for QCs (in USD)			144
38	Average wages for Supervisors (in USD)			265
39	Electricity cost per unit (in USD)			0.103
40	Fuel cost for boiler (in USD)			
41	% Efficiency			65-70%
42	Indicative cost per minute			0.08
Product cost - fabric, trims, packing trims - availability (logistics) & taxes				
Conversion cost - labour cost, overheads(electricity, fuel, welfare cost, transportation, etc.)				

Data not disclosed by the factory

India			
Questions		Fiori Creations	Pee Empro
Technology			
1	No. of Machines in factory	200	2500
2	Total manpower employed	405	5260
3	Man: Machine	2.0	2.1
4	Level of integration	Level 2	Level 2
5	% Breakup of type of machine	a. Basic Machine: - 85 % b. Semi-Automatic Machine:- 15 % c. Fully Automatic Machine: 0 d. High Technology Machine: 0	a. Basic Machine: - 30 % b. Semi-Automatic Machine:- 68 % c. Fully Automatic Machine: - 1% d. High Technology Machine: - 1 %
6	In which of the following departments is the ERP used	Fabric & Trims, Cutting, Sewing, Finishing & Packing	Partially - Fabric & Trims, Cutting, Sewing, Finishing & Packing
7	In which of the following departments are the automated machines used	Cutting, Sewing	Fabric & Trims, Cutting, Sewing, Finishing & Packing
Skill			
8	% Breakup of operative workforce in various skill category	a. Highly Skilled – 5 % b. Skilled – 65 % c. Semi-Skilled – 25% d. Unskilled – 5 %	a. Highly Skilled – 21 % b. Skilled – 24 % c. Semi-Skilled – 50% d. Unskilled – 5 %
9	% Shortage of skilled manpower	50%	70%
10	% Attrition & reasons of attrition	5%	6.2%
		Migratory workforce	Migrated operators from long distance
		Festivals	Relatives' Marriages
			Festivals
			Peer influence
11	% Absenteeism	10-15%	10%
12	Facility for training & re-training of workers &	No- too small setup	Yes, focuses
13	What is the Male: female ratio	2.75:1	3:2
Labour laws			
14	Any changes prevailing to labour laws and related policies	No	No
15	Recommendations towards government skill development		skill training institutions
16	Recommendations for increasing export values		signing collaborations with other countries
			technological advancements in textiles
			quality improvement in textiles
17	Any government skill development scheme for operators	Hunar se Rozgar	internal trainings - foreign trainer
		Pardhan mantri kaushal & kushal bharat	
		ISDS	
18	Any government skill development scheme for middle management	Training Institutions	internal trainings - hired a consultant
		Vocational grad & post grad courses	
Quality			
19	% Rework	5%	24%
20	% Rejection	1%	1.6%
21	% First time pass through external inspection	99%	75%
22	Order to ship ratio	1:1	1:1.1
23	Which reports are generated/ documented on the production floor?	DHU, Rejection, rework, needle breakage, inspection report, measurement check	DHU, Rejection, rework, needle breakage, inspection report, measurement check
24	What AQL is being followed by the factory	2.5	2.5

India

Questions	Fiori Creations	Pee Empro	
General			
25	Top 3 challenges towards growth	High rate of interest	Staff discipline towards work
	a. Internal	skilled manpower	Skilled manpower
		too much red tape in each & every department	Mature manpower understanding the importance of quality
		competition from China, Bangladesh, Vietnam	Competition from other countries
b. External	duty-free access from Bangladesh to EU		
26	Best practices being followed	Lean manufacturing	Lean manufacturing working to achieve first time pass output
27	Time required to procure Fabric &	30-60 depending on fabric quality	30-60 depending on fabric quality
28	Time for clearance at port	7-8 days	2 days
29	Vessel time to US (West coast)	25-28 days	
30	Vessel time to EU	18-21 days	
31	Typical lead time from order to delivery	60-90 days	60-120 days
32	Availability of fabric locally or imported	8-9:2-1	local
33	Availability of trims locally or imported	8-9:2-1	both
34	What percentage of your former operators are working in the apparel manufacturing industry	~ 96%	~ 98%
Cost			
35	Average wages for operators (in USD)	140	140
36	Average wages for helpers (in USD)	125	125
37	Average wages for QCs (in USD)	230	230
38	Average wages for Supervisors (in USD)	280	280
39	Electricity cost per unit (in USD)	0.14	0.14
40	Fuel cost for boiler (in USD)	3	
41	% Efficiency	75-85%	35%
42	Indicative cost per minute		0.07
Product cost - fabric, trims, packing trims - availability (logistics) & taxes			
Conversion cost - labour cost, overheads(electricity, fuel, welfare cost, transportation, etc.)			

Data not disclosed by the factory

India

Questions	Eveline	Shahi Exports	Richa Global	
Technology				
1	No. of Machines in factory	1350	1750	711
2	Total manpower employed	2295	2950	1400
3	Man: Machine	1.7	1.7	2.0
4	Level of integration	Level 2	Level 2	Level 2
5	% Breakup of type of machine	a. Basic Machine: - 60 % b. Semi-Automatic Machine:-32% c. Fully Automatic Machine: - 3% d. High Technology Machine: - 5%	a. Basic Machine: - 29 % b. Semi-Automatic Machine:- 70 % c. Fully Automatic Machine: - 1% d. High Technology Machine: - Nil	a. Basic Machine: - 30 % b. Semi-Automatic Machine:- 55 % c. Fully Automatic Machine: - 5% d. High Technology Machine: - 10%
6	In which of the following departments is the ERP used	Fabric & Trims, Cutting, IE, Sewing Finishing & Packing	Fabric & Trims, Cutting, Sewing, Finishing & Packing, Dispatch	Fabric & Trims, Cutting, IE, Sewing, Finishing & Packing
7	In which of the following departments are the automated machines used	Sewing, Finishing & Packing	Fabric & Trims, Cutting, Sewing, Finishing & Packing	Sewing, Finishing & Packing
Skill				
8	% Breakup of operative workforce in various skill category	a. Highly Skilled – 20% b. Skilled – 70 % c. Semi-Skilled – 10% d. Unskilled - 0	a. Highly Skilled – Nil b. Skilled – 60 % c. Semi-Skilled – 3 0 % d. Unskilled – 10%	a. Highly Skilled – 1 % b. Skilled – 5 % c. Semi-Skilled – 89% d. Unskilled - 5 %
9	% Shortage of skilled manpower	0	60%	
10	% Attrition & reasons of attrition	3%	4.2%	6.2%
				Migrant Workforce
11	% Absenteeism	25-30%	8%	10%
12	Facility for training & re-training of workers &	No	Yes	yes
13	What is the Male: female ratio	4:1	1:9	3.6:1
Labour laws				
14	Any changes prevailing to labour laws and related policies	Increase OT duration		
15	Recommendations towards government skill development initiatives	Single pay during OT		
		Certified training for operators		
16	Recommendations for increasing export values	Rapid implementation of policies		
17	Any government skill development scheme for			
18	Any government skill development scheme for middle management			
Quality				
19	% Rework	3%	3.4%	1%
20	% Rejection	1.0%	0.7%	1%
21	% First time pass through external inspection	92%	98.6%	96%
22	Order to ship ratio	1:0.98		1:1
23	Which reports are generated/ documented on the production floor?	Rejection, rework, needle breakage, inspection report, measurement check	Rejection, rework, needle breakage, inspection report, measurement check	DHU, Rejection, rework, needle breakage, inspection report, measurement check
24	What AQL is being followed by the factory	2.5	2.5	2.5

India

Questions	Eveline	Shahi Exports	Richa Global
General			
25	Top 3 challenges towards growth		
	a. Internal	Efficiency	Unskilled Operator
		Infrastructure	Frequent changeover
	b. External	Yarn prices	Supply chain issue
		Govt. support for export	High Labor Wages
		To control foreign exchange	
26	Best practices being followed	Quality	Risk Assessment meeting prior To line setting
27	Time required to procure Fabric & embellishments	45-50 days	
28	Time for clearance at port	4-6 hrs	
29	Vessel time to US (West coast)	19-26 days	
30	Vessel time to EU	2 weeks	
31	Typical lead time from order to delivery	80-10 days	
32	Availability of fabric locally or imported	manufactured in-house	
33	Availability of trims locally or imported	15-40 days	
34	What percentage of your former operators are working in the apparel manufacturing industry	~ 97%	96%
Cost			
34	Average wages for operators (in USD)	230	200
35	Average wages for helpers (in USD)	184	170
36	Average wages for QCs (in USD)	250	220
37	Average wages for Supervisors (in USD)	310	220
38	Electricity cost per unit (in USD)	0.12	
39	Fuel cost for boiler (in USD)	husk	
40	% Efficiency	57%	
41	Indicative cost per minute	0.07	
Product cost - fabric, trims, packing trims - availability (logistics) & taxes			
Conversion cost - labour cost, overheads(electricity, fuel, welfare cost, transportation, etc.)			

Data not disclosed by the factory

Bangladesh

Questions	Tarasimha	Generation Next	Eastport	
Technology				
1	No. of Machines in factory	540	1381	1501
2	Total manpower employed	1165	3390	1712
3	Man: Machine	2.2	2.5	1.15
4	Level of integration	Level 2	Level 3	Level 1
5	% Breakup of type of machine	a. Basic Machine: - 70 % b. Semi-Automatic Machine:- 20 % c. Fully Automatic Machine: -1% d. High Technology Machine: -9 %	a. Basic Machine: 70% b. Semi-Automatic Machine: 30% c. Fully Automatic Machine: d. High Technology Machine:	a. Basic Machine: 29.64% b. Semi-Automatic Machine: 70.35% c. Fully Automatic Machine: No d. High Technology Machine: No
6	In which of the following departments is the ERP used	Cutting, Finishing Packing, Partially - Fabric & Trims, Sewing, Dispatch	NA	NA
7	In which of the following departments are the automated machines used	Fabric & Trims, Cutting, Sewing, Finishing & Packing	Sewing	Sewing
Skill				
8	% Breakup of operative workforce in various skill category	a. Highly Skilled – 5.5 % b. Skilled – 9.6 % c. Semi-Skilled – 10.3%	a. Highly Skilled 10% b. Skilled 25% c. Semi-Skilled 45%	a. Highly Skilled— 2.1% b. Skilled— 46.61% c. Semi-Skilled— 11.68%
9	% Shortage of skilled manpower		0	
10	% Attrition & reasons of attrition	2.5%	2.5%	
		a. Family problem b. Taking new job	Travel issues to the factory Wages	
11	% Absenteeism	3%	2%	4%
12	Facility for training & re-training of workers & staff	no	yes	yes
13	What is the Male: female ratio	1:10	1:5	1:32
Labour laws				
14	Any changes prevailing to labour laws and related policies		No	No
15	Recommendations towards government skill development initiatives		No	No
16	Recommendations for increasing export values		More FTAs	No
17	Any government skill development scheme for operators		NA	No
18	Any government skill development scheme for middle management		NA	No
Quality				
19	% Rework	3-4%	4%	2%
20	% Rejection	1%	3%	
21	% First time pass through external inspection	99%	93%	
22	Order to ship ratio	1:1	1:1	1:1
23	Which reports are generated /documented on the production floor?	DHU, Rejection, rework, needle breakage, inspection report, measurement check	Rejection, rework, inspection report, measurement check	Rejection, rework, needle breakage, inspection report, measurement
24	What AQL is being followed by the factory	1.5	2.5	2.5

Bangladesh

Questions		Tarasimha	Generation Next	Eastport
General				
25	Top 3 challenges towards growth			
	a. Internal		Efficiency	Skill
			Optimal utilization of resources	Culture
			no automatic machines used	
	b. External		Infrastructure of the city	Post Congestion
			Unavailability of raw materials in	Salary growth
			Political unrest in the country	
26	Best practices being followed		Progressive Bundle flow	
27	Time required to procure Fabric &		Fabric - In-house; Trims - 7 days	30 days
28	Time for clearance at port			7 days
29	Vessel time to US (West coast)			35 days
30	Vessel time to EU			30 days
31	Typical lead time from order to delivery		90 days	90 days
32	Availability of fabric locally or imported		Local	Imported (90%)
33	Availability of trims locally or imported		Local	Local (90%)
Cost				
34	Average wages for operators (in USD)		109	97.36
35	Average wages for helpers (in USD)			74.88
36	Average wages for QCs (in USD)			84.36
37	Average wages for Supervisors (in USD)			160.04
38	Electricity cost per unit (in USD)			0.113
39	Fuel cost for boiler (in USD)			NA
40	% Efficiency		53%	58%
41	Indicative cost per minute		0.012	
Product cost - fabric, trims, packing trims - availability (logistics) & taxes				
Conversion cost - labour cost, overheads(electricity, fuel, welfare cost, transportation, etc.)				

 Data not disclosed by the factory

Bangladesh

Questions	Ibrahim Knits	Lenny Fashions	Modele De Capital	
Technology				
1	No. of Machines in factory	540	966	2100
2	Total manpower employed	1225	1677	5950
3	Man: Machine	2.3	1.73	2.83
4	Level of integration	Level 2	Level 1	Level 2
5	% breakup of type of machine	a. Basic Machine: 70% b. Semi-Automatic Machine: 30% c. Fully Automatic Machine: d. High Technology Machine:	a. Basic Machine: NA b. Semi-Automatic Machine: 100% c. Fully Automatic Machine: NA d. Highly Technology Machine: NA	a. Basic Machine: 10% b. Semi-Automatic Machine: 70% c. Fully Automatic Machine: 20% d. High Technology Machine: 0%
6	In which of the following departments is the ERP used	NA	NA	Sewing
7	In which of the following departments are the automated machines used	Knitting, Sewing	NA	Sewing
Skill				
8	% Breakup of operative workforce in various skill category	a. Highly Skilled: 20% b. Skilled: 30% c. Semi-Skilled: 25% d. Unskilled: 25%	a. Highly Skilled : 6% b. Skilled : 38% c. Semi-Skilled : 46% d. Unskilled : 10%	a. Highly Skilled : 8% b. Skilled : 30% c. Semi-Skilled : 40% d. Unskilled : 22%
9	% Shortage of skilled manpower	0		20%
10	% Attrition & reasons of attrition	4.9%	6.35%	5%
		Wages	Work Pressure, Family Problems	Better opportunities & Wages
11	% Absenteeism	5%	4.56%	5%
12	Facility for training & re-training of workers & staff	yes - Once in 2 months	No	Good Facility
13	What is the Male: female ratio	1:2	1:4	1:2
Labour laws				
14	Any changes prevailing to labour laws and related policies	No	No	No
15	recommendations towards government skill development initiatives	No	Govt. can establish training institutes where workers can get basic training before joining any factory.	
16	Recommendations for increasing export values	More FTAs	No	
17	Any government skill development scheme for operators	NA	No	No
18	Any government skill development scheme for middle management	NA	No	No
Quality				
19	% Rework	4.20%	8%	7%
20	% Rejection	1.21%	2%	3%
21	% First time pass through external inspection	90%	100%	90%
22	Order to ship ratio	1:0.9	1:1	
23	Which reports are generated/documentated on the production floor?	Rejection, rework, inspection report, measurement check	Rejection, rework, needle breakage, inspection report, measurement check	Rejection, rework, needle breakage, inspection report,
24	What AQL is being followed by the factory	2.5	1.5	4

Bangladesh

Questions		Ibrahim Knits	Lenny Fashions	Modele De Capital
General				
25	Top 3 challenges towards growth			
	a. Internal	Improvisation in material handling		Proper planning
		Need of automation		Rework
				Delay in shipment
	b. External	Infrastructure of the city		Competition
		Political unrest in the country		Transportation
26	Best practices being followed	ETP plant within the premises		Traffic light system
				DHU & 5s
27	Time required to procure Fabric & embellishments	10 days	70 days	20 days
28	Time for clearance at port		5 days	2 days
29	Vessel time to US (West coast)		22 days	40 days
30	Vessel time to EU			45 days
31	Typical lead time from order to delivery	90 days	120 days	90 days
32	Availability of fabric locally or imported	Local	Imported	Local
33	Availability of trims locally or imported	Local	60% Imported; 40% Local	Local
Cost				
34	Average wages for operators (in USD)	104.45	84.5	85
35	Average wages for helpers (in USD)		80.5	69
36	Average wages for QCs (in USD)		87.65	90
37	Average wages for Supervisors (in USD)		234.6	200
38	Electricity cost per unit (in USD)		0.11	0.11
39	Fuel cost for boiler (in USD)		0.02	
40	% Efficiency	51.20%	95%	51%
41	Indicative cost per minute	0.02		
Product cost - fabric, trims, packing trims - availability (logistics) & taxes				
Conversion cost - labour cost, overheads(electricity, fuel, welfare cost, transportation, etc.)				

Data not disclosed by the factory

Vietnam

Questions		Classic Fashion Apparel	Dong Hung	Phong Phu Quang Tri
Technology				
1	No. of Machines in factory	7500	480	789
2	Total manpower employed	15075	912	1505
3	Man: Machine	2.0	1.9	1.9
4	Level of integration	Level 2	Level 1	Level 2
5	% Breakup of type of machine		a. Basic Machine: 10% b. Semi-Automatic Machine: 89% c. Fully Automatic Machine: N/A d. High Technology Machine: 1%	a. Basic Machine: 40% b. Semi-Automatic Machine: 50% c. Fully Automatic Machine: 8% d. High Technology Machine: 2%
6	In which of the following departments is the ERP used	Partially - Procurement, Cutting, Sewing, Finishing & Packing, Dispatch	NA	Fabric & Trims, Cutting, Sewing, Finishing & Packing
7	In which of the following departments are the automated machines used	Fabric & Trims, Cutting, Sewing, Finishing & Packing	Sewing	Fabric & Trims, Cutting, Sewing, Finishing & Packing
Skill				
8	% Breakup of operative workforce in various skill category	a. Highly Skilled: 50% b. Skilled: 25% c. Semi-Skilled: 15% d. Unskilled: 10%	a. Highly Skilled: 14% b. Skilled: 29% c. Semi-Skilled: 57% d. Unskilled: N/A	a. Highly Skilled: 2% b. Skilled: 10% c. Semi-Skilled: 80% d. Unskilled: 8%
9	% Shortage of skilled manpower	10%	5%	20%
10	% Attrition & reasons of attrition	1%		10%
		Personal reasons & expiry of the		
11	% Absenteeism	1%	0.5%	0.03%
12	Facility for training & re-training of workers & staff	Yes	Yes	Yes
13	What is the Male: female ratio	1:2.7	1:2.3	1:4
Labour laws				
14	Any changes prevailing to labour laws and related policies	NA	No	
15	Recommendations towards government skill development initiatives	NA	No	NA
16	Recommendations for increasing export values	NA	No	
17	Any government skill development scheme for operators	No		
18	Any government skill development scheme for middle management	No		
Quality				
19	% Rework	3-5%	9%	8-10%
20	% Rejection	1%	3%	3%
21	% First time pass through external inspection	98-99%	85%	87%
22	Order to ship ratio	99:103	97:101	99:101
23	Which reports are generated/documentated on the production floor?	Rejection, rework, needle breakage, inspection report, measurement check	Rejection, rework, needle breakage, inspection report, measurement check	Rejection, rework, needle breakage, inspection report, measurement check
24	What AQL is being followed by the factory	2.5	2.5	2.5

Vietnam

Questions	Classic Fashion Apparel	Dong Hung	Phong Phu Quang Tri
General			
25	Top 3 challenges towards growth		
	a. Internal	Lack of multi skilled operators. Employee Education level for	Employee qualify Machine/equipment Technicality
	b. External	Unavailability of raw materials in the country No skilled people Utility water availability Limited options facility infra.	World situation local law Environment
26	Best practices being followed	Method improvements, Knowledge sharing meetings, Process improvements, Incentive system, and performance allowance etc.	productivity
27	Time required to procure Fabric &	90 days	1-2 months
28	Time for clearance at port	3-4 days	
29	Vessel time to US (West coast)	21-24 days	
30	Vessel time to EU	NA	
31	Typical lead time from order to delivery	120-150 days	
32	Availability of fabric locally or imported	Imported	
33	Availability of trims locally or imported	Imported	
Cost			
34	Average wages for operators (in USD)	235	
35	Average wages for helpers (in USD)	235	
36	Average wages for QCs (in USD)	403	
37	Average wages for Supervisors (in USD)	403	
38	Electricity cost per unit (in USD)	0.046 -0.373	
39	Fuel cost for boiler (in USD)	2.76	
40	% Efficiency	55-65%	90%
41	Indicative cost per minute	0.1	
Product cost - fabric, trims, packing trims - availability (logistics) & taxes			
Conversion cost - labour cost, overheads(electricity, fuel, welfare cost, transportation, etc.)			

Data not disclosed by the factory

Vietnam

Questions	Saitex International	Nhabe Garment Corp	
Technology			
1	No. of Machines in factory	1910	1460
2	Total manpower employed	3438	3200
3	Man: Machine	1.8	2.2
4	Level of integration	Level 2	Level 2
5	% Breakup of type of machine	a. Basic Machine: 18% b. Semi-Automatic Machine:76% c. Fully Automatic Machine: 5% d. High Technology Machine:1%	a. Basic Machine: 40% b. Semi-Automatic Machine:30% c. Fully Automatic Machine: 20% d. High Technology Machine:10%
6	In which of the following departments is the ERP used	Partially - Procurement, Cutting, Sewing, Finishing & Packing, Dispatch	Fabric & Trims, Cutting, Sewing, Finishing & Packing, Dispatch
7	In which of the following departments are the automated machines used	Cutting, Sewing	Fabric & Trims, Cutting, Sewing (40%), Finishing & Packing (20%)
Skill			
8	% Breakup of operative workforce in various skill category	a. Highly Skilled & Skilled – 37 % b Semi-Skilled & Unskilled –63%	a. Highly Skilled: 10% b. Skilled: 30% c. Semi-Skilled: 40% d. Unskilled: 20%
9	% Shortage of skilled manpower	2%	10%
10	% Attrition & reasons of attrition	8.3% Studying & Got job in home town	
11	% Absenteeism	5.6%	4%
12	Facility for training & re-training of workers &	Yes	Yes
13	What is the Male: female ratio	1:1.5	1:5.7
Labour laws			
14	Any changes prevailing to labour laws and related policies	NA	NA
15	Recommendations towards government skill development initiatives	Training fee assistance to the employer Set up training center at college for entry level training skill operation such as sewing, footwear etc.	
16	Recommendations for increasing export values	Interest Rate assistance for export	
17	Any government skill development scheme for operators	Program of supporting training fee for sewing operator of Molisa only apply for SMS enterprises (1.000.000 VND per worker)	
18	Any government skill development scheme for middle management	National trade promotion program of VIETTRADE	
Quality			
19	% Rework	5%	10%
20	% Rejection	4%	2-3%
21	% First time pass through external inspection	92%	94%
22	Order to ship ratio	100:102	100:101
23	Which reports are generated/ documented on the production floor?	Rejection, rework, needle breakage, inspection report, measurement check	Rejection, rework, needle breakage, inspection report, measurement check
24	What AQL is being followed by the factory	1.5	1.5

Vietnam

Questions	Saitex International	Nhabe Garment Corp	
General			
25	Top 3 challenges towards growth		
	a. Internal	Lack of multi skilled operators.	
		Separated plant for production sewing-finishing-laundry different due to not enough space for full process	Labour retention, due to electronic industries are increasing
		Take time to change mentality upon new changes	Skill level of middle management level
	b. External	Unavailability of raw materials in the country	Minimum wages are increasing and most of factories are moving to province and villages
		High energy that would increase the product landing cost	Short volumes and LT
		Face more competitive with same product company	
26	Best practices being followed	Method improvements, Knowledge sharing meetings, Process improvements, Incentive system, and performance allowance etc.	Automation as much as possible and energy saving projects
27	Time required to procure Fabric & embellishments	90 days	30-45 days
28	Time for clearance at port	2-5 days	3-7 days
29	Vessel time to US (West coast)	30 days	
30	Vessel time to EU	22 days	
31	Typical lead time from order to delivery	120-150 days	
32	Availability of fabric locally or imported	Imported	Local
33	Availability of trims locally or imported	Imported	Local
Cost			
34	Average wages for operators (in USD)	263	280
35	Average wages for helpers (in USD)	228	200
36	Average wages for QCs (in USD)	285	230
37	Average wages for Supervisors (in USD)	407	450-600
38	Electricity cost per unit (in USD)	0.07 -0.12	
39	Fuel cost for boiler (in USD)	0.83-0.84	
40	% Efficiency	60%	82%
41	Indicative cost per minute (USD)	0.082	0.075
Product cost - fabric, trims, packing trims - availability (logistics) & taxes			
Conversion cost - labour cost, overheads(electricity, fuel, welfare cost, transportation, etc.)			

Data not disclosed by the factory

Exhibit 10 – Primary Research Findings

Annexure – 6 – Issues & Opportunities in Indian Garmenting Industry

6.1 Issues

The key reasons for the lack of competitiveness in India, which have been summarized in earlier sections of the report, are as follows:

6.1.1 Cost

Cost is one of the most important parameter to measure competitiveness. When compared to the competing countries the costs in India tend to be higher for most of product categories for manufacturing. The raw material costs remaining similar, the largest difference arises from the manufacturing costs having salary and wages as the biggest component. Rising costs also includes overheads that constitute on the interest and financing cost, transaction costs, and transportation cost – for workers and for the goods to reach the port, Port-handling charges etc.

In India, cost efficiency can be improved for a product category having low work content, like t-shirt. However, product categories having high work content like Trousers, Outerwear, Jackets, Structured garments – countries with low labor cost will gain advantage over India.

6.1.2 Lead time

Lead time plays a very important role and will gain importance in times to come. Fast fashion is gaining importance with most international brands and they would like to optimize the lead time as much as possible. There are 3-4 parameters, which affect the lead-time of the products.

- 1) Raw material sourcing: In case the raw material is closer to manufacturing then the lead time for conversion will be shorter. As per our findings, significant trims and accessories are imported thus leading to higher lead time. However with complete value chain India and China tend to have better lead time compared to CM Countries.
- 2) Logistics: Inwards and outwards logistics is critical to the overall lead-time. This would include Custom clearances, Port and Road infrastructure, Distance of the factory from the port, etc., On this account, countries with better infrastructure tend to gain. India lacks in logistics at this point of time. The port infrastructure in India needs to be developed. Currently, most of the apparel shipments from South India have to be shipped thru connecting vessel in Sri Lanka where they have port facilities to manage Mother vessel.
- 3) Internal manufacturing processes: Traditional processes of manufacturing, in contrast prescribe higher work in process, which increases the throughput time. In-house value additional capabilities like Printing and Embroidery also help in reducing the lead-time. Most factories in Sri Lanka are considered to be better than the others in the South Asia. Large companies in China have also invested into modern methods.

- 4) Design based Sourcing: With ever increasing requirements of fashion and the escalating cost of having large design teams, retailers look at suppliers to develop designs based on the concepts provided by the retailers. In doing this the initial development of the designs are done by the suppliers. The suppliers understand the fabric and the design and are able to turn around the styles faster.

6.2 Opportunities

Below mentioned areas need to be strengthened for India to increase its market share in overall Apparel exports.

6.2.1 Productivity levels

As mentioned earlier the productivity should be looked at either the efficiency or the number of pieces produced per machine or the number of pieces produced per worker.

The efficiency in India has found to be lower than that in Sri Lanka and China but higher than that of Bangladesh. However, the productivity per machine in Bangladesh tends to be higher. This is because they employ more resources in most of the cases and also work for longer hours, as compared to India.

6.2.2 Technology Levels

The Technology levels in India – as in most of the other countries vary between factories and are largely dependent on the drive and technology mindset of the promoter. Like in other countries, even India has some technology Savvy factories. However, there are a few relevant factors on technology, which apply across all countries.

- 1) The start-up or the smaller factories are constrained on capital deployment and requirement of scale to be able to deploy correct technology across various processes. Automatic spreader, automatic cutters need a certain volume to be available to become cost effective. These are normally not worthwhile to invest with smaller factories.
- 2) Typically, most technology available today across the various processes is adequate on scale for a 300-500 machines garment factory.
- 3) In the current scenario of the reducing order sizes and increasing fashion content, some of the technological factors become counter-productive on cost. E.g making jigs for a pocket creasing machine will be cost effective, only when the order size is large enough. Hence, smaller order sizes factories will tend to crease the pockets manually.
- 4) Technology, does not only refers to machines but also to various tools which assist in improvement of the business processes. ERP systems, performance monitoring systems, CAD software for improvement of fabric yield etc. are also as important technologically as the better machines.
- 5) Energy conservation is also important. Adequate use of LED lights, SERVO motors, improved ventilation systems etc. are important to reduce the overheads.

6.2.3 Seasonality issues

Indian garment industry is largely focused on the fashion category of products, which do not require high level of technology. There are a very few companies in India which work on core products with high levels of repetitiveness, and so most of them go to China, Bangladesh and Vietnam.

India may be considered best in high value embellished, hand embroidered garments, it does not help the Indian exporters to build scale because of low volumes and unpredictable order flows.

The value chain in India is predominantly Cotton based. While, globally the ratio of synthetics is higher than Cotton and is also growing at a faster pace, India typically loses out in that space because of lack of value chain. India does produce some categories of synthetic fibers and yarn – like Viscose and polyester, but does not have large capability of the finished fabric in the synthetic value chain. These are typically dominated by Korea, Taiwan, and China among others. Even the new investments in synthetics are moving to Vietnam rather than coming to India.

6.2.4 Labor availability issues

Even while, India has a very large labor pool, the garment industry struggles to get a consistent supply of labor.

- i. Garment companies are adding overheads because they have to deploy a large fleet of transportation to pick up workers for far off areas.
- ii. The absenteeism and attrition rates are also high in India which reduces the productivity in the factories.
- iii. Migratory labor finds the life in the cities very different and has to face challenges on the food, stay and behavioral traits with the factories in the cities. They tend to move back to native for any festivals, marriages etc. and then may or may not come back for employment.
- iv. There is also a paucity of skilled manpower. While skill development programs work on generating entry-level skills, garment factories also require better skilled workers to take up critical operations, which will further reduce the man machine ratios.

6.2.5 Middle management

The Middle management in the garment factories is also a key issue. It is imperative for India to look at significantly improving the skills of the middle management to make the factories better.

Middle management is the most important link between the management and the workers and is the most responsible for setting up the systems and processes to drive efficiency and productivity in the factories. But they are mostly devoid of any kind of formal training and hence look at traditional ways to run factories. In some of the factories, even though a high technology option is available – it does not get used because the middle management doesn't find it comfortable to use it.

ToR #2

To study the cross-country experience of 5 best garment manufacturing units/firms each of Bangladesh, Vietnam and India in terms of skill regime, labor laws, quality control and tax regime/ concessions and compile the best practices.

Annexure 7 – Introduction & Skill Regime

The assessment of skill, labor laws, quality control & tax regime/ concessions has been based on the key factors mentioned below

Methodology for Assessment of skill regime, labor laws, quality control & tax regime/ concessions

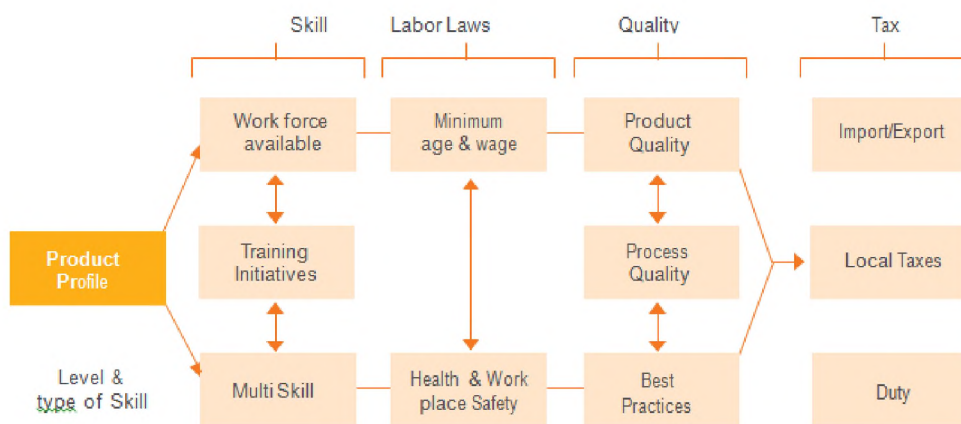


Exhibit 11 – Assessment Methodology for Skill Regime, Labor Laws, Quality Control & Tax Regime/Concessions

7.1 Skill Regime

7.1.1 Introduction

With rising labor costs in China, buyers world over are scouting for the next destination to relocate their sourcing bases. If an aggressive approach is taken by all the stakeholders in the Indian manufacturing sector to address the key success factor of the industry, India with its immense size and population, can become the next factory of the world.

India needs to harness its immense labor pool and channel its resources in a productive and efficient manner. A sustainable and comprehensive skill regime is one of the key initiatives that the government should focus to provide the required impetus to the industry.

Owing to higher employability and diversified skill set, textile and apparel sector occupies a significant position in Indian economy. Various segments with higher share of employment in textile sector includes handloom & handicraft, ready-made garments, sericulture, decentralized power looms, etc.

Government initiatives such as SITP and new textile package, coupled with expected shift from Chinese market is going to boost exports for India. In order to capture the higher market share in exports, adherence to international standards is of vital importance and the same cannot be achieved without harnessing skilled labor force.

Current textile and apparel sector is moving towards technology driven processes in spinning, weaving, processing and garmenting sector. Modernization of manufacturing process in the sector has created a skill gap due to mismatch of skills of the conventional labor. This restricts manufacturers to expand their scale of operations or enter into high end segments. To address the same, Ministry of Textiles, Government of India has launched schemes like ISDS to increase the availability of skilled labor in the industry. Also, many state governments’ textile polices have been framed with skill development as integral component of their schemes.

However, the initiatives towards skill development have achieved limited targeted outcomes because of:

- Ineffective convergence between the school education of the trainee and skill development courses being imparted
- Quality and relevance of the courses not in complete synchronization with industry requirements
- Non-absorption of the trained workforce, despite availability of the jobs

Standardization of courses as per industry requirements and courses designed for smooth transition from traditional textile techniques to modernized training across various skill requirements can result in larger skilled workforce and narrow down the demand and supply gap for skilled labor in the industry.

7.2 Level & Type of Skill

To assess the level & type of skill across major garment manufacturing countries, following parameters have been considered.

Methodology for Assessment of level & type of skill

Sample size is based on the size of the population

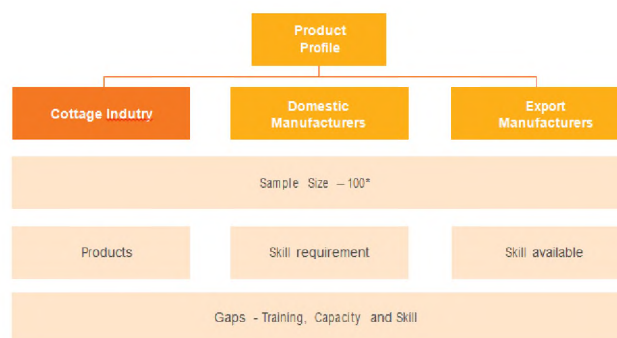


Exhibit 12 – Assessment Methodology for Level and Type of Skill

Technopak has interviewed a sample set of operators in the organized garment industry to understand their capability in terms of:

- Number of years of experience
- Education
- Training
- Number of machines handled
- Number of operations performed
- Number of products categories handled

Methodology for Assessment of Skill level

S. No Activity Stage	Parameters	Logic for Rating									Rating	Final Rating	Weightage	Final Score Complexity in Job	
1	Experience	Above 10 Years	5	5-10 Years	4	3-5 Years	3	1-3 Years	2	Less than 1 Year	1			20%	0
2	Education	Graduate	5	Serious secondary	4	Higher secondary	3	Primary	2	Illiterate	1			10%	0
3	Training	Certified Training	5		4	Non-Certified Training	3		2	On the Job Training	1			20%	0
4	Fabrics Handled	All Fabrics	5	All except	4	All except denim	3	Medium and	2	Heavy	1			20%	0
5	Operations handled	All operations in one	5	Majority of critical operations	4	1 critical operations +	3	Only Non-critical	2	Beginner	1			15%	0
6	Machines Handled	All machines in one	5	Majority of special machines	4	At least 1 special	3	Only Basic	2	Beginner	1			15%	0

Exhibit 13 – Assessment of Skill level

7.2.1 INDIA

Current Skill Level:



In India, we manufacture value added products that involve mid to high level of workmanship and different kinds of embellishments/designs which are usually priced at medium range in the consuming markets. With expertise in such products in the last two decades, our workforce is trained to manufacture such products that involve certain degree of design detailing and value addition.

India is a large country with several manufacturing clusters across the country. These clusters vary in terms of product offering, skill requirement and value proposition. Skill level and requirement in each of these clusters are different from one another based on the product specialization and other factors.

Compared to other competitors, our skill level is reflected by good product quality, reputation with brands and less rejections (As mentioned in ToR on quality later).

Government Policy: In India, we have various central and state government initiatives for the development and welfare of the workers and growth of Apparel, Handicraft and Handloom industry.

Below is the list of some key skill development programs:

- Integrated Skill Development Scheme (ISDS)
- Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDU-GKY) / AAJEEVIKA
- Pradhan Mantri Kalyan Vikas Yojana (PMKVY)
- Other projects of NSDC

Industry/Private Training:

Currently in India, private sector/brands are seldom taking initiatives in skill development/training for the workers and improvement of production processes in the factories.

7.2.2 BANGLADESH

Current Skill Level:



Bangladesh manufactures basic products that involve low level of workmanship and skills. They manufacture products that are usually priced at basic level (value for money) in the consuming markets. As these products are basic, the order quantity is huge and style variations are minimal. This has led to high concentration of low skilled/entry level workers capable of working on a few operations without overall product expertise. Such labor workforce is paid low in comparison to other competing sourcing destinations.

As Garment Exports is the highest forex driver in Bangladesh, the government has taken a lot of initiatives to ensure long term growth of the industry and enhance competitive advantage by entering into bilateral/multi-lateral trade agreements with consuming markets.

Government Policy:

- National Skills Development Policy – Development of 15 Industry Skill Councils.
- Planning to launch Integrated Employment Development Scheme with the objective to train 15 Lakh workers within 5 Years with overall Budget of Tk 2,000 Cr. (USD 250 Mn).

As Bangladesh is the key sourcing market for many high-volume retailers such as Primark, H&M, Wal-Mart, Gap Inc., etc., the brands/industry bodies have taken own initiatives in developing the skill levels of labors. Below we have mentioned a few such initiatives.

Industry/Private Training: Considering the volume of business with Bangladesh, Brands conduct their own training program in collaboration with International institutions to safe guard sustainable long term supply of goods. Example: Centre of Excellence for Bangladesh Apparel Industries (CEBAI) – Collaboration between H&M, ILO & NGOs for establishing a CoE, Skill Center of Tesco, TVET set up by Government of Singapore. Other training programs being executed by development bodies like SEDF, GIZ, UNIDO etc.

Multi-Institutional Training: Bangladesh Skills for Employment and Productivity (B-SEP) Project is an initiative of the Government of Bangladesh funded by the Government of Canada and executed by ILO-IFC, Swiss Agency for Development Cooperation (SIDA) and the University Grant Commission have come together to fund training activities, a placement cell, a knowledge repository unit and research activities.

7.2.3 VIETNAM

Current Skill Level:



In recent years, Vietnam has become a key sourcing destination for brands for basic products that involve low level of workmanship and skills due to low wages and abundance of labor. They manufacture products that are usually priced at basic level (value for money) in the consuming markets.

The labor cost factor is so significant that the total apparel exports from Vietnam have grown 230% in the last 5 years from USD 10.1 Billion to USD 23.2 Billion.

The skill level of labors in Vietnam is poor leading to higher rejections, higher rates of rework and lower order to ship and other similar factors (Detailed in the quality later).

Government Policy: Many large-scale textile industries are State Owned Enterprises (wholly and partly). The government of Vietnam conducts training and skill development at regular intervals in these companies. Eg: Vietnam Textile and Garment Group (SOE) human resources development program in 2014 with funding of VND 65.6bn (USD 3Mn)

Bilateral Government Training: Conference on Vocational Training is co-organized by German and Vietnamese Government for training and skill development of workers on a regular basis from 2011, with the goal of developing a modernized industrial set-up in Vietnam by 2020.

Annexure – 8 – Labor Laws

8.1 Labor Laws

Labor laws aim to provide a framework for relationship between the worker, employer and the government. They aim to balance the interests of industry and the welfare of the workers.

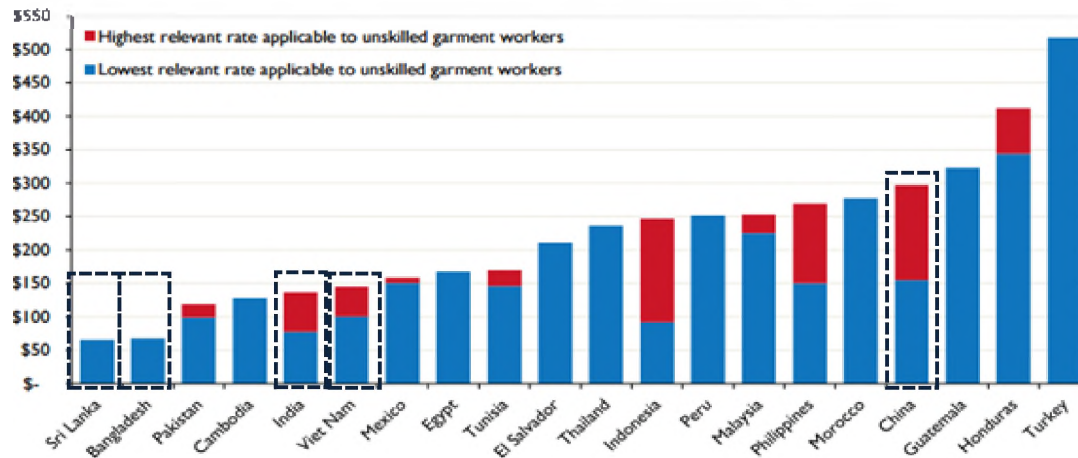
Currently, Informal employment, pre-carious short term contracts, low wages, unsafe work environment, exposure to harmful chemicals and forced overtime are some of the issues that drive away workers from garment industry. This has led to gap in demand and supply of the work force, adversely affecting the industry.

Government should come up with policies that make employment in garment sector more attractive by encouraging garment factories to provide health, education and other social benefits to its work force. Such measures shall go a long way in creating a favorable environment for the growth of the entire industry and well-being of the workforce.

In a labor intensive industry such as garment manufacturing, such a difference in labor cost provides Bangladesh a high degree of competitive edge over other sourcing destinations.

8.1.1 Wages:

Figure 1: Monthly minimum wages in for the top 20 apparel-exporting middle and low income countries, in US\$ as of 1 January 2015 (lowest and highest relevant rate applicable to unskilled workers)

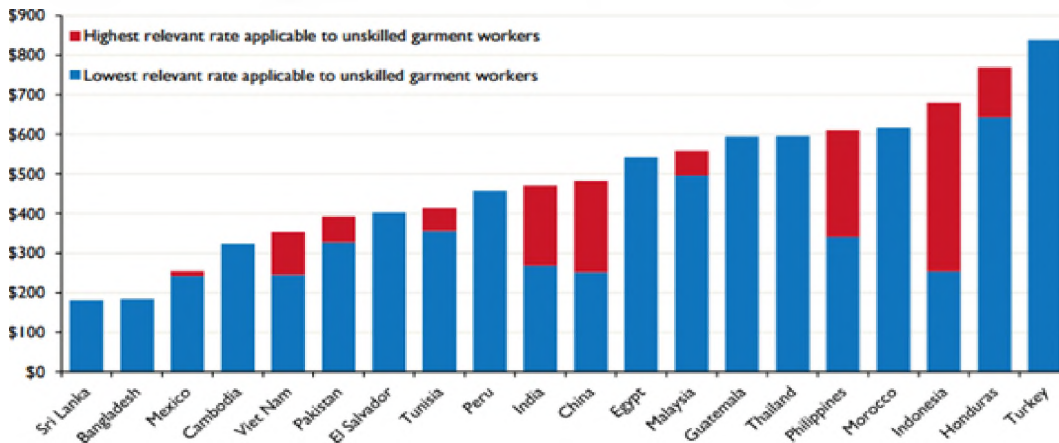


Note: All rates refer to the lowest skill grade and new entrants; see Table 1 for further details.

Source: ILO compilation based on national sources. Exchange rates are from IMF and, where not available from the IMF, from xe.net.

Exhibit 14 – Actual monthly minimum wages and highest relevant wages across different countries – Source: ILO

Figure 2: Monthly minimum wages for the top 20 apparel-exporting middle and low income countries, in PPP US\$ as of 1 January 2015 (lowest and highest relevant rate applicable to unskilled workers)



Note: All rates refer to the lowest skill grade and new entrants. Cambodia's minimum wage is specified in US dollar terms. Here it is converted to Cambodian riels at market exchange rates, then to international dollars using the PPP conversion factor for Cambodia.
 Source: ILO compilation based on national sources. PPP conversion factors (private consumption, LCU per international \$) for 2014 from World Development Indicators. World Bank (12 Nov 2015 update) were used.

Exhibit 15 – PPP monthly minimum wages and highest relevant wages across different countries – Source: ILO

Bangladesh is riding a wave of high growth in garment industry largely on the strength of abundant low wage work force. It has a minimum monthly pay of USD 68 only, which heavily lowers garment cost.

In comparison, the minimum wage in India is USD 158 and China is USD 238, which is 2.3 times and 3.5 times the minimum wage of Bangladesh respectively. In a labor intensive industry such as garment manufacturing, such a difference in labor cost provides Bangladesh a high degree of competitive edge over other sourcing destinations.

Until recently China had low minimum wage rates, resulting in it becoming the largest sourcing destination in the world. However, China has witnessed steadily growing wage rates due to higher cost of living, better skill level, and other factors, resulting in higher cost of production in the coastal area(key garment manufacturing clusters).This has led to the Chinese government focusing towards development of other regions, where wages are low.

8.1.2 Overtime allowed and Compensation norms

Normal working hours allowed per week, across the selected countries ranges from 44 to 48 hours. Additional working hours (overtime) allowed range between 5 hours (Vietnam) to 12 hours (India, Bangladesh) per week.

Overtime compensation is paid at a rate of 150% of normal hourly wage rate in China, Sri Lanka & Vietnam and 200% in India and Bangladesh.

The extra hours-overtime wages provided by India and Bangladesh are highest thus benefitting the labor and providing them incentive to work additional hours. A detailed chart outlaying key features of each key country has been annexed with the report.

8.1.3 Detailed Analysis of Labor Laws of Key Apparel Sourcing Destination

Sl. No	Labor Law - Categories	Sub Categories	India
1	Work and Wages	Minimum Wage	\$137 to \$179 per month
		Regular Pay	Regular and timely basis at least once a month. Pay wages before 7th day of month (< 1000 workers), before 10th of month (>1000 workers). If the employment of a worker is terminated outstanding wages should be paid within two days of employment termination.
2	Compensation	Overtime Compensation	The Normal working hours - 9 hrs/day and 48 hrs/week. Overtime@200% of the regular wage rate. A worker must get a rest interval of atleast 30 minutes after maximum 5 hrs of work. The total working hours inclusive of breaks and overtime cannot exceed 10 1/2 hrs (Overtime of 2 hrs/day).
		Night Work Compensation	There is no special pay premium for employees working at night (Night shift is beyond midnight)
		Compensatory Holidays/rest days	If workers work on weekly rest days, then compensatory rest days within the following 2 months.
		Weekend/Public Holiday Work Compensation	There is no provision for compensatory holiday for workers working on a public holiday.
3	Annual Leave and Working on Holidays	Paid Vacation/Annual Leave	Annual/Earned leave of 12 working days for all the workers who worked at least 240 days in a year. A child worker (under the age of 15 years) is entitled to one day of earned leave for every 15 days of service. A worker should notify in writing at least 15 days prior to the date of availing annual leave. Even when in portions, annual leave cannot be taken more than three times a year. Only 30 annual leaves can be carried over to the next year. If the employment contract expires before a worker could take annual leave, compensation is made in proportion to the number of months and hours worked in a week.
		Pay on Public Holidays	Paid days-off during Festival (public and religious) holidays. Three are fully covered national public holidays (January 26, August 15 and October 2).
		Weekly Rest Day	24 hours of weekly rest on the first day of the week, i.e., Sunday, reckoned as a paid time. Workers may be required to work on weekly holiday, if entitled to the substitute holiday 3 days before or after the weekly holiday. Even in this case, workers must be given a weekly holiday in every 10 days.
4	Employment Security	Written Employment Particulars	No provision in labour law that requires an employer to provide written particulars to a new employee. However in some companies a written appointment letter or employment contract is signed between the

			employer and the worker as a matter of practice.
		Fixed Term Contracts	<p>Law allows hiring fixed term contract workers for tasks of permanent nature. There is no maximum term for fixed term contracts. Employment of contract labour is allowed under the Contract Labour (Regulation And Abolition) Act, 1970.</p> <p>The Central Government (or Provincial Government) may, after consultation with the Central Board or a State Board, prohibit, employment of contract labour in any process, operation or other work in any establishment while considering the following factors:</p> <p>(a) whether the process, operation or other work is incidental to, or necessary for the activity that is carried on in the establishment:</p> <p>(b) whether it is of perennial nature, it is of sufficient duration having regard to the nature of activity carried on in that establishment;</p> <p>(c) whether it is done ordinarily through regular workmen in that establishment or an establishment similar thereto;</p> <p>(d) whether it is sufficient to employ considerable number of whole-time workmen.</p>
		Probation Period	<p>Probation period is 6 months, it can be extended by a period of three months at a time.</p> <p>The maximum probation period can't exceed two years.</p> <p>A person is employed as a probationer generally to fill a permanent vacancy in a post.</p> <p>If a permanent employee is employed as a probationer in a new post he may, at any time during the probationary period, be reverted to his old permanent post.</p>
		Notice Requirements	<p>The Industrial Dispute Act uses the term "retrenchment" instead of "termination". Retrenchment is termination for any reason except as punishment inflicted by way of disciplinary action, retirement/superannuation, and termination for continued ill-health, or expiry and non-renewal of the term of an employment contract. Reasons for retrenchment could be redundancy, non-performance, or loss of confidence in the worker for various reasons.</p> <p>An employer is required to give at least one month's advance notice or payment to a worker who has completed at least one year of continuous service before termination. While terminating service of than 100 employees, the employer must give at least three months of notice or wages. The services of workmen as well as non-workmen can be terminated without any notice in situations, such as proven misconduct, fraud, etc. Courts in India have held that a worker is entitled to exercise his right to resign from the</p>

			<p>employment. An employer may be justified in refusing to accept the worker's resignation in cases, such as, urgent or important and for the completion of which his presence and participation are necessary. An employer can also refuse to accept the resignation when there is a disciplinary inquiry pending against the employee.</p>
		Severance Pay	<p>Worker is entitled to a gratuity payment upon termination of his service after five years of continuous employment. Amount of severance pay is equal to 15 days' wages for each completed year of service. Retrenched workers are entitled to 15 days' wages for each completed year of service.</p>
5	Family Responsibilities	Paternity Leave	<p>There is no provision on paternity leave in Indian labour law for private sector workers. The civil servants (Central Government) however are entitled to paternity leave. A male civil servant with less than two surviving children, may be granted Paternity Leave for a period of 15 days before or up to six months from the date of delivery of the child. Workers on paternity leave are paid their leave salary equal to the pay drawn immediately before proceeding on leave. The paternity Leave may be combined with leave of any other kind. The paternity leave cannot be debited against the leave account. Similar provisions are applicable on the adoption of a child under the age of one year.</p>
		Parental Leave	<p>There is no provision for parental leave in Indian labour law.</p>
		Flexible Work Option for Parents / Work-Life Balance	<p>There is no provision for flexible work option for workers with minor children and other family responsibilities.</p>
6	Health and Safety at Workplace	Employer cares	<p>In accordance with the Factories Act 1948, an occupier of an establishment has to ensure the health, safety and welfare of all the workers while they are at work in the factory. It is obligatory for an employer/occupier to ensure the provision and maintenance of plant and systems of work that are safe and without health risks. Arrangements should be made to rectify risks involved in use, handling, storage and transport of articles and substances. The establishment should be monitored to check the quality of the premises; cleanliness; disposal of wastes and effluents; ventilation and temperature; dust and fume; artificial humidification; overcrowding; lighting; clean drinking water; latrines and urinals; and spittoons. Safety of the worker must be ensured by installing and maintaining the machinery, mechanisms, transmission apparatus, tools, equipment and</p>

			machines in best possible safety conditions. Tools, equipment, machines, or products used must be organized properly guaranteeing the safety of workers. The employer is obliged to take care to protect the worker's health and safety by providing the means of rescue, the first aid, and the cleanup; and arrangements and organization of the workplace
7	Right to Strike	Right to strike	Right to strike is guaranteed under the Constitution and the Industrial Dispute Act. However, excessively long cooling off period, excessive penal sanction for unauthorised strikes and a long list of essential services frustrate this right. In accordance with the Indian Constitution, all citizens have the right to assemble peacefully without arms. Strike is a cessation of work by a body of persons employed in any industry acting in combination or a concerted refusal, or a refusal under a common understanding, of any number of persons who are or have been so employed to continue to work or to accept employment. Members of a union must inform the employer at least six weeks prior to the proposed date of strike. Employer, within five days, notifies the appropriate Government or the authority about the notification. It is considered as a breach of contract if union members observe strike within 14 days or any time prior to expiry of notice period. Strike is also prohibited when the dispute resolution is in process. Financial aid in direct furtherance of support of illegal strike by anyone is prohibited. Employers also have the right to lockout workers. This right is subject to the same rules and restrictions as the right to strike.
8	Maternity Provisions	Free Medical Care	A pregnant women worker is entitled to a maternity benefit of one thousand rupees if no prenatal confinement and post-natal care is provided by the employer free of charge. It can be increased to a maximum limit of twenty thousand rupees. The Central Government is authorized to increase the basic amount every three years. In August 2008, the amount of medical bonus was 2500 Indian rupees which have been later raised in 2011 to 3500 Indian rupees.
		No Harmful Work	In accordance with the Maternity Benefits Act, a pregnant woman cannot, on a request made by her in this behalf, be required by her employer to assign any work (during 10 weeks before her expected delivery) which is of an arduous nature or which involves long hours of standing, or which in any way is likely to interfere with her pregnancy or the normal development of the fetus, or is likely to cause her miscarriage or otherwise to adversely affect her

			<p>health.</p> <p>An employer is also obliged not to employ a woman during the six weeks following the day of her delivery, miscarriage or medical termination of pregnancy.</p>
		Maternity Leave	<p>Female workers are entitled to a maximum of 12 weeks (6 weeks pre-natal and 6 weeks post natal) of maternity leave.</p> <p>In case of miscarriage or medical termination of pregnancy, a worker is entitled to six weeks of paid maternity leave.</p> <p>Employees are also entitled to one additional month of paid leave in case of complications arising due to pregnancy, delivery, premature birth, miscarriage, medical termination or a tubectomy operation (two weeks in this case).</p> <p>Female civil servants are entitled to maternity leave for a period of 180 days for their first two live born children.</p>
		Income	<p>The maternity leave is awarded with full pay on completion of at least 80 days in an establishment in the 12 months prior to her expected date of delivery. The maternity benefit is awarded at the rate of the average daily wage for the period of a worker's actual absence from work.</p> <p>Apart from 12 weeks of salary, a female worker is entitled to a medical bonus of 3,500 Indian rupees.</p>
		Protection from Dismissals	<p>It is unlawful for an employer to discharge or dismiss a pregnant worker during or on account of absence due to pregnancy, delivery or any post-natal illness, or to give notice of discharge or dismissal, or to vary to her disadvantage any of the conditions of her service.</p>
		Right to return to same position	<p>Woman worker has the right to return to her same job/position after availing her maternity leave.</p>
		Breastfeeding	<p>Employers to provide nursing breaks of prescribed duration for new mothers in order express breast milk for nursing child.</p> <p>These nursing breaks are fully paid and are available until a child reaches the age of 15 months.</p>
9	Safety Provisions & training	Free protection	<p>The Factories Act requires employers to provide protective equipment (means of protection) to workers involved in hazardous work. The type of PPE needed varies depending on the nature of work being performed. It includes screens or suitable goggles for protection of eyes. The right use of PPE reduces risk of accident and illness, minimizes future medical costs, and helps in creation of safer working environment.</p>
		Training	<p>In accordance with the Factories Act, it is the responsibility of an employer to provide instruction, training and supervision as is necessary to ensure health and safety at work of his employees.</p>

		Labour Inspection System	The Factories Act provides for a vibrant labour inspection system. However, the labour inspection system is state based. The Ministry of Labour and Employment along with ministries specialized for certain industrial sectors (for example the Ministry of Power, Ministry of Mines) are responsible for formulating and administering laws and regulations relating to labour and employment. The national legislation provides inspectors the power to enter in workplace premises; examine; inquire or interview anyone; ask for or take copy of any prescribed register, record or other document; and take measures and photographs. The labour inspector is also authorized to dismantle or subject it to any process or test and take possession of any such article or substance that seems to cause danger to health and safety, and detain it for so long as is necessary for such examination.
10	Sickness & Employment Injury Benefits	Income/Paid Sick Leave	Workers covered by the 'Employee State Insurance Act' are entitled to sick pay, but only a small proportion of the organized work force is covered by social security legislation. Amount of sick pay varies; it is around 70% of the average daily wage. The benefit is paid after a 2-day waiting period for up to 91 days in any two consecutive designated 6-month periods. Different provisions could be located under different Acts: (i) 15 days of sick leave is entitled under Apprentices Act, 1961 (ii) 30 days of sick leave for 18 months of service under Working Journalist and Other News Paper Employee's (Conditions of Service) and Miscellaneous Provisions Act, 1955; (iii) At least 1/18th of the period worked under Sales Promotion Employees (Conditions of Service) Act, 1976.
		Job security	There is no legislation in this respect.
		Free Medical Care	Full medical care is provided to an Insured person and his family members. There is no ceiling on expenditure on the treatment of an insured person or a family member. On payment of annual premium of 120 rupees, medical care is also provided to retired and permanently disabled insured persons and their spouses.
		Disability/Work Injury Benefit	Work injuries are divided into four categories: (i) permanent total incapacity (ii) permanent partial incapacity (iii) temporary incapacity and (iv) fatal injury leading to death of a worker. In the case of permanent total incapacity/disability, 90% of an insured worker's average earning is paid as the amount of compensation. These benefits are paid for the duration of disability. In the case of permanent partial disability, amount of compensation depends on

			<p>the assessed degree of disability. In the case of temporary disability, 90% of an insured worker's average earning is paid as the amount of compensation. The benefits are paid until worker's full recovery. In the case of fatal injury, dependents (including widow, widower, children, parents, grandparents) receive survivors' benefit. Widow receives 60% of the disability pension the deceased worker received or would have been entitled to receive and an orphan, younger than age 25, receives 40% of total disability pension. The minimum monthly benefit is 1200 rupees per family. A funeral grant (lump sum of up to 10,000 rupees) for the cost of the funeral is paid to the oldest member of the family or to the person who pays for the funeral.</p>
11	Social Security	Pension Rights	<p>Employee's Pension Scheme 1995 provides for both full and reduced/early pension. For full/superannuation pension, a worker must have reached 58 years of age with at least 120 months (10 years) of contribution. A person is entitled to partial pension at the age of 58 years with less than 120 months (10 years) of contribution. Early pension is granted at the age of 50 years with at least 120 months (10 years) of contribution. Amount of old-age monthly pension is based on a member's pensionable service and earnings but it may not be less than 1,000 rupees per month. A lump sum of total employer and worker contributions plus accrued interest is paid as a partial pension. The early pension is a reduced form of full pension and full pension is reduced by 3% for each year the retirement is taken before 58 years.</p>
		Dependent's/Survivors' Benefit	<p>Dependents/Survivors' Pension is paid to the family in the event of death of a worker who dies while in service after contributing for at least one month into the Employees' Pension Fund; has attained the age of 58 years with 120 months of contributions; and has started receiving pension. In any of the above mentioned cases, the amount of minimum monthly pension for widow(er) is 450 rupees. The minimum monthly pension for children is 150 rupees (or 25% of the amount admissible to widow(er), whichever is higher) payable until the child attains the age of 25 years (no limit with a total and permanent disability). In the case of full orphans, pension is equal to 75% of the pension admissible to the widow(er). The minimum monthly pension for full orphan can't be less than 250 rupees.</p>
		Unemployment Benefit	<p>Unemployment Allowance is provided to workers losing their jobs under no fault of their own (on account of closure of factories, retrenchment or permanent invalidity of at least 40% arising out of non-</p>

			employment injury). Unemployment allowance is the 50% of an insured worker's daily average earnings. It is paid up to one year to the workers who have paid contributions for at least 3 years. During this time, free medical care is also provided to beneficiaries and their dependents.
		Invalidity Benefit	Invalidity benefit is provided to a worker assessed with a permanent and total disability as the result of an occupational injury and has at least one month of contributions. Amount of invalidity pension is based upon the member's pensionable earnings. The minimum amount of invalidity pension is at least 250 rupees or a lump sum of total employee and employer contributions plus accrued interest.
12	Fair Treatment at Work	Equal pay	Equal Remuneration Act, 1976 requires employers to pay equal remuneration to workers for same work or work of a similar nature without any discrimination on the basis of sex. The Act requires every employer not to pay to any worker the remuneration (payable in cash or in kind) at rates less favourable than those at which remuneration is paid by him to the workers of the opposite sex for performing the same work or work of a similar nature. Law further obligates employers not to reduce the rate of remuneration of any worker for the purpose of complying with the provision of equal pay for same work or work of a similar nature.
		Sexual Harassment at Workplace	The Supreme Court Decision (Vishaka V/S State of Rajasthan, 1997) which recognizes harassment as a form of discrimination against women and violation of the constitutional right to equality was used to refer to sexual harassment. Earlier, India had no legislation on sexual harassment. In 2013, Indian Government has enacted The Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013 (in force from December 09, 2013) which prohibits sexual harassment at the workplace. The Act specifies the types of actions that would fall within the ambit of sexual harassment with respect to women workers. Sexual harassment is defined as any one or more of the following unwelcome acts or behaviour (whether directly or by implication) namely: physical contact and advances; or a demand or request for sexual favors; or making sexually colored remarks; or showing pornography, or any other unwelcome physical, verbal or non-verbal conduct of sexual nature. To address complaints relating to sexual harassment exclusively, the Act mandates all employers to create internal complaints committees. It also requires employers to include

			sexual harassment as a disciplinary violation in their internal policies, provide assistance to victims in reporting incidents of sexual harassment to the authorities, and also prepare and file annual reports prescribed therein. An employer who contravenes the provisions of this Act is punishable with a fine which may extend to 50,000 rupees. Sexual harassment is also prohibited under section 354-A of the Penal Code. A person convicted of sexual harassment is punished with rigorous imprisonment for a term which may extend to three years or with fine or with both.
		Non-discrimination	The Constitution of India guarantees equality and prohibits discrimination on grounds of religion, race, caste, sex, birthplace, residence or any of them. The Constitution guarantees equality of opportunity for all citizens in matters relating to employment or appointment to any office under the State. No citizen can, on grounds only of religion, race, caste, sex, descent, place of birth, residence or any of them, be ineligible for, or discriminated against in respect of, any employment or office under the State. The Equal Remuneration Act also forbids discrimination in hiring, pay and conditions of employment between male and female workers engaged in the same or similar work, except where dissimilar treatment is mandated or permitted under the law.
		Equal treatment of women at work	In accordance with the Constitution, every citizen has the right to practice any profession, or to carry on any occupation, trade or business subject to reasonable restrictions imposed under the law. Women in India cannot work in the same industries as men. According to the Factories Act 1948, women can't be employed in any part of a factory for pressing cotton in which a cotton-opener is at work. The Act further states that the daily work hour exemption cannot be granted for women workers and night work is also prohibited to them. Moreover the Act prohibits employment of women in "dangerous" occupations.
13	Minors and Youth	Minimum Age of Employment	In accordance with the Constitution of India, no child below the age of fourteen years shall be employed to work in any factory or mine or engaged in any other hazardous employment. The minimum age for employment is 14 years. Employment of child under 14 years of age is strictly prohibited in any establishment. A violation of this rule can result in the imposition of fines and also imprisonment in certain States. Children are not allowed to work more than six hours a day (which include one hour of rest after 03 hours of work). Night work (between 07 pm and 08 am) and overtime work is prohibited for children. According to the Constitution, it is obligatory for the

			<p>state to provide free and compulsory education to all children of the age of six to fourteen years in such manner as the State may, by law, determine. The Union Cabinet, chaired by the Prime Minister Modi, gave its approval on May 13, 2015 for amending the Child Labour (Prohibition & Regulation) Act 1986 as proposed in the Amendment Bill, 2012. The proposed amendments are as follows:- Employment of children below 14 years is prohibited in all occupations and processes and age of prohibition of employment is linked to age under Right of Children to Free and Compulsory Education Act, 2009, i.e., 14 years. Employer of children under 14 years is prohibited in both hazardous and non-hazardous employments. However a child (under 14 years) can help his family or family enterprises in a non-hazardous occupation/enterprise, after his school hours or during vacations. Similarly, a child working as an artist in an audio-visual entertainment industry, advertisement, films, television serials or any such other entertainment or sports activities, except the circus. In both cases, the amendment bill requires that this permission is subject to such conditions and safety measures, as may be prescribed and provided that such work does not affect the school education of the child. A new definition of adolescent is incorporated in the Act and employment of adolescents (14-18 years of age) is now prohibited in hazardous occupations and processes. Stricter punishment for employers for violation has also been proposed to act as a deterrent. The offence of employing a child or adolescent in contravention of the amended Act by an employer has been made cognizable. The amendment bill relaxes the penal provisions for parents or guardians, who were earlier subjected to the same punishment as the employer of the child. However, in case of parents being repeat offenders, they can be penalised with a monetary fine up to Rs 10,000. The amendment Bill also provides for constitution of Child and Adolescent Labour Rehabilitation Fund for one or more districts for the rehabilitation of the child or adolescent rescued.</p>
		<p>Minimum Age for Hazardous Work</p>	<p>There is no specific legislation abolishing all child labour, but the 'Child Labour (Prohibition and Regulation) Act' makes it illegal for children under 14 years of age to be employed in factories, including 16 'hazardous occupations' and 65 'processes'. These hazardous occupations and processes include working in slaughter house, automobile workshops, foundries, handling of toxic substances, mines, dhabas,</p>

			restaurants, tea shops, domestic service, beedi making, carpet weaving, building and construction industry, etc.
14	Forced/Bonded Labour	Prohibition on Forced and Compulsory labour	The Constitution of India prohibits forced labour and considers it an offence punishable under the law. State can however impose compulsory service for public purposes. The Bonded Labour System (Abolition) Act, 1976 makes all forms of bonded labour illegal. Anyone who compels another person to render any bonded labour is punishable with imprisonment for a term which may extend to three years and also with fine which may extend to two thousand rupees.
		Freedom to change jobs and Right to quit	Workers have the right to change jobs after serving due notice. For more information on this, please refer to the section on employment security.
		Inhumane working Conditions	Working time may be extended beyond normal working hours of forty eight hours per week and nine hours a day. In certain circumstances, workers may be required to work overtime. In allowing the spread over of 10.5 hours every day, law actually allows for two hours of overtime work per day.

Exhibit 16 – Labor Law, India

Sl. No	Labor Law – Categories	Sub Categories	Bangladesh
1	Work and Wages	Minimum Wage	\$68 per month
		Regular Pay	The maximum wage period is one month. Pay wages before 7th working day . Where the employment is terminated by retirement or by the employer, pay wages before the 30th working day from the day of termination.
2	Compensation	Overtime Compensation	The normal working hours are 08 hrs/day and 48 hrs/week. Thus max overtime is 2 hrs/day and 12 hrs/wk. However, the avg. overtime hrs in a year must not exceed 8 hrs per week. Overtime is paid at 200% of the basic wage rate.
		Night Work Compensation	If a shift extends beyond midnight, the rest is for period of 24 consecutive hrs from end of shift. Women cannot be forced to work at night (10.00 p.m. to 6.00 a.m.) without their consent. Adolescent workers (16-18 years old) cannot work between 7:00 p.m to 7:00 a.m. No payment at premium rates for night work shift.
		Compensatory Holidays/rest days	If a worker work on weekly rest days, compensatory holidays of equal number as soon as possible. If a worker works on a festival/public holiday, two days' additional compensatory holidays with pay and a substitute holiday without any deduction of wages.
		Weekend/Public Holiday Work Compensation	No premium rate for work performed on a weekly rest day/public holiday. The worker is entitled to a day-off in lieu of working on a weekly rest day and two days' additional compensatory holidays (and a substitute holiday) in case of work on festival/public holidays.
3	Annual Leave and Working on Holidays	Paid Vacation/Annual Leave	An adult worker is entitled to one day's paid annual leave: for 18 days of work. An adolescent worker (16-18 years old) is entitled to one day's paid annual leave: for every 15 days of work. The workers in export processing zones are entitled to one day of paid annual leave for every 22 days of work performed during the preceding twelve months. In the case of adult workers, only 40 accumulated leave may be carried forward to the following year. In the case of adolescent workers, 60 accumulated leave may be carried forward to the following year. In case of workers working in export processing zones 30 leaves may be carried forward to the following year. Employees can be compensated financially in lieu of taking leave if employer refuses leave in the interest of company. Payment of wages for the period of leave is to be made, before: four or more days in the case of adult workers; and five or more days in the case of adolescent workers. Other than annual leave workers are entitled to 10

			days' paid casual leave during a calendar year.
		Pay on Public Holidays	Every worker is allowed in a calendar year eleven days of paid festival holidays. On public holidays, workers are paid their full-time daily wage, excluding any overtime allowance and bonus.
		Weekly Rest Day	An adult worker is allowed one day (of 24 consecutive hours) as weekly rest. Weekly rest are usually Friday and Saturday.
4	Employment Security	Written Employment Particulars	An employer is required to provide a letter of appointment, an identity card with photograph and a service book at the start of employment. The service book must be in form prescribed by rules with worker photograph. Employer has custody of the book and worker can get the duplicate copy. Worker gets the service book on termination of employment. Employers are required to maintain records of all workers.
		Fixed Term Contracts	<p>The Labour Act does not regulate the use of fixed-term contracts but it classifies the workers into following classes:</p> <ul style="list-style-type: none"> • A badli (= transfer worker) is a worker who is employed during the absence of a permanent worker or of a probationer worker. • A casual worker is a worker appointed in an establishment temporarily for casual work. • A temporary worker is a worker employed to perform work which is essentially of temporary nature, and is likely to be finished within a limited period. • A probationer is a worker who is provisionally employed to fill a permanent vacancy in a post and has not completed the period of his probation in the establishment. • An apprentice is a worker employed in an establishment as a learner, and is paid an training allowance. • A permanent worker is a worker employed on a permanent basis or who has satisfactory completed the period of his probation in the establishment. • Seasonal Worker is a worker who finds employment only in certain seasons.
		Probation Period	According to Labour Act, the probationary period is 6 months for a worker exercising functions of clerical nature; and 3 months for other workers. The period of probation of a skilled worker can be extended by an additional period of 3 months if it has not been possible to determine the quality of the work within the first 3 months' period of probation. After completion of the three months or extended period of probation, the concerned workers must be treated as permanent even if not issued any letter of confirmation. If the employment of a probationer is terminated but the worker is employed by the same employer within the

			<p>next three years, the worker is exempted from the period of probation previously completed.</p>
		<p>Notice Requirements</p>	<p>A written notification should be served on a worker who is to be dismissed.</p> <p>In the event of a retrenchment, the employer gives the employee one month's notice.</p> <p>In the event of termination without cause, the employer has to observe the following notice period:</p> <p>1) For permanent workers: 120 days' notice if the worker is paid on a monthly basis; and 60 days' notice to other workers.</p> <p>2) For temporary workers (when termination is not due to the completion, cessation, abolition or discontinuance of the temporary work for which the workers was appointed): 30 days' notice if the temporary worker is paid on a monthly basis; and 14 days' notice to other temporary workers. No statutory notice requirements exist for conduct and capacity-related dismissals.</p> <p>The employer can opt for paying the wages in lieu of notice in the cases of retrenchment, termination without conduct-related cause or capacity related discharge.</p> <p>No notice period is required if a worker is dismissed on the grounds of misconduct and criminal conviction.</p> <p>The worker is informed of the allegations against him in writing, is granted a period of seven days to provide a defence and has the right to be heard.</p> <p>All dismissed workers have the right to seek redress within a period of 30 days by addressing their grievance to the employer (section 33). If no settlement is reached, the matter is referred to a labour court.</p>
		<p>Severance Pay</p>	<p>Severance pay is payable to a worker employed for at least one year. The worker is paid at the rate of thirty days wages for every completed year of service, or gratuity, if any, whichever is higher. In the case of termination with notice by the worker, the worker is paid (a) at the rate of fourteen days' wages for every completed year of service, if he has completed five years of service or more but less than ten years; (b) at the rate of thirty days' wages for every completed year of service, if he has completed ten years of service or more; or gratuity, if any, whichever is higher. Workers are not entitled to severance pay in the event of termination on the ground of misconduct. In the event of retrenchment, worker with at least one year of service with the employer is entitled to a payment of at least 30 days' wages for each completed year of service. If an employer decides to terminate a worker's contract on grounds of retrenchment after a 45-day lay-off period, the worker is entitled to 15 days' wages in</p>

			addition to redundancy pay.
5	Family Responsibilities	Paternity Leave	No provision for paternity leave benefits identified in Labour Act 2006.
		Parental Leave	No provision for parental leave benefits identified in Labour Act 2006.
		Flexible Work Option for Parents / Work-Life Balance	No provision for flexible work option for workers with minor children and other family responsibilities identified in Labour Act 2006.
6	Health and Safety at Workplace	Employer cares	A safe and hygienic working environment must be provided to the workers, and best occupational health and safety practice must be promoted in workplace. The Labour Act 2006 specifies issues/areas related to occupational health and safety which include: cleanliness, ventilation and temperature, artificial humidification, overcrowding, lighting, fire related incidents, excessive weights, safety of building and machineries, fencing of machinery, work on or near machinery on motion, explosive or inflammable dust or gas, precautions against dangerous fumes, personal protective equipment and risk assessment and prevention.
7	Right to strike	Right to strike	The Labour Act recognises workers' right to strike with several conditions including 67% (two-thirds) of union members must consent to a strike before it is announced. If a strike or lock-out is commenced, either of the parties may make an application to the Labour Court for adjudication of the dispute. The government can prohibit any strikes lasting more than 30 days and refer the matter to labour courts for adjudication. In the case of any of the public utility services, the Government may, by order in writing, prohibit a strike or lockout at any time before or after the commencement of the strike or lockout. Strikes are banned during the first three years of commercial production in a new factory or if the factory was built with foreign investment or is owned by foreign investors. It is considered unfair labour practice on the part of employer to recruit any new worker during the period of legal strike, except where the Conciliator has, being satisfied that complete cessation of work is likely to cause serious damage to the machinery or installation, and permits temporary employment or a limited number of workers. Illegal strikes are prohibited under the law and if a worker commences, continues or otherwise acts in furtherance of, an illegal strike, he/she is punishable with imprisonment for a term which may extend to one year, or with fine which may extend to Tk.5,000 or with both.
8	Maternity Provisions	Free Medical Care	No medical benefit entitlements identified in the Labour Act 2006
		No Harmful Work	"There is a prohibition on employing women in unsafe

			<p>or unhealthy work for a period preceding and following the day of delivery.</p> <p>The performance of such work cannot affect the worker's maternity benefits entitlement.</p> <p>It is also the duty of employers to provide room facilities for new mothers and children (under the age of six years).</p> <p>Night work between the hours of 10:00 p.m. and 6:00 a.m. is also prohibited for all women workers without her own consent.</p>
		Maternity Leave	<p>Women workers are entitled to 16 weeks of maternity leave (eight weeks pre-natal and eight weeks post-natal).</p> <p>Employers are prohibited from knowingly employing a woman in an establishment, and women are also prohibited from working in any establishment, during the eight weeks immediately following the day of her delivery.</p> <p>No entitlement to leave is identified in the case of illness or complications arising during the pregnancy.</p> <p>No extension in maternity leave in the case of multiple births.</p>
		Income	<p>The Labour Act 2006 entitles women workers to 16 weeks' maternity leave pay at their average daily, weekly or monthly wage received by the workers during the preceding three months.</p> <p>A worker must have worked under the employer for a period of at least six months immediately preceding the day of her delivery.</p> <p>The employer has to pay the maternity benefit only after the worker has produced a proof (birth certificate, medical certificate).</p> <p>Further, the maternity benefit is not payable to any woman if, at the time of her confinement, she has two or more surviving children (although she will still be entitled to the relevant period of unpaid leave).</p> <p>The maternity benefit is payable in respect of the period of leave taken by the worker during the 8 weeks preceding the expected day of delivery and 8 weeks immediately following the day of delivery.</p> <p>The maternity benefit is employer funded and applies to every woman employed in an establishment.</p> <p>If a woman entitled to maternity benefit dies at the time of her delivery or during the next period of 8 months, the employer is required to pay the amount of maternity benefit due, if the newly born child survives, to the person who undertakes the care of the child, and if the child does not survive, to the person nominated by her, or if she has made no such nomination, to her legal representative(s).</p> <p>However if a woman worker dies before giving birth to</p>

			a child, employer is required to pay only for the period up to and including the day of her death although employer cannot recover the (excess) amount already paid to the worker as maternity benefit.
		Protection from Dismissals	Employment of a worker is secure during a period of her pregnancy and her maternity leave. If a notice or order of discharge, dismissal, removal or termination of employment is given by an employer to a woman worker within a period of six months before and eight weeks after her delivery and such notice or order is given without sufficient cause, she will not be deprived of any maternity benefit to which she would have become entitled.
		Right to return to same position	Employment of a worker is secure during her maternity leave, she can return to her job although not necessarily to same position.
		Breastfeeding	Employers at establishments with forty or more workers must provide and maintain a suitable room or rooms for the use of children under the age of 6 years and their mothers. The room has to be furnished with at least one chair or equivalent seating accommodation for the use of each mother while she is feeding or attending to her child.
9	Safety Provisions & training	Free protection	There are several sections in Labour Act which regulates the provision of the personal protection equipment to the worker employed. Effective screens or suitable goggles must be provided for the protection of a worker's eye where there is a risk of injury to eyes from particles or fragments thrown off in the course of the process or risk to the eyes by reason of exposure to excessive light or heat. In case of dangerous operations which may cause serious risk of bodily injury, poisoning or disease, it is employer responsibility to provide the protective equipment for all persons employed in the operation or in the vicinity of the places where it is carried out and the use of any specified materials or processes in connection with the operation; and notice specifying use and precautions regarding use of any corrosive chemicals. For work that includes explosive or inflammable dust, gas, etc., an employer must not engage workers in such work without providing and ensuring use of personal safety equipment, and in doing so, a record book must be maintained as designated by the owner. Despite supply of personal safety equipment to the worker, those workers are held liable for not using the personal protective equipment.
		Training	An employer is obliged to provide a practical and relevant training in health and safety for workers hired and to ensure professional health and safety for

			<p>workers at workplace. Employer is required to create awareness in workers through workplace trainings. In case of dangerous operations which may cause serious risk of bodily injury, poisoning or disease, it is employer's responsibility to provide the periodical medical examination of persons employed in the operation and prohibiting the employment of persons not certified as fit for such employment. The workers employed in such operations and working on dangerous machines must be sufficiently trained and supervised.</p>
		Labour Inspection System	<p>Under Labour Act, the Inspector has an important role to play in supervising and monitoring occupational health and safety measures. Labour inspectors have the right to enter any workplace to assess compliance with the law, to request registers and other documents and to examine any worker employed within the preceding two months. He has the authority to require employers to remedy any breaches of the regulations on the prevention of occupational risks, and to order immediate cessation of work if the breach gives rise to serious and imminent danger to employees' health and safety.</p> <p>An Inspector may, at any time during the normal working hours, informing the employer of an establishment, take a sufficient sample of any substance used or intended to be used in the establishment such use being, in the opinion of the Inspector in contravention of the rules, or likely to cause bodily injury to or injury to the health of, workers in establishment. If the Inspector is of opinion that there is urgent and immediate danger to the life or safety of any person employed in any establishment or part thereof, he may, by an order in writing containing a statement of the grounds of his opinion, prohibit, the employer concerned, until he is satisfied that the danger is removed. The Department of Inspection for Factories and Establishments (DIFE) working under the Ministry of Labour and Employment and having 23 district offices is responsible for health, safety and welfare of the workers by enforcing labour laws in the country. DIFE is not merely a law enforcement organization rather it helps employers and workers in complying with the legal provisions.</p>
10	Sickness & Employment Injury Benefits	Income/Paid Sick Leave	<p>Every worker other than a newspaper worker, is entitled to sick leave with full wages for fourteen days in a calendar year. Newspaper workers are entitled to sick leave with half wages for not less than one-eighteenth (1/18th) of the period of their services. No such leave is allowed unless a registered medical practitioner certifies that the worker is ill and requires</p>

			<p>sick leave for cure or treatment for such period as may be specified by him. Such leave can't be accumulated and carried forward to the succeeding year. It can be inferred from above provisions that sick leave can be both paid (up to 14 days) and unpaid (if it goes beyond 14 days). For sick leave, employee is paid by the employer at the rate equal to the daily average of his full time wages including dearness allowances, and ad-hoc or interim pay, if any, but excluding any overtime allowance and bonus. On-site medical facilities are provided for employees of firms with at least 300 workers. A medical allowance of Tk.100 a month is paid to workers whose employer does not provide medical facilities. As for public sector workers, the Prescribed Leave Rules of 1959 entitle these workers to a maximum of four months of sick leave with full pay that can be extended to six months on production of a medical certificate and to one year when combined with other accumulated leave (like annual leave). The public sector employees are also entitled to a monthly medical allowance of Tk.700.</p>
		Job security	<p>Employment of a worker is secure during the first 14 days of illness. After that a worker may be granted an unpaid leave however its duration is not clearly specified in the law. Law also allows an employer to discharge a worker for continued ill health if certified by a medical practitioner.</p>
		Free Medical Care	<p>The group insurance is compulsory according to Government rules, in the establishments wherein minimum 200 permanent workers are employed. Every newspaper worker and his dependents are entitled to medical care at the cost of the newspaper establishment in such manner and to such extent as may be prescribed. Some employers provide on-site medical facilities and workers may also use certain government-run hospitals. A medical allowance of Tk.100 a month is paid to workers whose employer does not provide medical facilities. All public sector employees are entitled to a monthly medical allowance of Tk.700.</p>
		Disability/Work Injury Benefit	<p>Work injuries may be classified, on the basis of their consequences, as those resulting in: (i) permanent total incapacity (ii) permanent partial incapacity (iii) temporary incapacity and (iv) fatal injury leading to death of a worker. In the case of permanent total incapacity (100%), workers are entitled to an amount up to Tk. 125,000 while in the case of partial disability; the benefit is adjusted in proportion to the assessed degree of loss in earning capacity. In the case of temporary disability, the benefit is 100% of the insured's earnings for the first 2 months, 66.7% of</p>

			earnings for the next 2 months, and 50% of earnings for subsequent months of disability or for up to a year, whichever is shorter (the first three days are considered the waiting period). In the case of worker's death due to an occupational accident or disease, 30 days of the insured worker's wages for every year of service or a lump sum of up to Tk.125,000, whichever is greater, is paid to surviving dependents in proportions determined by a labour court. Such payment has to be deposited with the labour court for further distribution in dependents unless a worker has nominated his dependents beforehand.
11	Social Security	Pension Rights	The usual retirement age for the private sector workers is 60 years (same for women) however the private sector workers are not entitled to pension benefit except gratuity paid at the time of retirement. To partly alleviate the situation of absolute poverty in the country, The Ministry of Social Welfare, since 1998, provides an old-age allowance under the Government's social safety net programme. To be eligible for an old-age allowance, the recipient must be at least 65 years of age (62 years of age for women) and their annual average income must be under Tk.3,000. Priority is given to those persons who are physically and mentally infirm or handicapped, have no assets, are homeless, landless, freedom fighters, widowed, divorced, single and deserted by their family. Beneficiaries of old-age allowance receive Tk.300 a month payable every quarter, without limit of time.
		Dependent's/Survivors' Benefit	If a worker dies while in service after a continuous service of at least two years, his nominee or in the absence of any nominee, his dependents shall be paid by the employer a compensation at the rate of thirty days' wages for a normal death and of forty five days for an accidental death while working in the abolishment or on duty for every completed year of service or for any part thereof in excess of six months, or gratuity whichever is higher, and the amount will be in addition to any other benefit to which the deceased worker would have been entitled to had he retired from the service.
		Unemployment Benefit	No statutory unemployment benefits are provided. Severance pay along with pay in lieu of notice is provided under the law. For more information on this, please refer to the section on employment security.
		Invalidity Benefit	No invalidity benefits exist for the private sector workers. Only public sector workers have entitlement to the invalidity benefits.
12	Fair Treatment at Work	Equal pay	Under the Constitution, the State must endeavour to ensure equality of opportunity to all citizens. The State must adopt effective measures to remove social and

			<p>economic inequality between man and man and to ensure the equitable distribution of wealth among citizens, and of opportunities in order to attain a uniform level of economic development throughout the Republic. (§§ 10, 19, 20 of the Constitution of the People's Republic of Bangladesh) In determining wages or fixing minimum rates of wages for any worker, the principle of equal wages for female, male and physically challenged workers for work of equal nature or value must be followed and no discrimination should be made in this respect on the ground of sex.</p>
		<p>Sexual Harassment at Workplace</p>	<p>According to Labour Act, the case where any female worker is employed in any work of the establishment, irrespective of her rank or status, no one of that establishment may behave with the female worker in a way which may seem to be indecent or repugnant to the modesty or honour of the female worker. No other provision to prohibit sexual harassment at workplace is identified in Labour Act 2006. In May 2009 hearing of the Petition No. 5916 of 2008, the Bangladesh Supreme Court issued a detailed definition of sexual harassment and identified steps employers and educational institutions have to take in order to prevent sexual harassment. The Court's guidelines on sexual harassment, which must be observed in all workplaces in the public and private sectors (paragraph 1), provide a detailed definition of sexual harassment covering both quid pro quo and hostile environment harassment (paragraph 4). The guidelines identify the steps required of employers to prevent sexual harassment, including awareness raising about and widely publicizing of the guidelines and the legislative provisions regarding gender equality and sexual offences (paragraphs 3, 5 and 6). The guidelines also cover disciplinary action (paragraphs 7 and 11), a complaints mechanism, including the establishment of a complaints committee in all workplaces (paragraphs 8–10), and criminal proceedings (paragraph 11). These guidelines issued by the Supreme Court have the force of law until adequate and effective legislation is in place. Under the Prevention of Oppression Against Women and Children Act 2000, "whoever, to satisfy his sexual urge illegally, assaults a woman sexually or makes any indecent gesture, his/her act is deemed to be sexual oppression and that person is punished with imprisonment for either description (two to seven years) and also with fine.</p>
		<p>Non-discrimination</p>	<p>Under the Constitution, all citizens are equal before Law and are entitled to equal protection of Law. The State must not discriminate against any citizen on the</p>

			<p>grounds of religion, race, caste, sex or place of birth. Therefore, discrimination on the grounds of any of the above grounds is prohibited in the country. Women have equal rights with men in all spheres of the State and of public life. No citizen, on grounds only of religion, race, caste, sex or place of birth be subjected to any disability, liability, restriction or condition with regard to access to any place of public entertainment or resort, or admission to any educational institution. There must be equality of opportunity for all citizens in respect of employment or office in the service of the Republic. No citizen, on grounds only of religion, race, caste, sex or place of birth, be ineligible for, or discriminated against in respect of, any employment or office in the service of the Republic. The Bangladesh Persons with Disability Welfare Act 2001 promotes equality of opportunities of employment for suitably qualified persons with disabilities in recruiting employees for government departments, statutory bodies and local authorities. Moreover, discrimination against a worker in employment related matters on the ground of membership or non-membership of a trade union is also prohibited.</p>
		Equal treatment of women at work	<p>Constitution of Bangladesh encourages participation of women in all spheres of national life. Subject to certain restrictions imposed by law, every citizen has the right to enter upon any lawful profession or occupation, and to conduct any lawful trade or business. Women can work in the same industries as men with few exceptions. Section 64 of the Labour Act requires employment of properly trained adult male workers for examination, adjustment and lubrication of any part or component of machineries in motion. Women and adolescent are not allowed to do the above-mentioned tasks and they are also not entitled to work in places between fixed and moving parts of any machinery in motion. The Government may also prohibit the employment of women, adolescents or children in the dangerous operations that can cause a serious risk of bodily injury, poisoning, or disease to the person employed. Women workers cannot also be employed for underground, underwater work or hazardous work.</p>
13	Minors and Youth	Minimum Age of Employment	<p>Labour Law 2006 prohibits employment of children and requires an adolescent to obtain a fitness certificate to be employed in any occupation or in a factory. Child means a person who has completed her/his fourteen years of age and adolescent means the person who has completed sixteen years and has not completed eighteen years of age. As an exception, a child who has completed twelve years of age, may be employed in such light work which does not endanger his health and</p>

			<p>development or interfere with his education. The working hours of such children should also be arranged in such a way that work does not interfere with their school attendance. The Labour Code further prohibits parents or guardians from making employment agreements on behalf of their children. For adolescents, fitness certificate from registered medical practitioner is mandatory. Any certificate of fitness granted under this section remains valid for a period of twelve months from the date on which it was issued.</p>
		<p>Minimum Age for Hazardous Work</p>	<p>Minimum Age for Hazardous Work is set as 18 years. People over 16 and under 18 years of age are not allowed in any establishment to clean, lubricate or adjust any part of machinery while that part is in motion or to work between moving parts or between fixed and moving parts, of any machinery which is in motion. No adolescent should work at dangerous machine unless he has been fully instructed as to the dangers arising in connection with the machine and the precautions to be observed, and has received sufficient training in work at the machine, or is under adequate supervision by a person who has thorough knowledge and experience of the machine. Adolescent working in any factory or mine, are prohibited to work for more than five hours in any day and thirty hours in any week and those working in any other establishment, are prohibited to work for more than seven hours in a day and forty-two hours in a week. No adolescent is allowed to work in any establishment between the hours of 7:00 p.m. and 7:00 a.m.. Underground, underwater work and other hazardous work is also prohibited for adolescent workers. In 2012, the Government created a list of hazardous work prohibited for children; however, it is still not approved. The list contains 36 occupations such as ship breaking, leather manufacturing, construction, and work in automobile workshops. Meanwhile a new Act (Children's Act 2013) has been approved which not only raises the legal age of child (from 14 to 18 years) but also prescribes stringent penalties if a child is exploited in employment related matters (exploiting a child through confining his life and his earnings) which range from imprisonment for up to two years or a fine of up to Tk.50,000 or both. A person who enjoys the gain made as a result of exploitation or employment of a child or uses the child for immoral entertainment is liable as an abettor of the offence.</p>
14	Forced/Bonded Labour	Prohibition on Forced and Compulsory labour	<p>Forced labour is strictly prohibited by the Constitution of the People's Republic of Bangladesh. Article 34 of the Constitution of the Peoples Republic of Bangladesh reads as follows: "All forms of Forced Labour are</p>

			prohibited and any contravention of this provision shall be an offence and shall be punishable in accordance with Law". Forced labour is also prohibited under section 374 of Penal Code which states that "whoever unlawfully compels any person to labour against the will of that person, shall be punished with imprisonment of either description for a term which may extend to one year, or with fine, or with both".
		Freedom to change jobs and Right to quit	There is no provision in Bangladesh Labour Act which restricts the workers to change or quit job. According to constitution, every citizen has the right to enter upon any lawful profession or occupation, and to conduct any lawful trade or business. A permanent employee may terminate the contract and recover his freedom to work at another job by giving a written of sixty days. A temporary worker may resign from his service by giving a written notice of thirty days, if he is a monthly rated worker or fourteen days' notice in case of other workers. Where a worker intends to resigns from his service without any notice, he may do so by paying to the employer wages in lieu of the notice for the above mentioned duration.
		Inhumane working Conditions	

Exhibit 17 – Labor Law, Bangladesh

Sl. No	Labor Law - Categories	Sub Categories	China
1	Work and Wages	Minimum Wage	\$155 - \$321 per month
		Regular Pay	The wage payment interval can't exceed one month for standard workers and on fortnight basis for part-time workers. Wages can't be deducted or delayed without proper justification. Part-time workers are paid by the hour of work within 15 days after the work is completed.
2	Compensation	Overtime Compensation	Normal working hours are 8 hours a day and 44 hours a week. Total overtime hours in a month must not exceed 36 hrs (~9 hrs/week). The compensation for overtime work is atleast 150% of the normal hourly wage rate.
		Night Work Compensation	There is no clear provision in the labour law on premium pay for night workers however Doing Business report indicates that night workers are paid 139% of the usual hourly wage rate.
		Compensatory Holidays/rest days	Workers get a compensatory day off in lieu of the rest day during the following week, if day-off not possible then 200% of the normal hourly wage. There is no provision for compensatory holiday for workers working on a public holiday.
		Weekend/Public Holiday Work Compensation	Work on official holidays, entitle wages at a premium rate of 300% of the normal hourly wage rate. Premium pay of 300% of the normal hourly wage rate is paid for working on weekly rest day only in case when it is not possible to give a compensatory day-off.
3	Annual Leave and Working on Holidays	Paid Vacation/Annual Leave	5 days of paid annual leave for workers who have worked for cumulative 1-10 years; 10 days of paid annual leave for workers who have worked for cumulative 10-20 years; and 15 days of paid annual leave for workers who have worked for cumulative more than 20 years. Annual leave may be taken at once, or in parts, or may be accrued for next year. In case the employer is unable to provide annual leave, the worker is entitled 300% of the daily wage in lieu of compensation for each day of the annual leave due and not taken.
		Pay on Public Holidays	Workers are entitled to paid holidays during 11 Festival holidays.
		Weekly Rest Day	24 consecutive hours (1 day) of paid time rest per week after 6 continuous working days. 2 days off per week for state organs and institutions. Weekly rest days are usually Saturday and Sunday.
4	Employment Security	Written Employment Particulars	Written contract has to be signed within a month of employment. If no employment contract within a month, then worker is entitled to double salary from the second month until a contract is concluded or on

			<p>the one year anniversary of the commencement of employment. If no written labor contract even after a year, the contract is considered to be an open term contract. The employment contract can be oral in case of part-time employment.</p>
		Fixed Term Contracts	<p>Chinese labour Law allows hiring fixed term contract workers for tasks of permanent nature. In a fixed term contract termination date is agreed upon by the employer and the worker. Law does not prescribe maximum duration of a single fixed term contract however after 10 years of continuous service or 2 renewals of fixed term contracts, the contract is considered non-fixed term contract.</p>
		Probation Period	<p>Employment Contract Law specifies that the probation period must be determined in the employment contract but it may not exceed 3 months. Length of probationary period depends upon the term/duration of a contract. Probationary period is:</p> <ul style="list-style-type: none"> - one month for an employment contract ranging between 3 months to 1 year; - 2 months for an employment contract ranging between 1 year to 3 years; and - 6 months for an employment contract of duration more than 3 years or indefinite/non-fixed term contracts. <p>Probation periods are not allowed for project-based contracts or if the term of a contract is less than three months. It also requires that a worker may not be appointed under probation twice with the same employer.</p>
		Notice Requirements	<p>Written termination notice before terminating services of a worker.</p> <p>An employment contract terminates if its term expires; the worker has started receiving basic old age insurance pension in accordance with the law; the laborer dies, or is declared dead or missing by a People's Court; the Unit is declared bankrupt according to law; the Unit has its business license revoked, is ordered to close down or decides to dissolve ahead of schedule; or other circumstances, specified in laws or administrative laws and regulations, arise.</p> <p>A fixed term contract terminates at the end of its term or by cancellation by either of the parties or in the case where the laborer does not agree to renew the contract even if the Unit proposes to renew the labor contract. Either party may terminate the employment contract after giving 30 days written notice.</p> <p>The valid grounds for dismissal include worker's conduct, worker's capacity (incompetence and inability to work due to some injury) and economic reasons. During a probation period, the notice period is three days.</p>

			<p>An employee may resign without advance notice if the employer fails to timely pay wages or commits a breach of obligations.</p> <p>An employer may pay one month's wage in lieu of notice.</p> <p>It is obligatory for an employer to notify the relevant trade union in advance if employer plans to unilaterally terminate employee contracts.</p> <p>Workers employed on a part time basis may be terminated at any time without cause.</p> <p>In case of wrongful termination, the dispute arises and party has to apply for mediation.</p>
		Severance Pay	<p>The Employment Contract Law provides severance pay to the workers on termination of employment contract but not in cases where the employer has grounds for the summary dismissal of the worker. Severance pay may also need to be paid at the end of a fixed term contract, unless the worker is given the opportunity to renew the contract and refuses. Workforce reductions by mass layoffs also require severance pay. Amount of Economic Compensation/Severance Pay is based on the number of years a laborer has worked in a unit. It is equivalent to one month's wages for every year of service. If a worker has worked in a unit for more than 6 months but less than 1 year, he will get severance pay for one year. If a worker has worked for less than 6 months, he will get half-month's wage as severance pay.</p>
5	Family Responsibilities	Paternity Leave	<p>There is no national labour regulation requiring employers to provide paternity leave.</p> <p>Availability of paternity leave premised on obtaining One Child Card.</p> <p>Fathers, with One Child Card, can take 10-30 days of paternity leave.</p> <p>China's statutory paternity leave does not exceed two weeks (14 days).</p> <p>In Shanghai, a male employee is only entitled to a three-day paternity leave in the case of late childbirth. In Shenzhen, a male employee can enjoy a 10-day paternity leave if his wife is 23 or older.</p>
		Parental Leave	<p>There is no provision in the law on paid or unpaid parental leave. Flexible Work</p>
		Flexible Work Option for Parents / Work-Life Balance	<p>No provisions could be located in the law supporting work-life balance for parents or workers with family responsibilities.</p>
6	Health and Safety at Workplace	Employer cares	<p>Employers are required to establish and strengthen the system for occupational safety and health, strictly implement the rules and standards of the State on occupational safety and health, educate labourers on occupational safety and health, prevent accidents in the process of work, and reduce occupational hazards.</p>

			<p>Employers are required to ensure worker safety by establishing a sound work safety responsibility system and improving working conditions.</p> <p>It is obligatory for an employer to create - a sound work safety responsibility system of the business entity;</p> <p>organize the formulation of rules and operating procedures for work safety of the business entity;</p> <p>ensuring effective input for work safety of the business entity;</p> <p>overseeing and inspecting work safety of the business entity to eliminate work safety risks in a timely manner;</p> <p>organizing the preparation and implementation of the emergency rescue plans for work safety accidents;</p> <p>reporting work safety accidents in a timely and truthful manner.</p> <p>The establishments producing, marketing or storing hazardous substances must establish a work safety management body or have full-time work safety management personnel.</p> <p>The employers must study and understand the safety technical features of any new technique, technology, material or equipment, adopt effective safety protection measures and provide special education and training to the workers on work safety.</p> <p>It is the duty of the employer to set conspicuous signs on business premises and relevant facilities and equipment with greater risk factors.</p> <p>Safety equipment must be designed, manufactured, installed, used, tested, maintained, renovated and retired in accordance with national or industry standards.</p> <p>Routine maintenance and regular testing of equipments is also mandatory.</p> <p>Techniques and equipments that seriously threaten work safety must be eliminated.</p> <p>Workers must also abide by the Health and safety regulations at workplace.</p> <p>They have the right to refuse such work that is unsafe and contrary to the health and safety regulations.</p>
7	Right to strike	Right to strike	Right to strike is not provided under the law.
8	Maternity Provisions	Free Medical Care	<p>Medical Benefits are provided under a national maternity insurance fund.</p> <p>A Basic Medical Insurance Fund (used for maternity allowance and medical fees) has also been established which covers only the urban workers.</p> <p>The maternal and child health law requires that the State should provide access to medical and health care services to mothers and infants.</p> <p>These services should also be available to childbearing, pregnant and lying-in (post-natal) women.</p>

		No Harmful Work	<p>Labour Law, 1994 prohibits employment of pregnant workers or those nursing their children (of less than one year of age) to work with Grade III physical labour intensity as stipulated by the State.</p> <p>Overtime and night shifts are also prohibited to pregnant workers (with seven months of pregnancy) and women workers breastfeeding their children (under the age of 1 year).</p> <p>In case, these women workers are unable to do their original work, lighter or other work should be assigned to them according to the medical certification.</p>
		Maternity Leave	<p>Female employees are entitled to 98 days of maternity leave including 15 days of prenatal leave.</p> <p>Maternity leave may be extended by fifteen days under special circumstances such as dystocia/difficult birth, multiple births (15 days leave for each additional infant) and miscarriage that occurred in the first 4 months of pregnancy.</p> <p>This leave is 42 days if miscarriage occurred after the first 4 months.</p> <p>In addition, a Chinese female employee who gives birth to her first child at age 24 or older is regarded as a case of 'late childbirth,' and thereby will be entitled to an additional 'late maternity leave' of roughly 30 days.</p>
		Income	<p>According to Labour Law, 1994, female workers are entitled to maternity leave with full pay.</p> <p>Generally, a registered female employee is paid by the Social Security Bureau.</p>
		Protection from Dismissals	<p>A women worker can't be dismissed during the period of her pregnancy, child-birth and breast-feeding periods. If a worker gets pregnant during the term of her fixed-term contract, and the contract ends during the pregnancy, the contract is automatically extended (through a renewed end date or a second contract) until the end of the breast-feeding period.</p>
		Right to return to same position	<p>There is no express provision on the right to return to same position.</p> <p>A women worker can't be dismissed during the term of her maternity leave.</p>
		Breastfeeding	<p>Female workers are entitled to two paid nursing breaks, each of 30-minute duration, for new mothers to breastfeed their children until a child is twelve (12) months old.</p> <p>The breast-feeding/nursing breaks are in addition to the normal breaks an employee receives during the working day.</p> <p>Additional 30-minute break is provided for each additional infant to be nursed.</p> <p>If quite many females are employed in a unit, clinics for female employees, rest-rooms for pregnant workers, nursing rooms, nurseries and kindergartens have to be</p>

			established.
		Free protection	Employers are required to provide their workers with labor protection products (protective clothing/gear) meeting the national or industry standards and supervise and educate their employees on wearing or using such products in accordance with the rules of use. These products are free of cost for the workers and employers have to arrange funds for these protection products. An employer may be fined for not providing labour protection products meeting national or industry standards.
9	Safety Provisions & training	Training	Employers must ensure that their workers have necessary work safety knowledge, are familiar with the relevant work safety rules and operating procedures and possess safe operation skills for their respective posts by providing them education and training in the work safety.. If a worker fails to pass the qualifications test after getting this training, he/she won't be assigned to work. Before using new machines, technology and techniques, employers provide special education & training on work safety to their workers. Workers must receive education and training on work safety, possess work safety knowledge necessary for their jobs, improve their work safety skills, and enhance their capabilities of preventing accidents and handling emergencies. An employer may be fined for not conducting necessary education and training on health and safety at work for its workers.
		Labour Inspection System	Ministry of Labour's circular (1994) provides for a vibrant labour inspection system however it is not in line with the requirements of ILO Convention 081. The administrative departments of labour under the People's governments at or above the county level, in accordance with the law, supervise and inspect the implementation of laws, rules and regulations on labour by the employing unit, and have the power to stop any acts that run counter to laws, rules and regulations on labour and order the rectification thereof. The inspectors from the administrative departments of labour have the right to enter into the employing units to make investigations about the implementation of laws, rules and regulations on labour, consult the necessary data and interview anyone. The labour inspectors can make correction on the spot or may require correction within a specified time limit of violations of law on work safety discovered in the inspection; and for acts subject to administrative punishment in accordance with law, making decisions to impose administrative punishment in accordance with the Law and other relevant laws and administrative regulations. The inspector may order immediate

			<p>elimination of accident risks discovered in the inspection; ordering evacuation of workers from dangerous areas and ordering suspension of production or business or suspension of use if safety cannot be guaranteed before or during the elimination of major accident risks and allowing resumption of production or business or use upon examination after elimination of major accident risks. The inspector may also seize or impound facilities, equipment and devices which do not meet the national or industry standards for work safety protection as determined based on evidence, and making a decision on the handling of the case within 15 days in accordance with law. The inspectors must produce their papers while performing public duties, enforce laws impartially, and abide by the relevant regulations. They must keep a written record of an inspection, including the time, place and contents of the inspection, the problems discovered in the inspection and the handling of such problems,</p> <p>which are signed by the inspectors and the persons in charge of the inspected entity. If the persons in charge of the inspected entity refuse to sign, the inspectors record it and report it to the departments responsible for work safety supervision and administration. The employer and its associates must cooperate with the inspector, conduct joint inspection if possible and take timely action if any safety problem comes up.</p>
10	Sickness & Employment Injury Benefits	Income/Paid Sick Leave	<p>Regulations on Medical Treatment partially regulate leave for non-work-related illness or injury. The duration of an employer-approved medical treatment period/paid sick leave ranges from 3 to 24 months, depending on the worker's total years of work experience and his/her length of service with the current employer. The specific provisions for paid sick leave are as follows: (1) If the length of actual total service is less than 10 years: (i) 3 months of medical treatment/paid sick leave for those who have worked for less than 5 years; (ii) 6 months for those worked for 5 years or more (2) If the length of actual service is 10 years or more: (i) 6 months of medical treatment for those with less than 5 years of service; (ii) 9 months for those with more than 5 years but less than 10 years of service; (iii) 12 months for those with more than 10 years but less than 15 years of service; (iv) 18 months for those with more than 15 years but less than 20 years of service; and (v) 24 months for those with 20 years or longer years of service. Sickness benefit ranges from 60% to 100% of the insured worker's last monthly wage up to six months each year. After the first 6 months, sickness benefit is 40-60% of an insured worker's last</p>

			monthly wage until the worker recovers or is assessed with a permanent disability.
		Job security	Employment of a worker is secure during the paid sick leave. A sick worker may be fired only if he/she is unable to take up his original work or the new work arranged by the employer after the completion of his medical treatment for illness or non-occupational injury.
		Free Medical Care	Insured workers receive medical benefits at an accredited hospital or clinic on a fee-for-service basis. Medical benefits for dependents are not provided.
		Disability/Work Injury Benefit	Work injuries are divided into four categories: (i) permanent total incapacity (ii) permanent partial incapacity (iii) temporary incapacity and (iv) fatal injury leading to death of a worker. In the case of permanent incapacity/disability, benefit is awarded according to 10 different degrees of assessed disability. For the total permanent disability (1-4 degrees), a lump-sum of 27 months of insured workers' previous wage plus a monthly pension of 90% of previous average wage (1st degree), 25 months of wage plus 85% monthly pension (2nd degree), 23 months of wage plus 80% monthly pension (3rd degree), 21 months of wage plus 75% monthly pension (4th degree) is paid. In case of moderate permanent disability (degrees 5-6), a lump sum of 18 months of wages (5th degree) or 16 months of wages (6th degree) is paid. If the employer cannot offer the insured an appropriate job, a monthly benefit of 70% (5th degree) or 60% (6th degree) of the insured's wage before the disability began is paid. On the other hand, for the minor permanent disability (7-10 degrees), a lump sum of 13 months of wages (7th degree), 11 months of wages (8th degree), nine months of wages (9th degree), 7 months of wages (10th degree) is paid as permanent disability benefit. In the case of temporary disability, 100% of an insured worker's monthly salary is paid for 12 months. This can be extended to a maximum of 24 months in special cases. In the case of fatal injury, dependents (widow/widower, children, parents, grandparents/children, brothers and sisters) receive survivors' pension. 40% of the deceased worker's last monthly wage is paid to the widow(er) while 30% is paid to each additional dependent. Law also provides for death allowance (a lump sum of 20 times the national urban per capita disposable income) and funeral grant (a lump-sum of six months of local average wage). Total survivors' benefits can't exceed a deceased worker's last monthly wage.
11	Social Security	Pension Rights	Social Insurance Law provides for both full and early pension. For full pension, a worker must have attained 60 years of age (same for professional women, age 55 for non-professional salaried women), or age 50 (other

			<p>categories of women) with at least 15 years of contributions. For early pension, a worker must have attained age of 50 years (45 years for women) with at least 10 years of contributions and assessed with total disability. For workers employed in arduous or unhealthy work, a worker must have attained age 55 (men) or age 45 (women) with at least 15 years of coverage for full pension and eight to 10 years of continuous coverage for early pension. Full pension is the average local wage in the previous year plus the average individual monthly wage used to calculate contributions, divided by two. The amount is then multiplied by 1% for each year of contributions. Early pension is based on the average local wage in the previous year, the average individual monthly wage used to calculate contributions, and the number of years of contributions. The minimum pension is 40-60% of the average local wage.</p>
		<p>Dependent's/Survivors' Benefit</p>	<p>Social Insurance Law provides for survivor Pension (these include dependents including widow, widower, children and parents). Survivors' benefits is payable as the lump sum of 6 to 12 months of the deceased worker's last monthly wage according to the number of surviving dependents. Funeral grant is paid as a lump sum of two months of the average local wage in the previous year. When an immediate family member who was dependent on the insured worker dies, 33% to 50% of the monthly average local or enterprise wage in the previous year is paid, depending on the age of the deceased.</p>
		<p>Unemployment Benefit</p>	<p>In accordance with the Social Insurance Law, workers are entitled to unemployment benefits depending upon the length of coverage/contributions paid by the worker and employer provided that the worker has at least one year of covered employment. The benefit is paid for up to one year with less than five years of coverage, for up to 1.5 years (18 months) with at least five but less than 10 years of coverage, and up to two years with 10 or more years of coverage. Workers should apply for this benefit within 60 days of unemployment. The unemployment benefit is lower than the local minimum wage.</p>
		<p>Invalidity Benefit</p>	<p>In accordance with the Social Insurance Law, workers are entitled to unemployment benefits depending upon the length of coverage/contributions paid by the worker and employer provided that the worker has at least one year of covered employment. The benefit is paid for up to one year with less than five years of coverage, for up to 1.5 years (18 months) with at least five but less than 10 years of coverage, and up to two years with 10 or more years of coverage. Workers should apply for this</p>

			benefit within 60 days of unemployment. The unemployment benefit is lower than the local minimum wage.
12	Fair Treatment at Work	Equal pay	The constitution of the People's Republic of China recognizes the principle of equal pay for equal amount of work. Labour Law, 1994 also requires employers to follow the equal pay for equal work principle. The Protection of Rights & Interests of Women Law amended in 2005 requires that equal pay for equal work has to be applied to men and women alike. Women have to enjoy equal rights in receiving welfare benefits.
		Sexual Harassment at Workplace	The Protection of Rights & Interests of Women Law amended in 2005 prohibits sexual harassment and the victim is entitled to complain to her employer and the relevant government bodies as well as bringing a civil suit in a court of law against the perpetrator. Special Provisions on Labor Protection for Female Employees, 2012 require employers to prevent and stop sexual harassment of female employees.
		Non-discrimination	In accordance with the Chinese Constitution, all Chinese citizens are equal before law. Discrimination is prohibited on the grounds of ethnic community, race, sex, religious belief as well as disability. Prohibited grounds for dismissing workers are: marital status; pregnancy; maternity leave; temporary work injury or illness; race; sex; religion; nationality/national origin; age; trade union membership and activities; disabilities; ethnic origin. Labour law also prohibits discrimination in employment on the basis of ethnic group, race, sex, or religious belief. Women enjoy equal rights with men with regard to work and social security.
		Equal treatment of women at work	Women cannot work in the same industries as men as it is prohibited to arrange female workers to engage in work down the pit of mines, or work with Grade IV physical labour intensity as stipulated by the State, or other work that female workers should avoid. Similar provisions are made part of the Special Provisions on Labor Protection for Female Employees, 2012.
13	Minors and Youth	Minimum Age of Employment	Minimum age for employment is 16 years and no employing unit is allowed to hire worker workers under the age of 16 years. Institutions that recruit minors under the age of 16 must go through the formalities of examination and approval in accordance with the relevant provisions of the State and guarantee their right to compulsory education. These include institution of literature and art, physical culture, and special arts and crafts. On illegal hiring of minors under the age of 16, the administrative department of labour orders to make corrections and imposes a fine thereon. If the circumstances are serious, the administrative department for

			industry and commerce shall revoke its business license.
		Minimum Age for Hazardous Work	Minimum Age for Hazardous Work is set as 18 years and juvenile workers (between the age of 16 to 18 years) may not be engaged to work in the mines, work with Grade IV physical labour intensity, poisonous & harmful work and any other work that they should avoid. The employer must provide regular physical examination to juvenile workers.
14	Forced/Bonded Labour	Prohibition on Forced and Compulsory labour	Forced Labour is prohibited under the Labour Law and Employment Contract Law. If an employing unit compels workers to do work by means of violence, intimidation or illegal restriction of personal freedom; or humiliate, impose corporal punishment upon, beat, illegally search, or detain labourers; or cause serious physical or mental injury to laborers due to poor quality working conditions or a seriously polluted working environment, the responsible persons in the employment unit can be punished by the public security organ with a detention of 15 days or less, or a fine, or a warning; and where the case constitutes a crime, persons who are held responsible are investigated for criminal responsibility according to law.
		Freedom to change jobs and Right to quit	Workers have the right to change jobs after serving due notice on their employer. For more information on this, please refer to the section on employment security.
		Inhumane working Conditions	Working time may be extended beyond normal working hours of forty four hours per week and eight hours a day. Total hours of work inclusive of overtime must not exceed 9-11 hours per day for workers hired in work of intermittent nature. However, overtime hours must not exceed 36 hours per month.

Exhibit 18 – Labor Law, China

Sl. No	Labor Law – Categories	Sub Categories	Sri Lanka
1	Work and Wages	Minimum Wage	\$61 - \$77 per month
		Regular Pay	<p>Wage period cannot exceed one month.</p> <p>The Wage Board Ordinance and the Shop & Office Act require payment of wages at the following intervals:</p> <ul style="list-style-type: none"> - Wage period < 1 Week - Within 3 days of the end of wage period - Wage period < 2 Week - Within 5 days of the end of wage period Wage period 2-4 Week - Within 10 days of the end of wage period <p>Fines cannot amount to more than 5% of the total salary, approval of the Commissioner is needed if the amount is higher.</p>
2	Compensation	Overtime Compensation	<p>Normal working hours are 8 hrs/day and 45 hrs/week. Overtime pay that is 150% of the normal hourly wage rate.</p> <p>The overtime hours in a week cannot exceed 12 hours.</p>
		Night Work Compensation	There is no premium payment for night work.
		Compensatory Holidays/rest days	<p>No provision in laws to provide compensatory rest day for working on weekly rest day.</p> <p>If a worker works on a public holiday, has to be allowed a holiday with full pay on or before 31st Dec.</p>
		Weekend/Public Holiday Work Compensation	Employees may be required to work on weekend/public holidays. If workers have to work on a public holiday, they are entitled to 200% of the normal rate of wages.
3	Annual Leave and Working on Holidays	Paid Vacation/Annual Leave	<p>From the second year onward, an employee is entitled to 14 days of paid annual leave, after completion of 12 months of continuous service. For the first year, an employee would have following annual leave, depending upon the time of commencement of his employment:</p> <ul style="list-style-type: none"> - 14 days if the employment commences on or after the first day of January but before the first day of April; - 10 days if the employment commences on or after the first day of April but before the first day of July; - 7 days if the employment commences on or after the first day of July but before the first day of October; and - 4 days if the employment commences on or after the first day of October. <p>A worker is required to take his annual leave within twelve months. It may be split but minimum duration cannot be less than 07 days.</p> <p>If the employment contract expires before a worker could acquire annual leave, the employee is entitled to the annual leave earned in respect of the previous year plus the days earned during the year of termination.</p>
		Pay on Public Holidays	Workers are entitled to paid Festival (public and religious) holidays (usually 16 in number). In addition law provides for Full Moon Poya Day and 8 other public

			holidays.
		Weekly Rest Day	Workers are entitled to at least 1 1/2 day of rest/week if worked for more than 28 hrs, exclusive of overtime. Weekly rest day is not specified in the Act. The rest day can be postponed and taken in 5-weekly blocks, if the Commissioner is satisfied.
4	Employment Security	Written Employment Particulars	Employer to furnish the employment contract and signed by the employer. In absence of written employment contract, the terms and conditions of employment would need to be ascertained from the oral agreement; the common law; any applicable statutory provisions; customs or usage and practices in the workplace; and any Collective Agreement or decisions of Labour Tribunals.
		Fixed Term Contracts	Sri Lankan labour Law allows hiring fixed term contract workers for tasks of permanent nature. The Law does talk about temporary employees and specifies that these are employed "temporarily by an employer to perform work of a temporary nature on not more than 180 days in any year in the aggregate.
		Probation Period	There is no clear provision in labour laws on the duration of probation period. Generally, probation period is six months. The Shop and Office Employees Act requires the employer to clearly mention the period of probation, conditions governing such probation and circumstances under which the employment contract may be terminated during probation. Employment of Trainees (Private sector) Act No. 8 of 1978 provides that employers and workers may enter a contract of training for up to maximum one year. At the end of the training period, unless for disciplinary reasons or for failure to attain satisfactory competencies in the vocation chosen, the Employer should provide employment to the trainee or in the alternative find him a suitable employment.
		Notice Requirements	The contract of employment can be terminated by the employer on - disciplinary grounds; or non-disciplinary grounds; or - death or operation of law, (this category would include termination of the contract of employment due to factors such as frustration of contract and impossibility of performance); or - an act of the employee such as resignation, vacation of post or abandonment of employment. In case of fixed term contract, it would terminate by reaching the term of fixed period, as specified under the contract. However, cases where written approval is not required, include voluntary resignations by employees; retirements on the date clearly specified in the letter of appointment; retirements according to a provision of a collective agreement; termination by reaching the end

			<p>of the fixed term; termination by operation of law. The law equires termination notice at least one month before terminating services of an employee. A worker is eligible for this one month notice only after one year of service.</p>
		Severance Pay	<p>Workers who have completed five years of service with an employer employing fifteen or more workmen, are entitled to gratuity at following rates in the event of termination of the services:</p> <ol style="list-style-type: none"> 1. Half a month's wages or salary for each completed year of service for monthly rated workmen; and 2. 14 days salary for each year of completed service for other workmen. This amount is payable in every circumstances whatever the reason for termination may be and may only be withheld in certain narrowly defined instances.
5	Family Responsibilities	Paternity Leave	There is no provision for paternity leave in the labour & employment laws of Sri Lanka.
		Parental Leave	There is no provision in the law on paid or unpaid parental leave
		Flexible Work Option for Parents / Work-Life Balance	No provisions could be located in the law supporting work-life balance for parents or workers with family responsibilities.
6	Health and Safety at Workplace	Employer cares	<p>Employer to ensure health, safety and welfare of persons at workplace.</p> <p>The establishment should be monitored to check the - quality of the premises; cleanliness; overcrowding; maintain reasonable temperature; ventilation; lighting; drainage of floors and sanitary convenience. Safety of the worker must be ensured by installing and maintaining the machinery, mechanisms, transmission apparatus, tools, equipment and machines in best possible safety conditions.</p> <p>Tools, equipment, machines, or products used must be organized properly guaranteeing the safety of workers. Safety conditions of an establishment should also be monitored regarding risks of-falling; moving heavy objects; protection from dangerous machines and apparatus; preventive measures to be taken for work in confined areas or for work done in an isolated environment; risks of liquids spilling and fire prevention. Factories Ordinance further contain provisions which specifically call for the employers to put in place all practicable measures to protect the persons employed against inhalation of the dust, fume or other impurity. Specific conditions for the usage of internal combustions engines are dictated such as - the need to conduct the exhaust of gases from the engine into the open air; to partition the rooms so that any injurious fumes not pass to other area.</p>
7	Right to strike	Right to strike	Sri Lankan law does not explicitly recognize the right to

			<p>strike however since the Trade Union Ordinance defines what the strike action involves and also prohibits the strike in essential services (, it can be implicitly assumed that strike action in enterprises other than essential services is legal and allowed by law if an employer is informed at least 21 days prior to the commencement of the strike in a prescribed manner and form. Compulsory recourse to arbitration and long list of so-called essential services actually restrict the right to strike. The Trade Unions Ordinance and the Industrial Dispute Act defines strike as the cessation of work by a body of persons employed in any trade or industry acting in combination, or a concerted refusal, or a refusal under a common understanding of any number of persons who are, or have been so employed, to continue to work or to accept employment. Industrial Dispute is any dispute or difference between employers and workmen or between workmen and workmen connected with the employment or non-employment, or the terms of employment, or with the conditions of labour, of any person.</p>
8	Maternity at Work	Free Medical Care	The medical care is available to all free of charge.
		No Harmful Work	<p>Pregnant workers (covered under the Maternity Benefits Ordinance, 1939 or the Shop and Office Employees Act, 1954) must not be employed in any such work that may be injurious to her or her child's health during the three months before the expected date of confinement.</p> <p>Similar prohibitions are enacted for employment in injurious work in three month after child birth.</p>
		Maternity Leave	<p>The duration of maternity leave is 12 weeks (2 weeks before confinement and 10 after confinement) excluding weekly holidays, Poya days and statutory holidays.</p> <p>For the third and subsequent confinement, duration of maternity leave is 42 days excluding weekly holidays, Poya days and statutory holidays. There is no provision in law regarding extension of maternity leave in case of complications or sickness due to confinement or in case of multiple births.</p>
		Income	<p>Maternity Leave under the Shop and Office Employees Act is fully paid.</p> <p>Maternity Leave under the Maternity Benefits Ordinance, 6/7th (86%) of a worker's wages are paid for the period.</p> <p>Maternity benefits are provided to a woman who has worked at least one hundred and fifty days within the period of one year, under the employer.</p>
		Protection from Dismissals	An employer can't dismiss a female employee due to her pregnancy or any other reason connected with her pregnancy in all aspects of employment.

		Right to return to same position	A woman cannot be served a notice of dismissal during her maternity leave. It gives workers the right to return to job, however, not necessarily to same position.
		Breastfeeding	2 paid break, each of at least 30-minute duration during nine hours of working day, till the child is one year old. Employer should provide nursing facilities to the workers for nursing their children. The duration of each nursing break is 30 minutes if a creche or other suitable place is provided by the employer; otherwise it would not be less than one hour. Nursing breaks are provided in addition to the meal or rest break provided and they are regarded as time worked.
9	Safety Provisions & training	Free protection	Different provisions under the Factories Ordinance, 1942 require the employer to provide free protective equipment (breathing apparatus, eye protection glasses, exhaust appliances) to the worker whose work involves exposure to wet or injurious substances.
		Training	The Factories Ordinance requires that no young worker (under the age of 18 years) is allowed to work on a machine unless he has been fully instructed about the dangers involved in operating the machine, has received sufficient training in that regard and is working under supervision of an experienced and knowledgeable worker.
		Labour Inspection System	Labour Inspection system seems quite in line with the provisions of C081 as Sri Lanka became the first South Asian country to launch the Labour Inspection System Application. The system allows the Labour Ministry to better coordinate its labour administration institutions in country's 56 labour department offices. The Industrial Safety Division works under the Department of Labour to ensure safety, health and welfare of workers at the workplace by registering factories and conducting routine inspections. Labour Inspection system is provided under various sections of Factories Ordinance. The inspector has the power to enter the work premises; take samples for investigation; carry out investigations on accidents or dangerous occurrences; and issue improvement or prohibition notices until elimination of risk or its reduction to a suitable level.
10	Sickness & Employment Injury Benefits	Income/Paid Sick Leave	In accordance with the Shop and Office Act, every worker certified by a medical practitioner is entitled to a paid sick leave (sickness benefit) for a period of 07 days (in a 12 month period) for private business, ill-health or any other reasonable cause. These are generally known as casual leave. Casual leave is normally availed from one-half day to one or more days at a time. This does not include a case of prolonged ill health. The Employment of Trainees (Private Sector) Act contains specific provision for medical leave due to ill health. A

			<p>trainee is entitled to seven days of sick leave with full allowances payable to him, for a period, or aggregate of periods, if the application for leave is supported by a medical certificate issued by a registered medical practitioner.</p>
		Job security	Employment of a worker is secure during the period of his/her sick leave of 07 days.
		Free Medical Care	Medical benefits are available for all citizens free of charge.
		Disability/Work Injury Benefit	<p>Work injuries are divided into four categories: (i) permanent total incapacity (ii) permanent partial incapacity (iii) temporary incapacity and (iv) fatal injury leading to death of a worker. The compensation to the injury depends on a worker's wages. Work injury benefits are provided to the worker with at least 06 months of employment and the minimum qualifying period for a temporary disability is 03 days. In the case of permanent total incapacity/disability, amount of compensation is paid as a lump sum according to the wage category of a worker. The minimum permanent disability benefit is 196,083.80 rupees while the maximum disability benefit is 550,000 rupees. In the case of permanent partial disability, amount of compensation depends on the assessed degree of disability. In the case of temporary disability, 50% of the wages are paid for up to five years. After six months, benefit can be paid as lump sum. Minimum temporary disablement benefit is Rs. 1,320 while the maximum benefit is Rs. 5,500. In the case of fatal injury, dependents (widow, children, widowed mother) receive survivors' benefit as a lump sum amount in accordance with the wage class/category of a worker. The minimum survivors' benefit is Rs. 196,083.80 while the maximum survivors' benefit is Rs. 550,000. The funeral cost is deducted from the survivors' benefit and is paid to the person who incurred such expenses. It can't be greater than:</p> <p>i. Rs. 10,000 if the compensation does not exceed Rs. 200,000; ii. Rs. 15,000 if the compensation does not exceed Rs. 300,000 iii. Rs. 20,000 if the compensation does not exceed Rs. 500,000</p>
11	Social Security	Pension Rights	Insured workers are eligible for old age benefit (pension) when they reach the age of 55 years (50 years for women workers), or when they retire from the covered employment and join public service, on the marriage of an employed women, on emigrating from Sri Lanka permanently, on permanent disability or on the closure of a workplace by government orders. The required contribution by dividend is at least 10 years.

			The amount of old-age benefit is a lump sum of employee and employer contributions plus interest. Dividend benefit is 1,000 rupees per year.
		Dependent's/Survivors' Benefit	The laws provide survivor benefit to nominee or legal heirs if the fund member dies before retirement. The benefit is paid to one or more eligible survivors as a lump sum of the total employee and employer contributions plus interest.
		Unemployment Benefit	No provision in law for unemployment insurance and benefits.
		Invalidity Benefit	The Employees' Trust Fund Act, 1980 provides for invalidity benefit in the case of non-occupational accident/injury/disease resulting into permanent invalidity. The benefit is paid as a lump sum of the total employee and employer contributions plus interest. The worker must be assessed with a permanent and total incapacity for work.
12	Fair Treatment at Work	Equal pay	In accordance with the Constitution of Sri Lanka, all persons are equal before the law and entitled to equal protections of the law. It also prohibits discrimination on the ground of sex besides many other grounds. However, neither in Constitution nor in Labour Laws, we find a provision requiring equal pay for work of equal value.
		Sexual Harassment at Workplace	In accordance with the Sri Lankan Penal Code, unwelcome sexual advances by a person of authority in a working place are considered sexual harassment. The perpetrator of harassment may be punished either with imprisonment up to a term of five years, or with fine, or both. He/she may also be ordered by the court to pay an amount, as determined by the court, to the victim of harassment for injuries.
		Non-discrimination	In accordance with the Constitution, there cannot be any discrimination on the grounds of race, religion, language, caste, sex, political opinion, place of birth or any one of such grounds. There is no special provision in constitution or labour laws to prevent discrimination in employment related matters. Laws also prohibit discrimination against disabled persons in matters of employment as well as workers involved in union activities.
		Equal treatment of women at work	In accordance with the Sri Lankan Constitution, Every citizen is entitled to the freedom to engage by himself or in association with others in any lawful occupation, profession, trade, business or enterprise. However, certain labour law prohibit employment of women in the same industries as men (especially mining sector).
13	Minors and Youth	Minimum Age of Employment	In accordance with provisions of Employment of Women, Young Persons and Children' Act, a child is a person under the age of 14 years. The Act prohibits

			<p>employment of children except in those circumstances provided under the Act. Section 10 of Shop and Office Employees Act also prohibits employment of children under the age of 14 years. According to the Factories Ordinance, normal working hours for workers between 16-18 years should not be more than 12 hours per day. They are not allowed to work between 6 p.m. to 6 a.m. The maximum number of working hours, including overtime, is 60 hours per week. The Mines and Minerals Law no. 4 of 1973 prohibits young person less than 16 years of age from working underground in any mine. Young workers between 16 to 18 years of age are permitted to work in a mine if they meet the conditions of fitness and criteria listed in the Hazardous Occupations Regulations 2010 issued by the Ministry of Labor. The Shop & Office Employees Act prohibits the employment of children under the age of 14 years in a shop or office. The Act further states that male children, between the ages of 14 and 18 years, cannot be employed before 6 a.m. or after 6 p.m. except in certain specified types of employment. The penalty for violation of the Employment of Women, Young Persons and Children' (EWYP&C) Act depends on the offence committed. The fines imposed range from Rs. 5,000 to Rs. 10,000 and imprisonment of at least 12 months or both fine and imprisonment in certain circumstances.</p>
		Minimum Age for Hazardous Work	<p>Employment of young persons under the age of 18 years is prohibited. Government has also issued a list of hazardous occupations/activities where employment of young person is prohibited. Employment of young person is also prohibited at night. The Government has a hazardous work activities list that includes the 51 occupations and/or working conditions in which employing children under the age of 18 years is prohibited. These include slaughtering of animals; manufacture or use of pesticides; production, transport or sale of alcohol; work in liquor bar or casino; manufacturing, transport or sale of explosives; fishing in deep waters; mining or underground work; transportation of passengers or heavy goods; diving; and working at night between 08 p.m. and 06 a.m.</p>
14	Forced/Bonded Labour	Prohibition on Forced and Compulsory labour	<p>Forced or compulsory labour is prohibited in the Constitution. The Penal Code also prohibits forced or compulsory labour and considers it a punishable offense. A person who contravenes the provisions of this section commits an offence and shall, on conviction be liable to imprisonment of not more than 20 years or a fine. However, if a child is involved in forced labour, the perpetrator is liable to either imprisonment of a term not exceeding 30 years and a fine.</p>
		Freedom to change	Workers have the right to change jobs after serving due

		jobs and Right to quit	notice on their employer. For more information on this, please refer to the section on employment security.
		Inhumane working Conditions	Working time may be extended beyond normal working hours of forty five hours per week and eight hours a day. The Factories Ordinance states that the normal working hours must not exceed 09 hours per day, inclusive of intervals allowed for meals and rest.

Exhibit 19 – Labor Law, Sri Lanka

Sl. No	Labor Law - Categories	Sub Categories	Vietnam
1	Work and Wages	Minimum Wage	\$107 - \$156 per month
		Regular Pay	<p>Wages period cannot exceed one month and if exceeded liable to interest.</p> <p>As per Labour Code, an employer must pay workers</p> <ul style="list-style-type: none"> - once in 15 days to employee who work on hourly/weekly/daily basis - Once a month or fortnight to monthly employee; - as agreed upon between the parties piece rate system. <p>The employer can deduct salary for the compensation of equipment damages (< 30% of Salary)</p>
2	Compensation	Overtime Compensation	<p>Working hours cannot exceed 8 hrs/day or 48 hrs/week. Maximum of 300 hrs of overtime/year. The compensation for working overtime is:</p> <ul style="list-style-type: none"> - atleast 150% on weekdays; atleast 200% on weekly days-off; atleast 300% on holidays.
		Night Work Compensation	<p>Night is the period from 8 PM to 6 AM. Night work is paid at the premium of 130%. If employees have to work overtime at night, they get their wages for these hours according to :</p> <ul style="list-style-type: none"> - (130% * 150%) + 20% of the wage on regular working days; (130% * 200%) + 20% of the wage on weekly rest days; (130% * 300%) + 20% of the wage for working on public holidays and days of paid leave (annual leave).
		Compensatory Holidays/rest days	To pay the worker the difference between the normal time rate and overtime penalty rate for the overtime worked (i.e. 50%, 100 or 200% of the worker's normal time rate). When compensatory rest periods are not available, overtime has to be paid.
		Weekend/Public Holiday Work Compensation	Work on weekly rest day is compensated with a premium rate of 200% of normal rate of pay while work on public holidays is compensated with a premium rate of 300% of normal rate of pay.
3	Annual Leave and Working on Holidays	Paid Vacation/Annual Leave	<p>After 12 months of working, entitled to 12 working days (normal condition); 14 working days (heavy or dangerous work); and 16 working days (extremely heavy or hazardous work).</p> <p>The 14-day annual leave is applicable to workers under 18 years and workers with disabilities.</p> <p>Workers are entitled to 1 additional day of annual leave for every 5 years of service in same enterprise. Annual leave for workers who worked for less than one year is calculated on the pro-rata basis.</p> <p>Before commencement of annual leave, workers to receive an advance payment which is equal to the salary for days of annual leave.</p> <p>If annual leave is planned by the employer but worker is voluntarily, will get full regular wages and pay for annual leave. If the employer does not plan annual leave or requests to work on these days, must pay at</p>

			300% of the normal wage rate. Workers working on time based/piece rate wages are entitled to 400% of the normal wage rate for working on days of annual leave. A worker is entitled to receive compensation in lieu of annual leave if unable to take annual leave.
		Pay on Public Holidays	Workers are entitled to 10 fully paid public holidays. If a public holiday falls on a regular weekly rest day, employees are entitled to a compensatory day-off on the following working day. Foreign employees, in addition to above are entitled to 2 days-off for traditional New Year and national day of their country.
		Weekly Rest Day	24 consecutive hrs (one day) of rest/week on Sunday or any other specified day. The weekly rest day must be clearly stated in internal regulations or the collective agreement. If employee can't take weekly off then he/she is entitled to at least 04 rest days per month on average.
4	Employment Security	Written Employment Particulars	Labour Code provides for both fixed/definite term and indefinite term contracts. Employment contract must be in writing except for temporary jobs of under 3-month duration.
		Fixed Term Contracts	<p>Labour Code provides for three types of employment contracts:</p> <p>Indefinite term contracts (where parties don't specify the term and expiry date of the contract);</p> <p>fixed term contracts (term is specified and expiry date is within 12 - 36 months); and</p> <p>Casual/temporary employment contracts (term of less than 12 months).</p> <p>If worker continues to work after the expiration of initial contract, both parties must sign a new employment contract within 30 days. If a new contract is not signed within this limit, a definite term contract turns into an indefinite term contract and a temporary contract with duration of less than 12 months becomes a 24-month definite term contract.</p> <p>The fixed term contracts and temporary employment contracts may be renewed only once.</p> <p>Maximum length of fixed term contracts including renewals is 72 months while maximum length of casual/temporary employment contracts is 24 months.</p> <p>If a worker is engaged for work on the expiry of these terms, the fixed term and casual/temporary contracts turn into an indefinite term contracts.</p> <p>An employer cannot engage a worker on temporary contract for a seasonal job of under 12 months for regular work that would normally require 12 months or more of work, except in the following cases:</p> <p>(i) the temporary substitution of employees called up for military service,</p> <p>(ii) the temporary substitution of employees taking</p>

			maternity leave, sick leave, occupational accident (injury leave) or other temporary leave.
		Probation Period	<p>Worker can be placed on probation only once for a position in an enterprise and cannot be extended. The maximum length for probationary periods is as following:</p> <p>60 days for work requiring technical college diploma or further education;</p> <p>30 days for work requiring a secondary school certificate, secondary professional qualification or specialized workers;</p> <p>and 6 working days for other types of work.</p> <p>No probationary period is contemplated for workers working on a temporary labour contract. Each party has the right to terminate the probationary contract without prior notice and compensation.</p>
		Notice Requirements	<p>An employment contract is terminated in the following cases:</p> <ul style="list-style-type: none"> - on expiry of contract term or completion of tasks stated in the contract; by agreement between parties; death of worker or employer; dismissal of worker; imprisonment of worker; unilateral termination of contract by worker or employer; reaching the retirement age; cessation of enterprise operations or termination of workers. <p>An employee can terminate employment in the following cases:</p> <ul style="list-style-type: none"> - if he/she is not assigned to the agreed occupation or workplace or are not provided with the working conditions as agreed to in the contract; not paid in full or within the time agreed, the wage stipulated in the employment contract; subjected to maltreatment, sexual harassment or coercive labour; inability to carry out contractual responsibilities due to personal or family difficulties; election or appointment to full time work in a public office or in the state apparatus; stoppage of work on doctor's recommendations (applicable to pregnant workers only); illness or work (or non-work) injury and inability of worker to resume work following treatment. <p>The notice period is 3 working days in the above mentioned first three cases and illness or injury of a worker.</p> <p>For definite term contracts, notice period is 30 days. In the case of indefinite term contracts the notice period is 45 days. In the case of unilateral termination of contract by a pregnant worker on the advice of a doctor, the notice period is determined by the doctor.</p> <p>An employer may also unilaterally terminate an employment contract in the following cases:</p> <ul style="list-style-type: none"> - failure on the part of the worker to fulfill the tasks

			<p>assigned by contract; non-recovery of an ill worker after 12 months of illness (for infinite term contracts), 6 months (for fixed term contracts), or more than half of the term for a temporary contract of less than 12 months duration; reduction in production and workforce in consequence of a natural calamity, fire or force majeure; failure of the employee to be present at the workplace after suspension of contract has ended. The required notice period (in case of contract termination by employer) is 3 working days in the event of prolonged illness (explained above) or temporary contracts of less than 12 months. The notice period is 30 working days for termination of definite term contracts and 45 days for indefinite term contracts. Employers, however, may refuse to renew an employment contract in cases where contract term has completed or has expired in such circumstances.</p>
		<p>Severance Pay</p>	<p>Severance allowance is paid (half month salary plus allowances for each year of service) in all cases of termination except for the case of disciplinary dismissal, retirement and unlawful termination by the worker. The employment loss allowance/redundancy pay (one month's salary for each year of service) is payable by the employer in case of employment termination due to structural or technical changes or for economic reasons, merger, acquisition, or separation. In case of redundancy, a worker is entitled to at least two months' salary as employment loss allowance. If it is proved that unilateral termination of employment contract by the employer was unfair, employer has to re-employ the worker under the employment contract and pay the salary, social insurance, medical insurance for the days the employee is banned from working plus the salary of at least 02 months. If the worker does not wish to be re-employed, employer must pay the severance allowance in addition to above-referred two months' salary. If the employer does not wish to re-employ the worker, worker and employer must agree on extra compensation besides two months' salary and severance pay as provided under the law. For violation of advance notice, employee must be paid compensation equivalent to his salary for the days for which advance notice was not provided. If an employee unlawfully terminates the employment contract, he/she is not eligible for severance allowance. He/she is entitled to half monthly salary and is required to reimburse the cost of training (if any), and pay compensation for any days the notice was not given in case of not fulfilling prior notice requirements. Enterprises employing 10 or more workers contributing to employment insurance scheme don't have to pay severance allowance or</p>

			employment loss allowance for the period in which employee participated in the unemployment insurance scheme. The enterprises employing less than 10 employees still have to pay severance allowance or employment loss allowance.
5	Family Responsibilities	Paternity Leave	If mother and father both or either is covered under Social Insurance and mother dies during child birth, the father or any other person nursing the child is entitled to the maternity regime until the child is four months old. Male workers participating in social insurance are entitled to take paternity leave on the birth of a child: 05 working days for normal delivery; 07 working days in case Caesarean birth or delivery under 32 weeks of age; 10 working days in case of twins and an additional leave of 03 days for each child from the third child; 14 working days in case of having Caesarean birth for twins. The paternity leave must be taken within 30 days of the birth of a child.
		Parental Leave	No specific leave entitlements found in the law on parental leave.
		Flexible Work Option for Parents / Work-Life Balance	Labour Code does provide for shorter working hours if the parties reach an agreement on working less than the usual working hours in a day or week. The employee working shorter hours has the salary, rights and obligations similar to that of other full-time employees, and is entitled to equitable opportunities, labour safety and labour hygiene conditions without discrimination. It is part of the state policy to encourage employers to create conditions for female employee to work regularly and widely apply the flexible timetable working regime, working shorter hours and assigning work at home.
6	Health and Safety at Workplace	Employer cares	Employers to ensure that the working environment meets the required standards, improve the healthcare and working conditions of workers, and establish practices to minimize or eliminate safety and health related hazards. Employers must also ensure the safety and health of employees and the environment when building or renovating new facilities or when purchasing equipment that has strict OSH requirements. The employer has to ensure that the workplace meets the requirements of space, ventilation, dust, steam, toxic gas, radiation, electromagnetic field, heat, humidity, noise, vibration and other harmful elements specified in the relevant technical regulations and those factors must be tested and measured periodically. National standards on labour safety and hygiene to be published and applied. The employees also have certain obligations to ensure -

			<p>health and safety at the workplace which include, inter alia, compliance with the regulations, procedures and rules on the labour safety and hygiene related to the work and duties assigned;</p> <p>proper usage and maintenance of the personal protective equipment already provided;</p> <p>promptly report to the responsible person upon detecting the risk of occurrence of occupational accident and disease, toxic or dangerous incident;</p> <p>participate in emergency and remedying the consequence of occupational accident upon the employer's order.</p> <p>The employer must appoint a person to ensure the labour safety and hygiene at the workplace. For the production and business with the employment of 10 or more employees, the employer must appoint a person with relevant expertise to be in charge of the work of labour safety and hygiene.</p>
7	Right to strike	Right to strike	<p>Right to strike is recognized under the Labour Code, 2012. A strike is a temporary and voluntary cessation of work organized by the workers in order to resolve an interest-based labour dispute (dispute over issues that go beyond provisions of the labour law or a registered CBA). A strike must be led by the trade union executive committee if one has been established in the enterprise. If a trade union executive committee is not established, strikes are organized and led by the upper level trade union on the request of workers. A trade union is entitled to collect the members' opinion regarding a strike; organize and lead strikes; negotiate on disputed issues; withdraw a decision to hold strike; and request the Court to declare a strike as lawful. An employer is entitled to continue to negotiate on disputed issues or request mediation from the labour management authority; accept all or part of the demands made by the workers' collective but must inform the Trade Union executive committee in writing of the decision; temporarily close the workplace during a strike due to the lack of necessary operational capacity or to protect the enterprise's assets; and request the Court to declare that a strike is illegal. Labour Code prohibits certain acts by the workers/trade unions and employer during strike period. Employers are prohibited from obstructing employees in exercising their right to go on strike; terminating employment contracts, imposing labour disciplinary measures on employees or strike leaders, or transferring employees and strike leaders to other work or workplaces on the grounds of their preparation for, or involvement in, the strike; retaliating, inflicting punishment against employees who take part in a strike or against strike</p>

			<p>leaders; and taking advantage of the strike to commit illegal acts. Workers/trade union are prohibited from following acts during strike period: inciting, inducing or forcing employees to go on strike; preventing workers who do not take part in the strike from working; using violence, sabotaging machines, equipment or assets of the employer; and violating public order and security. Strikes in special state-defined industries that are supplying public products or services which are essential to the national economy, or could threaten national defence and security or public health and safety are unlawful. These include industries dealing with power production; oil and gas exploration and extraction; production and provision of gas; assurance of air safety and maritime safety; provision of telecommunication system infrastructure; postal services for state agencies only; provision of clean water, drainage and environmental hygiene in central-affiliated cities; and organizations directly serving for security and defense.</p>
8	Maternity provisions	Free Medical Care	<p>Costs of medical examination and treatment, function rehabilitation, regular pregnancy check-ups and birth giving are covered under Health Insurance Law. 100%, 95%, or 80% of the cost of primary services is paid, depending on the type of insured person and service.</p> <p>The beneficiaries usually have to pay 6% insurance premium on monthly salary for eligibility to health benefits.</p>
		No Harmful Work	<p>The employer is not permitted to use female employees to work at night, work overtime and take far business trip when she is in the 6th or 7th month of pregnancy or is nursing a child under 12 months.</p> <p>If female employees are involved in heavy work, they have to be moved to lighter work or their working hours must be reduced by 01 working hour every day from the 7th month of pregnancy.</p> <p>A 2011 circular gives a long list of 79 occupations in which employment of women (including pregnant as well as breastfeeding workers with children under 12 months of age) workers is prohibited.</p>
		Maternity Leave	<p>Female employees are entitled to 06 months' paid maternity leave with the condition that pre-natal leave period shall not exceed 02 months.</p> <p>For twins or more children, there is provision of 01 month additional leave per child.</p> <p>In the case of adoption, leave can be taken until the child is 4 months old (maximum leave for adoption is thus 4 months).</p> <p>A worker must fall under one of the following four cases for eligibility to maternity leave:</p>

			<p>pregnancy; giving birth to a child; adoption of an infant under 4 months of age; and taking of intra-uterus device or taking of sterilization measures.</p> <p>For pre-natal examination (during pregnancy), five days' leave is permitted.</p> <p>If the workplace is far from the medical institution or if the worker is having an ailment or her fetus is abnormal, the pregnant worker is entitled to 2 days off for each maternity check-up (10 days during pregnancy).</p> <p>In the case of miscarriage, abortion or stillbirth, 10-50 days' maternity leave is provided depending on the age of fetus.</p> <p>If a newborn child dies, the maternity leave allowed (after death of the child) is 90 days if the child is under 60 days of age or 30 days if the child is 60 days or older.</p> <p>If a woman worker is taking contraceptive measures, she is entitled to 7-15 days of leave depending on the kind of contraceptive measures.</p> <p>A woman worker is entitled to 5-15 days in a year for recovering or convalescence after confinement.</p>
		Income	<p>Maternity leave is a paid leave and workers are entitled to their full wages. The worker and employer are not required to pay social insurance premiums during the term of maternity leave.</p> <p>There is also provision for lump-sum allowance equivalent to 02 months of general minimum salary for each child. A female worker must have contributed to the social insurance scheme for at least 6 months for entitlement to maternity benefits. After giving birth to a child, female workers are entitled to maternity benefit for the following duration: four months for the female employee who works in normal conditions; five months for the female employee who works in hazardous occupation or on heavy duty job; six months for the disabled female employee with disability; 30 days extra for each child from the second onwards.</p> <p>In all other cases (pre-natal examinations during pregnancy, miscarriage or abortion, death of a new born, and in case of taking of contraceptive measures), the maternity benefit is paid by the social insurance agency on full salary.</p>
		Protection from Dismissals	<p>An employer is not entitled to dismiss or unilaterally terminate the employment contract of a female employee for the reason of marriage, pregnancy, maternity leave or nursing a child under 12 months.</p>
		Right to return to same position	<p>The female employee is guaranteed the old job upon returning to work after the end of maternity leave. If the old job no longer exists, the employer must</p>

			arrange another job for her with the salary rate not lower than the one she held before maternity leave.
		Breastfeeding	The female employee is guaranteed the old job upon returning to work after the end of maternity leave. In case, the old job no longer exists, the employer must arrange another job for her with the salary rate not lower than the one she held before maternity leave.
9	Safety Provisions & training	Free protection	Labour Code requires that workers engaged in potentially dangerous and/or harmful work must have sufficient protective clothing and protective devices. The personal protective equipment must meet the quality standards. Workers are required to use the PPE in accordance with the rules published by the Ministry of Labour - Invalids and Social Affairs. A MoLISA Decree guides the implementation of regulations on personal protective equipment. Specific Personal Protective Equipment for head, eye and face, hearing, respiration, hand, foot, body, and protective equipment's preventing falling from heights and preventing electric shock is provided by the employers. Workers who are in contact with following elements (or employed in following working conditions) must be provided PPE: contact with disadvantageous physical elements; contact with harmful chemicals and dust; contact with harmful biological elements and disadvantageous working environment (harmful virus, bacteria, harmful insects; polluted dung, water, garbage, sewage; other harmful biological elements); and working with machinery, equipment, working tools, or in positions with high risks of occupational accidents; working at heights, in mines, and low-oxygen places; working under water, in forest or working in other dangerous and harmful working conditions. Employer has to provide personal protective equipment to the worker free of cost and any act on the part of employer to pay cash in hand to employees instead of providing personal protective equipment or to pay cash in hand and let employees purchase personal protective equipment themselves is strictly prohibited. Employers are further required to instruct workers on smooth use of the adequate personal protective equipment and closely supervise its use. Employers have to provide facility for storage and maintenance of personal protective equipment according to the instructions of manufactures, or producer of such personal protective equipment.
		Training	The employer must organize training on labour safety and hygiene to the employees, trade apprentice, trainees upon recruitment and personnel arrangement (promotion, transfers); and giving guidance on regulations regarding labour safety and hygiene to the

			<p>persons visiting and working at the facility under the scope of management of the employer. A MoLISA Circular divides workers into four sub-groups and requires different type of training for these groups. Group 1 includes managers, including director and vice director of the enterprise; head and vice head of the enterprise's branch; person in charge of HR and administration work; and production supervisor or equivalent positions. The second group includes full time and part-time OSH officers and managers who are also in-charge of the OSH work. The third group includes persons doing work or operating machines that have a strict OSH requirement. The fourth group includes employees that are not in first three sub-groups (apprentices, probationary workers, foreign workers, and domestic workers). The sub-group 3 training must have following contents: policies and legal requirements on OSH; overview of work and machines that have strict OSH requirements; hazardous and harmful elements when working or operating machines with strict OSH requirements; and safety techniques when working or operating machines with strict OSH requirements. The duration of first training must be at least 30 hours. The training must be held every two years with duration equivalent to at least half of the first training. The training certificate is valid for two years. The training for the sub-group 4 must include general knowledge of OSH and OSH requirements of a specific job. The duration of first training must be at least 16 hours. The training must be held every year with duration equivalent to at least half of the first training.</p>
		<p>Labour Inspection System</p>	<p>There is a separate Law on Inspection in the country promulgated earlier in 2004 and more recently in 2010. The MOLISA (Ministry of Labour, Invalids and Social Affairs) Inspectorate is the central labour inspection authority in the country. Its Labour Policy Inspection Division, OSH Inspections Division and Child and Social Affairs Policy Division ensure compliance with labour and employment laws, occupational safety and health legislation, as well as payment of social security dues and investigation of occupational accidents. Inspectors are also obligated to ensure compliance with the law as regards the establishment of trade unions in enterprises, the negotiation and application of collective bargaining agreements, and the settlement of labour disputes. Labour inspectors provide information and technical advice to employers and workers, and bring to the attention of the competent authorities any issues not specifically covered by the existing legal provisions (for further amendments in legislation). Labour inspectors also investigate complaints and</p>

			adjudicate disputes between workers and employers.
10	Sickness & Employment Injury Benefits	Income/Paid Sick Leave	There is a provision of paid sick leave under the Social Insurance Law. Sick leave duration varies on the basis of type of employment a worker is involved in. For those working under normal working conditions, it is 30 working days (for those with less than 15 years of contribution), 40 days (for those with 15-30 years of contribution), and 60 days (for those with 30 or more years of contribution). For those working in heavy or hazardous occupations/jobs, the sick leave duration increases by 10 days for every category. If an employee suffers from a disease that requires extended treatment, maximum sick leave duration is 180 days in a year. If the illness continues even after 180 days, a lower amount is paid as compensation. The maximum sickness benefit is 75% of the employee's declared wage to the Social Insurance.
		Job security	The employer is entitled to unilaterally terminate the labour contract if the employee suffering from sickness or accidents cannot recover after 12 consecutive months of treatment for indefinite term contracts, after 06 months for employees working under fixed-term labour contracts, or over one half of the contract term for employees working under casual labour contract or regular labour contract with term under 12 months. When the employee recovers, he/she may be considered to conclude the new contract.
		Free Medical Care	The worker who had an occupational accident must receive a timely emergency healthcare and considerate treatment. It is responsibility of the employer to make full payment of all medical expenses for the employees not participating in health insurance. (Art. 144 of Labour Code). The Health Insurance Law provides for covering of health insurance benefits. There is a difference in the levels of coverage for different individuals. For some individuals, 100% of the medical care costs are covered while for others, only 80% of it is covered.
		Disability/Work Injury Benefit	An employee is entitled to employment injury benefit if he/she meets the following conditions: If the worker has suffered from employment injury under one of the following cases: during work time at the workplace; before or after work time or outside the workplace while on assignment by the employer; and on route to and from workplace and residence and in a reasonable time and route. A worker must have lost at least 5% of the working capacity in an employment injury in order to be entitled to employment injury benefit. The employee who has lost earning capacity from 5-30% is entitled a lump-sum benefit. The employee who has lost 5% of earning capacity is given benefit equivalent to 5 months of the common minimum wage, then 0.5

			<p>percent of the common minimum wage for every additional percentage of lost earning capacity. In addition to above benefit, the employee is entitled to an additional benefit based on the years of paying social insurance premiums. If social insurance premiums have been paid for less than one year, the benefit equals 50% of monthly wage, then for every additional year of social insurance premiums, he/she is entitled to 30% of the monthly wage of the month prior to taking leave of absence for medical treatment. The worker who has lost at least 31% of the earning capacity is entitled to monthly benefit as follows: for 30% of the lost earning capacity, employee is paid 30% of the common minimum wage, then 2% of the common minimum wage for every additional percentage of lost earning capacity. In addition to above benefit, the employee is entitled to an additional benefit based on the years of paying social insurance premiums. If social insurance premiums have been paid for less than one year, the benefit equals 50% of monthly wage, then for every additional year of social insurance premiums, he/she is entitled to 30% of the monthly wage of the month prior to taking leave of absence for medical treatment. If a worker dies because of an occupational accident/disease, the relatives of the deceased worker are entitled to lump-sum benefit equivalent to 36 months of the common minimum wage. The employee with occupational accidents and disease (not due to his/her own fault) and reduced working capacity of 5% or more is compensated by the employer at the following rate: a) At least equal to 1.5 monthly salaries under the labor contract if the employee's working capacity is reduced from 5.0% to 10% and then every 1.0% increase in loss of working capacity (from 11% to 80%), an addition of 0.4 months of salary under the labor contract; b) At least 30 months' salary under labor contract for the employee whose working capacity is reduced by 81% or more or for the death of the employee's relative from the occupational accidents. If the occupational accident occurred due to the fault of the employee, he also receives an allowance of an amount at least equal to 40% of the rate prescribed above. Work injuries are divided into four categories: (i) permanent total incapacity (ii) temporary incapacity and (iii) fatal injury leading to death of a worker. In the case of permanent incapacity/disability, 100% of the monthly minimum wage is paid for an assessed loss of working capacity of at least 31%, in addition to the disability grant. In the case of temporary disability, 100% of an insured worker's monthly salary is paid from the first day of treatment until recovery or certification of</p>
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			<p>permanent disability. In the case of fatal injury, dependents (widow/widower, children and parents) receive survivors' pension and survivors' grant. 50% of the monthly minimum wage is paid for each eligible dependent supervisor. The benefit is paid up to four dependent survivors. If an insured worker has less than 15 years of coverage, there is an option of survivors' grant as a lump-sum payment. Funeral grant, a lump sum of 10 months of minimum wage, is paid to the person paying for funeral.</p>
11	Social Security	Pension Rights	<p>The employee must satisfy the conditions of the social insurance payment in accordance with the law on social insurance to enjoy the pension salary when male is full 60-year-old and female is full 55 years old. Workers who have reduced working capacity; doing extremely hard, harmful or dangerous work; doing hard, harmful or dangerous work in upland and remote areas, border islands may retire at a younger age than specified above. Workers with high technical qualification and those with management tasks may retire at a later age but not more than 05 years later than provided above (60 years for males and 55 years for females). Social Insurance law provide for both old age pension and old age grant. For a pension, a worker must have attained 60 years of age (55 years for women workers) with at least 20 years of contributions. An option of early pension is available to those (men at 55 years and women at 50 years) who worked in hazardous or arduous working conditions or in certain geographic regions with at least 15 years of contributions. 45% of the insured worker's average earnings are paid for the first 15 years of contributions plus 2% or 3% (for men and women respectively) of insured workers covered average monthly earnings for each year of contributions exceeding 15 years. The maximum pension is 75% of the insured workers' average earnings. Those not eligible for old age pension (having less years of contribution) are paid old age grant.</p>
		Dependent's/Survivors' Benefit	<p>Social Insurance law provides for Survivor's Pension provided that the deceased had at least 15 years of contributions, was an old-age pensioner or was a pensioner with an assessed degree of disability of at least 81%. Survivor's pension is payable to dependents including widow - 55 years or older, widower - 60 years or older (or widow under age 55 or widower under 60 but impaired work capacity by 81% or more); children under 15, or under 18 if still in school, or older than 15 but disability of at least 81%; father, mother, father in law, mother in law (or others that depend on the dead worker income) at pension ages or under pension age</p>

			but of disability of at least 81%. Parents, spouses are eligible if they do not have income or have income which is less than minimum wage. 50% to 70% of the monthly minimum wage is paid as pension to the eligible dependent survivors (allowed for 4 dependents only). There is also an option of funeral grant and survivors' grant as lump sum amount of money.
		Unemployment Benefit	According to Art. 186 of Labour Code and Art. 3-4 of Social Insurance law, the person who has contributed to unemployment insurance fund but has lost his/her job and has not found the job within 15 days of registration is eligible to get unemployment benefit. Unemployment allowance is 60% of the average monthly salary in the 6 months prior to the start of unemployment. The duration of unemployment allowance varies on the basis of number of years of contributions as follows. Unemployment allowance is paid for: -3 months with 12 to 35 months of contributions; -6 months with 36 to 71 months of contributions; -9 months with 72 to 143 months of contributions; and -12 months with 144 months of contributions or more
		Invalidity Benefit	The Social Insurance law provides for invalidity benefit in the case of non-occupational accident/injury/disease resulting into permanent invalidity. To be eligible for invalidity benefit, worker must be assessed with at least 61% of the incapacity for work with at least 15 to 20 years of contributions. Invalidity benefit is calculated similarly as old age benefit.
12	Fair Treatment at Work	Equal pay	Constitution of Vietnam guarantees right to equal pay for equal work for both men and women in that it prohibits gender discrimination. Labour Code supports the principle of equal pay for work of equal value and requires an employer to pay all workers equally without gender discrimination.
		Sexual Harassment at Workplace	Sexual harassment and maltreatment of employees is prohibited under the Labour Code (Art. 08). A worker may unilaterally terminate the employment contract if they are subject to maltreatment, sexual harassment, or coercive labor. However, no punishment for perpetrators of this crime is provided under the Labour Code.
		Non-discrimination	In accordance with article 26 of the Constitution, male and female citizens have equal rights in all fields. The State shall adopt policies to guarantee the right to and opportunities for gender equality. In accordance with article 16 of the Constitution, all people are equal before law and no one is subject to discriminatory treatment in political, civil, economic, cultural or social life. Men and women have to be treated equally at the workplace. Workers have the right to work and to freely choose the type of occupation or employment they

			<p>want to. They may also freely choose the vocational training they want to participate in and have the right to improve their professional skills. It is strictly prohibited to discriminate on the grounds of sex, race, social class, marital status, belief, religion, HIV status, disability or participation in the union activities at the workplace. The Labour Code prohibits discrimination based on gender or marital status. Employers must observe and implement the principle of equality between men and women for recruitment, employment, working time, rest time, advancement in wage grades, and remuneration. Violations of the law on gender equality in the field of labour include applying different qualifications (criteria) in recruiting male and female workers to the same job; refusing to recruit or limit recruitment of workers, firing or dismissing workers for gender reasons or because of their pregnancy, giving birth or raising their children; implementing discriminatory allocation of jobs between man and woman leading to inequality in income or applying different pay levels for workers of the same qualifications and capacity for gender reasons; and refusal to carry out specific provisions provided for female workers in the labour law. Employers are prohibited from discriminating against employees with disabilities in all employment related matters. Employers are further required to take care of disabled persons' health. A disability is an impairment which results in difficulties in working, living and studying of a person. Employers are required to create favorable conditions for people with disabilities to work, which includes adapting vehicles, safety devices, and equipment and appropriately laying out of machinery. Employers must consult employees with disabilities on matters relating to their rights and interests. Organizations employing persons with disabilities at least 30% of their total employees may receive supports for improvement of their working conditions and environment suitable to persons with disabilities; be exempt from enterprise income tax; borrow loans at preferential interest rates under production and business development projects; receive priority in land, ground and water surface lease and be exempt from rents of land, ground and water surface to serve production and business activities in proportion to the percentage of employees with disabilities, the degree of their disabilities and the size of enterprises. Employers are prohibited from following acts when employing disabled workers: requiring a disabled employee with the working capacity reduced by 51% or more to work</p>
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			<p>overtime or work at night; employing disabled employee to do heavy, hazardous or dangerous work, or exposure to toxic substances under the list issued by the Ministry of Labour - Invalids and Social Affairs in coordination with the Ministry of Health. Stigmatizing and discriminating acts against HIV-infected person are also prohibited under the law. Employers are responsible for: organizing propaganda and education on HIV/AIDS prevention and control measures and anti-stigmatization and anti-discrimination against HIV-infected people; arranging jobs suitable to the health and professional qualification of HIV-infected laborers; and facilitating employees' participation in HIV/AIDS prevention and control activities. Employers are prohibited from terminating the employment contract of an employee or cause difficulties to this person in his/her work on the ground of being infected with HIV; forcing a physically fit employee to change the job he/she has been doing on the ground that such person is infected with HIV; refusing to give a salary raise to or to promote an employee, or fail to ensure his/her legitimate rights or benefits on the ground that such person is infected with HIV; or request a job applicant to have an HIV test or produce an HIV test result, or refuse to recruit a person on the ground that such person is infected with HIV, except for certain profession where HIV testing is made compulsory by a government order. Trade union discrimination is also prohibited under the Law on Trade Unions and any acts causing disadvantage to the workers because of reasons related to establishment, participation and operation of a trade union are also considered discrimination and prohibited.</p>
		Equal treatment of women at work	<p>The Constitution guarantees the freedom of enterprise to all citizens. In accordance with article 33 of the Constitution, everyone has the right to freedom of enterprise in the sectors and trades that are not prohibited by law. The Constitution further protects the rights of citizens to work and to choose their occupations, employment and workplaces. Art. 153-154 of Labour Code ensure the equal working rights of female employees and encourages employer to create favourable working conditions for female employees. However, a circular from 2011 prohibits employment of women in 79 occupations, 45 of which are applicable to all female employees while the remaining 34 occupations/activities are applicable to pregnant and breastfeeding workers.</p>
13	Minors and Youth	Minimum Age of Employment	<p>The Constitution strictly prohibits employment of children under minimum age. Minimum age for employment is 15 years. Employer may hire a person</p>

			<p>under 15 years of age (minimum 13 years is required) to perform light work as provided in the list circulated by the MOLISA. When hiring workers under 15 years, employer is required to sign the contract with legal representatives in agreement with the underage worker; arrange the working hours as such that it does not affect the worker's schooling; and ensure that the working conditions, labour safety and hygiene is appropriate with the age of the underage worker. Employment of underage workers is prohibited in the following jobs: carrying and lifting heavy objects beyond the physical condition of the underage person; producing and using or transporting the chemicals, gases, explosives; maintaining the equipment and machinery; demolishing constructional buildings; cooking, blowing, casting, rolling, stamping, and welding metals; diving, offshore fishing; and other work that may harm the health, safety or the ethics of the underage person. Employment of underage persons is prohibited in the following workplaces: underwater, underground, in caves and in the tunnels; constructional sites; slaughter facilities; casinos, bars, discos, karaoke rooms, hotels, motels, saunas and massage rooms; and other workplace harming the health, safety or the ethics of the underage person. The working hours of underage employees (under 15 years) cannot exceed 4 hours a day and 20 hours a week. Overtime and night work is prohibited for underage workers. The underage employees must not be employed to produce and trade in alcohol, wine, beer, tobacco, substances affecting mind and other drugs. The employers must provide opportunities for the underage employee and person under 15 years old to take part in labour and cultural learning.</p>
		<p>Minimum Age for Hazardous Work</p>	<p>Minimum age for hazardous work is 18 years. A young employee is a person between the age of 15 and 18 years. An employer may sign an employment contract with young employees with the following conditions: working hours should not exceed 8 hours per day and 40 hours per week; annual leave of 14 days per year is allowed; overtime or night work are not allowed (except in certain cases allowed by MoLISA); and difficult and hazardous jobs are prohibited. Workers under 18 years of age are prohibited from carrying and lifting heavy objects which are beyond a young workers physical strength (15 Kg limit for males/12 kg limit for females workers 15-16 years of age; and 30 kg limit for males/25 kg limit for females workers 16-18 years of age. Other prohibited jobs include using or transporting chemicals, gasoline and explosives; performing maintenance of</p>

			<p>equipment and machines; participating in the demolition of buildings or other structures; melting, blowing, casting, rolling, molding and welding metals; operating boilers; working as storekeepers or assistants in chemical or dye warehouses; working in direct contact with chemicals causing gene mutation, chemicals causing long-term harm to reproductive health, cancer-causing chemicals and poisonous chemicals; working in contact with solvents such as screen printing. Workers under 18 are prohibited in working environments which are not compliant with the legal safety regulations and standards for elements such as electromagnetic fields, vibration, noise, temperature, silica dust, dust not containing silica, cotton dust and asbestos dust; underwater, underground; construction sites. Working for over 4 hours a day in an uncomfortable and narrow space, which sometimes requires laborers to go on their knees, lie or stoop and working on high scaffolds or ropes hung over 3 meters higher than the working floor; working on hills and mountains with a steepness of over 30 degrees as well as being in contact with factors which may cause contagious disease is also prohibited under the law. A 2013 decree gives a long list of 79 jobs that are prohibited for workers under 18 years. In accordance with the provisions of Penal Code, those who employ children to perform jobs which are heavy, dangerous or in contact with hazardous substances on the lists prescribed by the State, causing serious consequences, or who have already been administratively sanctioned for this act but continue to commit it, shall be subject to a fine of between five million dong and fifty million dong, non-custodial reform for up to two years or a prison term of between three months and two years. Employers are required to keep a registered logbook for monitoring working conditions of young employees. The logbook must record the following information: full name; date of birth; working assignments; and results of periodic health checks. Records of workers under 18 years of age should include both workers who are working at the factory premises and off-site.</p>
14	Forced/Bonded Labour	Prohibition on Forced and Compulsory labour	<p>The Constitution of Vietnam strictly prohibits forced labour along with discrimination and employment of children under minimum age (as prescribed in the Labour Code). The Labor Code prohibits any form of forced labor. Forced labor is any work which is carried out in an involuntary manner and/or against the will of the employee on threat of use of force or other tricks to coerce the worker to work involuntarily.</p>

		<p>Freedom to change jobs and Right to quit</p>	<p>In accordance with the Constitution, citizens have the right to work and to choose their occupations, employment and workplaces. Workers have the right to change jobs after serving due notice on their employer. For violations of the advance notice time, the employer must be paid a compensation equivalent to the employee's salary of the unnoticed days. For more information on this, please refer to the section on employment security.</p>
		<p>Inhumane working Conditions</p>	<p>Workers may be required to work overtime hours however overtime working hours cannot exceed 12 hours a day for working on weekly rest days or public holidays (50% of the standard working hours on normal days); 30 hours a month (for both normal and hazardous work) and 200 hours a year. In exceptional cases, 300 hours of overtime may be allowed per year (Art. 106). The 300 hour limit is applicable to hazardous work which includes the garments sector. Overtime must be voluntary, with agreement from both parties. Pressuring employees, in any way, is prohibited. For more information on this, please refer to the section on Compensation.</p>

Exhibit 20 – Labor Law, Vietnam

Annexure – 9 - Quality

9.1 Introduction & Quality Indicators

As far as Garment Industry is concerned product quality is derived more from application of quality management principles than a direct outcome of the machine output. So be it functional or the aesthetic aspect of a garment the final decision regarding acceptance or rejection is based on certain well defined norms set by the buyer and a factory's adherence to them.

Hence, for example if a buyer has stated that slight shade variation in a garment batch is not acceptable, then non-conforming garments are bound to get rejected. At the same time such garments could be acceptable to a different buyer who does not have such strict norms.

In order to gauge the depth of quality compliance across key countries, Technopak conducted a Primary research of some of the major garment producers in India, Bangladesh, Vietnam and China and compared them on below mentioned quality indicators.

S.no.	Quality Indicator	Explanation
i	% Rework	What % of production is found to contain some defect and is sent back to the production dept. for rectification
ii	% Rejection	What % of production is found to contain some defect that cannot be rectified and is finally rejected
iii	% First time pass in external inspection	What % of inspections conducted by external agencies are passed
iv	Order to shipment ratio	Against the order received how many pieces are actually shipped to the buyer
v	Which reports are generated/ documented on the production floor?	What documentation procedure is followed in order to record data regarding intercepted defects and actions taken
vi	Acceptable Quality Limit(AQL) followed	AQL is a statistical guiding principle that defines the worst tolerable ratio of rejected products to the total inspection lot, that is still acceptable

Exhibit 21 – Quality Indicator and Explanation

9.1.1 AQL Standard (Acceptable Quality Limit):

For instance, inspection of a production with 4,000 units, with an Acceptable Quality Limit of II, Table A indicates a general inspection level of "L".

SAMPLE SIZE CODE LETTERS							
Lot Size	General Inspection Levels			Special Inspection Levels			
	I	II	III	S1	S2	S3	S4
2 to 8	A	A	B	A	A	A	A
9 to 15	A	B	C	A	A	A	A
16 to 25	B	C	D	A	A	B	B
26 to 50	C	D	E	A	B	B	C
51 to 90	C	E	F	B	B	C	C
91 to 150	D	F	G	B	B	C	D
151 to 280	E	G	H	B	C	D	E
281 to 500	F	H	J	B	C	D	E
501 to 1200	G	J	K	C	C	E	F
1201 to 3200	H	K	L	C	D	E	G
3201 to 10000	J	L	M	C	D	F	G
10001 to 35000	K	M	N	C	D	F	H
35001 to 150000	L	N	P	D	E	G	J
150001 to 500000	M	P	Q	D	E	G	J
500001 and over	N	Q	R	D	E	H	K

ANSI/ASQ Standard Z1.4 - 2008

Exhibit 22 – AQL Standard Chart

As mentioned in Table B, for this production quantity of 4000 units, 200 units of garments would be inspected. AQL Level is normally decided by the buyer. Here we have considered an AQL of 2.5, which means that no more than 10 units may fail for the inspection to be successful.

Table B

SINGLE SAMPLING PLANS FOR NORMAL INSPECTION																							
Sample Size Code Letter	Sample Size	Acceptable Quality Levels (Normal Inspection)																					
		0.065		0.10		0.15		0.25		0.40		0.65		1.0		1.5		2.5		4.0		6.5	
		Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re
A	2																				0	1	
B	3																			0	1		
C	5																	0	1				
D	8													0	1								
E	13													0	1					1	2		
F	20													0	1					1	2	2	3
G	32													0	1					1	2	2	3
H	50													0	1					1	2	2	3
J	80													0	1					1	2	2	3
K	125													0	1					1	2	2	3
L	200	0	1	0	1									1	2	2	3	3	4	5	6	7	8
M	315													1	2	2	3	3	4	5	6	7	8
N	500													1	2	2	3	3	4	5	6	7	8
P	800	1	2	2	3	3	4	5	6	7	8	10	11	14	15	14	15	21	22				
Q	1250	2	3	3	4	5	6	7	8	10	11	14	15	21	22								
R	2000	3	4	5	6	7	8	10	11	14	15	21	22										

↑ Use first sampling plan above arrow, if sample size equals or exceeds lot or batch size, do 100 percent inspection.
 ↓ Use first sampling plan below arrow AC : Acceptance number Re : Rejection number

Exhibit 23 –Sampling quantity based on AQL standard for inspection

9.2 Observations:

Mid-level and large companies in Bangladesh are investing on new technologies which are efficient and thus would provide better results in terms of quality in future while mid-level manufacturers in India are still using older/obsolete machines.

Impetus needs to be provided for these Mid-level manufacturers to migrate to new technology. This would require better implementation of TUFs scheme and the recommendation on technology.

ToR # 3

Annexure 10 – Skill Requirements

10.1 Skills Requirement for Garmenting

One of the key growth drivers of the Indian garment industry is availability of labor. Textile and apparel sector ranks second in terms of providing employment (after agriculture).

Of the 3.3 million new employment opportunities being created over next decade, 67% of the job opportunities is expected to be for tailors/operator and helpers. Merchandiser, production managers, designers and sample developer are expected to have hold of 18% and supervisors will grab rest 15%.

Factory workers comprise of personnel that are directly employed, indirectly employed, or in supervisory or managerial roles, among others; 73% of the total garment factory workforce is direct employees.

10.2 Various Job Roles in Garmenting Sector

Various job roles in garment sector are sewing operators, line supervisors, designers, sampling and production merchandisers, production managers, quality control representatives, helpers etc.

Job Role	Description
Tailors/operators/helpers	Production level workers of the industry, carry out tasks such as cutting, sewing, finishing, etc.
Quality Control Representatives	Responsible for checking quality standards of the garment as per the fabric, final fit, quality of trims utilized, etc.
Supervisors	Responsible for supervising sewing operators and helpers
Merchandisers	There are basically two types of merchandisers: production and sampling. Sampling merchandiser is responsible for understanding the requirements of the buyer/client and developing samples (to match buyer's technical specifications such as fits, measurements, fabric, colour etc.) Production merchandiser is responsible for production planning, liaising with buyer and complete order execution etc.
Designers & Sample Developers	Responsible for designing/sampling/product development/ measurement grading and fit of the garments
Production Managers &	Responsible for complete execution of production orders, production planning and other project management. Purchase Manager is responsible

Purchase Managers for development of new accessories/fabric and ensuring timely delivery of these items.

Exhibit 24 – Job Roles in Garmenting Sector Source: NSDC Report 2013, Industry sources, Technopak Analysis

10.3 Skill Gap in Various Job Roles

The level of skill required in garmenting industry ranges from semi-skilled to highly skilled but with growing requirements for quality products, there is growing need for greater number of skilled labor in the sector.

Job Role	Skill Required	Skill Gap
Operators/helpers	<p>Sewing Machine operators</p> <ul style="list-style-type: none"> Terminology of sewing, fabric laying, cutting, alteration, hemming, piping etc. Tools used for sewing and machine parts Operations of sewing for various products and its components such as types of collars, sleeves, pockets, cuffs and application work (zip, buttons and patches) 	<ul style="list-style-type: none"> Workmanship of entry level operators is not up to standard leading to re-work and rejection Operators are not multi-skilled Skill gap between mid-level skilled and highly skilled is high
Quality Control	<ul style="list-style-type: none"> Understanding quality assurance processes and the ability to follow the inspection manual Ability to identify deviations from buyer-prescribed quality levels Ability to conduct quality audits at various levels of the production process and test products on various specifications 	<ul style="list-style-type: none"> Lack the ability to undertake high-level due diligence required for quality checks
Supervisors	<p>Knowledge and Experience</p> <ul style="list-style-type: none"> Knowledge of the production process Awareness on the technology being used, its capacity and productivity Ability to understand and adapt new production processes and technologies Experience in identifying defects in products and rectifying them <p>Team Management</p> <ul style="list-style-type: none"> Ability to plan work, manage people and handle contingencies 	<ul style="list-style-type: none"> Lack the ability to handle contingencies, manage people and allocate work

Job Role	Skill Required	Skill Gap
	<ul style="list-style-type: none"> • Ability to understand variations and take corrective actions • Ability to meet production requirements as per orders • Coordinate with workers and production managers 	
Merchandisers	<ul style="list-style-type: none"> • Strong verbal communication skills • Ability to handle customers and appropriately answer their queries • Deep understanding of the organisation's production process and the ability to manage its execution • Thorough knowledge on market trends Knowledge of quality standards, pricing Knowledge about the product on specifications, properties of fabric, labelling and packaging. • Ability to handle documentation, and co-ordinate with supply chain partners • Ability to plan and execute orders as per buyer's requirements • Negotiation skills • Management of database of buyers and clients 	<ul style="list-style-type: none"> • Low know-how of types of fabric, accessories, production planning etc.
Designers	<ul style="list-style-type: none"> • Strong knowledge of market trends • Ability to design products based on customers' core and secondary requirements • Strong knowledge and understanding of various national and international standards, fit and measurement grading • Fashion designers must possess knowledge of fashion illustration, styling, global design trends & consumer types, garment construction, application of computer-aided designs in patterns & different types of fabrics and their usage • Efficiency in using computer-aided design software 	<ul style="list-style-type: none"> • Lack of knowledge on buyer standards and new global market trends

Job Role	Skill Required	Skill Gap
Production Managers	<ul style="list-style-type: none"> • Ability to plan work and manage people • A strong knowledge of the organisation's production process • Production planning to meet buyer's delivery demands <p>Knowledge and experience requirements:</p> <ul style="list-style-type: none"> • Raw material management- purchase, utilisation and inventory • Cost management • Technical expertise • Production and productivity • Quality management • Personnel management 	<ul style="list-style-type: none"> • Lack of production planning skills • Lack of understanding of acceptable quality from buyer's perspective • Lack of people management skills

Exhibit 25 – Skill Gaps across different Job Roles in Garmenting Sector Source: Industry sources, Technopak Analysis

10.4 Sewing Machine Operators

The workers in garment industry are generally classified as unskilled, semi-skilled, skilled and highly-skilled. This classification is based on the efficiency of the worker and ability to operate several types of sewing machines. In the case of operators, the skill level is classified on the basis of efficiency and workmanship.

The operating efficiency primarily includes:

1. The skill acquired by the worker to perform task on certain type of machines
2. The efficiency of the worker to deliver the production target on each machine
3. The ability to perform critical operations

Unskilled: An unskilled employee is one who does operations that involve the performance of simple duties, which require the experience of little or no independent judgment or previous experience although familiarity with the occupational environment is necessary. His work may thus require in addition to physical exertion familiarity with variety of articles or goods.

Semi-skilled: A semiskilled worker is one who does work generally of defined routine nature wherein the major requirement is not so much of the judgment, skill and but for proper discharge of duties assigned to him or relatively narrow job and where important decisions made by others. His work is thus limited to the performance of routine operations of limited scope.

Skilled: A skilled employee is one who is capable of working efficiently of exercising considerable independent judgment and of discharging his duties with responsibility. He must have a thorough and comprehensive knowledge of the trade, craft or industry in which he is employed.

Highly Skilled: A highly skilled worker is one who is capable of working efficiently and supervises efficiently the work of skilled employees.

From the study carried out across different garment manufacturing facilities in India it can be concluded that the skilled and semi-skilled man-power constitute 25-30% and 30-35% respectively of the total manpower involved. The percentage for highly skilled manpower accounts for 10-15 % where remaining 20-25% lie in the unskilled category. We have to enhance skills of unskilled category to semi-skilled category and semiskilled category to skilled category, so there is a huge requirement of up-skilling in Garment Industry.

10.4.1 Sewing Machine Operators Skills Level Assessment

Based on the primary research conducted by Technopak, with some of the leading players in the garment manufacturing sector, it was found that factories appoint sewing operators on the basis of entry level test, wherein operators showcase their workmanship. Based on skill level and experience, category/grade is defined for the operator.

To bridge the skill gaps, government has undertaken policies like Integrated Skill Development Schemes (ISDS), Deen Dayal Upadhyay – Grameen Kaushalya Yojana (DDU-GKY), etc. ISDS focuses on developing a cohesive and integrated framework for training workers in all segments of textiles, including handicrafts, handlooms, sericulture, jute and technical textiles, to enhance competitiveness of the sector in the globalized economy.

With increasing skill level of the worker, it is expected that worker shall deliver products faster, perform critical operations and deliver at better quality. Also, the skilled worker is expected to perform with lower reworks/rejections.

10.5 Support as Visualized by Industry

In order to support the industry in terms of making well-qualified workforce available for each job role (production, non-production, and management), government has undertaken training programs catering to specific requirements.

For instance under DDU-GKY (launched in 2014), training courses ranging from base to high level are offered. The scheme provides opportunity for skill up gradation through advanced courses such as merchandising, quality specialist, CAD/CAM & pattern maker as mentioned in the below table.

Advance Apparel Courses	Quality Assurance Job Courses
<ul style="list-style-type: none"> • Advance Apparel Manufacturing • Apparel Manufacturing Technology – Woven • Apparel Product Specialty Trousers, Knits, Jackets, Lounge wear • Apparel manufacturing technology - Knits (Advance) • Apparel manufacturing technology knits(foundation) 	<ul style="list-style-type: none"> • Apparel quality assurance & compliance • Apparel production supervision and quality control • Textile/ garment testing and quality Control • Apparel quality & compliance
Textile Designing Courses	Specialised Garment Making Courses
<ul style="list-style-type: none"> • Software application in textile design • Textile design technology 	<ul style="list-style-type: none"> • Shirt, Kurta & Safari Making • Trousers and Pyjama Making

Merchandising Job Courses	
<ul style="list-style-type: none"> • Visual Merchandising • Apparel production supervision • Apparel export merchandising • Apparel Production Planning & IE 	<ul style="list-style-type: none"> • Jacket, Jodhpuri & Sherwani making (with rafting & Cutting) • Rafting in fabric & Cutting- shirt, safari and urta • Drafting & Cutting - Trouser & Pyjama • Drafting & Cutting - Jacket & Jodhpuri
Embroidery Job Courses	Sewing Machine Operator
<ul style="list-style-type: none"> • Hand Embroider • Zig-Zag Machine Embroider • Traditional Embroidery • Computerized Embroidery Techniques 	<ul style="list-style-type: none"> • Industrial Sewing Machine Technician • Tailor (Basic Sewing Operator) • Industrial Sewing Machine Operator
Ornamentation Job Courses	Helper Job Courses
<ul style="list-style-type: none"> • Zardosi Work • Ornamentalist –Bead work for Garments • Ornamentalist – Ikkat Designer • Ornamentalist – Hand Work specialist Appliqué • Ornamentalist – Hand Work specialist Patch Work • Ornamentalist – Hand Work specialist Combination of different skills • Surface Ornamentation Technique 	<ul style="list-style-type: none"> • Garment Packer/ Ironer/ Fusing Technician • Apparel Finisher and Checker
CAD/Pattern Making Job Courses	
<ul style="list-style-type: none"> • Apparel CAD/CAM • Apparel pattern making &CAD • Apparel pattern making Basic • Software Application in Pattern making 	

Exhibit 26 - DDUGKY Course curriculum

Similarly, Integrated Skill Development Scheme (ISDS) (launched in 2010), aims at skill building at entry level. Some of the courses offered in the Apparel sector are mentioned below.

Training Courses-Apparel
Embroidery Job Courses
<ul style="list-style-type: none"> • Computer Embroidery Machine Operator • Embroidery Machine Operator
CAD Job Courses
<ul style="list-style-type: none"> • CAD Operator • Pattern Maker
Sewing Machine Operator Job Courses
<ul style="list-style-type: none"> • Over-Lock & Flat -Lock Machine operator • Sewing machine Operator
Checker Job Courses
<ul style="list-style-type: none"> • Fabric Checker • Garment Checker
Helper Job Courses

<ul style="list-style-type: none">• Fuser & Ironer• Fabric Cutter
Mechanic Job Courses
<ul style="list-style-type: none">• Sewing machine mechanic

Exhibit 27 - Source: ISDS Course curriculum

ToR #4

To study the possible arrangements for skill building in garmenting in Bangladesh, China, Vietnam, Sri Lanka etc.

Annexure 11 – Skill Requirements

11.1 Possible arrangements for skill building in garmenting

By the year 2025, India would have more than 860 million people in the employable age group of 20-64 years²⁰. Keeping this challenge in view, government has launched several skill building schemes to skill the growing population.

In this context Technopak studied skill regimes followed by India and its competition sourcing destinations namely Bangladesh, China, Vietnam and Sri Lanka and presented the findings below.

11.1.1 BANGLADESH

Bangladesh has a multi-pronged skill building approach involving various government agencies, private institutions and industry. Some of them are Centre of Excellence for Bangladesh Apparel Industries (CEBAI), Bangladesh Skills for Employment and Productivity (B-SEP) etc.

CEBAI was established through a joint effort of International Labor Organization (ILO), the Bangladesh Garment Manufacturers and Exporters Association (BGMEA), Swedish retailer H&M and the Swedish government in late 2014. This initiative draws upon the H&M's considerable expertise in providing training to its workers. Some of the key features of this initiative are:

- The project aims to benefit almost 5,000 women and men in Bangladesh.
- 3,480 new entrants to be trained within the industry and placed in operator-level positions.
- 60 supervisors to be trained in key leadership skills and responsibilities (including occupational safety and health, disability inclusion and workers' rights).
- 800 workers to be assessed by means of the Recognition of Prior Learning (RPL) process, with a view to improving their wages.
- 10 enterprises to benefit directly from the project by starting 'Enterprise Based Training (EBT)' on their factory premises.
- Three technical institutions and three NGOs to be given EBT so they can deliver competent operators in clusters.

NATIONAL SKILLS DEVELOPMENT COUNCIL (NSDC)

The National Skills Development Council (NSDC) is the apex authority on skills in Bangladesh. It is headed by the Prime Minister and is responsible for setting the national skills development agenda. The NSDC provides an important tripartite forum where representatives of government, employers-workers and civil society can work together to provide leadership and clear direction to skills development in Bangladesh.

²⁰ United Nations Population Division (<http://www.un.org/en/development/desa/population/>)

The National Skills Development Council aims to empower all individuals to access decent employment and ensure Bangladesh’s competitiveness in the global market. The National Skills Development Council Action Plan has been implemented, major achievements being:

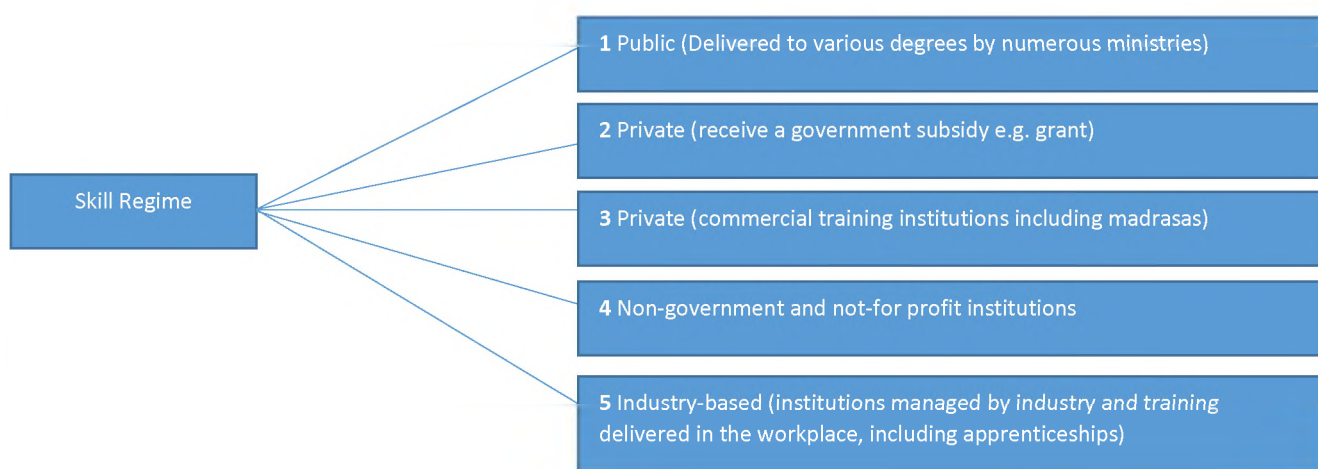
- Creation of 15 Industry Skills Councils which operate across Bangladesh
- Old curricula-based courses have been updated to competency-based courses - registered with the Bangladesh Technical Education Board (BTEB)
- 50% of training providers in Bangladesh have been registered with BTEB and deliver recognized competency-based training and assessment

The NSDC has an Executive Committee (EC-NSDC) which is co-chaired by a private sector representative and the Secretary of the Ministry of Education. It also has a Secretariat, which supports EC-NSDC and NSDC operations, including the review and monitoring of the National Skills Development Policy and Action Plan. Both the NSDC and the EC-NSDC are non-establishment bodies consisting of part-time members from ministries and business, so the actual overseeing and monitoring of the activities of training providers is done by the Secretariat.

NATIONAL SKILLS DEVELOPMENT POLICY (NSDP)

The development of the National Skills Development Policy is a major achievement for Bangladesh. The comprehensive policy will guide the skill development strategies of both public and private sectors and facilitate improved coordination of all parties involved in education and training in Bangladesh. This National Skills Development Policy provides the vision and direction for skills development over the coming years, setting out the major commitments and key reforms that government will be implementing in partnership with industry, workers and civil society. The policy extends and builds on other major government policies such as the Education Policy of 2009, Non-Formal Education Policy of 2006, Youth Policy of 2003, National Training Policy of 2008 and the NSDC Action Plan of 2008. The policy is the result of the collective efforts of government agencies involved in TVET and skills training, employer and worker organizations and private training providers and NGOs, all with the common goal of reforming Bangladesh’s skills development system.

The skills development system in Bangladesh can be classified into five main segments:



Each of these segments offers a wide variety of formal and non-formal skills development programs using different approaches to training and assessment. Inconsistencies in approach and certification limit the potential impact that existing skills development programs could have as the various providers move in their own directions without a unifying vision or clearly defined targets. There is no nationally consistent approach to quality assurance and therefore there are problems with the quality, relevance and scope of programs delivered. The quality of graduates is inconsistent and the lack of coordinated public sector delivery leads to duplication of programs, competition for the same learners, limited linkage between different centers and an unclear picture of what training is being provided for which industry or occupation. The National Skills Development Policy is a collaborative initiative to improve the coordination and delivery of skills in Bangladesh.

The implementation of the policy will provide a clear way forward for skills development in Bangladesh, ensuring a focus on demand driven, flexible and responsible training provision, nationally recognized qualifications, and competency based training and assessment, industry and private sector involvement, flexible institutional management, promotion of workplace learning and recognition of prior learning.

Bangladesh skills for employment and productivity (B-SEP)

The Bangladesh Skills for Employment and Productivity (B-SEP) Project is an initiative of the Government of Bangladesh (GoB) funded by the Government of Canada and executed by the International Labor Organization with support from the GoB. The project aims to accelerate the current efforts being undertaken by other organizations, donors and government to make skills in Bangladesh nationally recognized, accessible to all, higher quality and directly linked to jobs.

- It targets government agencies and their staff, employers, workers, training institutions, students & trainees with a particular focus on groups disadvantaged in the labour market.
- The Project enhances the market-relevance & effectiveness of the national TVET and skills development system, allowing for better quality, more access and an improved capacity to provide and sustain demand driven services.
- B-SEP addresses the challenges in the Technical and Vocational Education and Training (TVET) Sector related to shortage of skilled workforce through:
 - Institutional Capacity Development (Strengthening the skills development system, policy implementation and coordination) standard setting, training, and assessment
 - Certification (Setting and implementing qualification standards, instructor development and programmes)
 - Industry Skills Development (Building linkages between demand and the supply of skills in five priority sectors involving the private sector)
 - Promoting equitable access to skills (Increasing opportunities for skills training and employment for disadvantaged groups, particularly women and Persons with Disabilities (PWDs) through skills training/apprenticeships and job placement)

11.1.2 CHINA

The Government of China sees education as a long term strategic priority and has continued to improve training quality and if China is a manufacturing giant in the world, it is partly due to the policy-makers' ability to:

- a) Build a foundation of Vocational Education & Training (VET) over many years
- b) Continuously upgrade the VET system in response to China's growing manufacturing share in world manufacturing output.

China's VET system aims at strengthening the manufacturing sector of the country by relocating the workers from other sectors, primarily agricultural sector to the manufacturing sector.

One of the most important initiatives by the Chinese government has been enactment of the 1996 Vocational Education Law of the People's Republic of China. The law provides the legal backing for vocational education and training in the country. It not only encourages students to take vocational stream post junior secondary education, but also clearly demarcates different roles and responsibilities of various stakeholders in the VET system: Ministry of Education, Ministry of Human Resources and Social Security, education and training schools and institutes under the two ministries, local governments, and enterprises.

It also contains provisions for development of the rural economy by promoting technology and rural vocational education. Some prominent features of this system are as follows:

National Medium and Long term Talent Development Plan 2010-2020 puts emphasis on vocational training and employment promotion. Vocational Training Parks are being constructed in the urban areas under this policy. As an Industry-School Partnership program, all the students undergoing higher vocational training have to spend the 3rd year of their studies as intern at local enterprise for mandatory practical knowledge. Teachers in vocational schools are required to undergo one month training in industry each year, or two months every two years for their career progression and promotion.

In China, the curriculum of a senior secondary vocational school is designed such that, one-third includes general academic skills defined nationally by the Ministry of Education, one-third is nationally defined content associated with the particular occupation, and the remaining one-third defined again with respect to the occupational field as determined locally at the school level with the help of local enterprises.

OTHER FEATURES OF VET AND REFORM PROCESS

Over the years, the Chinese VET system has undergone many changes. The vocational education law was passed in 1996 and in the first phase their government provided education to all illiterate citizens. 90 per cent of population received primary education and school enrolment. The 2nd phase of reform in 2000 focused on education for all and eradication of illiteracy. The third Phase of reform during 2000-2007 focused on equality of access, and expanding education and training to poor and less-developed regions in Western China, rural areas, women and minorities. The fourth Phase of reform during 2007-2011 aimed at achieving universal education throughout China. The 5th phase of reform undertaken currently focusses on the following aspects:

Establishment of school based factories and factory based schools has been undertaken under the VET system providing a practical exposure to the students for skill development. Schools, curriculums have to follow a professional standard, and a National Management System tracks all the students throughout the country. Innovation is being adopted both in content and teaching method continuously. Reports on quality training are released on annual basis which has been mandatory. Rural labour transfer training has been initiated for skill development among rural youth. PPP mode is adopted for skill development programme to a large extent.

FINANCING VET

The responsibility for financing VET and academic school education in China rests with township and local government. Only higher education is financed and managed by central/provincial government. The local Government mobilises community support and financial contributions for economically backward students. Compulsory education is publicly financed by national and provincial government through China. Moreover, all enterprises as a policy are required to utilize 1.5 per cent of their payroll towards in-service training, which if they fail to do, should contribute an equivalent amount to the government to be used towards adult training. The Vocational Education Law requires minimum 20% of the annual budget to be devoted to the education.

INDUSTRY PARTICIPATION

Students in the three-year vocational education stream at senior secondary level are required to spend the full third year as interns. There is no such provision in India. The local enterprises in China being afraid of the punishment (taxation or negative publicity or mark on reputation) at the hands of local governments (empowered by the provisions of the 1996 VE Law) participate in practical training. Moreover, the local governments help local enterprises by incentives such as allotment of land at subsidized prices, or preferential treatment in case of award of government projects. 85 per cent of Chinese firms conduct in house training.

STIPEND FOR VOCATIONAL STUDENTS

Children and parents prefer to enter the general academic schools. After completion of 9 years of compulsory schooling, the Chinese government encourages the adoption of VE at senior secondary level by incentivizing it financially. Encouraging students towards vocational stream in secondary high schools through measures like stipend for rural students, making tuition fee free (since 2009) for all students have led shown very positive outcomes. Around 95 per cent employment rate of senior secondary vocational school graduates speaks for the external efficiency of China's TVET.

11.1.3 VIETNAM

The national education and training system of Vietnam is all-encompassing, ranging from nursery to the highest doctorates and from formal schooling and training to non-formal and continuing education. While there are a number of providers of education two ministries play a major role in providing and overseeing education nationally.

The first is the Ministry of Education and Training (MOET), which has responsibility for pre-school, primary, secondary and higher education. The second is the Ministry of Labor, Invalids and Social

Affairs (MOLISA), which has responsibility for managing much of the Technical and Vocational Education and Training (TVET) sector with a focus on training students to enter the workforce.

While MOET has a clear management mandate, TVET is administered principally by MOLISA, but other central ministries including MOET, state-owned enterprises and local governments, also manage training institutions. About half the vocational colleges and 25 percent of vocational secondary schools are administered at the national level. Two distinct forms of TVET are provided at the secondary and college level—one under MOLISA with an emphasis on practice, and another under MOET with a greater focus on theory. TVET is provided almost exclusively in schools and training institutions, rather than in the workplace.

MOLISA's mandate includes elementary vocational training (delivered partly through Vocational training centers - VTCs), intermediate vocational training and higher vocational training.

By 2009 there were 2,270 vocational training institutes comprising 93 vocational colleges, 245 professional training schools, 757 VTCs and more than one thousand manufacturing, business and service units where vocational training is conducted. Student enrollment increased three fold. More importantly, a strong legal and policy framework has been put into place, including the excellent Vocational Training Law of 2006, the Vocational Training Strategy and an Innovation Plan.

Greater flexibility has been introduced with the addition of vocational training at the college level. Many of the elements for raising quality have also been developed, including skills standards, curricula frameworks and pilot learner assessment. Teachers have received upgrading through various ad hoc programs. Several key institutions have been strengthened and upgraded, in part with external assistance. The financial base has been widened through the introduction of cost sharing and tuition.

Non-state training providers are becoming an important source for skill development. Contract training has been experimented with on a small scale, and with encouraging results. Facilities at the intermediate and higher levels are reasonably distributed throughout the country. The government has also adopted an ambitious program for agricultural and rural training. Private training providers, which have been allowed since 1998, now make up an important share of TVET institutions, including 22 percent of vocational colleges (VCs), 13 percent of vocational secondary schools (VSSs) and 35 percent of vocational training centers (VTCs).

The Vocational Training Law of 2006 provides an excellent legal framework for the future development of vocational training in Viet Nam. Several developments have strengthened the organization and management of skills development. Notable among these was the creation of the vocational college level. This corresponds broadly to higher skills requirements as industry develops.

The TVET programs being offered are summarized as follows:

- Short-term vocational training/re-training programs are for unemployed/employed individuals to get specific vocational skills and a certificate.
- 1 to 3 years vocational training programs are for students who have graduated from lower or upper secondary education to lead towards a vocational certificate, middle vocational diploma and higher vocational diploma. Based upon duration and field of training, the students can be

granted certificates in elementary, middle and higher level qualification. After finishing school, students can be employed to work as skilled workers.

- 2 to 3 years vocational & technical education programs combine general education subjects and specific occupational subjects to lead to an intermediate diploma. The graduate will be able to enroll for higher education degree or go to the labor market.
- The VTET system includes over 800 colleges and schools which train technicians and workers in such sectors as agriculture, industry, health care, tourism, construction and transportation.
- There are a number of higher education institutions offering courses leading to VTET diplomas and certificates.
- In most provinces, there are centers for general technical education and vocational training that offer short courses for high school students and vocational programs.

11.1.4 SRI LANKA

Skill building needs of all post-secondary education, except for academic study, in Sri Lanka are addressed through Tertiary and Vocational Education (TVE). A Skills Sector Development Program (SSDP) has been launched by the Government of Sri Lanka as part of its Public Investment Strategy for 2014-16.

Skills Sector Development Plan (SSDP)

The government's development vision up to 2020, and the National Human Resource Development and Employment Policy (NHREP, 2012) stress the importance of, and the government's commitment to TVET sector expansion and improvement. To operationalize such commitment, the SSDP has been developed in 2013, coordinated by the National Planning Department (NPD) of Ministry of Finance and Planning MOFP.

Key Features of the Government's Development Program

The SSDP is a comprehensive 7-year road map that articulates the skilling strategy of the government and features a series of policy reforms, key sector result indicators, and performance objectives to be monitored by a national TVET committee. Five key result areas established in the SSDP are:

(i) Improving quality; (ii) Improving relevance; (iii) Improving access; (iv) Improving recognition of vocational education and training; and (v) Improving supportive policies, systems, and structures.

To support achievement of the specified targets in each result area, the government has aligned investment to underpin implementation of the SSDP through:

(i) introduction of a technology stream in the secondary schooling system, which is being supported through the Asian Development Bank (ADB) Education Sector Development Program; (ii) recruitment of qualified trainers and a system for ongoing professional development linked to salary progression; (iii) establishment of industry working groups to determine training standards and improve curricula; (iv) provision of modernized equipment aligned to identified skill needs; and (v) improved sector management, i.e., planning, monitoring, and delegation of responsibility with greater autonomy to training agencies and providers to achieve sector results.

Student tracking and MIS is implemented to ensure sector-wide data availability and enable performance monitoring and reporting of progress in meeting specified SSDP objectives and targets. The SSDP builds on policy initiatives within the Ministry of Education, where foundational skills are being improved and a technology stream is being introduced to prepare students for post-school TVET to access skills and employment opportunities that result from middle-level vocational training programs.

In the education sector, the Sri Lankan government has already moved towards a sector-wide approach and is supported by ADB, the World Bank, and bilateral development partners from Australia and other countries. The government has established a modern TVET foundation, a nationwide network of public and private training providers, and well-running delivery mechanisms such as apprenticeships. However, TVET agencies and development partner projects have focused on narrowly defined objectives resulting in a high degree of fragmentation, inefficient resource allocation, duplication of functions and services, and inconsistent quality of outcomes related to industry growth, improved productivity, or employment outcomes for graduates.

Having adopted the SSDP, the government now aims to transform TVET into a more industry-responsive, performance-oriented, flexible system primarily concerned with supporting graduates into gainful, productive employment. With high vacancies for skilled workers in key sectors of the economy, there is a good opportunity for Sri Lankan workers to access better-paying jobs and share benefits from stronger industry performance

Vocational Training Authority of Sri Lanka (VTA)

The VTA was established with the intent of skilling youth for employment, making vocational training more accessible to rural youth and depressed segments of the country.

The key intention of establishing the VTA was to reach the rural mass of the country which was 72% of the total population and make them to be skillful to be able to find employment locally and internationally. The VTA's mission is to meet the Vocational training needs of Sri Lankans providing learning opportunities through excellent pre-employment training throughout the country.

As of today, the VTA is operating as the largest training center network of Vocational Training with 224 Rural Vocational Training Centers, 22 District Vocational Training Centers and 7 National Vocational Training Centers, which had just 31 Vocational Training Centers in 1995. Approximately, 25,000 youth get trained annually 83 trades in 18 trade sectors by the VTA. After completing the training youth are directed for employment and provided with financial assistance to start their own small business with entrepreneurship training and vocational self-employment in the respective fields. And the financial assistance scheme called, "SEPI" is also implemented to provide loans for those who intend to start self-employment.

Functions of VTA

- Provide vocational training to students by drawing up vocational training programs and coordinate with other institutions.
- Conduct trade tests, final assessments and issuing National Vocational Qualification certificates through TVEC.

- Conduct research on vocational training and development programs.
- Conduct career guidance and counseling programs.
- Conduct trainer training programs in order to operate the vocational training program efficiently and effectively.
- Facilitate to the youth who have undergone vocational training to avail further training, placement in employment and to start on self-employment

World Bank Support

The World Bank has approved a \$101.5 million to expand the availability of employable workers by increasing access to high quality, labor market relevant skills development programs. The project will open new career prospects for skilled employment that is critical to sustain growth.

To achieve this objective, the Project will support improved governance and management of the training sector, improved quality and relevance of training programs, and expand access to quality skills development programs.

The Project is structured around two components: (a) Program Support to the SSDP; and (b) Innovation, Results Monitoring, and Capacity Building.

The Project is implemented by the Ministry of Youth Affairs and Skills Development, working closely with the Ministry of Finance and Planning and other relevant ministries and agencies.

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ToR # 5

To study the status of availability of skilled labour, raw materials (fabric) and embellishment etc. indigenously

Annexure 12 - Skill and Raw material (Fabric & Embellishments) Availability

12.1 Shortage of Skilled Manpower

The growth of Indian garment industry has been crippled by non-availability of skilled labor force. Lack of skilled labor adds on to the lead time and curtails India from attaining acceptable global standards. Technology up-gradation in textile and apparel sector has further aggravated the situation for Indian garment industry that has major share of its workforce still dependent on conventional methods. Lack of easy transition for the worker from his educational background to industry oriented training, increases difficulty for the employers to attract skilled labor force. Dearth of formal vocational education, high school dropout rates, inadequate skill training capacity, negative perception towards skilling, and lack of industry ready skills even in processional courses are the major reasons for incompetent and unskilled/semi-skilled labor force in the industry. To alleviate the situation, Government has taken initiatives towards skill development through National Skill Development Councils and by implementing policies such as ISDS etc.

12.2 Fabric & Embellishments Availability



India has strong presence in the textiles value chain across all sub categories from fiber to garment stage, with sufficient infrastructure for fabric and processing for both domestic and export market. In the year 2015 USD 4.6 billion worth of fabric was exported, which is expected to grow at a CAGR of 4% for the coming 10 years. Fabric production and export in context of world trade and future trend has been covered in the next ToR.

Apart from fabric other parts, known as 'trims & accessories', which comprise of sewing thread, embroidery thread, buttons, zippers, interlining, label, hangers etc. are equally essential in making of a garment.

While fabric accounts for 60-65% of the cost of a typical T-Shirt, trims & accessories could constitute up to 5-8%, depending on the garment styling and the remaining covers overheads, wages, taxes and logistics cost.

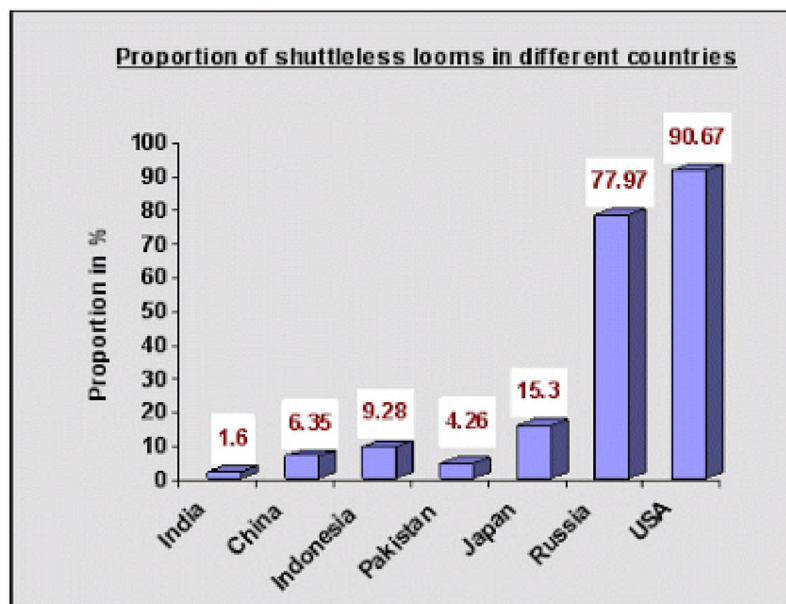
12.2.1 Presence of Shuttle-less looms in India

Though weaving is one of the important sectors for Indian textile industry, it has not been given its due attention. Secondly the structure of the industry plays a major role in making it competitive. Weaving sector is mostly unorganized. The sector consists of fragmented, small and often, un-registered units that are low on technology especially in the power loom, processing, handloom and knits.

Current growth of power loom sector has been restricted by technological obsolescence, fragmented structure, low productivity and low-end quality products; in future Technology is likely to play a lead role in improving quality and productivity levels.

The modernization in looms is less and Indian industry still lags significantly behind US, China, Europe, and Taiwan among others (Texmin, 2005).

Shuttle-less weaving looms are up to three times more efficient than shuttle looms, but the penetration of modern shuttle-less loom is low. In 2001, there were approx. 27,000 shuttle-less cotton looms in Indonesia, 21,000 in Thailand and only 10,000 in India. In world share of shuttle-less looms India ranked 9th. Following chart shows comparison of shuttle-less loom proportion of India with other countries.



Source: TIFAC

Exhibit 30 – Shuttle-less Looms across different countries

12.2.2 Trims & Embellishments:

Trims & accessories have been classified in to two types in this study;

- Applied on the garment and serving a functional or decorative purpose (sewing threads, embroidery thread, button, zipper, label etc.)
- Used of packaging/informational purposes (labels and packaging material – hangers etc.)

It has to be noted that adequate supply of trims and accessories is essential to keep the production running smooth.

Although there are a number of domestic manufacturers and suppliers for embellishments but India's dependence on imports cannot be ruled out. Despite being a major textile player, we rely on imports of trims & accessories such as buttons, zips, and associated commodities.

However, in the recent years the imports have declined (CAGR: -2%) during 2010-15 while exports have grown by a CAGR of 11% signifying development of indigenous accessory manufacturing and reduced dependency on imports.

Exhibit 31: Exports & Imports of Embellishments (India)

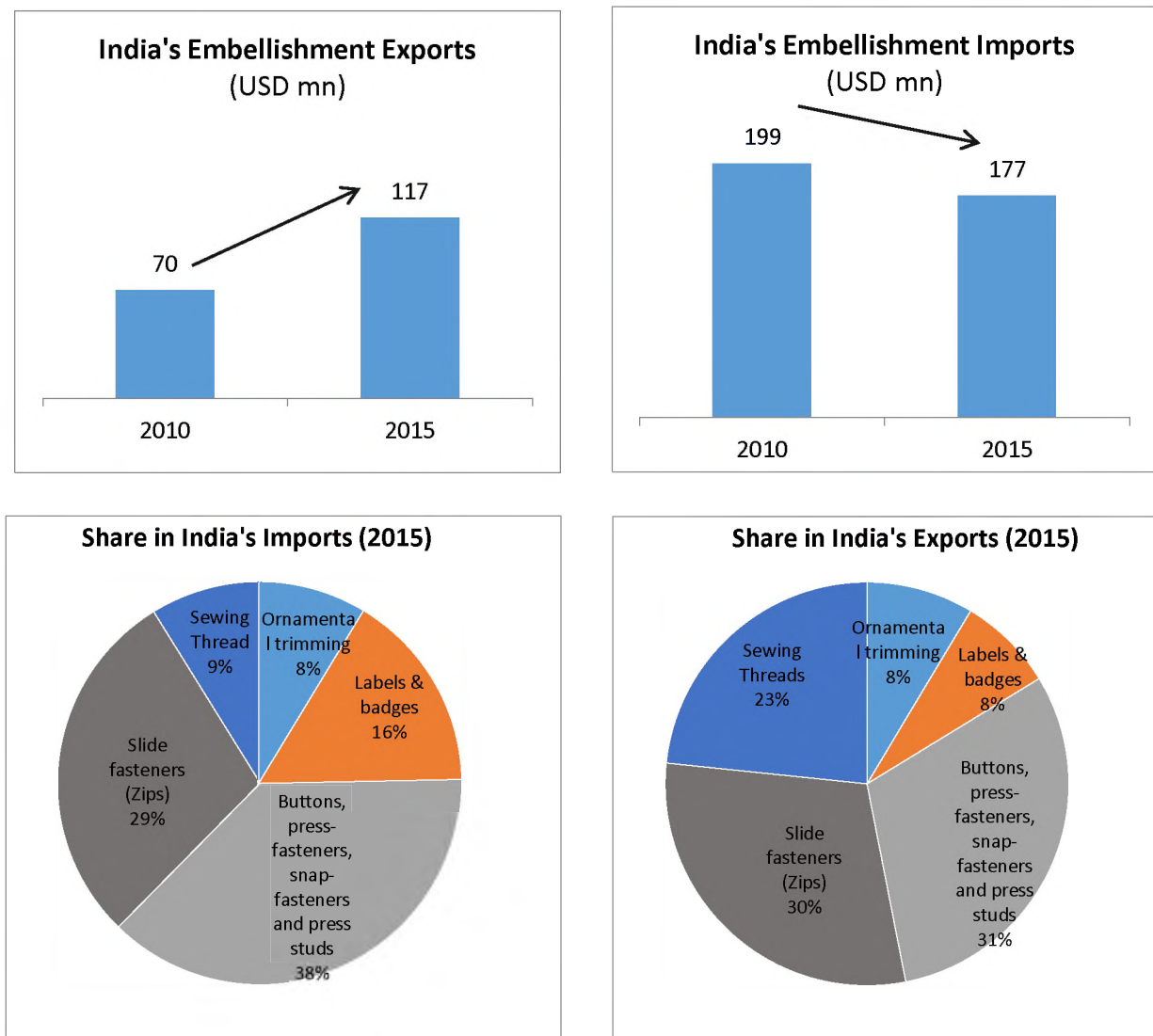


Exhibit 32 – India's Embellishments – Imports & Exports Source: ITC, Trade, Technopak Analysis

The category-wise split in embellishment exports and imports is depicted below.

12.2.3. Sewing & embroidery Threads

The requirements are generally met domestically from suppliers such as Madura coats, Vardhaman-A&E etc. The sewing thread import (both cotton and man-made) has declined drastically in past five years (2010-15); while exports have grown at a CAGR of ~7%.

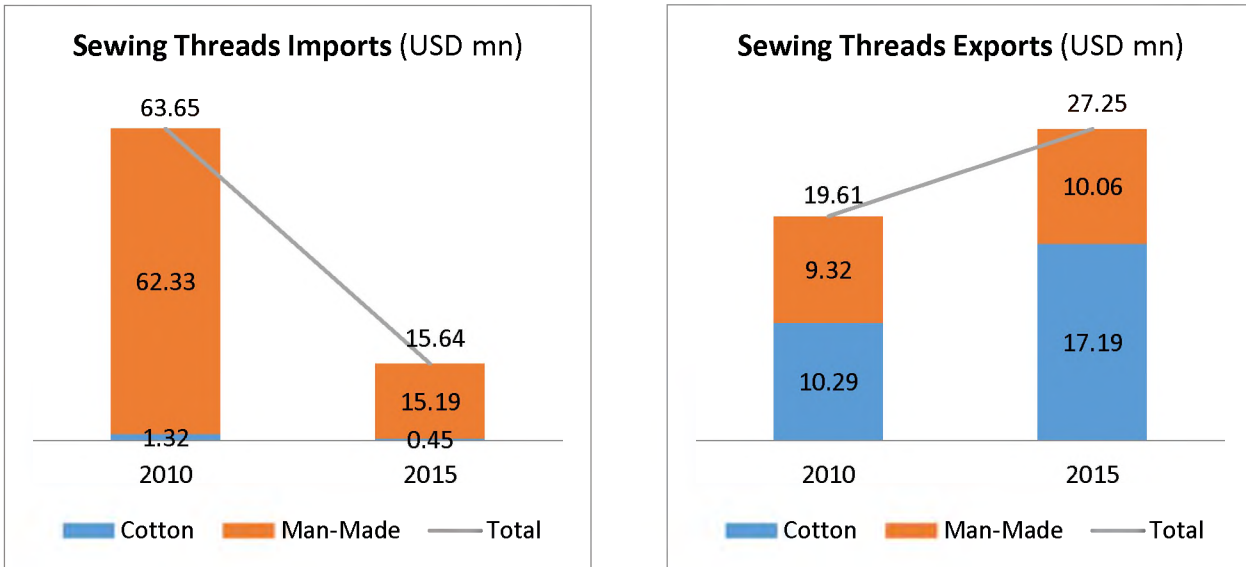


Exhibit 33 – India’s Sewing Thread – Imports & Exports Source: ITC, Trade, Technopak Analysis

12.2.4. Buttons, Snap fasteners and related items

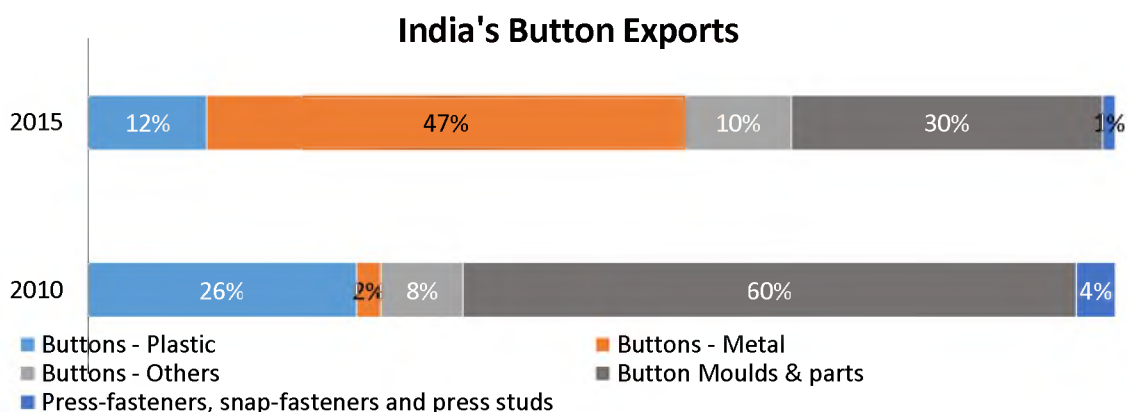
Buttons are majorly made of hard plastic and other decorative materials. The domestic industry along with imports caters to the manufacturing industry. Button export contributes ~30% of the total accessory export from India and at the same time 38% of the total accessories imported in India. Thus the buttons imported have different utility/aesthetic values than the domestic production.

A snap fastener (also called snap, popper, and press stud) is a pair of interlocking discs commonly used in place of buttons to fasten clothing. A circular lip under one disc fits into a groove on the top of the other, holding them fast until a certain amount of force is applied. Snaps can be attached to fabric by hammering (using a specific punch and die set), plying, or sewing.

Over the years, metal button exports have significantly increased from USD 0.24 Million (2010) to USD ~17 Million (2015) of mould and parts have reduced significantly.

The share in imports of button and associated products has remained nearly constant over the past five years (2010-15).

Share in Exports & Imports of Embellishments (India)



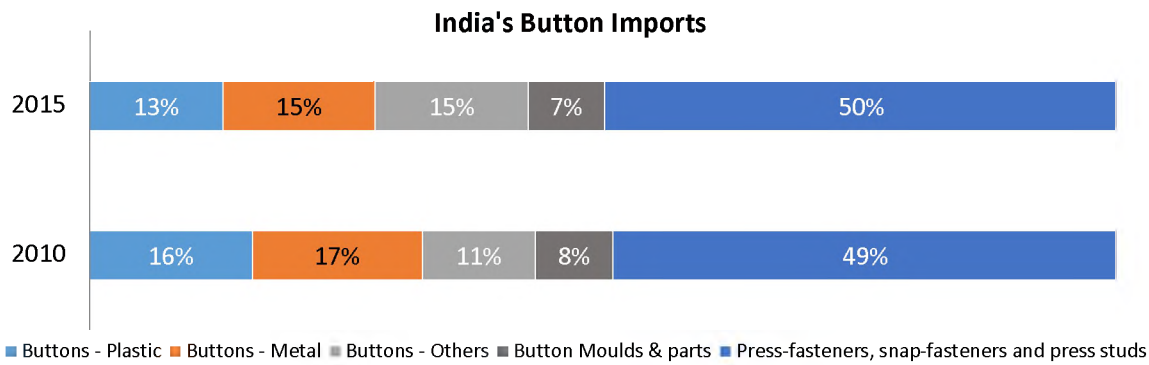


Exhibit 34 – India’s Buttons – Imports & Exports Source: ITC, Trade, Technopak Analysis

12.2.5 Labels & Badges

Label is an accessory attached on the garment providing the information such as brand name, sizing, wash care instructions, country of origin, type of raw materials etc. No garment can be exported without certain labels such as wash care, origin etc.

India is highly dependent on imports for label and badges and in the last five years the imports have grown at a CAGR of 8%.

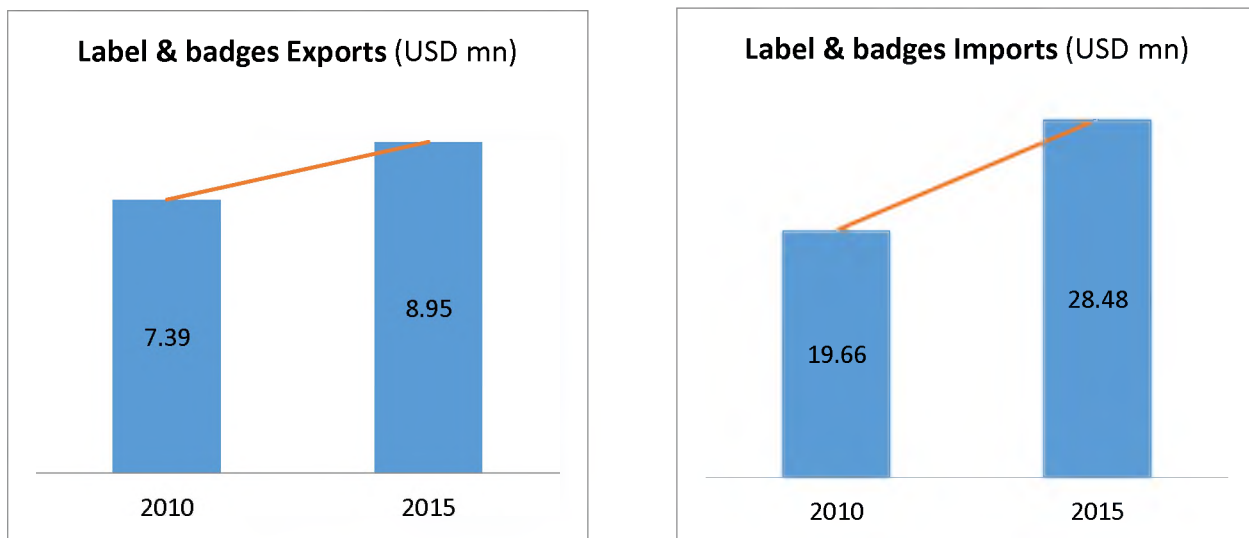


Exhibit 35 – India’s Labels & Badges – Imports & Exports Source: ITC, Trade, Technopak Analysis

12.2.6 Zippers

Zippers are used as a functional/styling accessory in garments. India is an important market for zipper manufacturers and many international players have set up factory in India. At the same time Indian players have also taken up good share of the market. Manufacturers such as Tex and Ansun have come up with good manufacturing capacities and are competing with international manufacturers such as YKK and Ideal, in terms of quality.

In the recent years India’s zipper exports comprises majorly of non-metallic slide fasteners and slide parts. The export share of metallic slide fasteners has fallen significantly. In case of imports the share of non-metallic slide fastener has fallen, while the share of metallic slide fastener has increased.

Share in Exports & Imports of Embellishments (India)

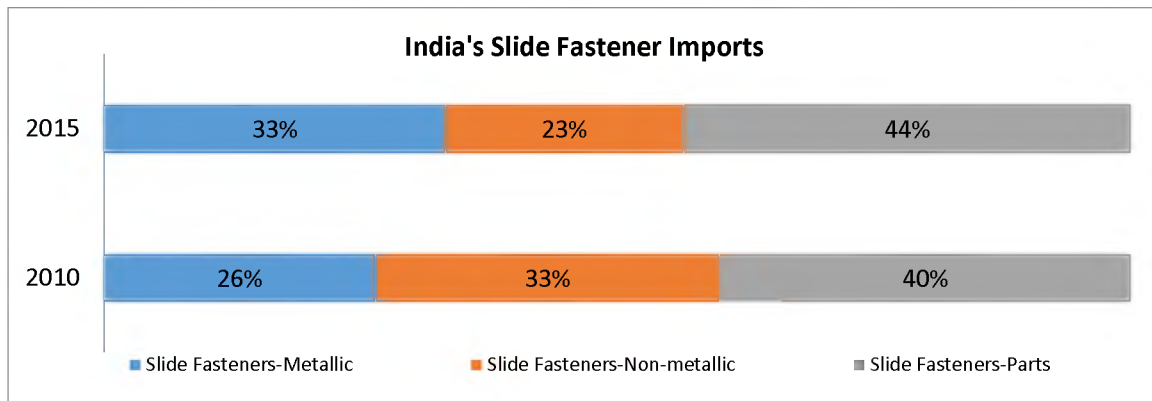
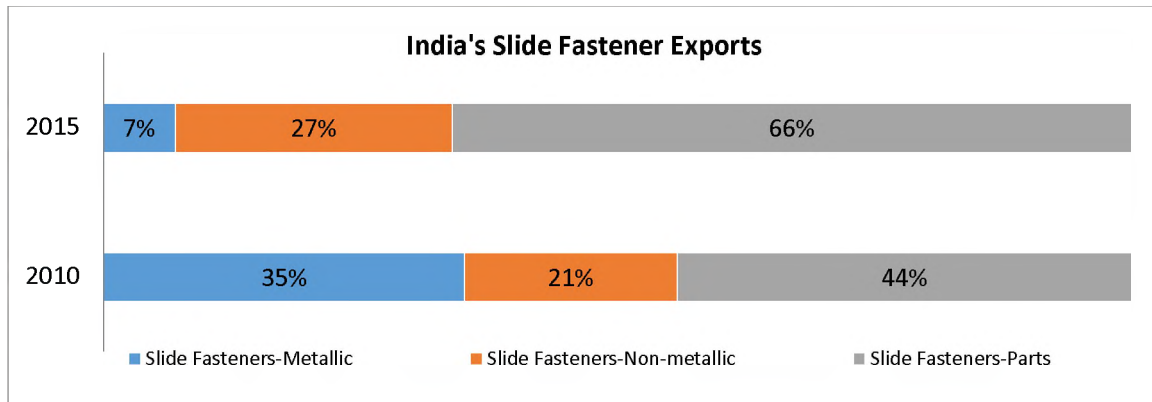


Exhibit 36 – India’s Zips – Imports & Exports Source: ITC, Trade, Technopak Analysis

Annexure – 13 Fabric Production in India:

Data source: Textile Commissioner's Office -

<http://www.txcindia.gov.in/html/cloth%20sector%20wise.pdf>

PRODUCTION OF FABRICS IN DIFFERENT SECTORS

(Mn. Sq. Mtrs.)

Items	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	(April - Jan.) (P)	
								2015-16	2016-17
Mill									
Cotton	1465	1604	1724	1684	1622	1592	1504	1259	1263
Blended	482	526	521	674	818	808	733	609	579
Man-Made Fibre Fabrics	69	75	68	60	91	86	78	63	63
Total	2016	2205	2313	2418	2531	2486	2315	1931	1906
Handloom									
Cotton	5857	5973	6021	6239	6315	6427	6827	5633	5907
Blended	137	143	121	115	145	88	106	87	91
Man-Made Fibre Fabrics	812	791	759	598	644	688	705	583	700
Total	6806	6907	6901	6952	7104	7203	7638	6303	6697
POWERLOOM									
Cotton	10128	11883	12027	13955	14320	15241	15696	13082	13068
Blended	5487	5853	6302	6655	7117	7511	7826	6498	6711
Man-Made Fibre Fabrics	21382	20279	19116	17428	15353	14997	13462	11276	10523
Total	36997	38015	37445	38038	36790	37749	36984	30856	30303
HOSIERY									
Cotton	11464	12258	10798	11992	13256	13699	14413	11774	12025
Blended	1661	1756	1524	1838	1982	2042	2144	1759	1750
Man-Made Fibre Fabrics	577	620	624	711	961	1153	1090	941	832
Total	13702	14634	12946	14541	16199	16894	17647	14473	14608
ALL SECTORS									
Cotton	28914	31718	30570	33870	35513	36959	38440	31748	32263
Blended	7767	8278	8468	9282	10062	10449	10809	8953	9132
Man-Made Fibre Fabrics	22840	21765	20567	18797	17049	16924	15335	12863	12118
Total	59521	61761	59605	61949	62624	64332	64584	53564	53513
Khadi, Wool, Silk.	812	798	848	843	876	944	921	768	768
Total	60333	62559	60453	62792	63500	65276	65505	54332	54281

P = Provisional.

Exhibit 38 – Domestic fabric production in India – Source: Textile Commissioner's Office

Annexure – 14

Details of Arriving at domestic fabric production value, based on the production quantity mentioned in Annexure 13:

All Sector	Price Per Meter	Production in Mn Sq. Mt.	Production in Mtr.	Total Fabric Turnover in INR
Cotton	100	36,959	36,95,90,00,000	36,95,90,00,00,000
Blended	74	10,449	10,44,90,00,000	7,73,22,60,00,000
Man-Made Fibre Fabrics	53	16,924	16,92,40,00,000	8,96,97,20,00,000
Khadi	100	944	94,40,00,000	94,40,00,00,000
		65,276	Total in INR	54,60,49,80,00,000
			Total in USD (1 USD = 65/-)	84,00,76,61,538
			Total in USD (Bn)	84.01

Exhibit 39 – Technopak working on the value of domestic fabric production based on data of Textile Commissioner's Office

Annexure – 15

Fabric Exports and Imports Data Source: UN Comtrade

SITC Code	Commodity
652	Woven Cotton Fabric
653	Woven Man-Made Fabric
654	Other Woven Fabrics
655	Knitted or Crocheted fabrics

Exhibit 40 – SITC Codes used for Fabric export/imports in the main report

Annexure - 16

List of HS Codes for Trims & Accessories for data on International Trade:

HS Codes:

5807 – Labels, Badges and Similar Articles (6 Digit Code is 580710 & 580790)

9606 – Buttons:

960610 – Press Fasteners, Snap Fasteners and Press studs

960621 – Plastic Buttons

960622 – Metal Buttons

960629 – Other Buttons

960630 – Button moulds and other parts

9607 – Slide Fasteners (Zippers)

960711 – Metal Slide Fasteners

960719 – Non-Metallic Slide Fasteners

960720 – Slide Fastener Parts

5401 – Sewing Thread – Synthetic

540110 – Synthetic filaments Sewing Thread

540120 – Artificial filaments Sewing Thread

5204 – Sewing Thread – Cotton

520411 – Sewing thread \geq 85% Cotton

520419 – Sewing thread $<$ 85% Cotton

520420 – Cotton Sewing Thread

ToR # 6

To study the domestic market and potential of garment export line wise for different countries

Annexure – 17 - The Need of garment sizing

The Indian apparel industry is still dictated by American and British body size measurements, but as a large country with diverse ethnic groups and different body shapes this often translates into badly-fitting clothes. The development of basic size charts specific to India's population profile should also increase the appeal of fashion garments amongst the country's increasingly affluent consumers. As the income levels go high, aspirations also tend to rise. The preferences and demands of consumers evolve over a period and usually developed countries have basic size charts specific to its population profile.

This will help garment manufacturers to recognize the evolutionary changes as well as cultural and demographic impacts on the physical measurements of the human body in India. Arithmetic of apparel sizing is complex if considered global variations. Many countries—like Thailand, the UK, US, Mexico, Italy, Sweden, Japan, China and Korea to name some—have standardized sizing charts. India has none. Most of the countries has gone on to modernise and revise their sizing systems based on inputs from fitting surveys, but India does not even have a rudimentary system till date.

The need for having a systematic and scientific system for measuring and classifying human bodies in India for the purpose of developing a sizing system for garments need not be emphasized any longer. As we move into times characterized by unprecedented retail growth, this need is becoming more and more acute. As the masses start frequenting the Malls for their clothing requirements, they are becoming aware of the fit or rather the lack of it that the various brands offer. Fit has been cited as one of the major criteria that determine the purchase decisions for clothing and thus could make or break a brand's popularity. Given the novelty of Mall culture in India, the consumers are still on a steep learning curve and it is a matter of time before they become sensitive to the issue of fit and become frustrated by the lack of it. Body sizing is a major problem for domestic apparel brands due to the regional and ethnic divide in India. What fits a South Indian woman might not fit a woman from say the North-East. Also, Indian women are very fussy about fits, which compounds problems.

Traditionally Indians have used only draped garments where 'one size fitted all'; therefore, the concept of 'stitched to fit a body' is alien to us. The reason why we in India, do not have even a primitive garment sizing system in place is, one- that the traditional Indian garments comprised primarily of draped wear and whatever little stitching was required, could be catered to by the local tailor; secondly, we had no organized retailing set ups and thirdly, we were not a fashion conscious or a fit conscious population. Thus the need was never felt for a ready-made garment sizing system. As the clothing preferences now shift from Indian to western wear, the need for a sizing system is being felt acutely.

It is particularly perplexing in our country, where average body sizes in Mizoram, for instance, are totally different from those in Kashmir. A standardized sizing chart is a gradation of body measurements in the range of extra small to extra-large based on averages derived after measuring

the body diversities of a population. These are peculiar to a country, race and region. For instance, neither do a small-sized Indian woman and a small-sized German look similar, nor can they wear the same-sized garments. Similarly, a large-sized man from Haryana and a large-sized man from Nagaland won't fit into the same "large" shirt.

Sizing issues, though, are not just limited to fashion and apparel. The absence of size charts results in a skew everywhere. Someone finds a slab in a modular kitchen too low; another latch on a door too high. A fireman may be given a fire suit based on his approximate size but unless it fits him perfectly, it could have repercussions on safety, creating obstacles in his speed and efficiency. That's why National Sizing Standards for India becomes important and essential. From shoes to suits of firefighters, working garbs of ambulance and hospital staff, soldiers' uniforms to cars, knives, ramps for the disabled, to knee caps—one thing connects the other and standardized sizing is needed to make a crucial difference to the quality of services in the country.

Sizing issues befuddle just about everyone. Many of us may be small-sized according to one clothing brand but medium or large in another. Or we may need clothes in different sizes in the same brand, because fits differ in Western, Indian and fusion clothes. For women, the sizing issue is trickier as the logic of bust-waist-hip ratios needs to be balanced. For men too, though shirt collars are standardized and you may know what to expect from a size 40 across brands, there are sleeve-length differences, suiting one body type but not another. In the US, three sleeve lengths are available for each shirt size. Besides, new slim fits in menswear (shirts with darts) and ready-to-wear jackets by Indian brands, now among the top-selling categories, have created unforeseen sizing issues in retail experiences.

Indian sizing charts are an enormous, rocky terrain. It needs technology, anthropometric surveys, human management, funding and large-scale efforts to take measurements of men, women and children across the nation. Despite numerous academic debates, no institution, brand or retailer group has been able to push or complete the work on standardized sizing charts. Lack of private or public budgetary allocation is just one of the reasons.

It needs a mammoth exercise to map India's diverse ethnic groups. For reliable representative data, at least a few thousands samples are needed from across the country. To do that, a number of trained volunteers are required to handle measurement events. Body measurements can be taken by sophisticated 3D body scanners or based on the historical available data. Manual measuring as well as 2D and 3D imagery needs to be used to get accurate data.

Experts are ready with solutions. It's time the issue moves beyond the discussion stage. The first step should be to collect data on body dimensions; otherwise we will continue to wear shirts based on the sizing charts of other countries but never be able to fasten the top button. Holistic and unbiased Data collection is possible if we go back to regional tailors, who have been stitching garments for years. Measurement data gained from new-generation tailors (who also stitch and sell their own ready-to-wear), alteration tailors and make-through tailors (a term used for those who manage the entire process—sizing, cutting, stitching, finishing) should also be included to make it more relevant. Mannequins used in fashion institutes to educate students about pattern-making and tailoring need to be locally manufactured based on Indian body types. We use mannequins from the UK for teaching. No wonder our students have little clue about Indian sizing.

Most brands manage with self-created sizing charts and a trial-and-error process based on customer feedback and sales analysis. Competition in the market, the willingness of older age groups to wear fitted clothes and the introduction of fusion wear urged us to evolve our sizing of many brands. Stiff competition from fashion portals is pushing retailers to prioritize the resolution of sizing dilemmas. Most online stores offer smart options through videos with personalized mentoring to help customers ascertain appropriate sizes and make informed choices. For an Internet marketplace like Amazon, it's important to have on board e-tailers who offer lucid and simple-to-follow size guides.

Interesting anthropological anecdotes are everywhere you look. Most Indian women after the age of 50 tend to veer away from tight Western silhouettes; the most common menswear sizes are 38-40. While most brands have six sizes—XS, S, M, L, XL and free size (XXL), the two extremes—XS and XXL—sell the least. Medium is the most common size among Indian women, and large, the most common among men. South India generally doesn't prefer tight-fitted garments while women in Punjab do. Most young women are thinner than they've been in the last three decades but women above 50 are heavier than before. Current trends also suggest aspirations of slim fits in menswear

Standardized sizing charts are a priority for a brand, as they would give a brand competitive advantage in the market. It is a huge consumer and trade challenge. Customers want slim fits but when they go to the market they realize slim could mean anything from sizes 40-42. But for one brand to manage a large inventory of clothes with multiple sizes in every design too is a problem. Majority of the newer Brands today largely followed European sizes, with some tweaks borrowed from established Indian brands. But those who aim to attract a large part of the local population must consider different size sets for different markets.

Fashion designers have their own grouses with sizing. At the moment one designer's small is another's medium and yet another's large. So buyers who order for multi-designer stores are confused and in the end, the client is confused. Also, Indian women have different bodies. They would wear a medium-sized top in one brand but the bottom will be a size bigger. We need to accommodate these subtle differences. Designers may treat fashion models as the reference point for creating a garment conceptually (model sizes are similar across the world), but they have to make different batches for different markets. An Indian fashion customer is, on an average, 6 inches shorter than a customer in Germany. When the size is measured from shoulder to waist, enormous differences creep up between people in the US and Europe, and India. If a size is not exact, the fabric starts ripping upon use and can cause what's termed as fashion malfunction. Also, while Indian fashion stores prefer garments with 2-inch margins inside, the same can get a consignment rejected in the international market. Also Garments made from stretch fabrics particularly need great attention to sizing.

And so, today there exist as many sizes and sizing systems in the Indian clothing market as there are brands! The sizes are different, the nomenclature is different and the size intervals are also different in each case. There is no way a customer can buy her clothing without having to try on innumerable clothes in each brand. Then again, there is no consistency of sizes even within the same brand, for say top and lower body garments. That is to say, that a woman maybe a small (S) in shirts but a large (L) in trousers. All this creates a lot of confusion in the mind of the customer mainly because the exact body measurements for which the garment is intended are not known to the customer and often there is no relation between the garment size and the body measurements.

Standardization of Sizing in India becomes essential and requires dealer networks and access to various markets from Surat to Coimbatore. Well-Coordinated efforts from academicians, manufacturers, retailers are required to cater the assignment in hand. All the national sizing surveys done internationally, be it the UK, US, China or any other—there is always a collaborative effort undertaken by retail companies, academia and government. Only a large consortium made of big retailers who can fund the project, academia who would lay down the directions and analyse the results, and active government support can crack it. By its sheer nature, body sizing needs a consortia approach where academic institutions, technology providers, Government agencies and retailers need to come together and work out a comprehensive strategy for sharing of responsibility, funds and findings.

If charts for the Indian body sizes are standardized, customers of fashion and apparel won't need to hunt for perfect fits each time they shop. And brands that adopt such a chart won't lose customers owing to incongruous fits.

This long list of challenges in sizing could, however, take a conclusive turn if standardized size charts for India can be formulated. Statistical analysis will be possible because of measurement tools, principles and new technology brought in from other countries with standardized sizing charts. The concept of size India is the need of the hour. It will address everything from specialized sportswear to prosthetic legs, from forensics to fashion. The survey/project (Size India) will benefit a culturally diverse country like India, where people find it difficult to track down well-fitting garments. This will not only help consumers get better-fitting garments but also the retailers in understanding their target buyers.

The complexity of garment sizing

The problem of garment sizing is extremely complex, besides being interdisciplinary in nature; thus making the entire exercise of developing a sizing system, a highly capital and time intensive one. Size UK, conducted in 2000 costed USD 1.2 billion and Size Sweden, conducted in took 5 years to complete. The extent of time and money required have been major deterrents in taking up the issue of data collection and data analysis for garment sizing.

But by far, the weakest link has been the process of data collection and analysis. That is, how to process the huge amount of data generated, so as to be able to arrive at a suitable set of sizes, which can provide the framework for mass manufacture of garments. Simple statistics is incapable of processing this data due to the inherently nonlinear nature of the problem.

Most sizing systems used today are faulty as they are based on a simple system of averages or percentiles - thereby assuming that human bodies follow a mathematical precision and increments in their shapes and sizes. In other words, each body is supposed to fit one of the sizes which some statistician arrived at by taking the average of a given population- of which you may or may not have been a part. Or worse still, some companies use professional models to test fit their garments before they are put into production!! So unless one has the so called average figure or the figure of a professional model, one cannot expect to find a garment that fits.

Analysis of the Indian population data in the current study shows that ~ 20% of the population matches the dimensions of an average figure! So what happens to the rest 80%? Given this

understanding, it might be better to follow a system where the bodies would not be required to fit the sizes, rather the sizes are devised to fit the bodies - as they are in reality. In other words, to devise a sizing system which covers ~80% of the population. 10-20% of the population which is not covered would comprise of the outliers or those which are significantly different in size or proportion from standard dimensions. These will have to be catered to as special categories (eg. plus size category).

Garment sizing is also about catering to different body proportions, such as waist to hip ratio (WHR), Bust to hip ratio and so on. This means that no single measurement can be taken as the basis of garment sizing (most current systems do this), instead, some key measurements have to be identified for each garment type and the population has to be classified on the basis of these multiple dimensions. Also, the number of size categories should be kept to a minimum to keep the inventories manageable. Once the size groups have been identified, it should be possible to tell as to how many people are covered under each one of the sizes to facilitate the stock production and inventories. All these further add to the complexity of the problem.

It is not easy to carry out these complex analyses given the huge size of the data matrix obtained from anthropometric studies. Fortunately, very powerful and sophisticated mathematical tools have now become available. These, coupled with the current computing power, can be used to analyse the data and arrive at a suitable sizing system- one which adequately covers a given population and gives a good fit to the intended wearers. It will lead to the development of standard size charts that will not only help apparel firms make better-fitting clothes but also improve production efficiencies.

Size Indian will have to come. Indians are the biggest shoppers abroad and the domestic retail market is also growing fast. A clear guideline on Indian size will have to become a reality. If the American Society for Testing and Materials can maintain more than 15,000 standards, so can we.



Exhibit 41 – Advantages of having Sizing grid for India

Annexure – 18 - Apparel Trade

18.1 World Apparel Trade

The world's apparel trade was USD 439 Bn²¹ in 2015 and is expected to grow at CAGR of 5%²² over next decade. The woven and knitted apparel exports share 51%-49% split in world's total exports. The exports of both categories have grown at CAGR of 5%-6% in past five years, however, in the next decade it is estimated that knitted apparel will grow at higher CAGR, owing to increasing demand.

The key categories being traded are men's shirts, women blouses, t-shirts, activewear, innerwear, nightwear, outerwear, etc. The overall fast moving traded categories are outerwear, men's bottomwear and t-shirts.

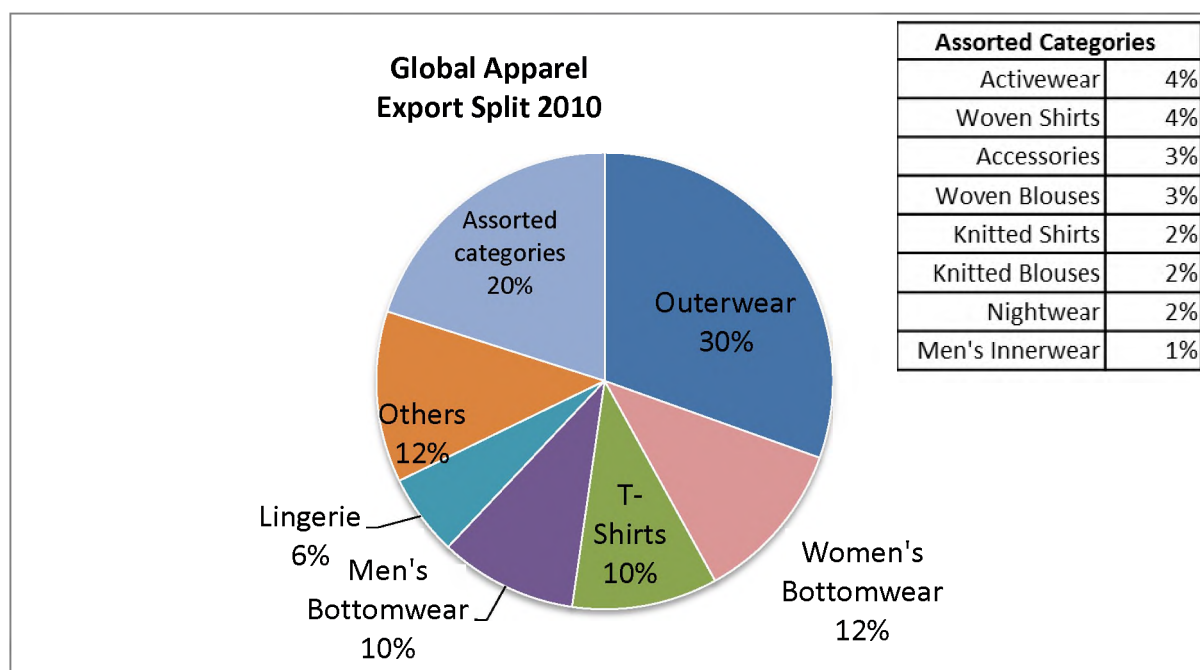


Exhibit 42 –Global Apparel Exports – Category Split - Source: ITC Trademap, Technopak Analysis

Below shown are the CAGR at which world's exports grew in past five years. Activewear, bottomwear, men's innerwear have emerged as categories with promising high CAGR. The woven blouses and shirts have also shown a CAGR of 5% and appear as a promising category in apparel exports.

²¹ ITC Trade Map

²² Technopak Analysis

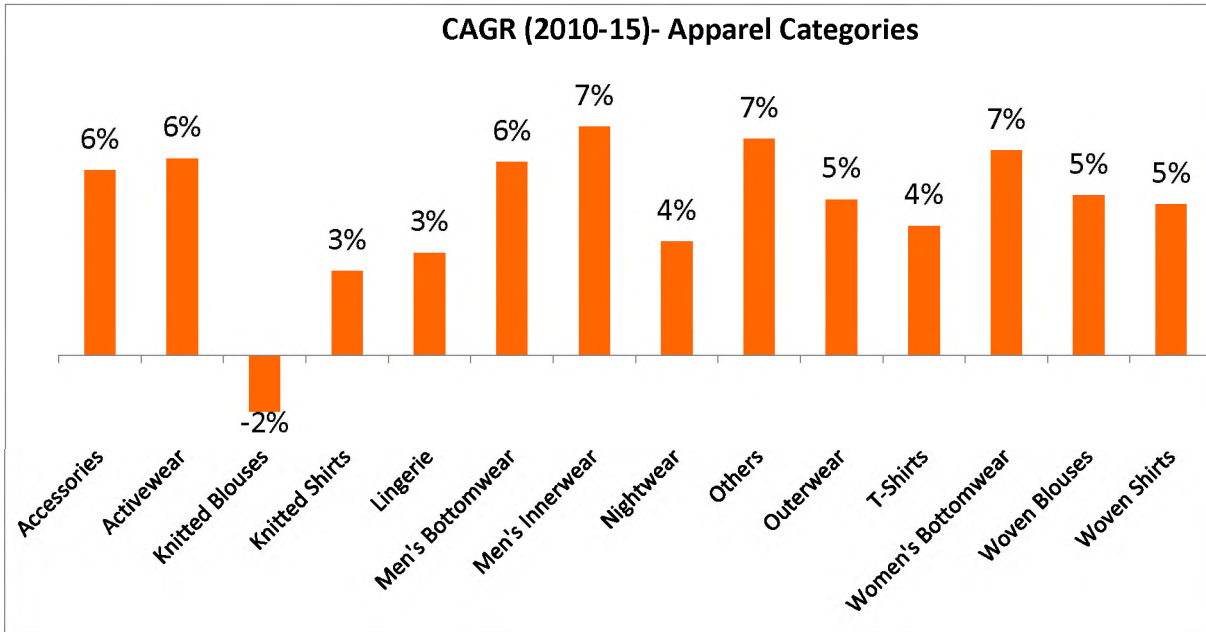


Exhibit 43 – Apparel Categories – Global CAGR for 2010-15 - Source: ITC Trademap, Technopak Analysis

It can be seen from the chart below that t-shirts, Trousers, Sweaters, Jeans and Dresses accounts for more than 40% of the total exports. The categories showing high CAGR are jackets, overcoats, dresses, swimwear & sportswear and underpants.

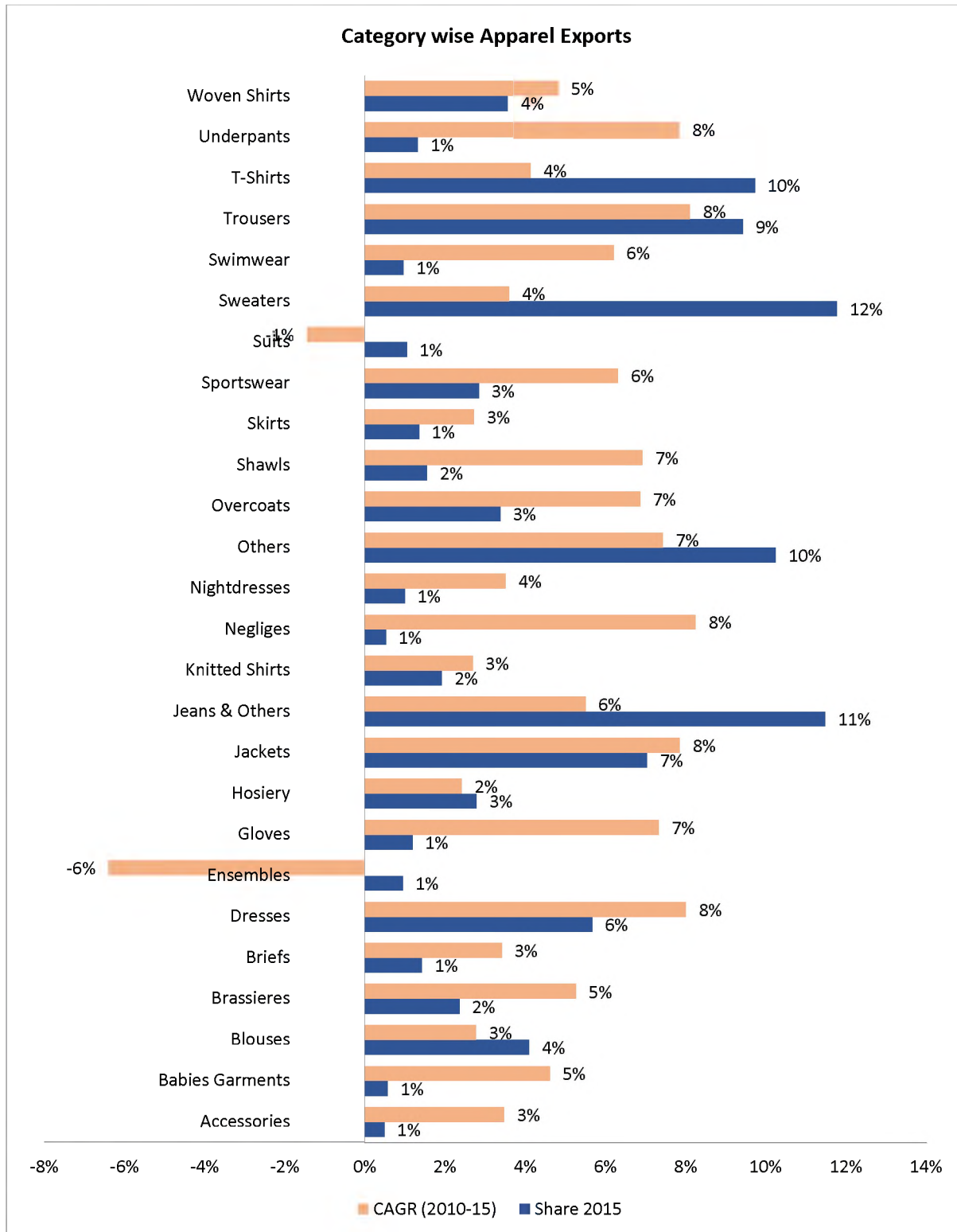


Exhibit 44 – Global Apparel Categories – Percentage Share - Source: ITC Trademap, Technopak Analysis

18.2 India Apparel Trade

Apparel exports accounted for ~46% of the total textile and apparel exports. India exported apparel worth USD 16 Bn²³ in 2015 and it is expected to grow at CAGR of 10%²⁴ over next five years.

Categories	2010(US Dollar Mn)		India's Share	2015(US Dollar Mn)		India's Share	CAGR 2010-15	
	Global	India		Global	India		Global	India
Outerwear	1,03,052	2,098	2.0%	1,31,394	3,271	2.5%	5.0%	9.3%
Women's Bottomwear	38,897	746	1.9%	53,386	1,018	1.9%	6.5%	6.4%
Men's Bottomwear	32,963	587	1.8%	44,477	1,053	2.4%	6.2%	12.4%
T-Shirts	34,902	1,698	4.9%	42,764	2,858	6.7%	4.1%	11.0%
Lingerie	19,512	182	0.9%	22,938	355	1.5%	3.3%	14.3%
Activewear	12,419	165	1.3%	16,848	1,096	6.5%	6.3%	46.1%
Woven Shirts	12,409	794	6.4%	15,705	1,167	7.4%	4.8%	8.0%
Accessories	11,665	726	6.2%	15,542	1,008	6.5%	5.9%	6.8%
Woven Blouses	9,975	1,416	14.2%	12,800	1,604	12.5%	5.1%	2.5%
Knitted Shirts	7,449	540	7.2%	8,512	752	8.8%	2.7%	6.8%
Men's Innerwear	4,462	169	3.8%	6,344	322	5.1%	7.3%	13.7%
Nightwear	5,137	340	6.6%	6,143	624	10.2%	3.6%	12.9%
Knitted Blouses	5,765	349	6.0%	5,257	186	3.5%	-1.8%	-11.8%
Others	41,006	406	1.0%	57,263	1,061	1.9%	6.9%	21.2%
Total International Trade	3,39,612	10,214	3.0%	4,39,374	16,374	3.7%	5%	10%

Exhibit 45 – Apparel Categories – Global and India share - Source: ITC Trademap, Technopak Analysis

Activewear exports have boosted in past five years with CAGR of 46%. The category-wise apparel exports have seen double digit growth rate over past five years, except knitted blouses which experienced declining trend. Apart from activewear, the fastest growing categories include bottomwear, lingerie, men's innerwear and nightwear. Unlike global trend, the lingerie exports have shown higher CAGR.

²³ ITC Trade Map

²⁴ Technopak Analysis

Based on the below chart and comparison with world's exports it could be analysed that India can diversify into product categories like overcoat, jackets and dresses which have growth potential. With increasing India's competitiveness in knitted category t-shirts, innerwear, babies clothing and knitted shirts are other categories which have immense growth potential.

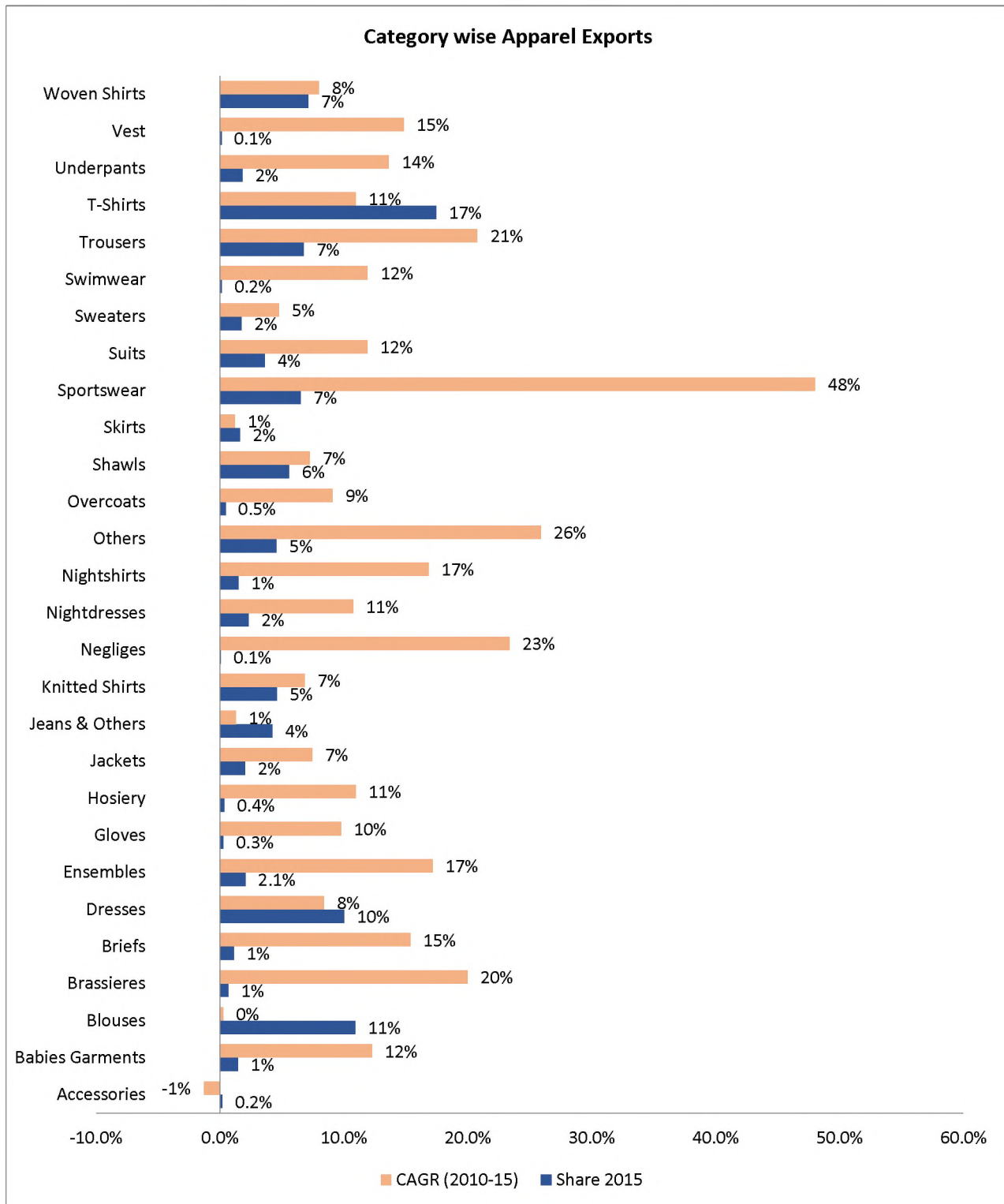


Exhibit 46 – Apparel Categories – India share and CAGR for 2010-15 - Source: ITC Trademap, Technopak Analysis

18.3 Consuming Markets – Apparel

The key importers of apparel include USA, EU, Japan, Australia, Canada, Middle East, Latin America and Africa.

18.3.1 USA

USA accounted for 17.9% of the total global apparel trade in 2015. Of the total apparel imported, knitted apparel accounted for 53% and woven accounted for the rest 47%. The key product categories being imported include jeans (12.3%), sweaters (17.8%), trousers (10.1%) and t-shirts (6.9%).

India's share is only 4.3% in the total apparel imports of USA. The share in woven apparel (5.4%) was higher than that of Knit apparel (3.4%). India accounts only for 2.3% of the jeans, 3% of sweaters, 1.7% of trousers and 4.3% of T-shirts imported in the USA. By adding garmenting capacities and increasing share in sweaters, India can significantly gain market in USA.

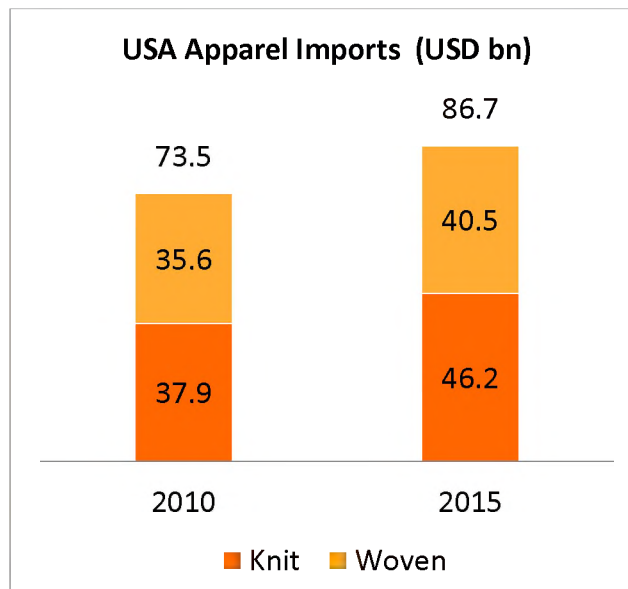


Exhibit 47 – Apparel Import – USA – Source: ITC Trademap, Technopak Analysis

Category wise Apparel Imports -USA (2015)

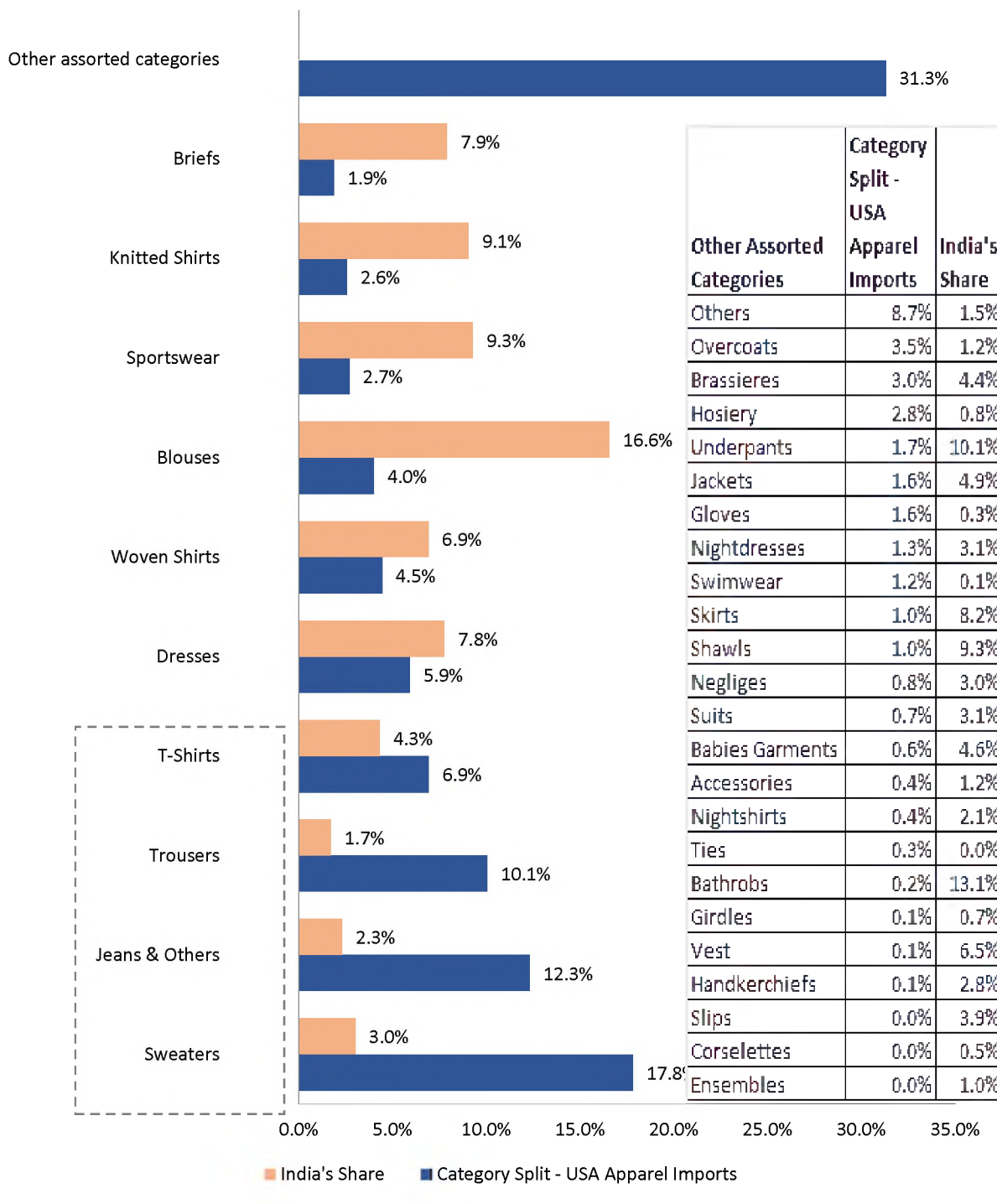


Exhibit 48 – USA Apparel Import Product Categories in Percentage & India's Share – Source: ITC Trademap, Technopak Analysis

Category wise Apparel Imports -USA (in Mn USD; 2015)

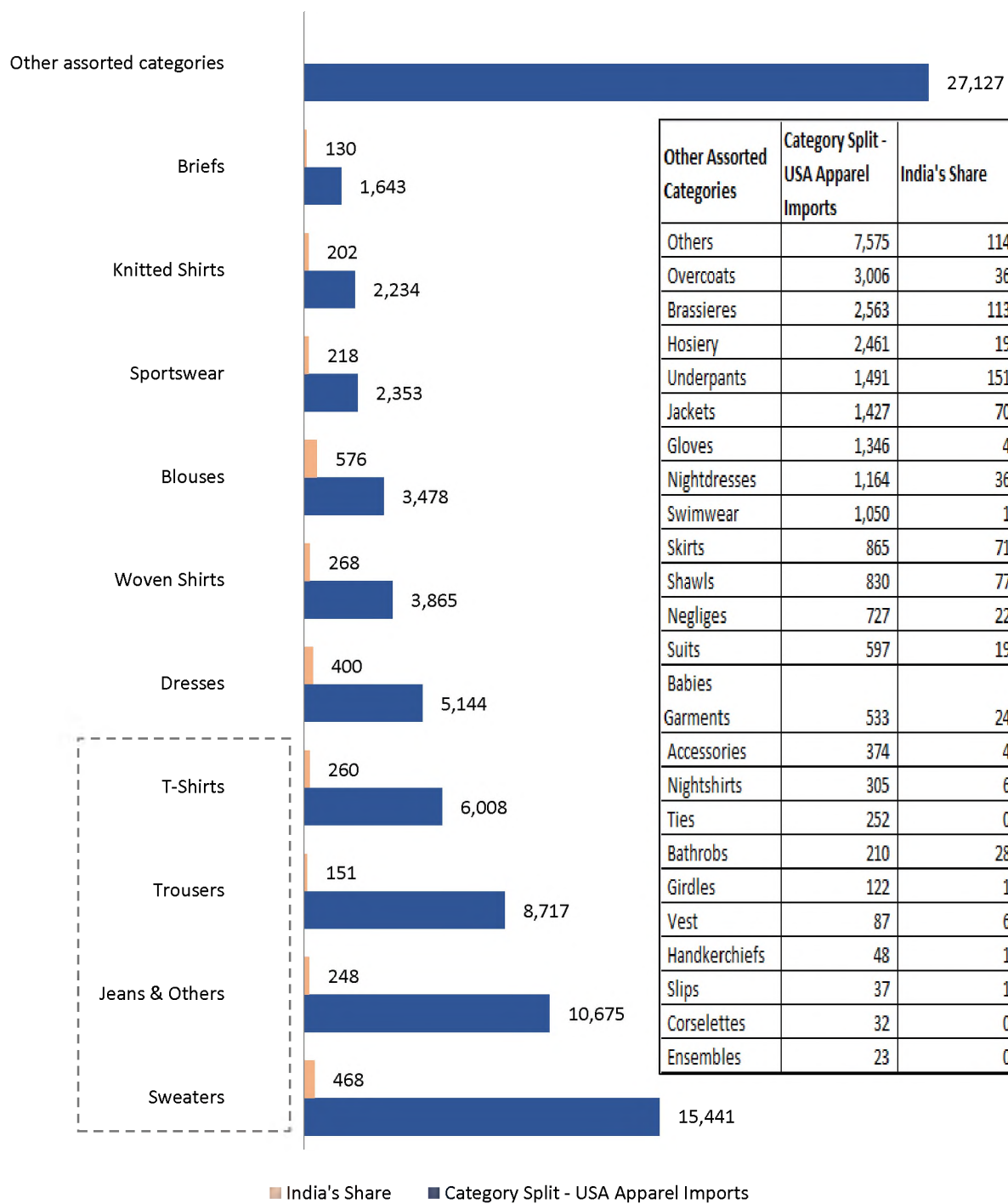


Exhibit 49 – USA Apparel Import Product Categories in Value & India's Share – Source: ITC Trademap, Technopak Analysis

18.3.2 European Union

EU accounted for 33.2% of the total global apparel trade in 2015. Of the total apparel imported, knitted apparel accounted for 48% and woven accounted for the rest 52%. The key product categories being imported include jeans (12.7%), overcoats (4.6%), sweaters (12.3%), trousers (8.4%) and t-shirts (11.2%).

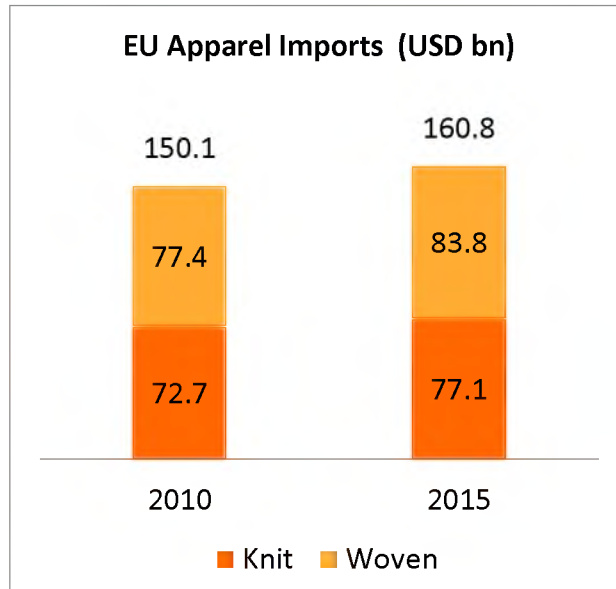


Exhibit 50 – Apparel Import – EU – Source: ITC Trademap, Technopak Analysis

India share is only 4.2% of the total imports of EU. The share in woven apparel (4.4%) was higher than Knit apparel (4.1%). India accounts for 2.1 %of the jeans, 1.7% of sweaters, 0.5 % of overcoats, 3.8% of trousers and 6.4% of t-shirts market of EU.

Category wise Apparel Imports -EU (2015)

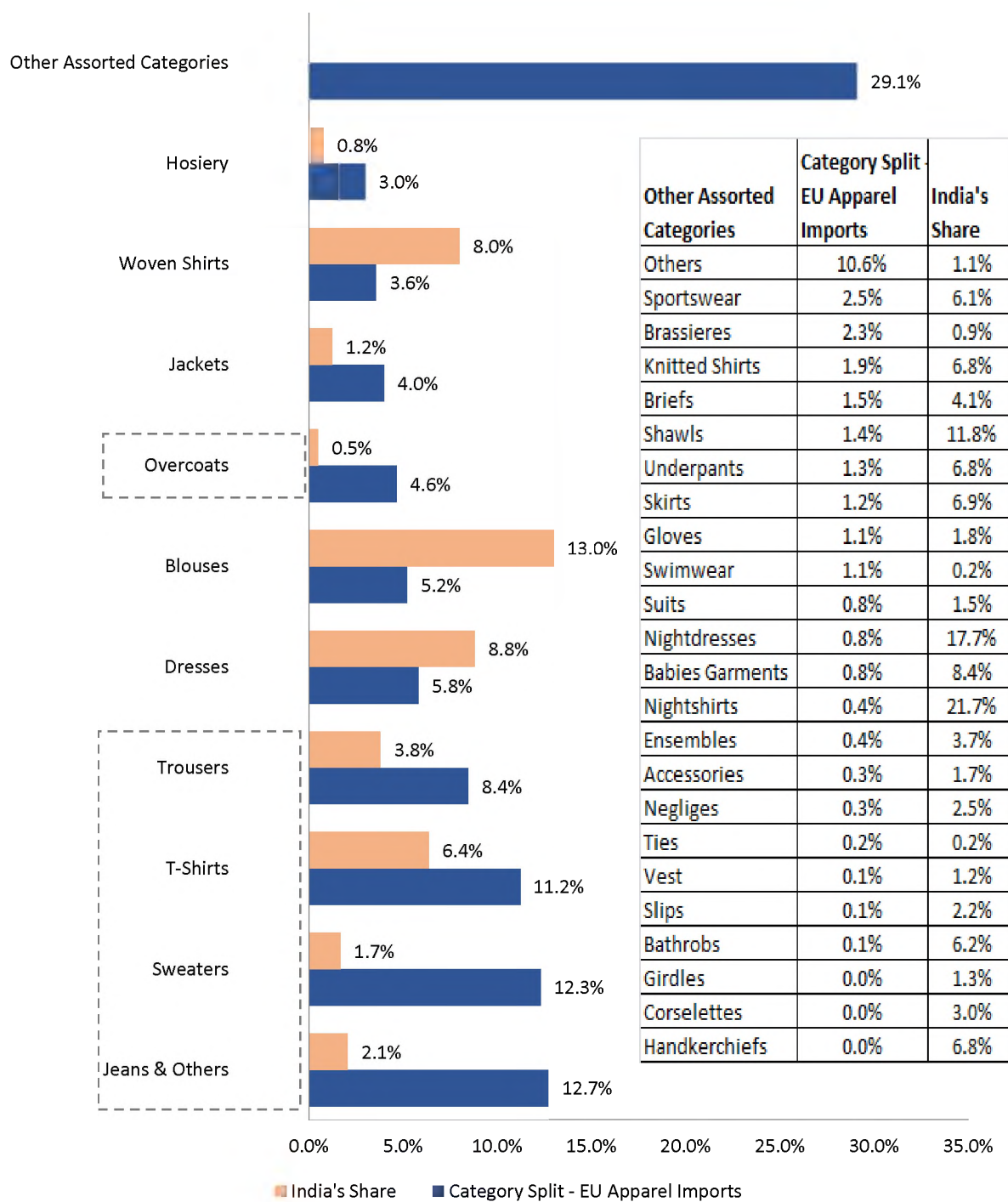


Exhibit 51 – EU Apparel Import Product Categories in Percentage & India’s Share – Source: ITC Trademap, Technopak Analysis

Category wise Apparel Imports -EU (in Mn USD; 2015)

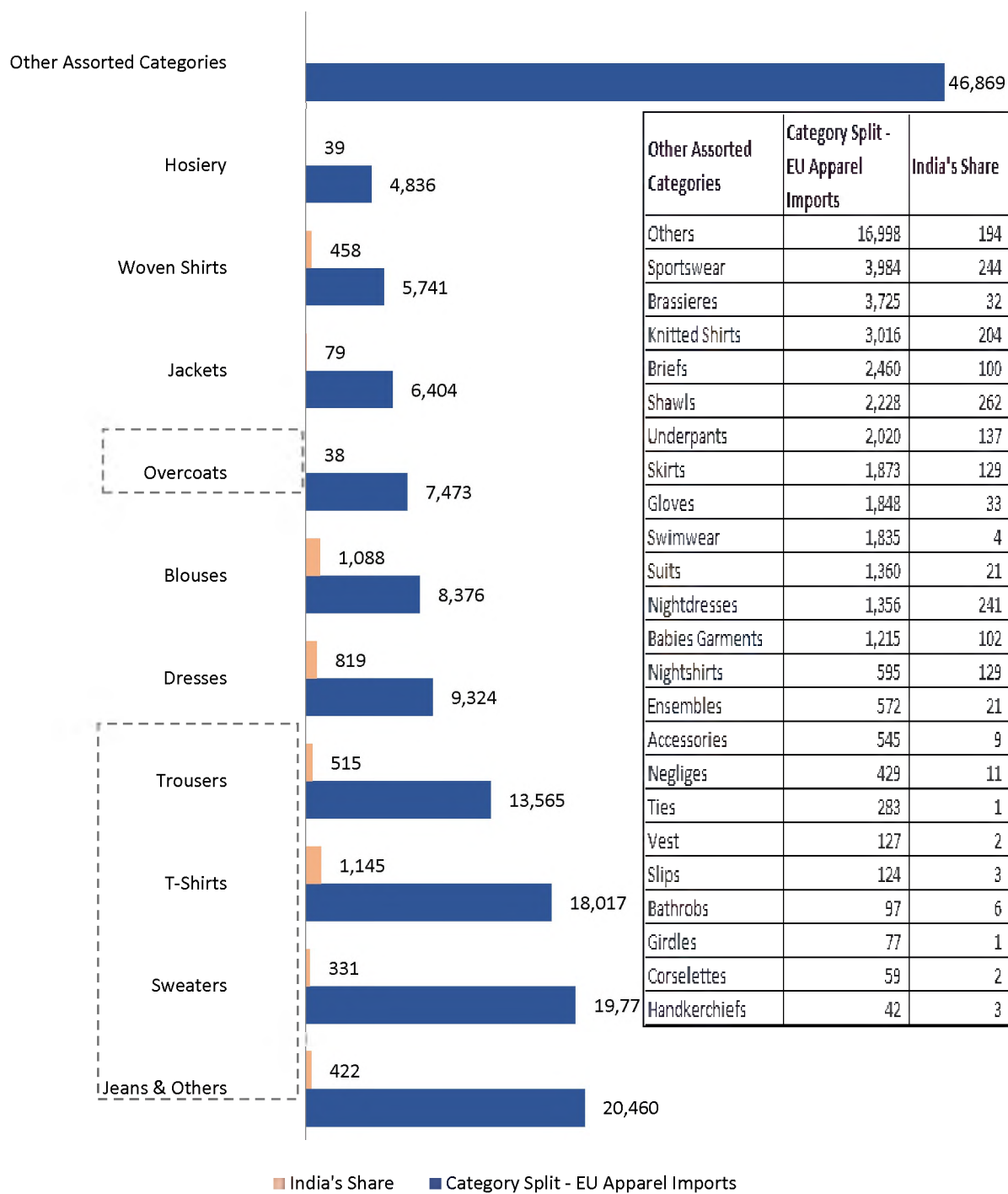


Exhibit 52 – EU Apparel Import Product Categories in Value & India's Share – Source: ITC Trademap, Technopak Analysis

18.3.3 Japan

Japan accounted for 5.5% of the total global apparel trade in 2015. Of the total apparel imported, knitted apparel accounted for 49% and woven accounted for the rest 51%. The key product categories include blouses (7.1%), jeans (7.3%), overcoats (5.8%), sweaters (17.3%), trousers (9.6%) and t-shirts (7.6%).

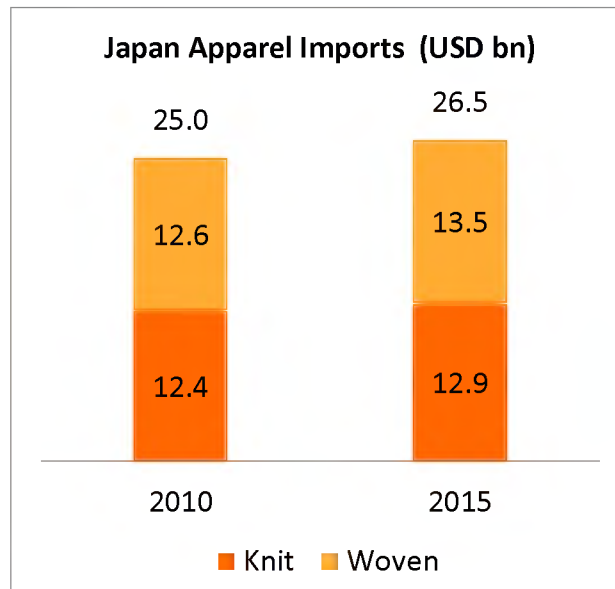


Exhibit 53 – Apparel Import – Japan – Source: ITC Trademap, Technopak Analysis

India's share is only 0.9% of the total apparel imports of Japan. The share in woven apparel (1.4%) was higher than Knit apparel (0.3%). India accounts for only 3.2% of blouses, 0.1% of sweaters, 0.9% of jeans, 0.1 % of overcoats , 0.2% of trousers and 0.5% of t-shirts market of Japan.

India needs to work on its trade relationships with Japan and try to gain significant share in the Japan's apparel market. By improving its share in sweaters and overcoats along with increasing its capacities in bottoms and knits, it can capture significant share in Japan's apparel imports. Also, increasing installed capacities in synthetic apparel can help in gaining higher share in blouses being imported by Japan.

Category wise Apparel Imports -Japan (2015)

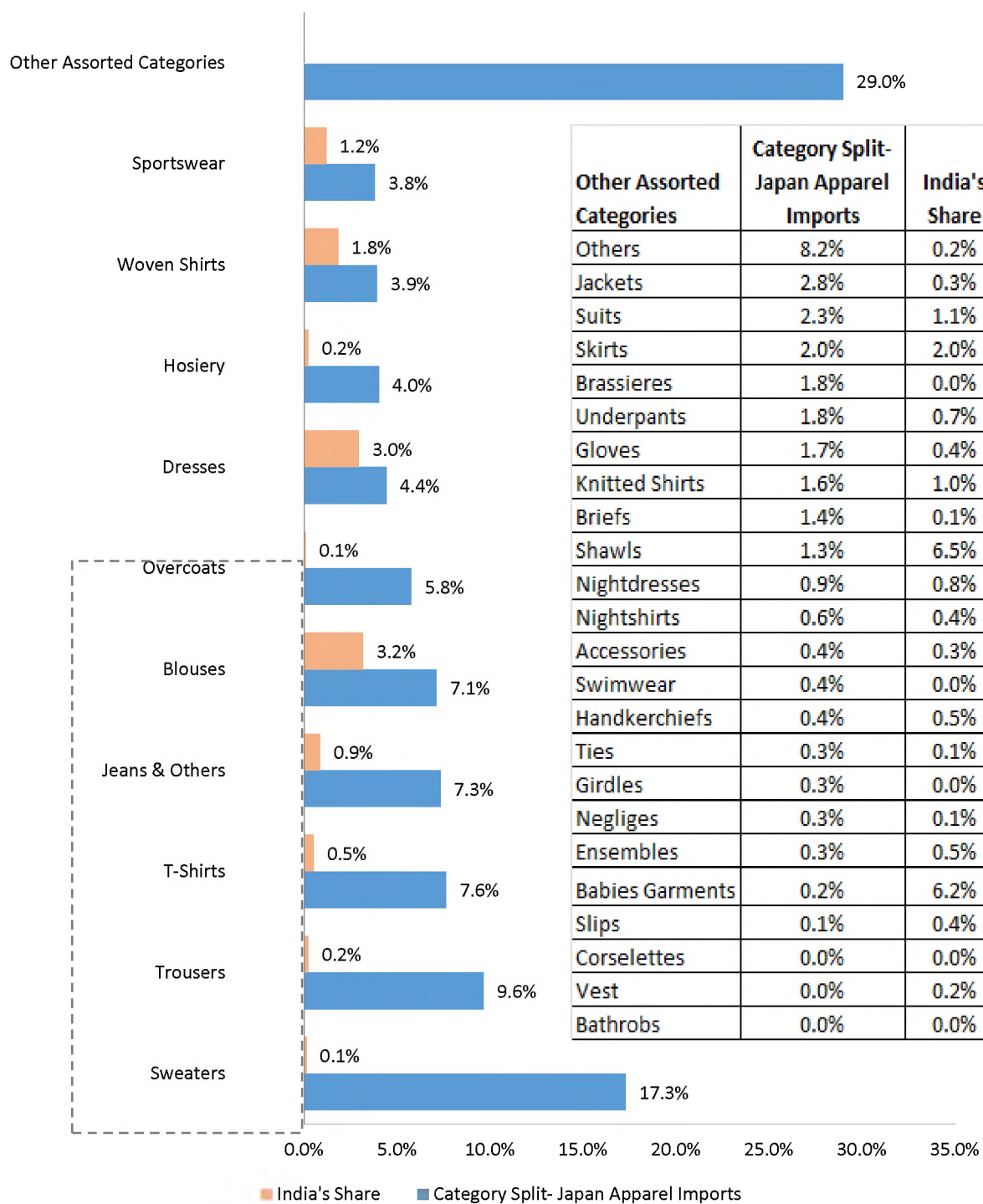


Exhibit 54 – Japan Apparel Import Product Categories in Percentage & India's Share – Source: ITC Trademap, Technopak Analysis

Category wise Apparel Imports -Japan (in Mn USD; 2015)

Other Assorted Categories

7,662

Sportswear

12.1

1,011

Woven Shirts

19.2

1,041

Hosiery

2.4

1,065

Dresses

34.6

1,172

Overcoats

1.3

1,527

Blouses

60.0

1,888

Jeans & Others

17.0

1,943

T-Shirts

10.7

2,022

Trousers

5.9

2,553

Sweaters

6.5

4,578

Other Assorted Categories	Category Split- Japan Apparel Imports	India's Share
Others	2,165	4
Jackets	744	2
Suits	601	7
Skirts	533	11
Brassieres	488	0
Underpants	467	3
Gloves	459	2
Knitted Shirts	412	4
Briefs	361	1
Shawls	337	22
Nightdresses	231	2
Nightshirts	146	1
Accessories	114	0
Swimwear	99	-
Handkerchiefs	98	1
Ties	88	0
Girdles	80	-
Neglises	77	0
Ensembles	67	0
Babies Garments	55	3
Slips	15	0
Corselettes	13	-
Vest	8	0
Bathrobs	3	-

India's Share Category Split- Japan Apparel Imports

Exhibit 55 – Japan Apparel Import Product Categories in Value & India's Share – Source: ITC Trademap, Technopak Analysis

18.3.4 Canada

Canada is emerging as another apparel exports destination. Of the total apparel imported, knitted apparel accounted for 51% (and woven the rest 49%). The key product categories being imported include jeans (10.5%), overcoats (4.6%), sweaters (15.1%), trousers (10.1%) and t-shirts (7.7%).

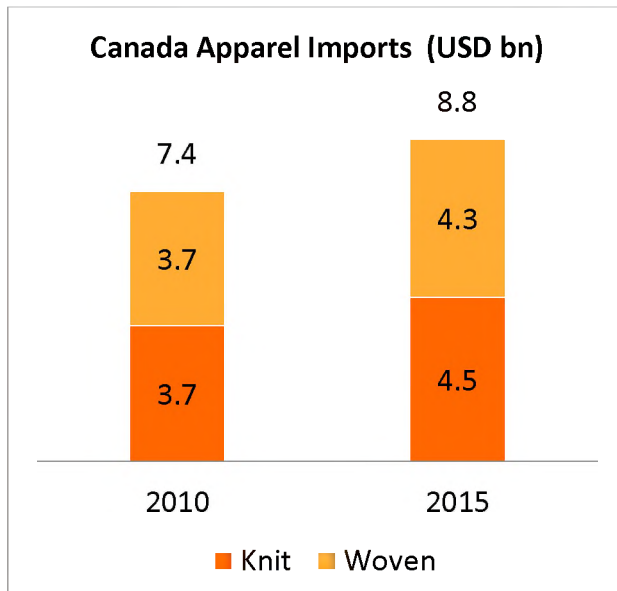


Exhibit 56 – Apparel Import – Canada – Source: ITC Trademap, Technopak Analysis

India's share is only 3.3% of the total apparel imports of Canada. The share in woven apparel (4.0%) imported from India was higher than that of Knit apparel (2.7%). India accounts for 1.8% of jeans, 1.7% of sweaters, 0.6% of overcoats, 1.2% of trousers and 4.8% of t-shirts imported in Canada. India by improving its share in sweaters and overcoats along with increasing its capacities in bottoms and knits can capture significant share in Canadian market.

Category wise Apparel Imports -Canada (2015)

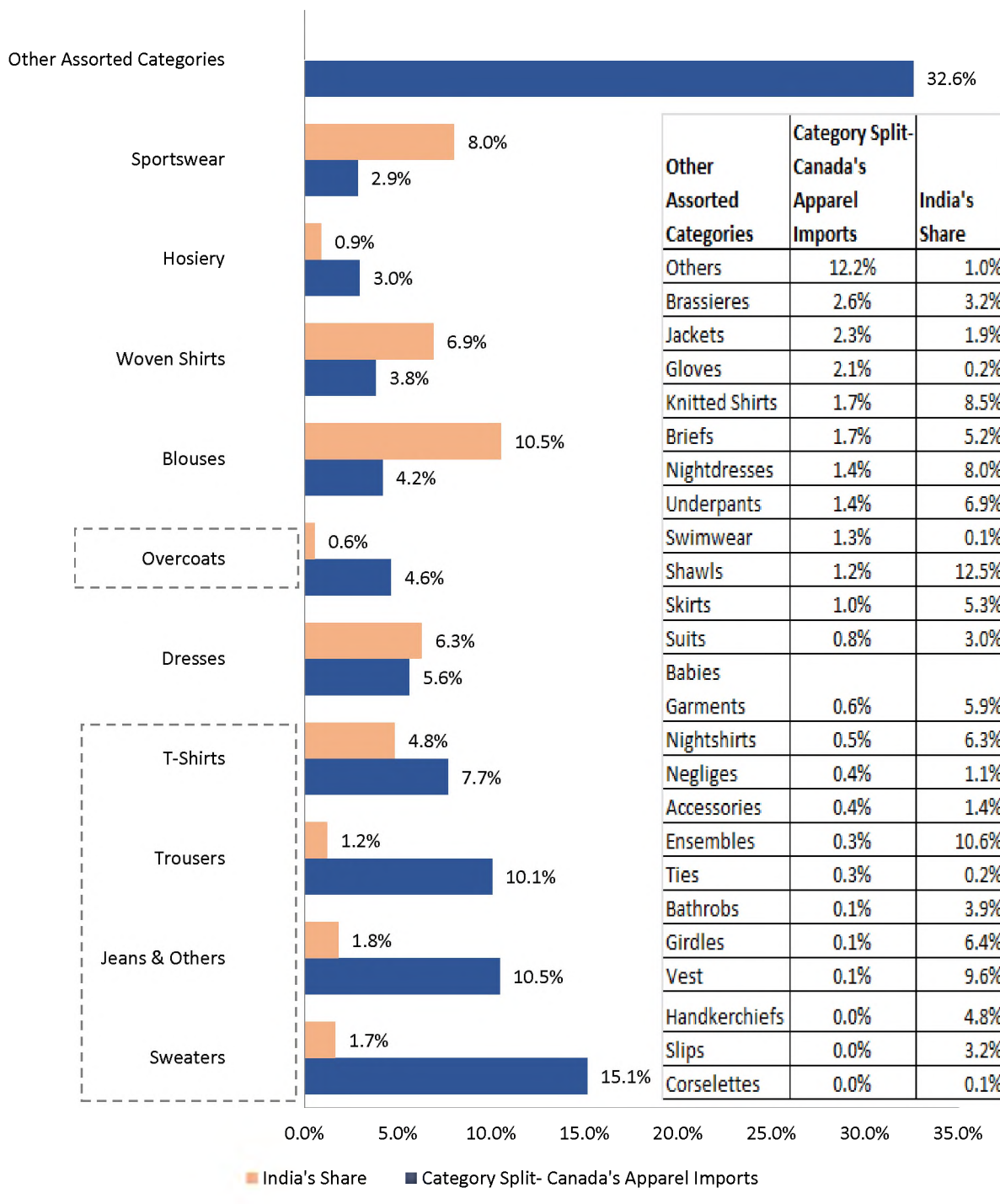


Exhibit 57 – Canada Apparel Import Product Categories in Percentage & India's Share – Source: ITC Trademap, Technopak Analysis

Category wise Apparel Imports -Canada (in Mn USD; 2015)

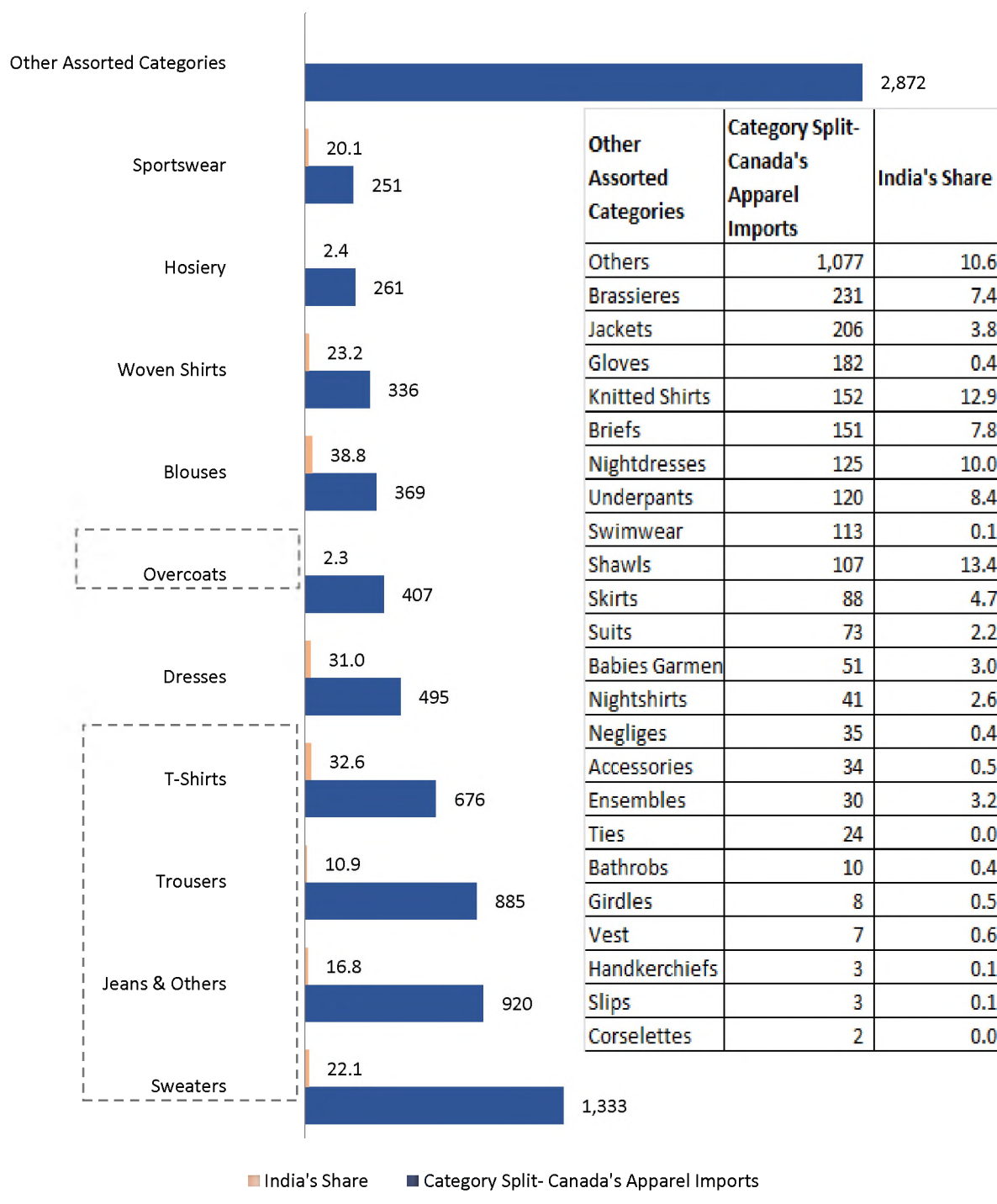


Exhibit 58 – Canada Apparel Import Product Categories in Value & India's Share – Source: ITC Trademap, Technopak Analysis

18.3.5 Australia

Australia is emerging as another apparel exports destination. Of the total apparel imported, knitted apparel accounted for 49% (and woven the rest 51%). The key product categories being imported include jeans (10.9%), sweaters (9.2%), trousers (10.5%) and t-shirts (10.9%).

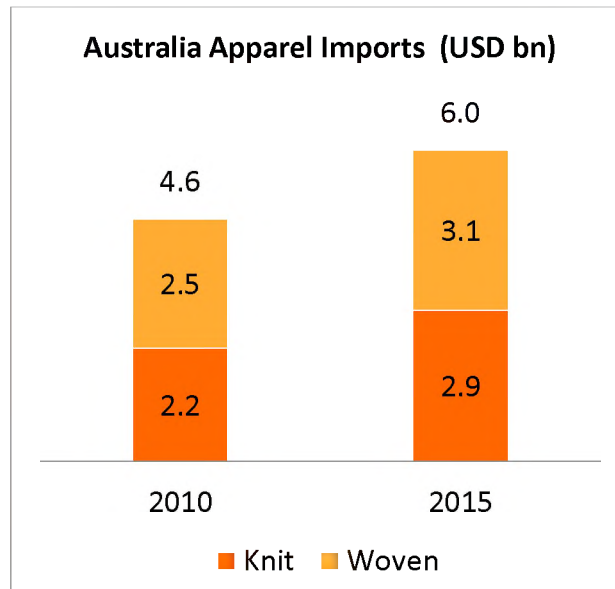


Exhibit 59 – Apparel Import – Australia – Source: ITC Trademap, Technopak Analysis

India's share is only 2.7% of the total apparel imports of Australia. The share in woven apparel (3.5%) imported from India was higher than that of Knit apparel (1.8%). India accounts for only 1.2% of the jeans, 0.6% of sweaters, 2.3 % of trousers and 3.0 % of t-shirts imported in Australia. India by improving its share in sweaters and overcoats along with increasing its capacities in bottoms and knits, can capture significant share in Australian market.

Category wise Apparel Imports - Australia (2015)

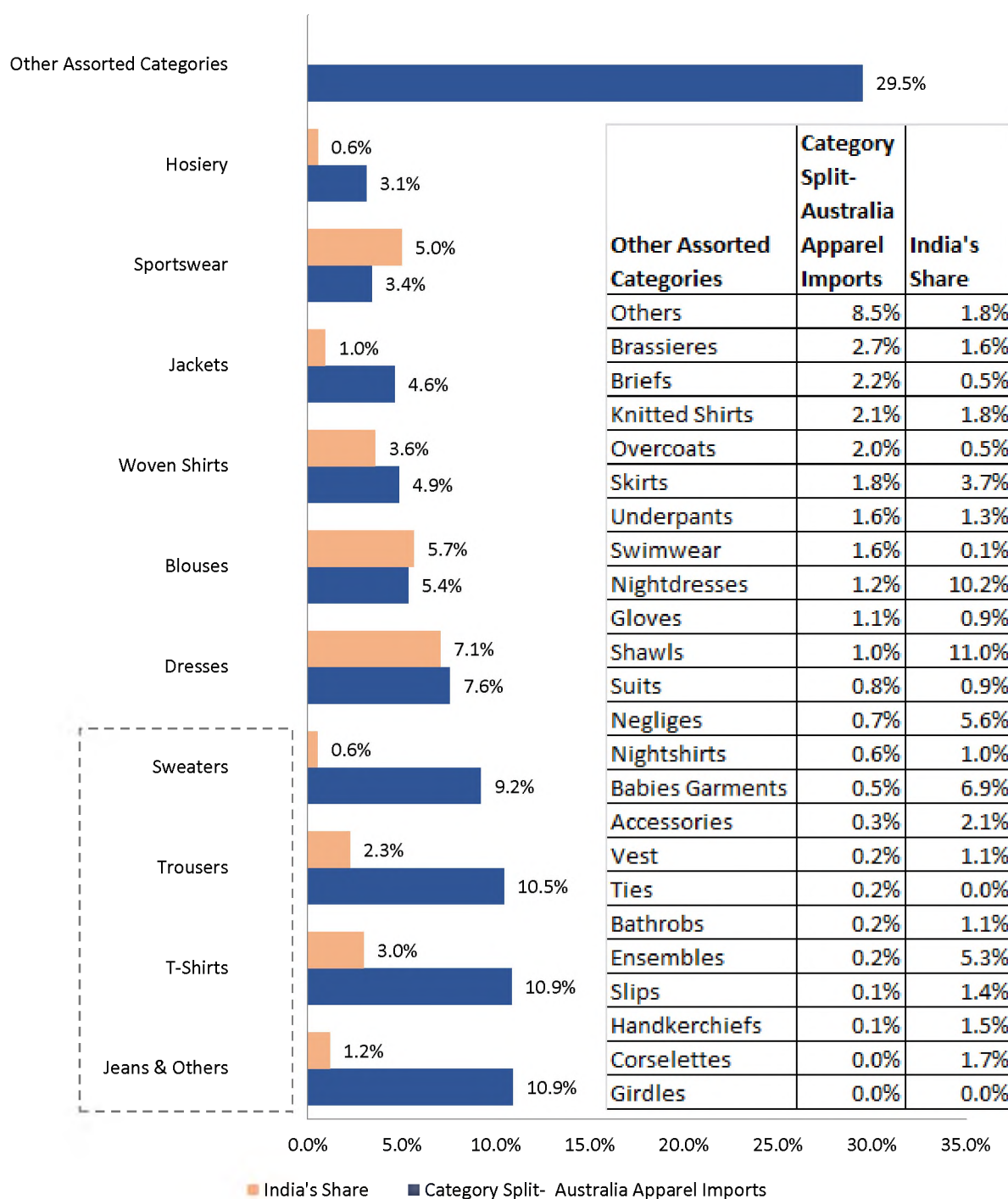


Exhibit 60 – Australia Apparel Import Product Categories in Percentage & India's Share – Source: ITC Trademap, Technopak Analysis

Category wise Apparel Imports - Australia (in Mn USD; 2015)

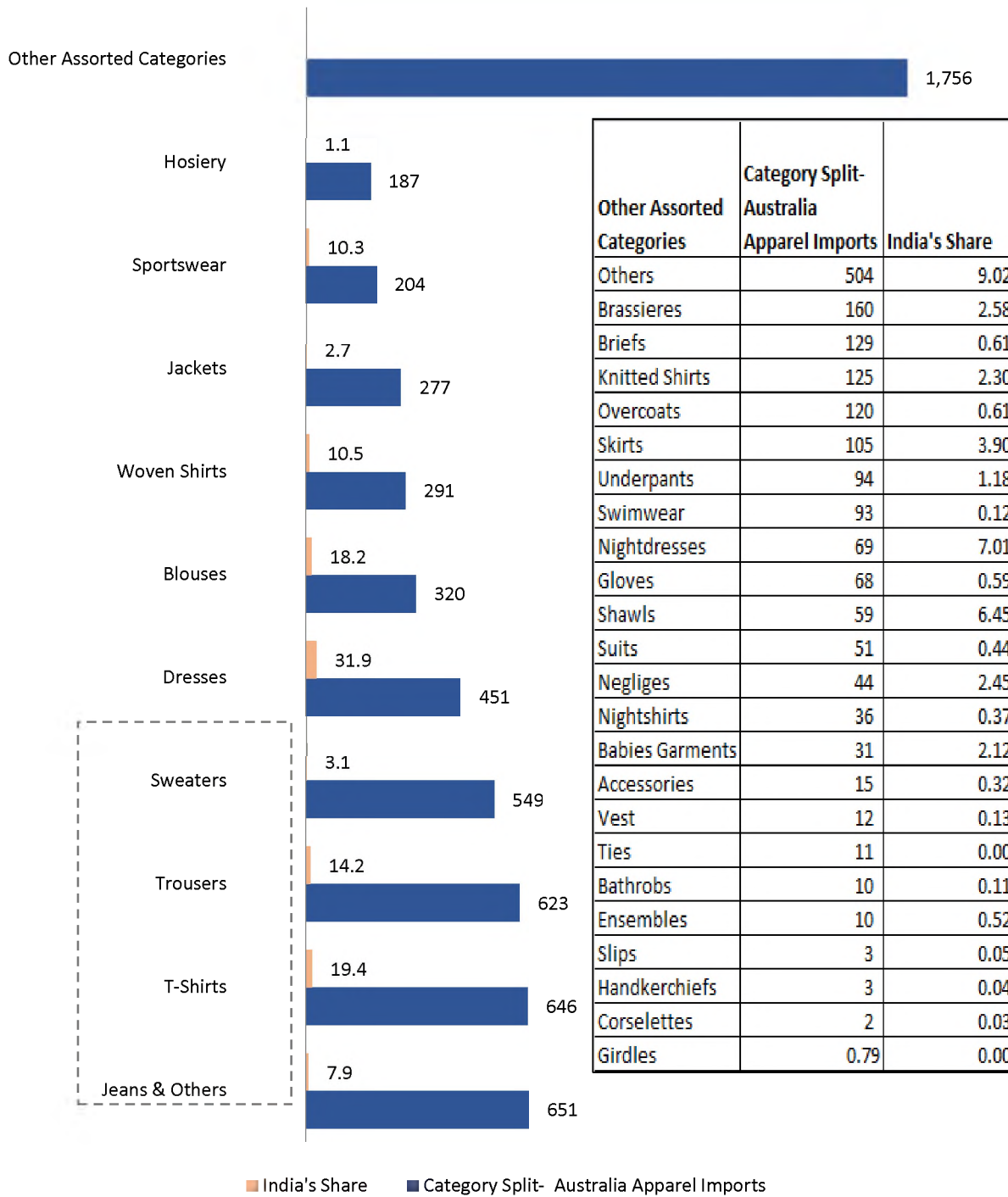


Exhibit 61 – Australia Apparel Import Product Categories in Value & India’s Share – Source: ITC Trademap, Technopak Analysis

18.3.6 Latin America

Latin America accounted for 3.1% of the total global apparel trade in 2015. Of the total apparel imported, knitted apparel accounted for 46% (and woven the rest 54%). The key product categories being imported include jeans (11.2%), sweaters (9.2%), trousers (10.3%) and t-shirts (11.7%).

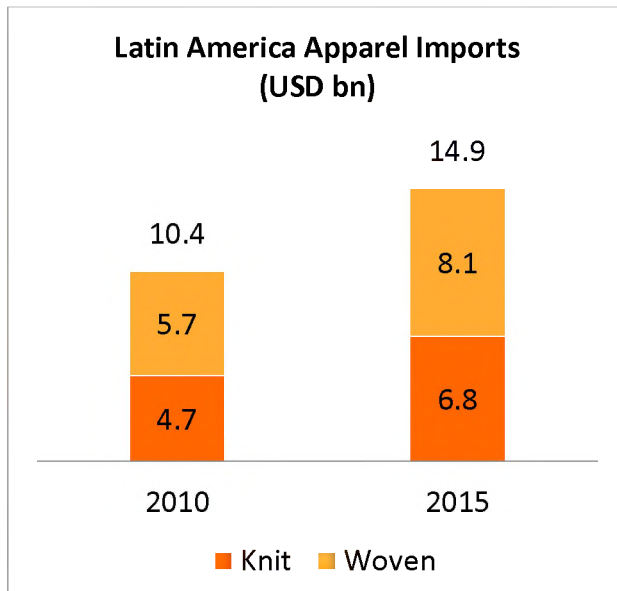


Exhibit 62 – Apparel Import – Latin America – Source: ITC Trademap, Technopak Analysis

India's share is only 3.7% of the total apparel imports of Latin American countries. The share in woven apparel (4.3%) imported from India was higher than that of Knit apparel (2.9%). India accounts only for 1.5% of jeans, 1.7% of sweaters, 2.0 % of trousers and 3.5% of t-shirts imported in Latin America. India by improving its share in sweaters along with increasing its capacities in bottoms and knits can capture significant share in Latin American market.

Category wise Apparel Imports - Latin America (2015)

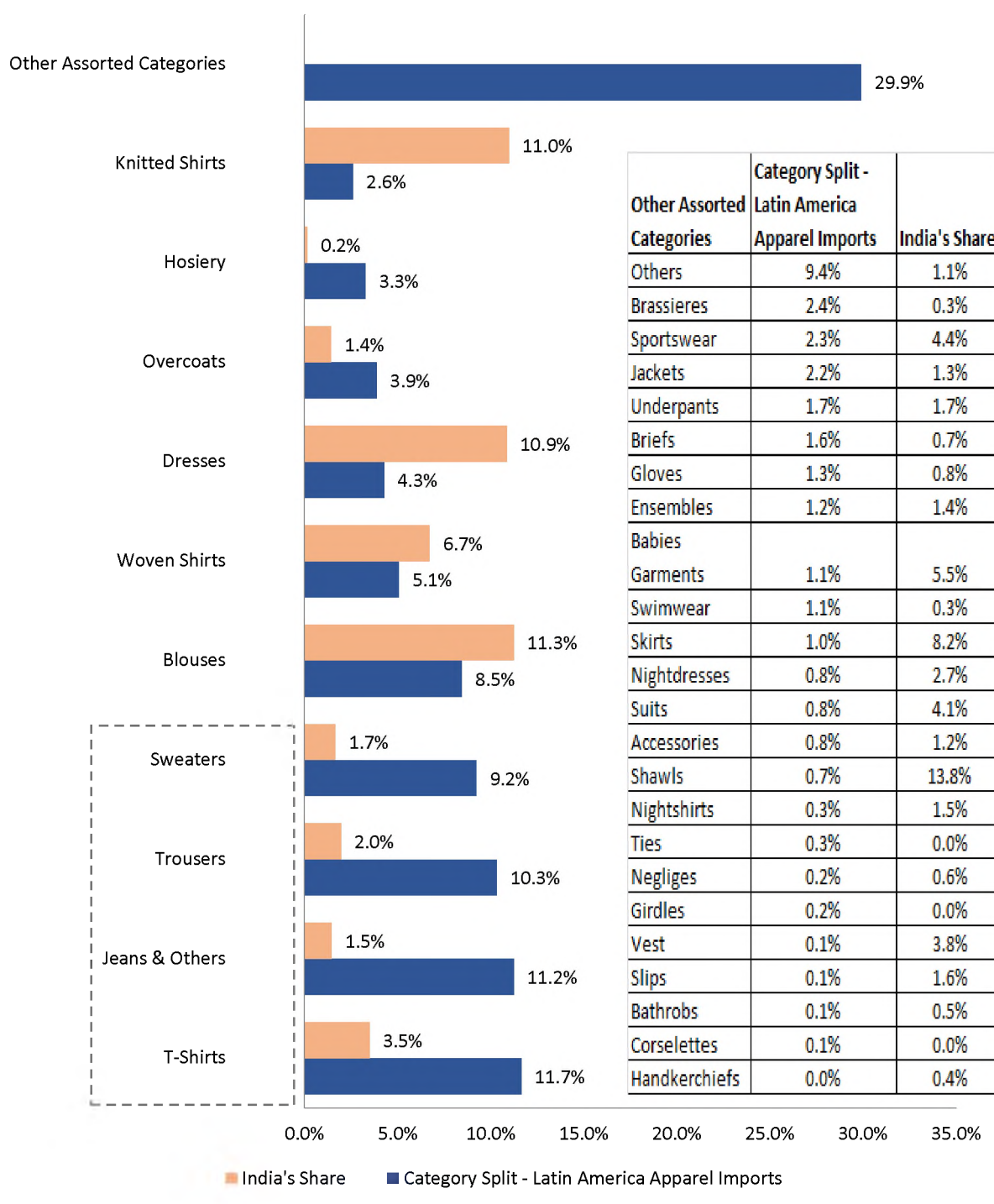


Exhibit 63 – Latin America Apparel Import Product Categories in Percentage & India's Share – Source: ITC Trademap, Technopak Analysis

Category wise Apparel Imports - Latin America (in Mn USD; 2015)

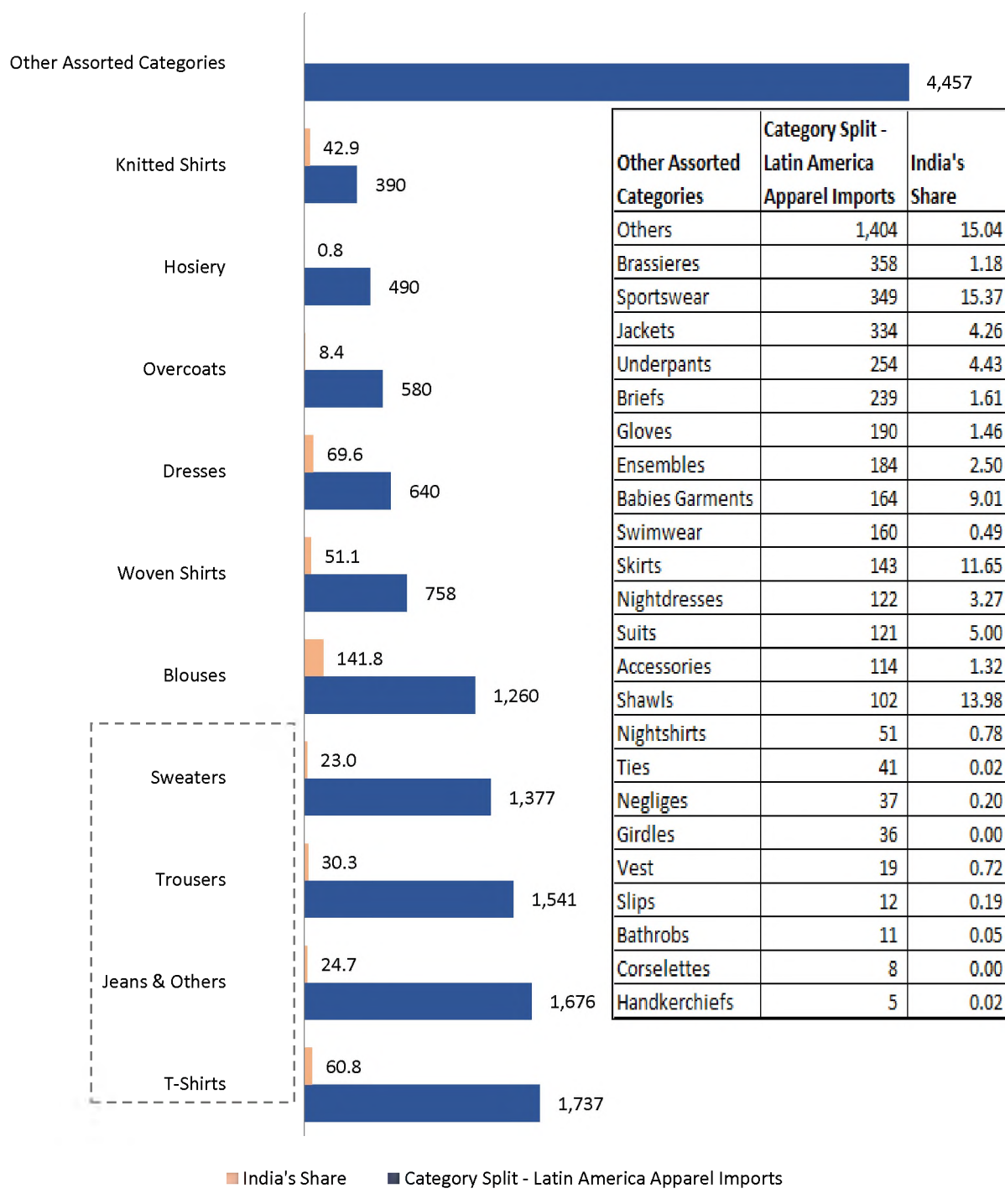


Exhibit 64 – Latin America Apparel Import Product Categories in Value & India’s Share – Source: ITC Trademap, Technopak Analysis

18.3.7 Middle East

Middle East accounted for 5.2% of the total global apparel trade in 2015. Over past five years apparel imports have grown significantly at CAGR of 23%. Of the total apparel imported, knitted apparel accounted for 47% (and woven the rest 53%). The key product categories being imported include jeans (7.3%), sweaters (5.4%), trousers (10.8%) and t-shirts (9.3%).

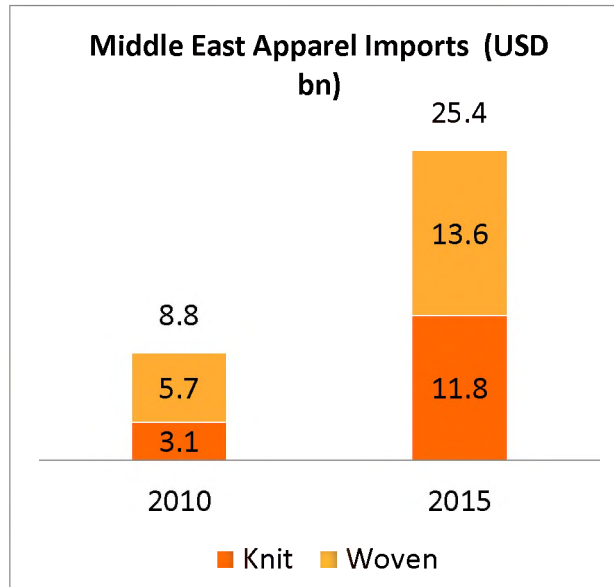


Exhibit 65 – Apparel Import – Middle East – Source: ITC Trademap, Technopak Analysis

India's share is only 5.9% of the total apparel imports of Middle East countries. The share in woven apparel (6.8%) imported from India was higher than that of Knit apparel (4.9%). India accounts for only 3.6% of the jeans, 1.0% of sweaters and 2.6% of trousers imported in the Middle East. India by improving its share in sweaters along with increasing its capacities in bottoms and knits, can capture significant share in the fast growing Middle East apparel market.

Category wise Apparel Imports - Middle East (2015)

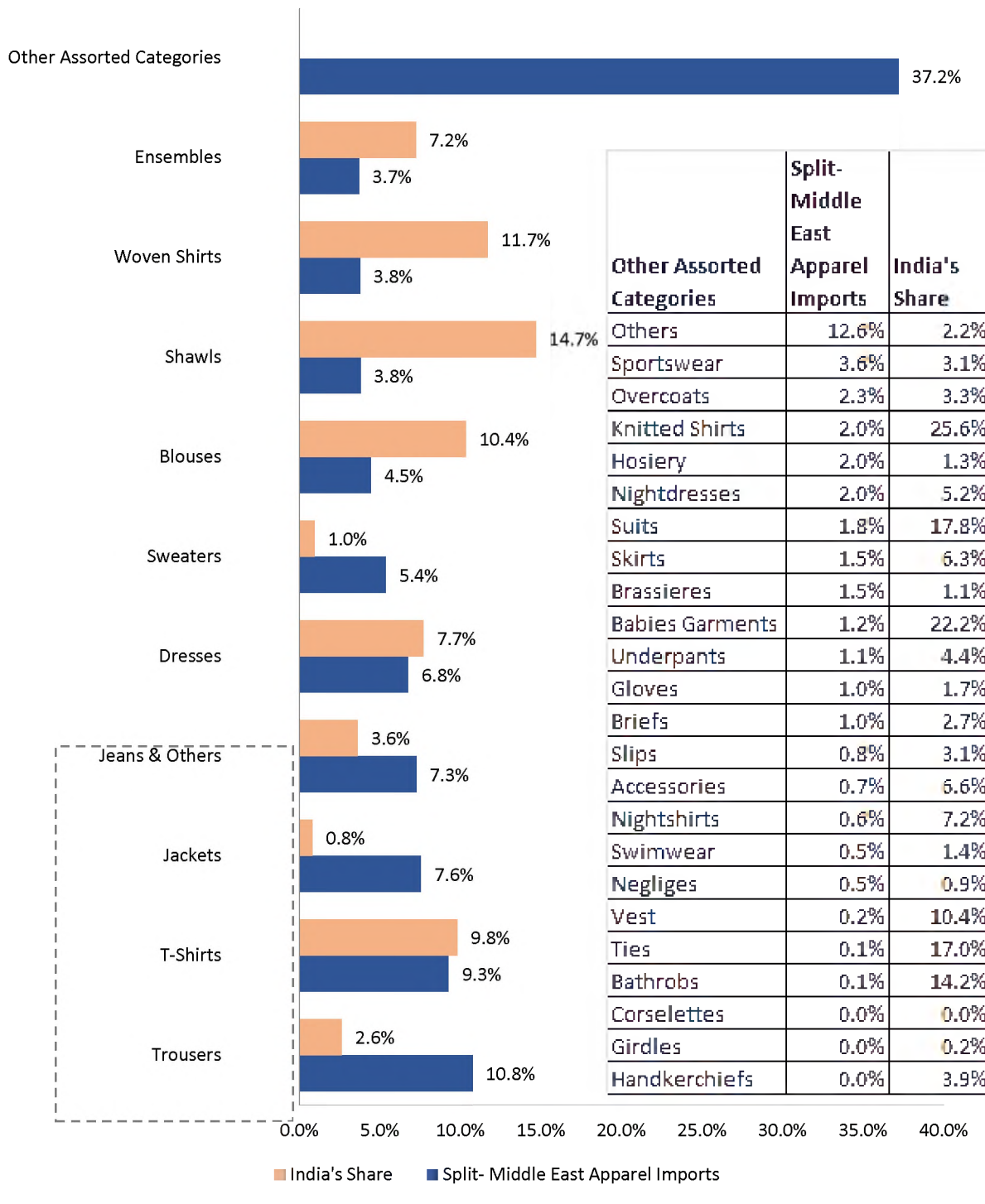


Exhibit 66 – Middle East Apparel Import Product Categories in Percentage & India's Share – Source: ITC Trademap, Technopak Analysis

Category wise Apparel Imports - Middle East (in Mn USD; 2015)

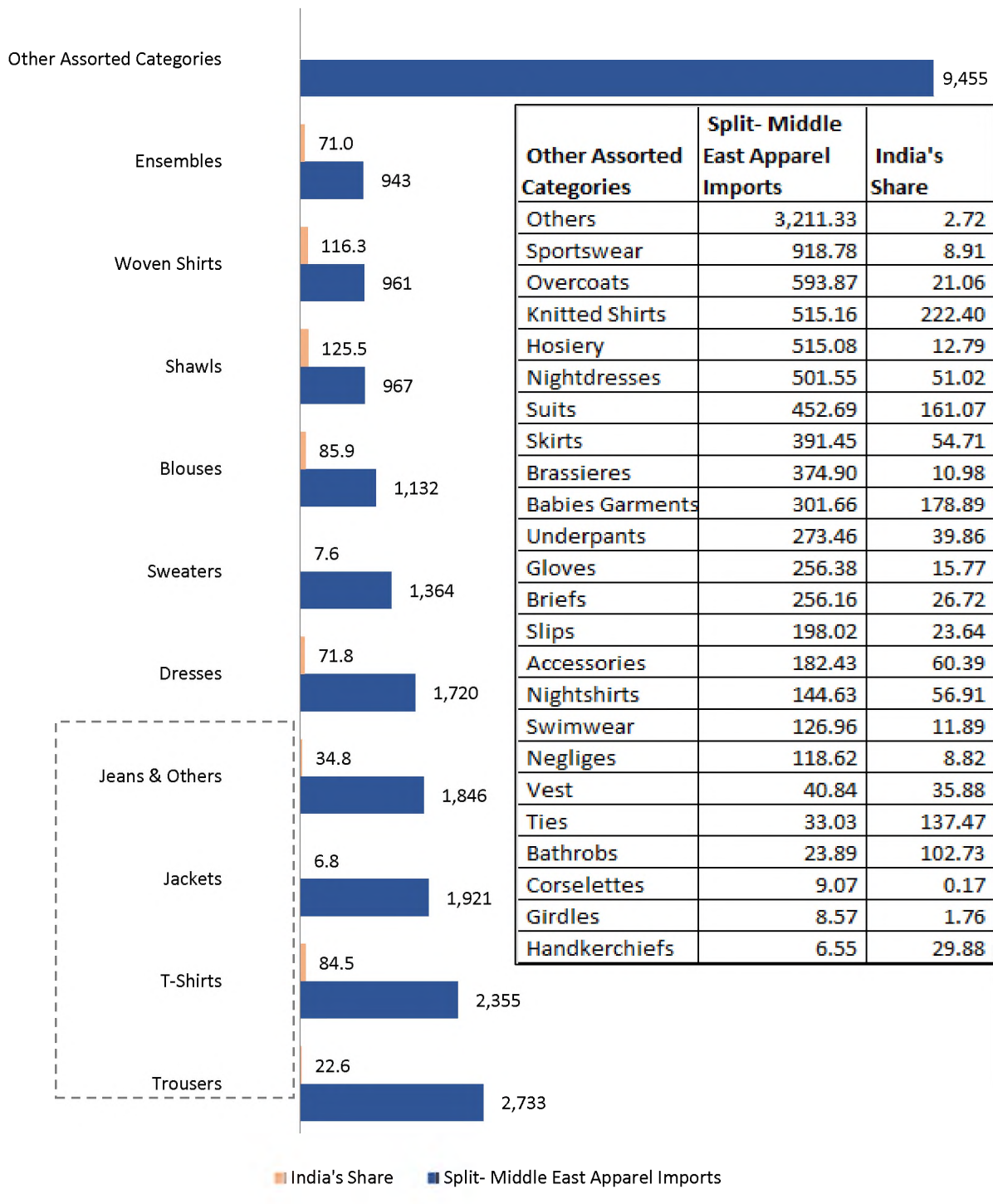


Exhibit 67 – Middle East Apparel Import Product Categories in Value & India's Share – Source: ITC Trademap, Technopak Analysis

18.3.8 Africa

Africa accounted for 2.2% of the total global apparel trade in 2015. Over past five years apparel imports have grown significantly at CAGR of 18%. Of the total apparel imported, knitted apparel accounted for 44% (and woven the rest 56%). The key product categories being imported include jackets (13.6%), jeans (10.3%), sweaters (5.2%), trousers (12.8%) and t-shirts (8.0%).

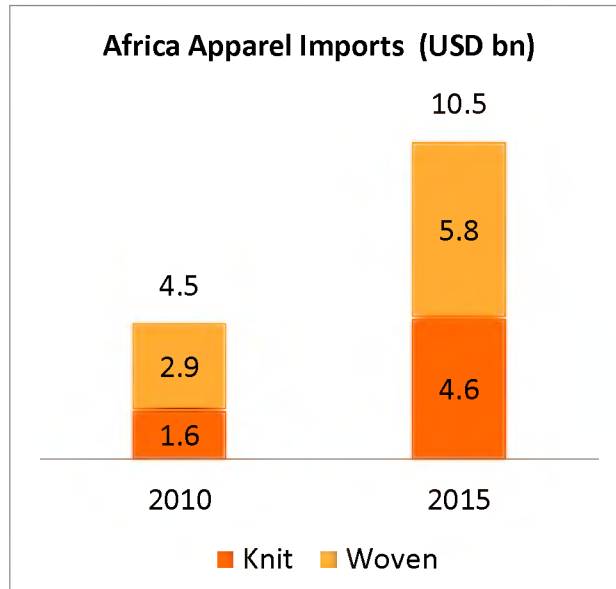


Exhibit 68 – Apparel Import – Africa – Source: ITC Trademap, Technopak Analysis

India's share is only 4.9% of the total apparel imports of African countries. The share in woven apparel (5.7%) imported from India was higher than that of Knit apparel (4.0%). India accounts for only 1.1% of the Jeans, 0.3% of jackets, 1.6% of sweaters and 1.4% of trousers imported in Africa. India is doing comparatively well in t-shirts, it accounts for 12.6% of the total t-shirts imported by African countries. India by improving its share in sweaters along with increasing its capacities in bottoms and knits, it can capture significant share in fast growing African apparel market.

Category wise Apparel Imports - African (2015)

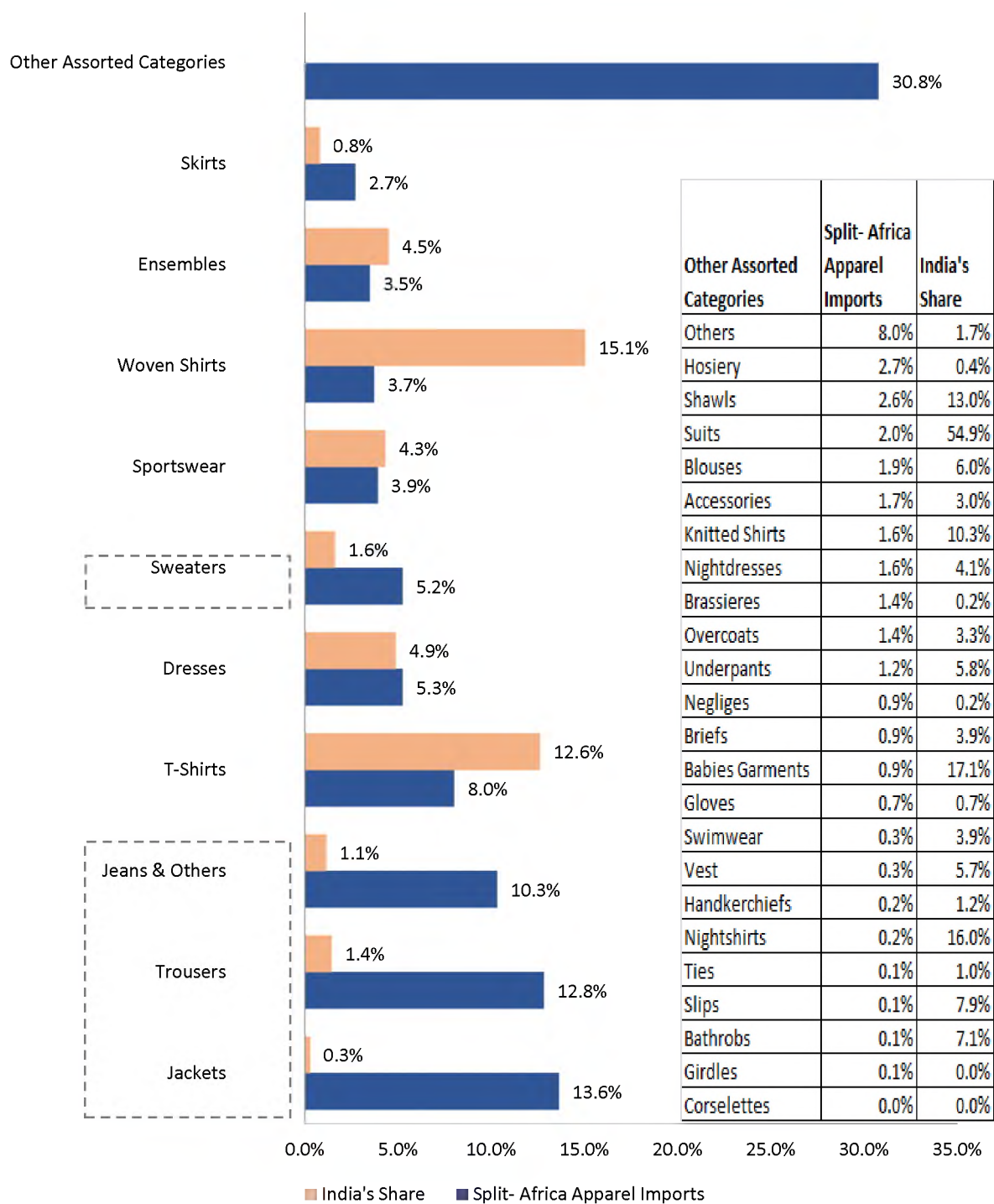


Exhibit 69 – Africa Apparel Import Product Categories in Percentage & India's Share – Source: ITC Trademap, Technopak Analysis

Category wise Apparel Imports - African (in Mn USD; 2015)

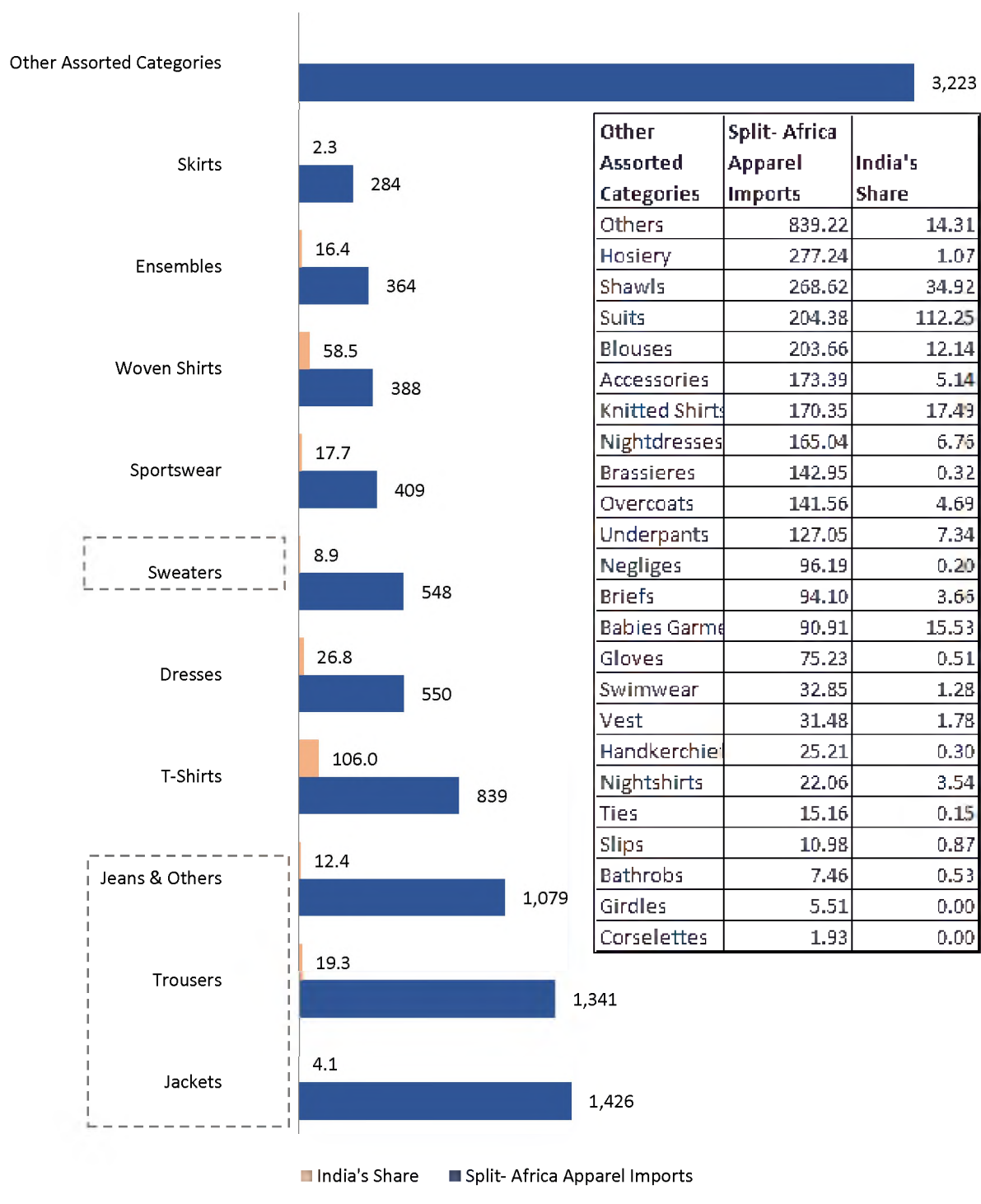


Exhibit 70 – Africa Apparel Import Product Categories in Value & India's Share – Source: ITC Trademap, Technopak Analysis