Human Resource and Skill Requirements in the Textiles and Clothing Sector

Executive Summary

N·S·D·C
National Skill Development Corporation

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Changing structure of the textile sub-sector and enabling factors would contribute to the sector's growth of more than 10 percent in the next decade

Key Growth Drivers

- **Customer Preference** - With the evolution of the lifestyle of India's urban consumers, their clothing requirements have broadened from being mere home wear, office wear to special occasion and functional wear. Households are now also looking forward to decorating homes by giving them annual makeovers by changing the furnishings of curtains and bed linen. Increase in disposable income has doubled the domestic household expenditure on clothing from INR1.08 lakh crores in 2004–05 to INR 2.06 lakh crores in 2010–11 (at current prices)
- **Domestic and Foreign Demand** - Demand from foreign markets such as the US and EU are large and continue to dominate the sector. Emerging markets with potential demand include Canada, Australia, Japan, South Africa and the Middle East.
- **Research and Development** - The Ministry of Textiles, Government of India, has appointed eight textile research institutes across various clusters. The government funds 75 percent of research projects in these institutions and the rest should be raised by implementing agencies.

India's Competitive Advantage

Advantage India

Growing demand

- Increase in disposable income has doubled the domestic household expenditure on clothing from INR1.08 lakh crores in 2004–05 to INR 2.06 lakh crores in 2010–11 (at current prices)
- Foreign demand or exports from India has grown by eight times in the last decade

Cost of production

- The cost of production of yarn and fabric in India is lesser than other countries such as, the US, Italy and China
- India has an advantage in raw material production costs, as it is between 50–80 percent of the total manufacturing cost for competitors such as China

Rising investments

- The annual total investments in textiles and clothing sector increased from INR 59500 crores in 2001–02 to INR 2 lakh crores in 2011–12, growing at an average rate of 12.8 percent per annum.
- There has been an increase in investments in apparels and garments

Policy support

- Textiles and clothing strategic plan 2011–16 to achieve manufacturing growth rate by 10 percent, exports by 15 percent in 2016
- Integrated Skill Development Scheme to spend INR 1900 crores to train 1.5 million workers in the textiles sub-sector

India is the second-largest producer and exporter of textiles and clothing in the world. As of 2012, the textiles sub-sector contributed to 4 percent of India's GDP and 11 percent of the total Indian exports, primarily driven by the availability of raw materials such as natural fibre mainly cotton, silk and jute.

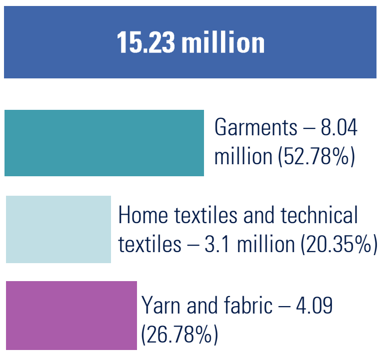
The textile sub-sector in India is characterised by small-scale, non-integrated spinning, weaving, finishing, and apparel-making enterprises. This structure arose due to policies on tax, labour and other regulations that favoured small-scale, labour-intensive enterprises, while discriminating against large-scale, capital-intensive operations. Small-scale 'unorganised' players dominate the sector which lacks stringent regulations.

Sources: KPMG in India analysis

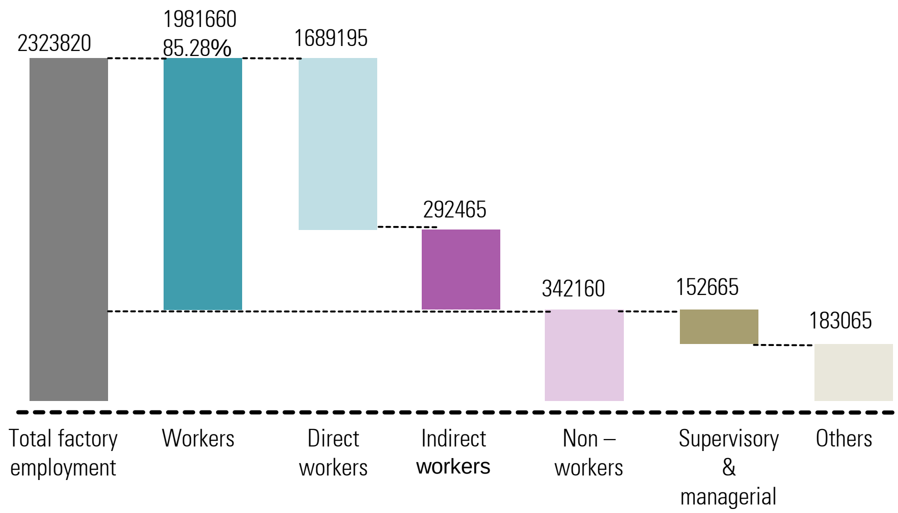
Demographic characteristics of workforce

Around 20 percent of the workers in textile factories are indirect

15.23 million persons are employed in the Textile and clothing sector, Of these, 2.3 million are employed in factories

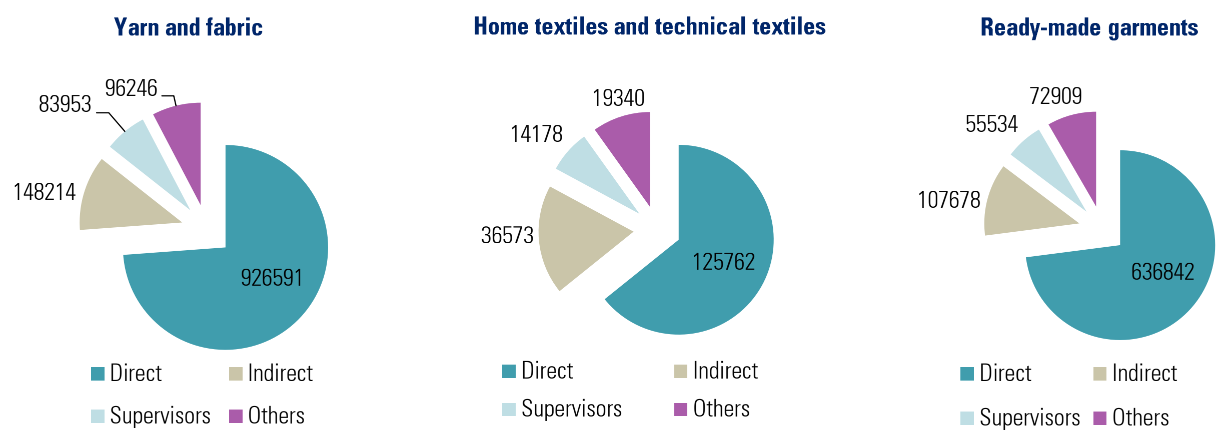


Distribution of factory workforce in textiles and clothing



Source: "Annual Survey of Industries 2010-11", Ministry of Statistics and Planning, Government of India, as accessed on 6 February 2014

Distribution of Factory Workforce Sub Sector wise



Source: "Annual Survey of Industries 2010-11", Ministry of Statistics and Planning, Government of India, as accessed on 6 February 2014

- Factory workers comprise people that are directly employed, indirectly employed (contract-based), or in supervisory or managerial roles, among others.
- Directly and indirectly employed workers are chiefly engaged in the roles of machinists, tailors, spinners, weavers, dyers and others. Thirty-one percent of the total employees in textile factories of India are engaged in preparing fibres and spinning yarn.
- The 'other' product category that has the highest number of workers includes wearing apparels and garments (excluding articles of fur). About 10.05 percent of the workers are engaged in manufacturing knitted and crocheted apparels, 11.28 percent in finishing textile products (bleaching, dyeing and printing) and about 9 percent in weaving fabrics. Only about 6 percent of the workforce is engaged in producing other finished products such as home textiles and technical textiles.

Incremental human resource requirement (2013-17, 2017-22) and skill gaps

Fifty-one percent of the total workforce is engaged in the manufacturing of readymade garments, followed by yarn and fabrics with 26 percent

Currently, 15.23 million people are employed in the textile sub-sector across yarn and fabric, home textiles, technical textiles and readymade garments. Human resource requirement in the sector is expected to reach 21.54 million by 2022 translating into 6.31 million additional employment opportunities during the period 2013-22.

Automation of production of yarn and fabrics and new technologies such as digital printing, dobby and sateen are expected to result in increased productivity levels translating into a moderate elasticity factor of 0.38 for the period 2013-22.

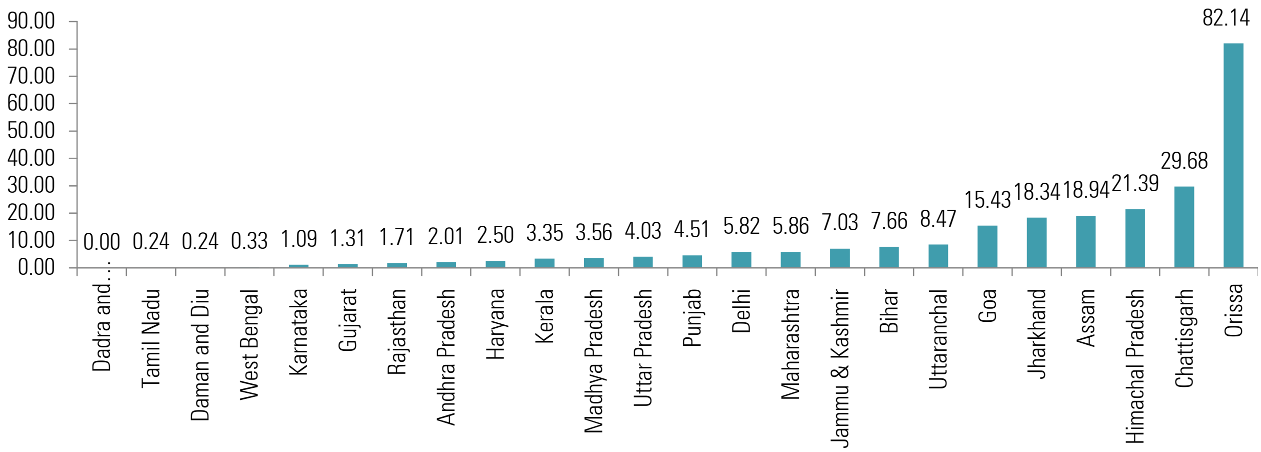
Sub Sector	Employment (in Million)		
	2013	**2017**	**2022**
Spinning Weaving and Finishing of Textiles	3.1	3.14	3.18
Manufacture of Other Textiles	8.04	10.64	13.78
Manufacture of Wearing Apparel	4.09	4.28	4.58
Overall Sector	**15.23**	**18.06**	**21.54**

Job roles	Skill gap
Operator/tailor/weaver/helper(production)	▪ Entry-level operators have limited knowledge on machines handling and troubleshooting aspects
Supervisors	▪ Lack the ability to handle contingencies, manage people and allocate work ▪ Lack of experience in handling machines
Quality control representatives	▪ Lack the ability to undertake high-level due diligence required for quality checks
Production management	▪ There is scarcity of experienced planners and they usually lack people management skills ▪ Lack of understanding of the process
Merchandisers	▪ Poor communication skills ▪ Unable to manage contingencies and handle high-pressure situations at work
Designers / sample developers (design and development)	▪ Lack of knowledge on customer standards and new global market trends ▪ Experienced designers are scarce and switch jobs frequently ▪ Most institutes offer training in apparels. There is dearth of sector-specific designers

Source: NSSO, KPMG in India analysis

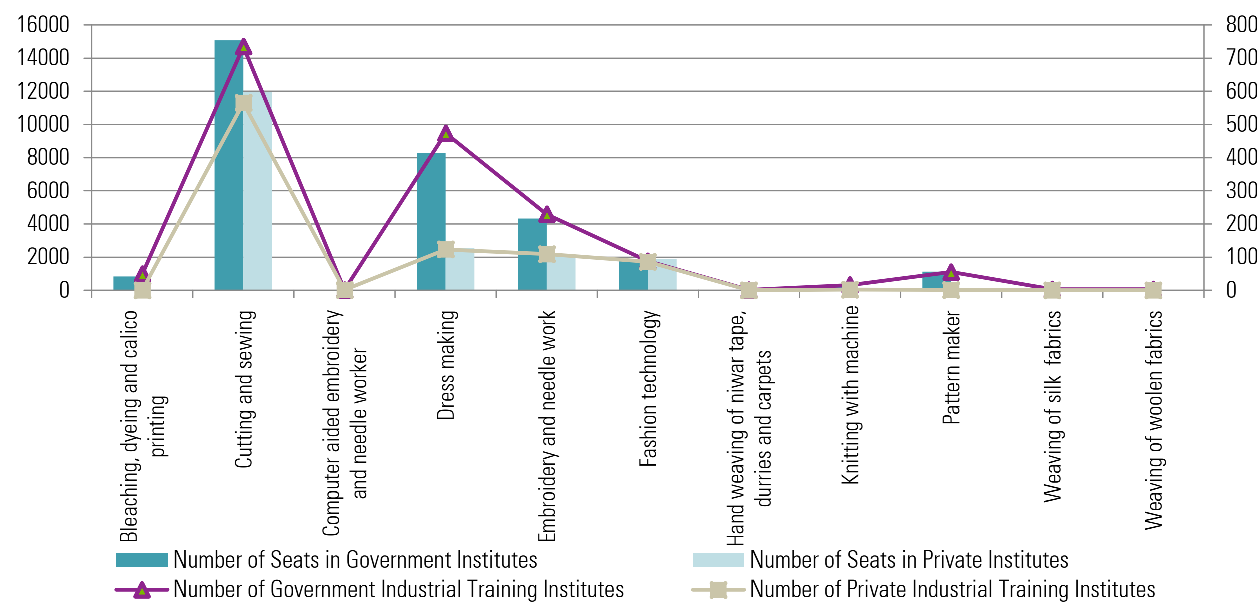
Industrial training institutes offering textile courses are restricted to cutting and sewing trades

Number of seats in industrial institutes offering textile trades per 100 factory workers



- The capacity of ITIs offering textile trade is inadequate to meet the skilling requirements of workers in most of the state, including key textile clusters of Tamil Nadu, West Bengal, Karnataka, Gujarat, Rajasthan and Andhra Pradesh.
- There are about 2,541 institutes with a total seating intake capacity of approximately 50,464 offering textile-related trades.
- Sixty-five percent of these skilling institutes are owned and managed by the government and constitute 63.09 percent of the total seating capacity available for skill development in textile.
- A majority of ITIs — private and government — offer courses on cutting and sewing (51 percent) followed by dress-making (24 percent) and embroidery and needle work (13 percent).
- Only government institutes offer courses on weaving, hand weaving of Niwar tape, durries and carpets and weaving of silk and woolen fabrics, and bleaching, dyeing and calico printing.

Number of seats and industrial institutes offering textile trades



Source: "ITIs Informational Service", Ministry of Labour & Employment, Government of India, accessed as on 16th November 2013

Select recommendations & implications

Recommendation	Implications
Provide incentives to factory workers in the form of skills premium	▪ Acknowledge and offer incentives to workers based on improvisation in skills – a few large firms offer this in the form of grades/promotions among each job role. For example, a home textile stitching unit may have three grades of sewing machine operators and tailors. Grade C may refer to tailors sewing simpler forms of products within a home textile segment (bath linen) such as napkins. Grade B may refer to those responsible for making towels and Grade A may refer to those in charge of producing bath robes. The salaries paid to workers would increase with improved grades. ▪ Competition among workers of a specific function (such as weaving machine operators) should be conducted periodically to incentivise workers who deliver high productivity and improved production quality.
Creating awareness among the youth to attract them towards the sector	▪ The government must encourage textile engineering degrees as an option in popular institutes among other engineering options ▪ Awareness needs to be created among school students at the middle school level (class V–VIII) through vocational education in textiles by courses on embroidery, needle work, fashion design and textile chemistry. A few schools also include tailoring in home science courses
Specialized industrial training institutes in textile machinery operations	▪ ITIs and ITCs located in major textile hubs must be upgraded to latest technology and converted into centres of excellence offering courses in textile machine operations, which should focus on carding, blow room, different types of weaving looms and sewing
Establishment of home textile and technical textile design centers	▪ Home textile design centres (HTDC) should be established on the lines of ATDC in hubs such as Karur, Maharashtra and Gujarat. These institutes could offer courses on home textile manufacturing, types of fabrics used, design and pattern-making and the use of CAD
Private sector participation for infrastructure provisioning to ITIs	▪ The Ministry of Textiles is encouraging public-private partnerships within their integrated Skill Development Scheme, wherein funds are being provided to private players interested in establishing institutes. This could be extended further to another model wherein training institutes that cannot procure latest technology due to poor financial condition can purchase/lease second-hand machines from private players
Revise design course content in line with global trends	▪ Fashion and home textile design institutes should include courses on the preferences of global consumers and upcoming trends in the textile sector. They should educate people on the design preferences of the US and Europe
Introduction of textile management programs	▪ Textile management programs can be provided by textile research associations that offer a combination of textile courses along with marketing and sales
Sector skill council for the entire textiles and clothing sector	▪ A sector skill council for textiles focusing on apparels, spinning and weaving is being considered ▪ It must be ensured that the trades proposed in it account for the skill gaps across all textile sub-sectors, including technical and home textiles

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cutting through complexity

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