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Progressive MAHARASHTRA

INDIAN TEXTILE INDUSTRY: WINNING IN DISRUPTIVE TIMES

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1 Textile and Apparel Sector Overview

1.1 Global industry overview

Global Apparel Market

Apparel industry has grown to become an estimated global market of over US$ 1.9 trillion, which reflects 2% of the global GDP of US$ 84.9 trillion. EU and USA dominate the global apparel market with a combined share of over 41%, while they account for only 11% of the world population. On the other hand, highly populated Asian countries, such as China, India and Japan, home to ~38% of the world population, collectively account for a market of 21%.

Table 1: Global Apparel Market (US$ Bn.)

Country/Region	Value 2018	Share 2018 (%)	CAGR (2018-2025) (%)	Value 2025 (P)
EU-28	427	23	1	458
United States	348	18	2	400
China	231	12	10	450
Japan	100	5	1	107
India	74	4	12	164
Brazil	66	3	5	93
Russia	39	2	5	54
Canada	32	2	2	36
RoW	580	31	6	872
World	**1,896**		**5**	**2,634**

Data Source: Wazir Analysis

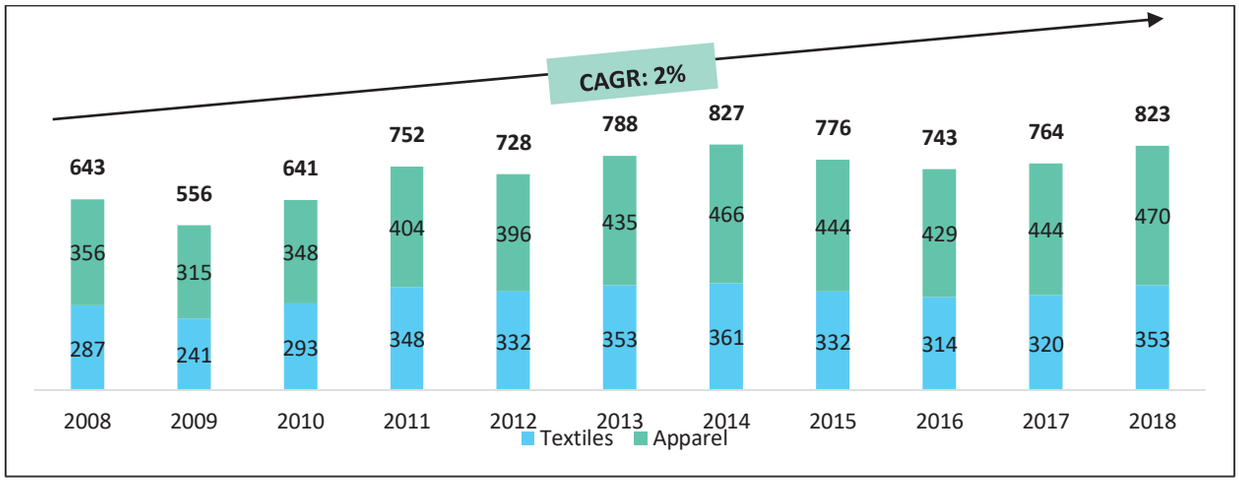
The global apparel demand is expected to boost at a steady pace with a CAGR of 5% to grow from the current US$ 1.9 trillion to reach US$ 2.6 trillion by the year 2025. Among the top ten markets of apparel, Asian giants China and India are expected to deliver the most promising growth rates of 10% and 12%, respectively when compared to the world aggregate of 5%. China, with a value of US$ 450 billion, is set to become the largest apparel market in the world by 2025, while India will be propelled to fourth on the list with an expected market size of US$ 164 billion. Higher economic growth and rise in per capita income of individuals will lead to the growth in the apparel market in these developing countries.

Global Textile and Apparel Trade

In 2018, the global textile and apparel trade stood at US$ 823 billion and has grown at a CAGR of 4% since 2005. Apparel was the most traded T&A category across the globe with a share of 57% of the total T&A trade. Fabric was second to apparel and accounted for 19% of the total trade. However, fabric exports have grown at a CAGR of 3% since 2005 as compared to apparel exports, which have grown at CAGR of 4% during the same time period.

The global trade of T&A is expected to grow from the current US$ 823 billion to US$ 1,000 billion in 2025, while growing at a promising rate of over 3%, when compounded annually.

Figure 1: Historical Growth of Global T&A Exports (Values in US$ Bn.)



Data Source: UN Comtrade

China, the largest T&A exporter, has witnessed a significant decline in its exports, with its share in the global T&A exports declining from 36% in 2017 to 35% in 2018. The major reasons for the decline is the increasing attraction of China's domestic textile and apparel market. With China vacating space in the global market, it is a great opportunity for countries like India, Vietnam and Bangladesh to grow in segments previously dominated by it and cash in on the vacated share.

India has consolidated its position as the third largest exporter of textiles and apparel with exports worth US$ 37 billion. Germany with trade worth US$ 39.7 billion has surpassed India to take the second position.

Table 2: Largest exporters of Textile and Apparel -2018 (US$ billion)

Country	Textile Exports	Apparel Exports	Total Exports	Share 2018 (%)
China	128.8	158.1	286.9	35
Germany	15.7	24.0	39.7	5
India	21.4	15.6	37.0	4
Italy	13.3	23.4	36.7	4
Viet Nam	7.8	28.7	36.6	4
Bangladesh	1.9	32.9	34.9	4
Turkey	12.6	15.3	27.9	3
USA	21.9	5.3	27.2	3
Spain	5.0	14.4	19.4	2
France	5.5	12.0	17.5	2
Belgium	6.9	9.4	16.3	2
ROW	111.9	131.4	243.3	30
Total	**352.7**	**470.6**	**823.3**	**100**

1.2

1.3 Trends impacting the global textile sector

Growing Domestic Market of India and China

It is expected that over the next decade, domestic apparel market of India & China will attain high growth rates of 12% and 10%, respectively, to add a cumulative market size of US$ 309 bn. by 2025. High economic growth will be a major factor behind increasing apparel market size in both these countries.

Table 3: Market Size Growth of India & China (US$ Bn.)

Markets	2018 Market Size	Expected Growth Rate (2018 -2025)	2025 Market Size	Market Addition by 2025
India	74	12%	164	90
China	231	10%	450	219
India & China	**305**		**614**	**309**

Data Source: Wazir Analysis

Other trends facilitating the growth in India are increasing youth population and high purchasing power, shift from need-based purchase to aspiration-based purchase, growing urbanization increasing the market demand, increasing penetration of technology and greater access to internet resulting in significant growth in online retail sales.

Trends that will catalyze growth in Chinese market demand are boosting demand of outdoor wear and fast fashion categories, end of the one-child policy fostering demand of kid's wear segment and gradual increase in spending of Chinese customer from offline to online retail channel.

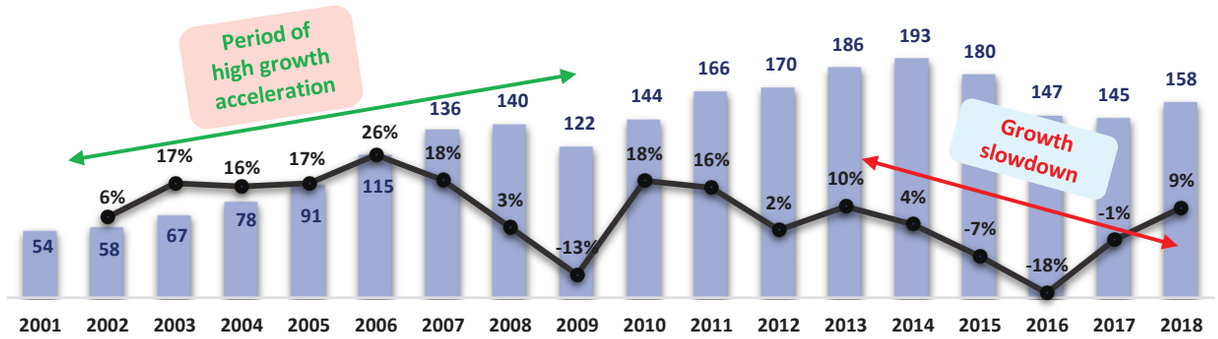
Growth in retail front will lead to a trickle-down effect in the local manufacturing value chain benefitting national manufacturers the most. Huge growth will make domestic market more attractive than exports in many cases for manufacturers.

Slower Expected Export Growth of China

China dominates the global apparel trade with a share of approximately 30%. However, in the recent years, a continuous decline in China's textile and apparel exports has been observed. Between 2014 and 2018, apparel exports from China reduced by ~6% to reach a level of US$ 158 bn (2018). Also, the overall share of China in global textile and apparel has fallen from ~39% share in 2013 to a current ~35%.

In future, China's share is expected to further reduce because of gradual shift of global buyers from China due to rising manufacturing costs in China and availability of other lower cost destinations in the region. Apart from this, China is also shifting from a cost driven to innovation driven manufacturing destination. Also, the focus of Chinese manufacturers is expected to increase towards their fast growing domestic market. While China's exports will continue to grow, its global share is likely to reduce and this is expected to create export market vacuum of around US$ 50 bn by 2025.

Figure 2: Slowdown in China's Export Growth (Export values in US$ Bn.)



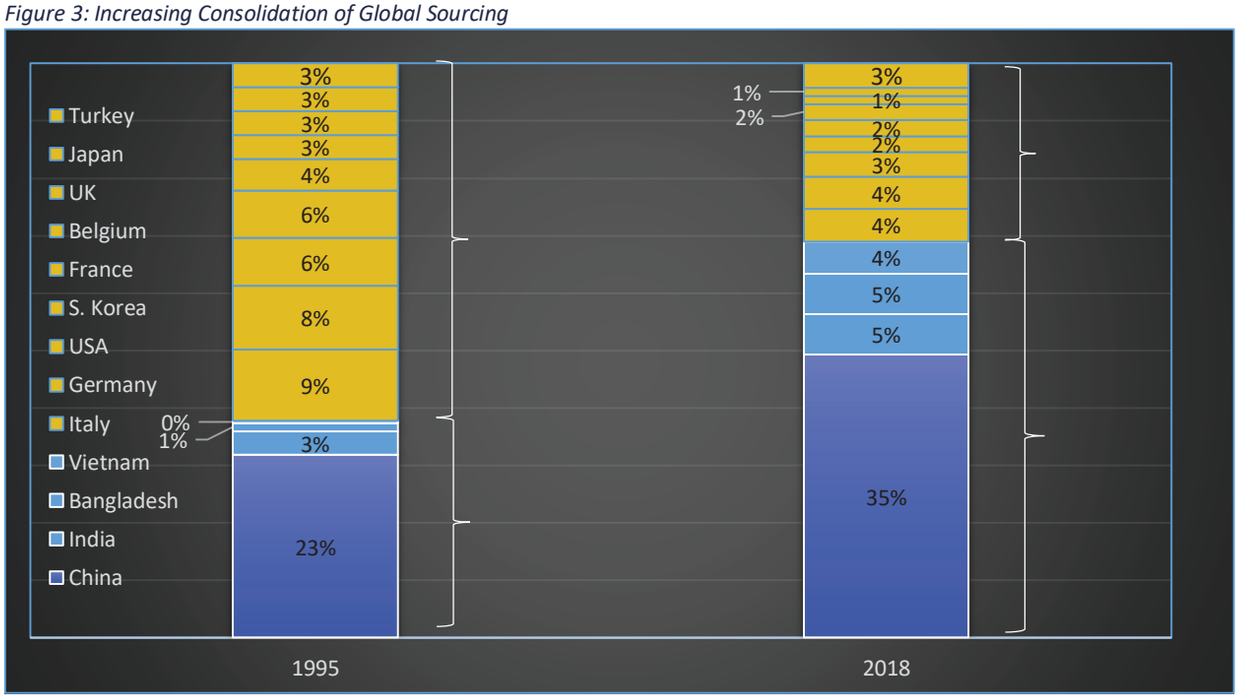
Data Source: UN Comtrade

China's loss of share in global apparel trade will throw up opportunities for emerging exporters including Vietnam, Ethiopia, Kenya, Myanmar, Bangladesh and India.

Increasing Consolidation of Global Sourcing

From 1995 to 2018, there are fewer countries left that have a significant share in total trade. This implies that buyer is now seeking for long term arrangement with fewer suppliers.

Figure 3: Increasing Consolidation of Global Sourcing



These trends favor India as a textile and apparel manufacturing and sourcing destination for global markets and hence provide good opportunity for Indian textile and apparel companies to take advantage of the huge opportunity.

1.3 Disruptive trends impacting the global textile and apparel sector

Industry 4.0

Textile & Apparel industry has witnessed panoramic changes since the industrial revolution. The first industrial revolution brought the concept of mass production while second and third industrial revolution introduced the concept of production lines and digitalization/automation, respectively. The industry is now going through another paradigm shift "Industry 4.0". It is the fourth industrial revolution towards data exchange and automation in manufacturing technologies and processes. It is creating "Smart Factories" in which technology monitors physical systems & processes and makes decentralized decisions in the factory. It includes internet of things (IoT), Industrial internet of things (IIoT), cloud computing and artificial intelligence. Industry 4.0 with its various components has impacted the textile & apparel industry from spinning to retail. The adoption of Industry 4.0 tools and technologies in apparel industry would result in - increased efficiency, reduced lead time, improved product quality and thus better service to buyers. Hence, it is becoming increasingly important for Indian apparel manufacturers to gear up and be flexible enough to adopt these cutting-edge technologies to remain competitive in the global marketplace.

US China Trade War

The ongoing trade tension between the US and China creates an opportunity for the other manufacturing nations such as India, Vietnam and Bangladesh in enlarging export earnings from USA. The idea stems from the fact that since 2010, share of US garment imports from China has reduced gradually while that from Vietnam, Bangladesh, Indonesia and India has increased. The way this US-China tariff war is unfolding, China may lose some parts of the US market. USA has already increased duty on textile products from China from 10 to 25%. USA is likely to increase the import duty on Chinese apparel creating opportunity for other exporters such as India, Vietnam and Bangladesh.

Table 4: Textile and Apparel Exports by Top Suppliers to USA

In US$ Bn.	Imports by US	China	Vietnam	India	Bangladesh
Textiles (Chap. 50-60)	15.5	4.3 (28%)	0.3 (2%)	1.7 (11%)	0.03 (0.2%)
Apparel (Chap. 61-62)	83.5	27.6 (33%)	12.2 (15%)	3.8 (5%)	5.2 (6%)
Made-ups (Chap. 63)	15.4	8.5 (55%)	0.2 (1%)	2.5 (16%)	0.2 (1%)
Total	**114.4**	**40.4 (36%)**	**12.7 (11%)**	**8.0 (7%)**	**5.4 (5%)**

Data Source: OTEXA

Higher duties on Chinese garments can eventually throw up an opportunity worth perhaps US$ 10-15 bn. for these nations but a lot will depend on the availability of suppliers who can match the scale, efficiency and cost of Chinese companies. India, though being the third largest manufacturer and having far better resources than others, has registered negligible share growth in US imports between 2010 and 2018.

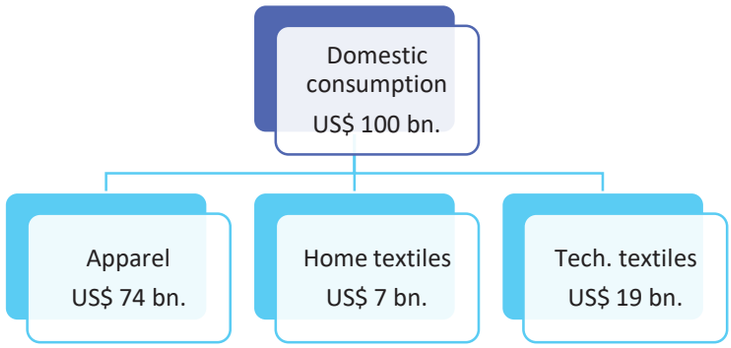
To make the most of emerging opportunity, Indian garment exporters will have to emulate their Chinese counterparts not only in terms of scale, efficiency and cost but also diversify their product basket to present themselves as a credible replacement to China.

1.4 Indian industry overview

Domestic Textile and Apparel Market

India has traditionally been a major producer of textiles. Along with this, a population boom in the 20th century led to an increased demand of textile and apparel in India. A rapid growth can be seen in the disposable income of the middle and lower middle class sections of the society & it is expected to grow even further in the foreseeable future. In value terms, India's domestic textile and apparel market is currently worth US$ 106 billion and is expected to grow at a CAGR of 12% to reach US$ 220 billion by 2025-26. Apparel demand at US$ 78 billion, dominated the domestic market with a share close to 74% of the total textile and apparel market in India.

Figure 4: Indian Domestic T&A Consumption (2018)

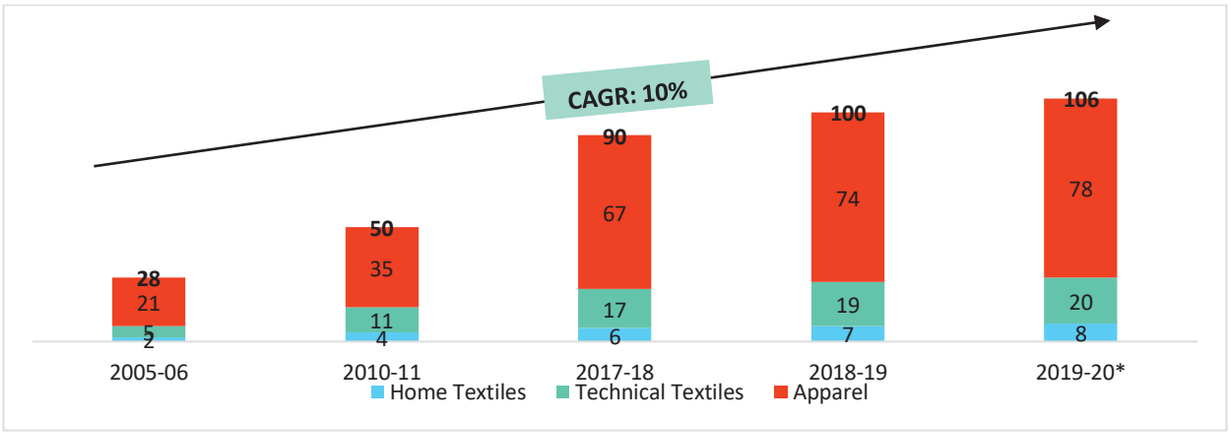


Data Source: Wazir Analysis

Domestic Apparel Market: Indian domestic market has performed better than the largest textile consumption regions like US, EU and Japan, registering a healthy CAGR of 10% between 2007 & 2018.

Domestic apparel market size of India is expected to maintain this growth & reach a level US$ 220 bn. in 2025 by growing at a CAGR of 12%.

Figure 5: Domestic Apparel Market Size (US$ Bn.)

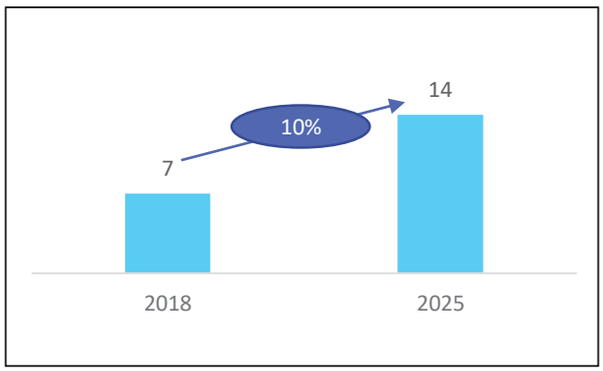


Data Source: Wazir Analysis

Home Textiles & Technical Textiles: Domestic home textiles & technical textiles market stood at US$ 7 bn. & US$ 19 bn., respectively, in 2018. Domestic home textiles market will grow at 10% CAGR to reach

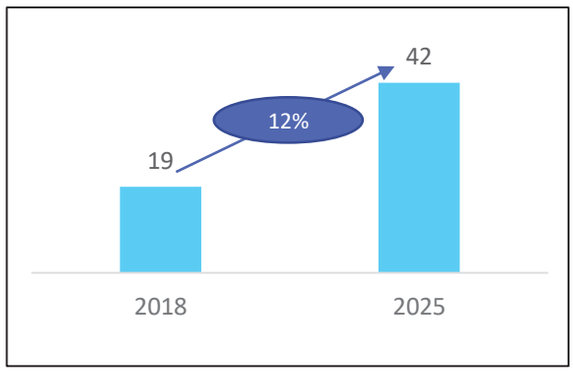
US$ 14 bn. in 2025, while the technical textiles market is expected to grow at 12% CAGR to reach US$ 42 bn.

Figure 6: Domestic Home Textiles Market (US$ Bn.)



Data Source: Wazir Analysis

Figure 7: Domestic Technical Textiles Market (US$ Bn.)

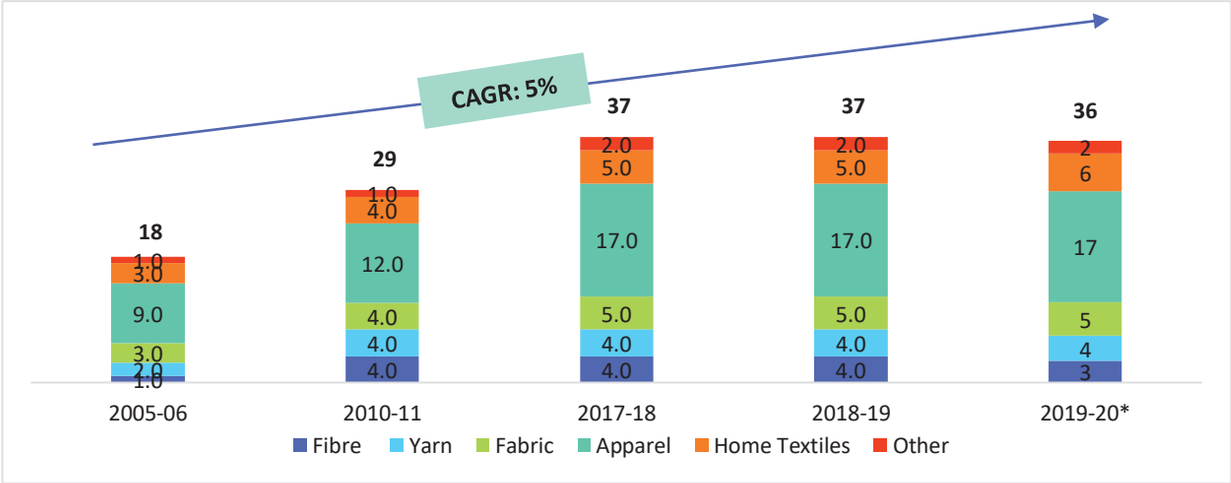


Data Source: Wazir Analysis

India is the third largest exporter of textiles & apparel in world

Textile and apparel exports of India reached US$ 37 billion in the financial year 2018-19. But it has seen a slight drop in the first half of 2019-20 which is expected to take the total to around US$ 36 billion. The exports have grown at a 5% CAGR since the year 2005-06. India's textile and apparel exports are expected to expand to US$ 70 billion by the year 2025, growing at a CAGR of 12%.

Figure 8: India's Textile and Apparel Exports (US$ Bn.)



Data Source: DGCIS, Ministry of Commerce

Apparel is the largest exported category in India's exports with a dominant share of 46%. It is followed by the exports of home textiles and fibre categories. EU and USA are the largest markets for Indian textile and apparel exports with share of 25% and 22%, respectively. The other major export markets for India are UAE, China & Bangladesh, which have a share of 7%, 6% and 6%, respectively.

1.5 Growth trends for Indian textile sector

As mentioned in the previous section, domestic textile and apparel market of India is large and it has grown at a robust pace over the last decade. This market is expected to grow at an even higher pace in the coming years owing to the following growth drivers:

Changing Demographic Dividend: India has the largest youth population in the world and as this population joins the workforce, gets more money in their hands, their spending power will increase. Apparel category will be the prime beneficiary of this increase in purchasing power. Also, since 2000s, India has witnessed a demographic shift in terms of increase in the urban population. Urban areas are expanding and large number of people are moving from villages to cities. This increasing uurbanization in turn will have a major growth impact on apparel consumption.

Emerging Categories for Consumption: Increasing spending power of people along with the changing social scenario of the country has led to the emergence of certain new consumption categories in India such as active wear, sportswear, women's wear, protective wear, etc. These categories have emerged substantially only in the last five to six years and they are expected to attain high growth in the coming years

Increasing Penetration of Organized Retail: India has become a very attractive market for international brands owing to the above mentioned features. Many top international fashion brands such as H&M, Zara, Aeropostale, etc. have entered in the Indian market in the recent years. The presence of top brands in the country will lead to higher consumption of fashion apparel.

Growth of Technical Textiles: Technical textiles is one of the most promising segments of the industry. Technical textile is expected to become one of the fastest growing segments in the industry based on the following factors:

a. Growth of end use industries such as medical industry, automobile industry, protective wear industry, construction industry, etc.
b. Increasing consciousness of health, hygiene & safety amongst consumers
c. Introduction of regulatory norms such as mandatory usage of seatbelts & airbags in automobiles, flame retardant fabrics in commercial places, use of geotextiles for construction, etc.

On the export front, there are several trends that indicate a bright future for Indian textile and apparel industry that are given below:

Increasing exports to USA: USA is the biggest market for India's export of textile & apparel products. In 2018, 25% of the home textiles imported by US were from India. About 47% of India's exports to USA were in the form of garments, followed by home textiles with a considerable share of 38%.

Table 5: T&A Exports from India to USA (US$ Mn.)

	2013	2014	2015	2016	2017	2018	CAGR (%)
Fibre	65	104	120	126	136	125	14%
Yarn	87	62	61	53	53	59	-7%

	2013	2014	2015	2016	2017	2018	CAGR (%)
Fabric	277	422	450	452	514	536	14%
Apparel	3,051	3,598	3,869	3,822	3,875	4,025	6%
Made Ups	2,270	2,865	3,104	3,092	3,174	3,238	7%
Others	240	312	337	347	401	458	14%
Total	**5,990**	**7,363**	**7,941**	**7,892**	**8,153**	**8,441**	**7%**

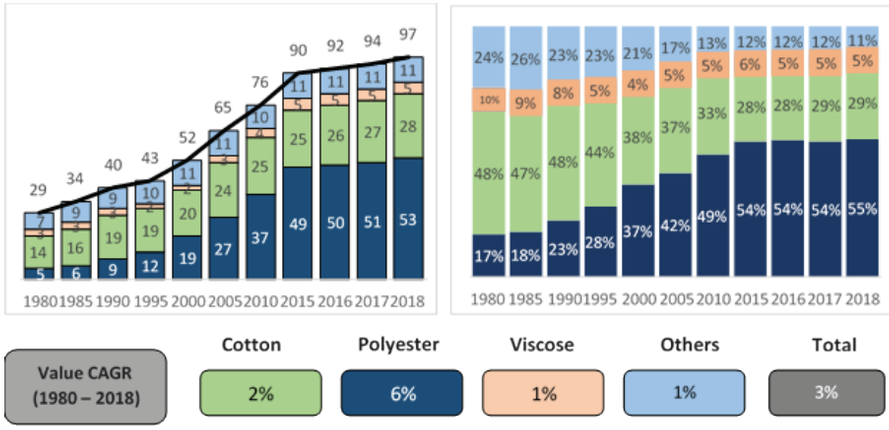
Data Source: UN Comtrade

The top 5 categories exported to USA in 2018 comprise of apparel and home textiles. These categories occupied 85% share of the total exports to USA in 2018.

2 Implications of Structural Shifts and Disruptions on the Global T&A Industry

2.1 Rise of Polyester fibre share in the global fibre

Global fiber consumption has increased from 29 million tons in 1980 to 97 million tons in 2018. The industry has been witnessing a gradual shift from cotton to synthetic fibres over the past few decades. More than half of the global textile and apparel product pie comprises of items made out of synthetic fibre and its use is growing faster than cotton textiles and apparels. Polyester fibre consumption, especially, has been steadily gaining momentum with the highest CAGR of 6% from 1980 to 2018 amongst other fibre categories. Polyester has a dominant share of fibre consumption globally and continues to grow.



Polyester is a better suited and economical option to fulfil the demand gap for future: its manufacturing process is faster than cotton and requires lesser amount of water, which has turned it into the main synthetic fibre globally and has resulted in its rightful claim as the poor man's cotton.

Polyester fibre has continued taking up the share of cotton fibre in global fibre mix due to continuous evolution in its fibre properties (e.g. Hollow fibre, Micro fibre, Anti-microbial fibre), scalability and economical production. Continuous improvement in polyester fibre properties will further drive future market demand. The applications of polyester fibres are widespread. It can be effectively used in home furnishings for products like carpets, curtains, pillow cases, upholstery, in industrial textiles, in automotive industries, and mainly in the garment industry. It is widely used in garment manufacturing because of its durability and tenacity. Since these fibres can be molded into any shape, certain insulating properties can

be easily built in the fibre. Polyester has also facilitated the evolution of new product categories such as technical textiles, sportswear and athleisure.

2.2 Influence of 3Cs- Cost, Competitiveness and Closeness on the Manufacturing Landscape

Textile and apparel manufacturing has always been associated with low-cost manufacturing. Over the years, high-cost destinations such as USA, Europeans countries (incl. Italy, Germany, Belgium, France, and UK), Turkey, Japan, and South Korea have dropped their combined share in the global textile & garment trade from 45% (1995) to 20% (2018). While low-cost destinations such as China, India, Bangladesh & Vietnam have increased their share from 26% to 49% during the same period. These countries have further added key competitive advantages over other countries to maintain their share.

While all countries would like to increase the share of manufacturing, the top textile and garment manufacturing hubs i.e. China, India, Bangladesh, & Vietnam have developed themselves over the years to become competitive in their respective segments. These countries will be looking to further consolidate on their competitive advantage and other countries will need to build some of these advantages in their manufacturing ecosystem to become competitive and attract investments.

These countries have established strong manufacturing ecosystem, large scale, and complete value chain presence to fulfil the demand of international buyers and provide them with one-stop solutions for their textile and garment needs. They have also developed segmental expertise which has become their USPs in the global industry. China has established dominance in synthetics, India in value-added garments (especially womenswear), Bangladesh has become the go-to garment manufacturing destination (especially in cotton knits) while Vietnam is known for its expertise in value-added synthetic garments.

However, these manufacturing nations have to prepare themselves to face stiff competition in the coming years. They will need to further add to their existing competitiveness in order to sustain and grow their share. Textile companies will also have to focus on developing manufacturing and service excellence, to gain competitive advantage.

Closeness to markets will also influence manufacturing

Fast fashion has changed the buyer's prime requirement from an earlier 'low cost' stance, now to 'shortest possible lead time'. Buyers are increasingly looking for full package suppliers who can give them variety and quality in the shortest time period at reasonable costs. Closeness of manufacturing destinations to their respective markets thus becomes an important advantage.

Near-shoring: European brands adopted this trend of near-shoring for its fast fashion sourcing requirement from countries such as Turkey, Tunisia, etc. while sourcing its bulk orders from established suppliers such as Bangladesh, China & India. With growing fast fashion and need for reduced supply chain lead times, this trend will further grow. Similarly, brands in the United States will look to take advantage of trade agreements with neighboring regions such as Mexico, Central American countries to cater to its demand for fast fashion.

Re-shoring: This trend is particularly visible in the US as spinning has come back in a major way in the US. Between 2013 and 2017, the US saw an investment of more than US$ 2.3 Bn.[1] in textiles within which spinning had a 52% share. Other areas of investment included fibres and technical textiles. One of the big attributes of this change has been increasing automation in manufacturing of these products. High automation in spinning, fibre, and technical textiles have led to a significant reduction in manpower requirement. Given the low cost of power, an abundance of natural resources and government increasing interest in bringing manufacturing back to the US, these segments are expected to flourish in the near future. With more automation, other segments can also get attracted to the US in future and further downstream segments will need to be developed in nearby regions as well to cater to the growing requirement.

While earlier manufacturing shift occurred on the basis of low cost, the next shift will also be driven by the competitive advantage of countries and their closeness to major markets. The 3Cs thus will dictate which products to make in which places.

2.3 Adopting Industry 4.0 in the textile & apparel industry

The industry is going through a paradigm shift in technology, popularly referred to as the "Industry 4.0". It is a transformation that makes it possible to gather and analyze data across machines; enabling faster, more flexible and more efficient processes to produce quality goods at reduced costs. The T&A manufacturing industry is also expected to be impacted by industry 4.0 and companies will have to adapt to this to survive and grow in the future.

Factors driving the rise of Industry 4.0

Industrial revolution commences with the introduction of disruptive technology. There are numerous factors that contribute to the birth of these innovations and technologies within the manufacturing industry. Some of the forces that are acting to bring about the Industry 4.0 paradigm are:



Changing Demand & Supply Dynamics
The fashion industry is moving towards shorter product cycles and faster launches. Also, there is a shift from high volume, low mix to low volume, high mix in terms of the product basket that brands have to offer.



Rising Limitations in Factors of Production
Scarcity of skilled labour and rising wage costs have been the two key inhibitors in terms of production costs that most of the organizations are facing.



Ever-Evolving Technology
Technology has been the major driver of any industrial revolution. The new trends are inclined towards automation and efficiency in production as well as gaining scale in advanced material, robotics, nanotechnology, AI and IoT.



Strong Emphasis on Sustainability
Growing population and changes in lifestyle require development of new technologies that will be able to reduce the resources used (water, material, energy, etc.).

[1] Source: USITC | United States International Trade Commission

Key levers that will reshape the textile and garment industry



Big Data Analytics

This refers to the collection and analysis of large sets of data. Big data poses varied applications such as discovery and analysis trends, interaction among various entities, supply chain management, market segmentation, trade surveillance, real-time decision making, predictive analytics, and price optimization.



Artificial Intelligence (AI)

AI involves the recognition of patterns and machine learning by analyzing large chunks of data. Applications of AI range from video games to intelligent robots, which can detect physical data from the real world. AI is increasingly becoming a tool for enhancement of product quality, increase productivity and reduce costs in the textile industry.



Advanced Robotics

Advanced robotics can aid in automation with concepts wherein robots handle the entire production system including material handling in the cut and sew industry. Application of robotic automation provides many benefits such as labour savings, reduced lead times, improved quality and safety, increased productivity and efficiency.



3D Printing/Additive Manufacturing

3D printed garments are made by building up successive layers of the material using CAD software. The software is capable of producing complex designs and easily incorporating variations, bringing about flexibility in manufacturing. Other benefits include a less raw material requirement, less wastage, creation of identical complex objects repeatedly, reduction in lead times and costs.



Internet of Things (IoT)

IoT allows machine to machine interaction and exchanges of data through the internet. This helps in making decentralized decisions, which are faster and more efficient. IoT finds application in e-textiles, automated monitoring, predictive maintenance, increasing efficiency, product development, virtual reality - garment fit, etc.

The concept of Industry 4.0 envelops many technologies. These building blocks have the ability to open up a wide range of possibilities in redefining the textile and garment industry.

2.4 Consumption patterns and consumer shifts

Today, the global fashion market has attained a value of US$ 1.9 trillion and is expected to grow at 4% to reach a value of US$ 3 trillion by 2030. This surge in the fashion market is owed to the ever-evolving consumer desires and the increased expenditure on clothing. The fast fashion trend has been reshaping the fashion industry by catering to the consumers' needs of trendy clothes for a lower price. The market for fast fashion has been growing significantly by 21% over the past three years owing to the high growth of fast fashion pioneers like Zara, H&M, and Forever21, and is expected to continue this growth momentum.

The fashion industry is witnessing a constant stream of innovation, with a myriad of technologies creating new experiences for consumers. The future structural shifts that will govern fashion consumption will be based on:

- Influx of technology in fashion
- Developments in material science

a) Growth of online fashion industry

The big impact of technology in consumption patterns has been witnessed in the last few years by the high growth of online garment industry sales at the cost of physical stores. The influence of the internet has increased significantly in consumer purchases and shaping sales patterns across the globe. The growth of this category is evident from its significant share of 27% in the USA's overall apparel sales.

b) Technology adoption in fashion will be fast tracked

With advanced manufacturing techniques like 3D printing and waterless dyeing from simple sewing machine stitching, the clothing industry is weighing different inventions to manufacture the most cost-effective and desirable garment. With the introduction of interactive garments and wearable technology, these innovations are not only limited to how the garment manufacturing industry functions, but are also modifying the manner in which products interact with the environment and consumers. Going forward technology will play a bigger role in determining fashion consumption.

Developments in material science

New developments in the field of material science are greatly enhancing the functionality of the existing products. Innovations in the textile value chain are incorporated right from the raw material stage with addition of desired properties in the fabric. These developments are aimed at making textile commodities more durable, ecological, sustainable, and at the same time, futuristic. Further developments in material science will determine the nature of fashion products consumed in the future.

The fashion industry is uniquely competitive and its growth doesn't represent any sign of slowing down in the near future. Brands are taking an active stance to adjust to changing consumer behavior by increasingly embracing the avenues of technology and product innovation.

2.5 Growing Need for Sustainability

Sustainability is the solution to maintain harmony between increasing global demand and decreasing natural resources. To achieve it, a combined effort from every value chain member starting from fibre production to manufacturing to consumption will be required. In the coming years, sustainability will be driven by the following three wheels:

Manufacturing Excellence is a combination of small but significant steps such as:

- Efficient production planning to enhance operational efficiencies and resource utilization
- Use of new and improved technology to obtain maximum production efficiency, output quality, and cost optimization
- Incorporating product lifecycle management to achieve material saving and obtain zero defects
- Integration with IT for achieving the best process control
- Skill training to improve productivity and reduce wastage

Achieving manufacturing excellence ensures not only the optimum utilization of machinery and infrastructure but it also ensures the most efficient use of natural resources thus maintains the right balance.

- **Adherence to Compliances**

Due to growing concerns about the environment and improving transparency in the supply chain due to IT integration, adherence to compliances and standards is no longer an option. International brands use these compliances as a filtering tool for selecting their suppliers and demand strict adherence across the value chain.

- **Changing Consumption Habits**

The efforts required to achieve sustainability are not limited to the manufacturer and brands, consumer awareness about the impact of product lifecycle on the environment also has an important role to play in sustainability. The principles of the circular economy i.e. Recycle, Reuse, Resale, and Rentals are re-defining the ways in which people consume fashion.

3 Strategy for Enhancing India's Competitiveness

3.1 Exploring untapped markets of global textile and apparel industry

India being the third largest exporter of textile and apparel commands 5% share in global textile and apparel exports. However, most of the global textile and apparel markets still remain untapped by Indian exporters. Out of top twenty T&A global market, India has less than 3% share in its total T&A exports for most of the major markets. These markets offer a tremendous opportunity to our exporters for increasing India's T&A exports. These markets are listed in the table below:

Table 6: India's Markets with <3% in Textile & Apparel Exports

S. No.	Global Rank	T&A Market	2018 (USD bn)	% Share in India's Exports
1	1	EU-28	303.4	3.0%
2	3	Japan	37.2	1.1%
3	5	Viet Nam	28.0	2.3%
4	6	Rep. of Korea	17.5	2.7%
5	7	Canada	15.3	3.0%
6	8	Russian Federation	14.4	1.0%
7	10	Mexico	12.2	2.2%
8	11	Indonesia	10.5	2.5%
9	12	Switzerland	10.2	0.7%
10	16	Philippines	7.1	1.3%

Data Source: UN Comtrade

Almost every untapped market has good demand for all or some of the top five traded T&A commodities. Mostly all India's top exported commodities coincides with top ten imported commodities of the untapped markets. However, India either does not export or has minuscule exports of these commodities

to these markets. Below table presents list of potential commodities in which India has competitive edge and potential markets where these commodities can be supplied to:

Table 7: Potential Commodities in Untapped Markets

Potential Commodities	Category	Detailed Description	Untapped Markets
5201	Fibre	Cotton yarn	EU-28, Turkey, Korea
5205	Yarn	Cotton yarn	EU-28, USA, Hong Kong, Philippines, Honduras
5208	Fabric	Woven cotton fabric	EU-28, Philippines, Vietnam, Indonesia, Myanmar, Turkey, Japan
5402	Filament	Synthetic filament yarn	Vietnam, Korea, Egypt, Japan, Mexico, Indonesia
6203	Apparel	Woven men's suits and ensembles	Japan, Switzerland, Korea, Canada, UAE, Australia

Data Source: UN Comtrade

It is understood that there are specific apprehensions related to the untapped markets like quality concern & cultural mismatch in Japan, high tariff incidences in Australia/ Canada/ Egypt/ Mexico/ South Korea/ Russia and tariff barriers in Turkey. However, with manufacturing excellence Indian manufacturers & exporters can position themselves distinctively to compete in these markets.

3.2 Diversification of product portfolio

An analysis of globally top 10 traded commodities shows that 8 out of 10 commodities fall in the apparel category and India's share in all those commodities is significantly low (less than 8%). For certain categories share in trade is as low as 0.2%.

Table 8: Top 10 Traded Commodities in the World & India's Share (US$ Bn.)

HS Code	Description	Global Exports	India's Exports	India's Share in Global Exports
610910	Cotton T-shirts	30.02	1.78	6%
620342	Mens Trousers of Cotton	26.97	0.20	1%
611030	Jerseys of MMF	25.58	0.07	0.2%
520100	Cotton Fibre	14.33	2.20	15%
610443	Dresses of MMF	13.00	0.66	5%
620520	Mens Shirts of Cotton	11.67	0.79	7%
621210	Brassieres	11.21	0.11	1%
540752	Dyed Woven Fabric of Polyester	8.23	0.12	2%
620640	Blouses & shirts of MMF	7.73	0.58	7%
620343	Mens Trousers of MMF	7.68	0.09	1%

Data Source: UN Comtrade

Also analyzing India's top exported commodities, it can be observed that India's top ten commodities include commodities like fibre, yarn, garment and home textiles as well.

Table 9: Top 10 Exported T&A Commodities from India (US$ Bn.)

HS Code	Description	India Exports
520100	Cotton Fibre	2.2
610910	T-shirts of Cotton	1.8
520523	Combed Yarn of Cotton	1.7
630260	Toilet & Kitchen linen of cotton	1.1
630419	Bedspreads	1.0
540233	Textured Yarn of Polyesters	0.9
620520	Mens shirts	0.8
630532	FIBC of MMF	0.7
610990	T-Shirts of other textile material	0.7
620443	Dresses of MMF	0.7

Data Source: UN Comtrade

This analysis shows that India's exports are not very much aligned towards global demand. There are various product categories wherein there is a large potential demand and due to lack of product diversification, India's share in those categories is negligible.

Indian textile industry needs to understand and capitalize on this potential market opportunity by investing into different products. Also, Indian textile industry needs to keep an eye on emerging product categories such as technical textiles, functional textiles, non-wovens etc. and target their growing markets as well. Keeping pace with the requirements of buyers in export markets and responsiveness to it can also help exporters to have better competitiveness.

3.3 Improving service and quality levels

One of the most prominent issues that has loomed over Indian exporters are their poor service and quality levels. These shortcomings not only adversely impact India's image in the global textile industry but it also discourages existing buyers from continuing their relationship with Indian exporters.

Issues faced in terms of quality & quantity:

- Dispatching of faulty products
- Poor packaging of products
- Inability to cater large order quantities
- Non adherence to compliances and norms

Issues faced in terms of service levels:

- Delay in lead times
- Poor communication between merchandizers and buyers
- Infrastructural & procedural delays in shipment

Export competiveness can only be achieved if Indian exporters provide superior product quality and admirable service levels to their buyers on a constant basis. For achieving, Indian exporters need to incorporate robust client management systems which will keep them in level with the requirement of

their buyers and help them in providing good quality and service levels in an efficient manner. Also, merchandizers need to be well trained in handling international clients in order to win their confidence and to build market reputation.

3.4 Employment generation through growth in domestic market

As explained in the first segment, domestic market of India is large and has is growing at a high rate. This growth can only be sustained if India makes some integral structural changes in its industry. If Indian textile industry focuses on achieving manufacturing excellence and build a sustainable model of growth, Indian textile and apparel market could aspire for a growth of 11% and reach US$ 290 bn. by 2025.

Table 10: India's T&A Vision 2030

Market (US$ bn.)	2018	2025	CAGR
Domestic	100	220	12%
Exports	37	70	10%
Total	**137**	**290**	**11%**

Source: Wazir Analysis

Exploring newer areas in the domestic market becomes more essential for the growth of industry. With influencing factors like growth in consumer purchasing power, rising awareness about health and hygiene, inclination towards fashion and leisure wear etc., a large number of potential product categories have emerged in the domestic market.

Apparel Segment:

Domestic apparel stood at US$ 74 bn. in 2018 and has registered double digit growth over the last decade. However, up till now domestic apparel market of India was largely dominated by the ethnic wear segment and other cotton based common product categories.

Women's Western wear: in the recent years, there is a growing demand for western wear & work wear in the Indian market especially in the womenswear segment because of the following reasons:

- Increasing women participation in workforce
- Favorable policies for women such as flexi timings, work from home, increased maternity leaves
- Increasing influence of western culture and awareness about fashion

Active wear or Athleisure wear: Sports & fitness culture is catching up in India. It is anticipated to grow at very high rates in the coming years owing to its rising popularity in India. Indian consumers are moving beyond the traditional apparel and are trying new things. Amongst this, a new category has also emerged i.e. athleisure which is a combination of athletic and leisure wear. Consumers have shown great interest in this category as they get both the functional as well as the aesthetic aspect from these clothes.

Fabric Sector: Indian fabric is primarily cotton dominated with 60% share in overall fabric production. 100% synthetic fabric production has been limited in the country. Surat is the main cluster of synthetic woven fabrics, however, they produce low quality fabrics used in ethnic wear and for export use. Presence of good quality synthetic fabric manufacturers (woven and knit) is negligible in the industry. For meeting the demand of such fabrics, domestic market of India relies heavily on imports from countries like China,

Korea, Taiwan, Thailand, Indonesia, Sri Lanka etc. This indicates that there is a large opportunity of import substitution for Indian fabric manufacturers if they venture into production of such fabrics.

Yarn and Fibre/Filament Sector: India has set up large spinning capacities in terms of cotton yarn and polyester filament. Newer avenues of growth lie in value added yarns and filaments. Countries like China, Korea and Taiwan have developed capabilities of manufacturing highly functional fibres and filament. Indian manufacturers have focused on common product like spun yarn, high denier filaments, basic value added yarns etc.

Indian manufacturers need to build capabilities in these areas to stay at par and further gain competitive edge against competitors

Technical Textiles: Technical textiles offer vast arrays of opportunities for the domestic market of India. This segment is still at a nascent stage in India and has the capability to grow at unprecedented rates in the future. This is due to the growing awareness about the benefits of technical textiles not only on industrial front but also in household usage. With applications in fields like healthcare, automobile, construction, agriculture, apparel, sports & fitness etc. Technical textile market is posed to reach a size of US$ 42 bn. in 2025 from a level of US$ 19 bn. (2018) registering double digit growth rate of 12%. Hence, this sector becomes is one of the most important areas for growth for Indian textile and apparel sector.

4 Investments & Interventions for Indian Textiles and Apparel Sector

4.1 Investment in modern technologies in the textile sector

Investment in the textile sector has helped the industry in product development, innovation and value addition over the years. Following are some of the examples of modernization of textile value chain done over the years and introduction of newer technologies.

a) Spinning

- Growth of newer technology for spinning like compact spinning, airjet spinning etc.
- Increased automation such as auto doffer systems, integrated transport systems, splicers
- Better quality monitoring system such as individual head monitoring, online quality systems, app based systems, auto levelers, contamination controllers
- Increasing ability of companies to make specialty yarns including core spun yarn, slub yarns, siro spun yarn etc.

b) Knitting

- Growth of modern high speed circular knitting machines and electronic flat knitting
- Increasing penetration of auto-striper machines & jacquard knitting machines, which give higher design flexibility and value addition
- Investments in warp knitting machines to produce new knit products like laces, net fabrics etc.

c) Weaving

- High growth in installation of shuttle-less looms with a large number of modern shuttle-less looms replacing the shuttle looms
- Higher weft insertions in modern looms have increased design flexibility and value addition

d) Processing

- Increase in capacity of modern technology machines including continuous dyeing/bleaching machines which have replaced traditional batch process machines like Jigger
- Increasing capacities of polyester dyeing lines including HTHP machines
- Computer controlled auto-dozing systems in dyeing machines have reduced dye wastage, improved product quality and consistency and improved process efficiency
- Growth in printing technologies from block printing to screen and rotary printing and digital printing
- Modern technology in finishing machines including stenters, singeing machines, compacting machines etc.
- Improved technology in yarn and fibre dyeing machines which has reduced color variations and improved quality
- Modern testing & computerized color matching equipment have improved product standards
- Modern garment washing and dyeing machines have increased and improved product value.
- Various finish application attachments have in modern machines have helped in value added products like anti-microbial, wrinkle free, stain resistant, non-flammable fabrics

e) Garmenting

- Upgradation from manual cutting to automatic cutting
- Modern sewing machines, Multi head high speed embroidery machines have improved product standards
- Various support machines like pocket setter, belt loop making, fusing machines, CAD systems etc., have improved productivity, flexibility, precision and overall quality

4.2 Developing India as a preferred manufacturing destination

One of the key challenges faced by the industry today is structural weakness in the manufacturing value chain. As we proceed downstream in the value chain, the manufacturing capacities continue to reduce thereby losing out on the opportunity of value addition. Significant amount of value addition opportunity is lost because of exports of unfinished goods viz. raw fiber, yarn and greige fabrics.

The fundamental issue within the chain lies with the fabrics manufacturing and processing sector, which suffers from lack of capacity and use of obsolete technologies, to an extent that the upstream and downstream processes are not able to utilize their full potential.

It is important to realize that in order to make strong positioning in the global market, there is a need bring about structural transformations and focus on creating large capacities in the Indian textile industry. This will not only help in capitalizing value addition opportunities but it will also help in positioning India as an end to end manufacturing destination.

Modernization and innovation in the sector

As detailed earlier in this segment, over the last decade, levels of modernization have significantly improved depicting an increasing focus on technology improvement. Modern and efficient machineries, integrated manufacturing systems etc. are being incorporated in the industry. However, this wave of modernization has still not penetrated throughout the industry, again due to its unorganized and fragmented state. Majority of small scale units operating across various clusters in the country still rely on age old machineries for their production.

Unawareness about schemes, technologies and newer systems is a big reason for the underdeveloped nature of our industry along with the required capital investment. Low modernization reflects in poor productivity and poor quality and in turn lowers our manufacturing potential. To compete with an established manufacturing powerhouse such as China, India needs to raise its manufacturing levels and bringing in newer technology is the first and foremost way of doing it.

Indian textile industry's core competence lies in manufacturing of common products such as cotton yarn, cotton fabric etc. Our industry has grown comfortable in manufacturing these common commodities and have not taken up newer challenges. Countries like China, Korea, Taiwan etc. have worked relentlessly in the direction of innovation. They have come up with newer products and hence have set themselves apart in the global textile landscape. For India to become the go to destination for global buyers, our industry must focus on diversifying itself and offer more innovative products. Innovation comes from research and development and a continuous focus is required in order to gain competitive advantage. Bringing new ideas into action is of importance as it can lead to finding new manufacturing methods to improve performance, producing better quality and designs and streamlining of the entire process flow.

Achieving operational excellence

Another important step towards becoming a preferred manufacturing destination is operational excellence. Better productivity, higher efficiency etc. can only be achieved if all the systems and processes are working in a synergy. Apart from a handful of the top companies, majority of textile industry lack operational excellence. This leads to generation of higher waste, poor quality and low efficiency and productivity levels.

Operational excellence includes streamlining manufacturing operations, quality & process improvement, capacity improvement, and information systems for operations & control. Thus, an ideal production process would be where throughput time is minimal, inventory is balanced, bottleneck in operation is none, changeover time is negligible, defects are zero, and critical path is well defined. To remain competitive in the international market it is important to continuously improve quality and productivity through operational excellence.

Environment friendly development approach

Textile manufacturing is an energy, chemical & resource intensive industry. Right from the growth of fibres i.e. cotton (agriculture) or synthetic (chemical synthesis) to the manufacturing of garments, textile industry consumes a large amount of resources (land, water, coal, other fuels, chemicals etc.). Consumption of all these resources means the release of large amounts of harmful emissions, solid and liquid chemical waste. It is a double edged sword as it impacts the environment by both depleting natural resources and by releasing harmful byproducts in the environment. Indian textile industry has been on the wrong end of this subject as many companies do not comply with rules & regulation for environmental protection.

This creates a negative impact on international buyers as they look for suppliers who follow strict environmental compliance norms. Future development of our industry cannot be based on a model where no regards is given to the impact that it has on environment. Hence for Indian textile industry, it becomes much more important to adapt the sustainable way of growth. Government of India has now stricken the norms about environmental compliance and has started taking firm actions against defaulters. Companies from their end have also started taking positive steps towards achieving cleaner and greener ways of manufacturing. Government of India has now stricken the norms about environmental compliance and has started taking firm actions against defaulters. Companies from their end have also started taking positive steps towards achieving cleaner and greener ways of manufacturing.

4.3 Measures for attracting investment in the Indian textile sector

a) Improving Ease of Doing Business

Government's flagship initiative of **'Make in India'** emphasized on the importance of 'Ease of Doing Business'. This has resulted in a fruitful outcome as India recorded its highest ever jump in the "Ease of Doing Business Ranking" (World Bank) to reach a rank of 100. As depicted earlier, Indian textile and apparel industry recorded the highest FDI inflow in history. All these things show a growing positive sentiment amongst international companies towards India. To further strengthen and improve India's attractiveness as an investment destination, Indian government has taken multiple measures:

- **i)** Easier and simpler registrations & approvals (ESIC, EPFO, PAN, TAN etc.)
- **ii)** Reduction of processes for construction permits
- **iii)** Hassle free access to electricity
- **iv)** Simpler import & export procedures
- **v)** Easier contract enforcement
- **vi)** Digitization process for registering property
- **vii)** Creation of an E-Biz platform (One stop access for investors about investment opportunities and information on number of licenses/approvals required from government agencies.

All these initiatives will help improve India's 'Ease of Doing Business' even further and thus bring in more investment in the sector.

b) FTAs with major markets

FTAs have played a significant role in shaping the global textile and apparel industry. They act as a gateway for manufacturing nations for the development and investment in their industry. FTAs work towards bringing down trade barriers between countries and drive investments. Countries like Bangladesh, Vietnam, Ethiopia etc. have leveraged their FTAs with US & EU to bring in large scale investments over the last decade.

India has failed to achieve the same result owing to the absence of such FTAs which makes it a less attractive destination for investments as it faces tariff barriers in major international markets. Therefore, an early finalization of FTAs with major textile and apparel markets will help drive investments in the country.

c) **Creation of world class manufacturing infrastructure**

The lack of sufficient infrastructure across the industry creates apprehension in the minds of entrepreneurs who seek to invest in the sector. Development of mega textile parks, research and development facilities, integrated set ups etc. along with lucrative government incentives will help in encouraging new investments in the sector.

4.4 Government Policy Initiatives

Government role in achieving these goals will be of utmost importance. A collaborated effort from the industry and the government is required in order to implement the growth plans for the textile sector. Government has been constantly putting forth efforts to introduce schemes & policies for the development of industry. Various schemes like Amended Technological Up gradation Fund Scheme (ATUFS), Scheme for Integrated Textile Parks (SITP), Integrated Skill Development Scheme and others have been launched for promoting investments in the textile industry, upgrading technology and setting up integrated manufacturing setups.

Apart from Central Government schemes, several State Governments have also launched their textile policies under which several incentives are provided for investments in textile sector. All this support from government has helped the industry to grow over the years and become more competitive in manufacturing and exports. This support has to be continuously enhanced and focused on the target areas by creating a catalyst scheme to develop an ecosystem for enhancing manufacturing competiveness in order to provide a strong base for the future development of the Indian industry. With the aim of supporting Indian textile and apparel industry achieve its deserved state, it is important that State and Central Government agencies provide special thrust in specific areas, as mentioned below:

1. **R&D Support**

The Indian textile and apparel sector is known for its traditional products but very limited innovation has taken place in the sector so far. Even for several home grown technologies and process, commercial acceptability and adoption is not there in the sector. When compared to other competing countries, the efficiency and productivity levels of Indian textile sector is quite low. The government can have a R&D fund, which could be used for deploying state-of-art modern technologies.

2. **Credible mechanisms for assessing levels of quality and productivity**

There is a need to develop some credible mechanisms for assessing levels of quality and productivity in segments of the supply chain as well as in individual enterprises. Government should work together with the Quality Council of India and the National Productivity Council for achieving this objective.

3. Attracting Large Scale Investment

To be globally competitive, it is required to promote large scale manufacturing set-ups. These set-ups will gain an edge because of economies of scale and will also be able to cater to large buyers.

For attracting investments in the sector, it is required that good incentives should be given to investors. Incentives focused on technology up-gradation, capacity addition and long term development of the sector are crucial at this point of time. The incentives need to be attractive enough for Indian as well as international investors. Improved investment environment will stimulate investments, provide technical know-how and develop state-of-the-art set-ups required for the sustainable development of the sector.

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About Wazir Advisors

Wazir Advisors is a Management Consulting assisting its clients in strategy formulation and implementation, forming alliances and joint ventures, investments and market understanding, sector analysis and due diligence-thereby providing end to end solution spanning the complete business cycle in textile value chain.

Having worked with leading Indian and International companies, public sector organizations, Government departments, development agencies, trade bodies etc., Wazir has a deep understanding of global textile sector dynamics and right connect with the people who matter.

Wazir's team of textile experts possess experience across function – projects, operations, sourcing and marketing in the sector. The team members have worked on strategy and implementation assignments in all major textile and apparel manufacturing and consumption base. Wazir leverages its body of knowledge, contact and combined expertise of its team to deliver value to clients.

Scope of Our Operations

Strategy

Wazir delivers practical, implementable strategies for clients to meet their objectives.

Be it corporate strategy intending to enhance profitability or sector growth strategy to support MSMEs or evaluating Government scheme to access its impact, we are geared to advise our clients efficiently and effectively. Our services include:

- Sector Mapping and Growth Strategy
- Policy Formulation Support
- Government Scheme Evaluation
- Corporate Strategy
- Market Opportunity Assessment
- Market Entry Strategy
- Location Analysis
- Business Performance Enhancement
- Product Diversification
- Marketing and Distribution Strategy

Implementation

Wazir provides implementation services to textile and apparel sector entities to convert the plans into reality. Whether it is to manage a Government scheme or to improve productivity in apparel factories or to identify the most suitable technology; we have in-house competence to cover all the critical elements of implementation. Our services are:

- Project Management and Monitoring
- Re-modeling of Manufacturing Plant
- Process Re-engineering
- Productivity Improvement
- Supply Chain Optimization
- Feasibility and Techno-Economic Viability (TEV) Study
- Investment Promotion
- Cluster and Industrial Park Development

Alliances

Partnerships and collaborations are ways to achieve accelerated growth, expand market reach and attain technical advancement. Realizing the importance and need of inter-organization alliances in textile and apparel sector, Wazir has developed broad range of services to support companies and organizations looking for inorganic growth globally. Our services include:

- Company Due-diligence
- Joint Venture
- Marketing Tie-up
- Technology Transfer
- M&A Execution
- Strategic and Financial Funding


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