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TOP STORIES

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- Assessing carbon in textile processing
- Interview: Henry Jones, CEO, Active Apparel Group

Road Ahead to 2025

The Indian textile industry faced challenges in 2024 with wars, demand contraction, and regulatory changes. Will 2025 bring relief? The industry is eager to understand its path forward, especially with certain factors now favouring India.



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Editor's Note





Neighbour's envy India's gain

With about 25 per cent contribution to the Indian textile & apparels (T&As) industry, exports play a crucial to its growth. While domestic demand for T&As has remained steady over the past two years, exports faced setbacks in 2023 due to high inflation and rising interest rates in key markets, resulting in a 10 per cent decline to \$ 32.8 billion. However, the sector rebounded by 6 per cent in the first 10 months of calendar year 2024 (CY24), reaching \$29.26 billion, aided by order shifts from Bangladesh and government support for the polyester yarn industry.

On the cotton yarn front, trend was reverse with exports declining by 5 per cent in the first 11 months of CY24 over a relatively high base of 11MCY23, according to CareEdge Ratings report. Cotton yarn exports are influenced by the parity between domestic and international raw cotton

prices. Since April 2024, domestic cotton prices have been consistently higher than global prices, negatively affecting India's cotton yarn exports. Furthermore, a slowdown in China's textile industry, reduced global demand for textile products, and the adoption of the China Plus One strategy by global suppliers and brands have also contributed to the decline in India's cotton yarn exports to China.

Readymade garments (RMG) and home textiles have experienced significant recovery. RMG exports increased by 7 per cent year-on-year in the first 11 months of CY24, reaching \$13.2 billion. This growth was primarily driven by higher exports to major markets such as the US and UK, which together accounted for approximately 43-45 per cent of India's total RMG exports.

The ongoing crisis in Bangladesh has further boosted India's RMG exports. While Bangladesh holds the second-largest share in the global RMG market at 8-9 per cent, India ranked seventh in 2023 with a modest 3 per cent market share. However, socio-political unrest in Bangladesh during 2024 caused a shift in orders to India. Since the crisis began, India's RMG exports have consistently outperformed Bangladesh's. In Q3 CY24, India's RMG exports grew by around 13 per cent year-on-year, while Bangladesh saw a 1 per cent decline. This trend of India outpacing Bangladesh's growth continued through October 2024.

India is poised to benefit from global brands diversifying their supply chains due to geopolitical and socio-economic factors. The on-going Bangladesh crisis could redirect 6-8 per cent of Bangladesh's monthly export orders to India, translating into incremental monthly exports of \$200-250 million, says the CareEdge report. Indian companies, particularly those with capacities in knitted garments, are well-positioned to capitalise on this shift.

In the short term, India can meet the immediate demand, but sustaining medium- to long-term growth will require expanding capacities, enhancing supply chain efficiency, and improving cost competitiveness. This message was clearly outlined during the recently held webinar – titled "Outlook 2024 for Indian T&As industry" – by ITJ.

Changes in US trade tariffs under the incoming Donald Trump administration could temporarily impact exports. However, reduced reliance on China (by the US) is likely to benefit India in the medium term. According to CareEdge, the Indian textile industry is projected to grow by 8-9 per cent in 2025, provided cotton and polyester yarn prices remain stable and forex rates are favourable. This could improve operating profitability by 40-80 basis points.

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Rieter appoints Emmanuelle Gmür as Chief Human Resources Officer



The Board of Directors of Rieter Holding has appointed Emmanuelle Gmür to the Group Executive Committee of the Rieter Group with effect from January 1, 2025. As Chief Human Resources Officer, she succeeds Tom Ban, who has decided to pursue his career outside Rieter.

Emmanuelle Gmür has extensive knowledge in human resources and a proven track record in strategic leadership and organisational development, management consulting and change management. She has vast international experience and knowledge of the textile industry.

In the period from 2013 to 2024 Emmanuelle Gmür was active as Chief Human Resources Officer, Global Head of Communication and as a member of the global management board of the Triumph Group, Bad Zurzach (Switzerland). At the same time, she was a member of the Supervisory Board of Triumph France SA, Obernai (France) from 2020 to 2024 and deputy chairwoman of the Supervisory Board of Triumph Austria AG, Vienna/Wiener Neustadt (Austria) from 2015 to 2024. She previously worked as Global Head of Learning and Development for the Triumph Group in Bad Zurzach (Switzerland) from 2010 to 2013. From 2007 to 2010, she held the position of Head of Consulting at Qualintra SA, Geneva (Switzerland). From 1999 to 2006, she held various positions at British Telecom plc, London (United Kingdom), among others as a consultant for leadership and organisational development and as a business transformation consultant.

"Emmanuelle Gmür has extensive international expertise in all areas of human resources management. She is a respected expert and leader and will consistently drive forward the further development of the human resources department. As Chief Human Resources Officer, she will enrich the Rieter team with her expertise and profound business acumen and support the Group Executive Committee in implementing the new strategy," says Thomas Oetterli, Chairman of the Board of Directors and CEO of the Rieter Group. Emmanuelle Gmür holds a Core MBA from the Helsinki University of Technology, Helsinki (Finland) and a Master of Science in Business from the École supérieure de commerce de Reims (France). She was born in 1976 and is a French citizen.

RSWM appoints Rajeev Gupta as CEO to drive strategic growth & innovation

RSWM, the flagship company of the LNJ Bhilwara Group and one of India's largest textile manufacturers, has announced the appointment of Rajeev Gupta as its Chief Executive Officer. With over 30 years of transformative leadership across various industries, Gupta brings unparalleled expertise in operational optimisation, strategic vision, and technological advancement.

Known for his proficiency in driving operational excellence, Gupta has successfully applied Lean, Six Sigma, TPM, and TQM methodologies to streamline processes and enhance productivity. His experience spans the textile, home textile, and pulp & paper industries, with leadership roles at leading organizations including Reliance, Trident, and Vardhman. At these companies, he led initiatives that resulted in substantial EBITDA and revenue growth.



Under Gupta's leadership, RSWM is expected to accelerate its transformation initiatives, particularly in leveraging advanced technologies to improve efficiencies. His strategic approach is set to further solidify RSWM's reputation for innovation, particularly as the textile industry faces rapid changes and evolving consumer demands.

Reflecting on his new role, Rajeev Gupta, Chief Executive Officer, RSWM said, "RSWM has long been a leader in innovation and excellence in textiles, built on a strong legacy of operational excellence and sustainability. I am committed to advancing this foundation by adopting modern technologies and practices, driving efficiency, and meeting the evolving needs of the industry while reinforcing our dedication to sustainable value for stakeholders."



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Commenting on the appointment, Riju Jhunjhunwala, Chairman and Managing Director of RSWM, said, "Rajeev's industry knowledge and exceptional leadership abilities are assets that will help us realize our business objectives. His strategic mindset, along with his operational expertise, will be important for us to strengthening our operations and expanding into new markets."

With a history spanning over six decades, RSWM continues to prioritize growth through market expansion, product diversification, and sustainability. Gupta's appointment is expected to significantly enhance RSWM's competitive edge, reinforcing its leadership position in the industry.

Lindström Group secures top 1% sustainability ranking with EcoVadis Platinum Medal

Lindström Group, a global textile rental service company, has earned the EcoVadis Platinum Medal, placing it among the top 1 per cent of over 130,000



companies worldwide for sustainability. The recognition reflects Lindström's commitment to integrating sustainable practices into its global operations and supply chain.

EcoVadis, a leading sustainability rating agency, assessed Lindström across 21 criteria in four areas: Environment, Labour & Human Rights, Ethics, and Sustainable Procurement. Lindström scored an impressive 83/100, with standout performance in Environmental Practices (90/100) and strong results in the other categories.

"This achievement is the result of a collective effort," said Inari Laveri, Climate and Compliance Manager at Lindström. "Our project team has worked tirelessly to enhance our policies, practices, and reporting, while our employees have actively participated in training sessions. The feedback from EcoVadis during the past few years has been invaluable, helping us identify areas for improvement and shape effective development plans."

Lindström's recent upgrades to its HR systems have improved monitoring and enhanced employee training. In 2024, 92 per cent of employees completed Code of Conduct training, while more than 10,000 hours were spent on Health and Safety sessions.

Lindström India aligns its initiatives with the group's global sustainability goals while addressing local challenges.

"This global recognition strengthens our resolve to advance sustainable solutions in India," said Jayant Roy, Managing Director, Lindström India. "From optimising laundry processes to working with local recyclers, we are actively contributing to both global and regional sustainability goals. In the coming years, we aim to sustain 100 per cent textile waste recycling."

He added, "India presents unique opportunities for innovation. By blending global expertise with local strategies, we aspire to set new benchmarks in responsible business practices."

Lindström's circular economy approach focuses on reducing waste and maximising resource use. The company has achieved an impressive 100 per cent textile waste recycling in India. Certifications like ISO 14001 further underscore its dedication to environmental management.

AB Cotspin India secures Rs 50.35 million cotton yarn order

Textile manufacturer AB Cotspin India announced that it had secured a ₹50.35 million order for the supply of 273 MT of cotton yarn. This order highlights the company's on-going growth and the strong trust its customers place in its high-quality products.

Deepak Garg, the Managing Director of AB Cotspin India, expressed his satisfaction with the repeat order,



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emphasising that it reaffirmed the trust clients have in the company's ability to consistently deliver exceptional quality products. He further mentioned that with an impressive order book of approximately 973 MTS valued at ₹260.35 million, the company was well-positioned to meet future demand and continue driving growth in the textile industry.

Garg also noted that the steady stream of repeat orders not only reflected customer satisfaction but also enabled the company to confidently pursue its projected sales target of ₹2.75-2.90 billion and an EBITDA of around ₹320 million for the FY2024-25.

Founded in 1997, AB Cotspin India is a leading textile manufacturer based in Jaitu, Punjab. Over the past 25 years, the company has transformed from a cotton ginning unit into a fully integrated manufacturing operation, producing high-quality cotton yarn, knitted fabrics, cottonseed oil, and oil cakes.

Hosiery sector revenue to grow 10-12% in FY25

A Crisil Ratings analysis of 30 hosiery manufacturers, representing approximately one-third of the industry by revenue, suggests that Indian hosiery makers are set to witness a 10-12 per cent year-on-year revenue growth this fiscal. This increase is attributed to a revival in rural demand, strong volume support from the export market, and robust modern trade sales.

The projected growth in volume is expected to compensate for a 1-2 per cent decline in average sales realisation due to reduced selling prices aimed at clearing year-end inventory, following weaker demand from channel partners in the previous fiscal. The industry's operating margin is anticipated to improve by 150-200 basis points (bps), driven by lower input costs and better capacity utilisation enabled by higher volumes.

Argha Chanda, Director of CRISIL Ratings, explained that the anticipated revenue growth will be largely supported by rural sales, which account for nearly half of the domestic revenue. He noted that factors such as increased agricultural output due to an above-average monsoon, a rise in the minimum support price, and enhanced government spending on rural infrastructure will bolster rural spending. Additionally, higher exports to the Middle East and North Africa, along with urban demand growth fuelled by expanding modern trade, are expected to further support volume growth.

The hosiery industry typically experiences a surge in volumes towards the fiscal year-end, as channel partners stock up to meet peak summer demand. However, the previous year-end saw lower stocking levels due to falling yarn prices and expectations of reduced product realisation. This fiscal, the stabilisation of yarn prices and a marginal dip in selling prices have rekindled demand from channel partners.

In response to strong demand, hosiery manufacturers are expected to limit their advertising and marketing expenses. Increased operating leverage from higher capacity utilisation is likely to boost operating margins by 150-200 bps, reaching 11.5-12 per cent this fiscal. This improvement is expected to translate into higher cash accruals.



Improved cash generation and shorter inventory holding periods are anticipated to reduce working capital requirements, enhancing liquidity. With moderate capacity utilisation and no significant expansion plans, long-term borrowings and financing costs should remain under control.

Vishnu Sinha, Team Leader at CRISIL Ratings, highlighted that inventory holding is expected to decline to a historical low of 90-100 days this fiscal, compared to 150 days in fiscal 2024. This reduction, coupled with limited debt-funded capital expenditure, is likely to keep debt levels stable. Furthermore, the ratio of total outside liabilities to tangible net worth is projected to remain below 1, consistent with last fiscal. Improved operational performance is expected to raise the interest coverage ratio to approximately 6.5 times this fiscal from 4.5 times previously.

Nevertheless, the report underscores the need to monitor key factors such as the impact of inflation, the stability of farm incomes in the rural economy, and the performance of exports and modern trade, which are crucial for achieving sustained volume and margin growth.



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This partnership is set to enhance India's textile value chain, empower women in the workforce, and elevate the country's global standing in the textile industry.

With a shared focus on innovation and sustainability, the collaboration between Uniqlo and the Indian government marks a pivotal step toward achieving the nation's textile growth targets and strengthening its role as a global industry leader.

Surat's garment sector to grow 20-25% as global brands shift from Bangladesh

Many global and local brands that previously sourced garments from Bangladesh are now turning to Indian manufacturers to meet their demands, citing growing discomfort over the persistent instability in the neighbouring country.

According to textile industry insiders in Surat, there has been a noticeable increase in inquiries from such brands for the production and supply of ready-to-wear garments. These insiders believe that if these inquiries translate into confirmed orders, Surat's garment sector could experience accelerated growth, potentially reaching 20-25 per cent annually, up from its current rate of 12 per cent. They also noted that other textile hubs in Tamil Nadu, Punjab, and Noida stand to benefit from the shift in demand.

Bangladesh, despite being the second-largest exporter of ready-made garments after China, heavily relies on fabric supplied by Surat, known as the textile city of India. Amid growing political instability, law-and-order concerns, and unrest among textile workers in Bangladesh, Indian companies view this as an opportunity to cater to global markets with more value-added products.



Ashish Gujarati, a former president of the South Gujarat Chamber of Commerce, explained that Surat's garment sector primarily focuses on ethnic wear, kurtis, low-priced women's wear, and some denim. He remarked that there had been a significant surge in inquiries from major brands since the instability in Bangladesh began, which could bring substantial benefits to Surat's garment industry. Surat's monthly turnover currently stands at approximately ₹6 billion, primarily from man-made fibre products. Gujarati pointed out that cotton hubs in Tiruppur and Coimbatore in Tamil Nadu, Ludhiana in Punjab, and Noida in Uttar Pradesh could also gain from these developments.

EU sustainability laws put pressure on garment makers like Zara, Nike, H&M



Workers in major garment manufacturing hubs such as Bangladesh, Vietnam, and Pakistan are increasingly facing extreme heat due to rising global temperatures driven by climate change, according to a report released. The issue requires multinational retailers and brands to step up and address these conditions.

European Union regulations now hold retailers selling within the bloc, including companies like Inditex, H&M, and Nike, legally accountable for the working conditions of their suppliers. These regulations are compelling them to help finance improvements, such as cooling systems, in the factories they source from.

Research by Cornell University's Global Labour Institute revealed that cities like Dhaka, Hanoi, Ho Chi Minh City, Phnom Penh, and Karachi experienced a 42 per cent increase in days with 'wet-bulb' temperatures above 30.5 degrees Celsius during 2020-2024 compared to 2005-2009. This metric, which combines air temperature and humidity, indicates conditions where the International Labor Organisation recommends equal amounts of rest and work to ensure workers' safety.

The report highlighted that only a few retailers, such as Nike, Levi's, and VF Corp, have implemented specific protocols to protect workers from heat-related risks within their supplier codes of conduct.

The report also urged brands to support higher wages and health protections to help workers cope with heat-induced absences. Research by Schroders and the Global Labor Institute previously estimated that extreme heat and flooding could result in a loss of \$65 billion in apparel export earnings for Bangladesh, Cambodia, Pakistan, and Vietnam by 2030.

COVER STORY



Road Ahead to 2025

The Indian textile industry faced challenges in 2024 with wars, demand contraction, and regulatory changes. Divya Shetty delves into whether 2025 could turn the tide, offering a brighter path for the industry's future.

024 was one of the most challenging years for the Indian textile sector as per the industry. Several factors, both domestic and international, contributed to this instability. Talking about domestic concerns, Gurudas Aras. Independent Director, shares, "Cotton prices in India were 10 to 15 per cent higher than international prices for most of the year. This significantly reduced the competitiveness of the entire value chain, from yarn to fabric to garments. Secondly, in October 2023, the government introduced the Quality Control Order (QCO) for polyester fibres and yarns. While the intention behind the QCO was good, aiming to allow only compliant, high-quality products from abroad, it affected the polyester value chain. The Surat sector, in particular, which depends heavily on polyester yarn imports, especially from China, was severely impacted. As a result, the entire value chain in this sector faced difficulties."

Additionally, on-going global conflicts and wars have driven up logistics and shipping costs, further hurting exporters. Textile chemicals is also one of the most important part of the textile value chain a it contributes approximately 5-10 per cent of the overall manufacturing cost. **Umasankar Mahapatra, Managing Director, Pulcra Chemicals,** view 2024 as a mixed performance for the chemical industry. He says, "India has a significant advantage in the textile chemical supply chain compared to neighbouring and competing countries. But on the



****** The spinning sector has suffered the most. The industry has faced overcapacity, with utilisation at around 70 to 75 per cent. Fluctuating cotton prices have also negatively affected yarn prices, leading to a subdued yarn market.*****

- Gurudas Aras, Independent Director

COVER STORY

demand side, certain sectors, like denim, have underperformed for the past two to three years, even before and after COVID-19. Capacity utilisation in the denim segment remains low."

Machinery, which serves as a backbone of the industry, had certain segments that performed well while others did not. According to Ashok Juneja, Director -Sales & Services, Saurer Textile Solutions, "Spinning industries are operating at less than 75 per cent of their capacity. Similarly, the textile machinery sector is also struggling, running at approximately 50 per cent capacity in some regions of India. This trend may vary across segments, but the spinning industry is in particularly poor shape. In contrast, the weaving and processing segments seem to be performing relatively better. Segment-wise, weaving and processing show more stability compared to spinning. However, even the garment sector is not thriving due to a lack of new greenfield projects and reduced order intake, with industries operating at just 50-60 per cent of their capacity. This underutilisation, coupled with rising costs of raw materials and production, posed significant challenge last year."



****** The profit margins in the spinning market are very thin. After Covid, the industry experienced some improvement, but the margins remain narrow. Only those who are highly competitive can survive. *****

- Ashok Juneja, Director - Sales & Services, Saurer Textile Solutions

Raja Shanmugham, MD, Warsaw International, however hints at brighter prospects for the industry looking at the delivery of past few months. He says, "2024 has been quite challenging compared to previous years. However, in the past few months, we have started seeing a ray of hope due to various reasons, though the situation is still not as promising as in 2022. The industry is just beginning to recover."

Despite having abundant raw materials and a large population, India is struggling to establish itself as a global leader in textiles. **Avinash Mayekar, Managing Director, Suvin,** encourages the industry to observe and learn from truly inspirational countries and clusters in order to stay ahead. He tells, "Tiruppur has done remarkably well without much help from either the state or central government. The cluster has created the roadmap, built the infrastructure, and designed everything through cooperative efforts. However, it's essential to remind the government that this is their responsibility. Policymakers must take on this work and support the industry." He further adds, "When I visited China, I noticed two significant points regarding labour efficiency. First, in Chinese apparel parks, workers remain focused on their tasks throughout the day. In contrast, in India, factory visits often reveal a lack of focus, with workers distracted by the arrival of visitors. In China, the apparel industry is their bread and butter, which drives their discipline. Second, the infrastructure in China is created proactively by the government. Industrial parks are developed first, and then manufacturers establish their facilities there."

The roadblocks of 2024

India's textile and apparel (T&A) sector targets \$350 billion in annual revenue by 2030, but recent challenges have raised concerns about achieving this goal. First, let's discuss about the global uncertainty. As per Aras, wars are detrimental to businesses and industries. He explains, "This war has significantly increased energy prices. Europe, a major importer of Indian textiles, has seen energy costs rise exponentially-reportedly five to six times higher during the peak of the crisis. When households face skyrocketing electricity bills, textiles naturally fall to the bottom of their purchasing priorities. Consequently, textile consumption in Europe and other EU countries has declined over the past one or two years, impacting Indian exports, as Europe and the US together account for approximately 75-78 per cent of India's textile exports. The US market has also witnessed a significant drop in textile consumption due to higher inflation."

Global conflicts have disrupted businesses across nations, leading to a sharp rise in shipping costs and container shortages. Longer shipping routes have increased transit times, further straining the efficiency of Indian manufacturers. India's turnaround time for goods is already higher than competitors like Bangladesh and Vietnam, who are more efficient in meeting delivery timelines. As a result, India has lost a portion of its market share to these countries, despite having the entire value chain and raw materials within the country.

Shanmugham adds, "We have a strong foundation in both cotton raw materials and man-made fibres. However, we are significantly costlier compared to other countries when it comes to man-made fibre-related products. This requires re-evaluation by both manufacturers and policymakers to create a level playing field for the growth of this segment within our manufacturing activities."

Juneja states that imports must be reduced, and there is a need for self-reliance as he states, "We have an approximately ₹250 billon machinery market in India,



and out of that, ₹150 billion is imported. About 60 per cent of the machines are imported. There are two concerns as to why we could not manufacture these machines locally. The first is technology, and the second is pricing. Whatever we manufacture, we are not able to keep the prices under control. Ultimately, we are all from the same industry. The price-to-product performance ratio has to work. The price must be reasonable, and the product has to perform.

When asked about the new machinery safety rules act which will be implemented from August 2025, Juneja says, "A lot of non-standard machines have been entering India, and this needs to be addressed. Initially, these regulations will apply only to embroidery and weaving. At the moment, there are no embroidery machinery manufacturers in India, but weaving machinery manufacturers do exist. By August 2025, these manufacturers will need to comply and register. The intention of the government is commendable—all machines should adhere to standard norms. However, the primary concern is implementation. The execution of these regulations will be key, and we need to see how effectively they are enforced."

While the textile chemical industry is self-reliant India, Mahapatra feels that we lack in raw materials. He mentions, "Although we are manufacturing most of our auxiliaries, specialty chemicals, dyes, and pigments in the country, there is still some import dependency for key raw materials, such as basic silicone oils, oleochemicals, and palm oil derivatives, which come from Southeast Asia. While the final formulations are done locally, these specific raw materials are still imported. The advantage of local manufacturing lies in close collaboration with mills and end-users. This collaboration is crucial because the requirements in this industry change rapidly. Unlike capital investments that remain static for 10-15 years, in the chemical space, there are constant changes every season or month. These include new finishes, substrate variations, product mixes, and colour trends. Technical service plays an essential role alongside supply, as manufacturers need to work closely with users to meet their evolving demands."

India is largely compliant with environmental norms, especially for premium European and US brands. However, compliance requirements are becoming more stringent. For instance, the CBMA (Carbon Border Mechanism Adjustment) is being implemented soon, initially focusing on energy-intensive sectors like cement, steel, iron, and aluminium. While consumer goods are not yet covered under CBMA, new regulations such as the Eco Design for Sustainable Products Regulation (ESPR) have been introduced, covering textiles.

The ESPR regulation focuses on not only product certification but also the impact at the user and consumer levels. It examines whether products are repairable, contain recycled content, and meet other

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sustainability criteria. Previously, certifications primarily assessed toxicity, banned substances, and manufacturing environments. Now, end-of-life treatment and consumerlevel impacts are also being addressed.

While companies are now striving to comply with sustainability standards and obtain certifications, smaller businesses are finding it challenging to meet these requirements. Shanmugham adds, "This industry is dominated by micro and small industries. Adhering to all these certification processes is a challenging task because everything needs to be certified by a third party. These third parties charge exorbitant fees, and goods are only accepted in the markets based on certification. This creates a very challenging situation for the survival of these micro and small industries. Everyone must equip themselves, but if the government truly wants to support these industries, they need to devise an exclusive policy, at least for the next two to three years, to help them adapt to the standards demanded by the western or global markets."



66 In India, even though there are MIDCs and state industrial corporations, infrastructure is only developed after industries show interest, leading to delays. **99**

Director, Suvin

- Avinash Mayekar, Managing

The budget we're hoping for

According to the industry, last year's budget was seen as a missed opportunity for the textile sector, as it failed to address a list of expectations. Aras opines, regarding textile and garment exports, the government extended the Remission of Duties and Taxes on Exported Goods (RoDTEP), which has really helped exporters cover some of the costs that are unnecessarily added due to state levies and other factors. I believe the government should extend this further for at least one to one and a half years until our exports become competitive, otherwise we will become uncompetitive."

He further adds, "In Europe and the USA, sustainable manufacturing is a demand for the next few years. However, those investing in green manufacturing are not being rewarded. I would suggest that some form of incentivisation for investments in sustainable manufacturing practices would motivate people to invest in these initiatives. Thirdly, as I have been repeatedly saying, majority of our industry is in MSMEs (Micro, Small, and Medium Enterprises). Therefore, there needs to be a policy that helps MSMEs become cost-competitive and make their goods exportable."

Additionally, the industry expects a wider reach of the PLI scheme. Last year the PLI scheme was restricted only to man-made fibres and technical textiles. This limited scope led to fewer takers for the scheme, meaning it hasn't been very successful.

Technical textile industry is indeed on a growth path. However, the biggest challenge it faces is the nonavailability of performance fibres or technical fibres, as they are not produced in India, and there are high import duties on them. Even for active wear, sportswear, and some specialised fibres, if these could be imported under concessional duties, it would open up a significant opportunity for high value addition, and India could compete globally.

Juneja suggests, "The textile machinery market in India is worth ₹250 billion, while we are importing machinery worth ₹500 billion. This means there is definitely a big scope for substituting imported machines. Handholding from the authorities is required here. For example, last time they gave some grants to develop shuttle less looms, and machinery has definitely come in. For such initiatives, an initial push from the government is needed to develop substitutes for imported machinery so that they can be used for these purposes. There is definitely scope in the machinery market for indigenous products and substitutes for imported machines. However, the machines that come in should be of high technology, not just of low standards or something like that."



Government policymakers need to act decisively to support the industry and seize a greater share of the global market. In an open-market situation, we must strengthen our position, but unfortunately, we are being outperformed by

smaller nations like Bangladesh, Vietnam, and Cambodia. **

- Raja Shanmugham, MD, Warsaw International

A policy supporting this industry would be beneficial. The government should consider setting up a centre of excellence for textile chemicals. There is a lot of innovation that can happen in this field. Unlike other sectors, the textile industry should also have centre of excellence across the country for various product categories and applications, also a centre for specialty textile chemicals will be helpful to boost this sector. Mahapatra adds, "Water is a significant input, and we are all talking about pollution. Can we really modernise STPs and CETPs and invite more private players into this domain so that we have proper functioning of the CETPs? It should not just be about having a CETP but ensuring it operates in its true spirit. I think STPs can help by providing treated water to the industry, so we don't use any blue water. This will improve the overall environmental score for both the country and the industry. The treated water from the CETPs should be used properly so that there is no need for JDL, which is highly energy-intensive and costly. Every cubic meter of treatment adds a significant cost, making many industries unviable."

Charting the course for 2025

It is believed that India missed the bus with China Plus One policy. However, the industry is quite hopeful about Bangladesh Plus One. Aras says, "First and foremost, you should not rely on someone else's weaknesses to grow. I believe we need to build our own strengths; only then can growth be sustained in the long term. Personally, I believe the Indian industry is at an inflection point. Bangladesh presents one opportunity, but apart from that, if you observe the US market, there is a clear normalisation of apparel and textile inventories from China. Recent data from the past two to three months shows an increase in consumer spending."

Trump's victory has also fuelled optimism in the minds of the textile professionals as the U.S. plans to replace 70 per cent of its Chinese textile imports with goods from Bangladesh, Vietnam, India, and Cambodia. How India positions itself is entirely in our hands. Vietnam has reached its capacity limits. India, on the other hand, is steadily progressing in man-made fibres and blends. Thanks to PLI (Production Linked Incentives) that we are gradually expanding our capacities in garment manufacturing, setting the stage for long-term growth.

Mayekar highlights that the technical textile sector has the potential to enhance the prestige of the Indian textile industry and help it emerge as a global leader. He says, "The technical textile sector is growing in double digits. When it comes to a developing country like ours, we will be consuming more technical textiles. You can see their consumption almost everywhere in India in various forms and applications. So, it will be one of the major contributors to the consumption of technical textiles. This growth will significantly increase the consumption of fibres as well as various technological fabrics that will be produced here." Apart from the growth in manufacturing and exports, many European manufacturers have expressed interest in starting manufacturing operations in India. Several have already established joint ventures in the country over the past two to three years. This trend is expected to continue, as manufacturing typically shifts to consumption markets. With rising costs in Europe, many ventures are likely to relocate to India. The technical textile sector is projected to grow at a much faster rate than the commodity textile industry.

Additionally, the automotive industry has already established a significant presence in India, with most automotive parts now being manufactured domestically. This has become one of the major industries driving growth in the sector.

Another significant opportunity this year is the Free Trade Agreement (FTA) with the UK. The news indicates that discussions have resumed following the formation of the new UK government. It's been reported that the UK importers have started requesting samples in anticipation of the FTA.



****** Panipat is benefiting from the growth in home textiles, particularly microfibre bedsheets, which are gaining traction in both domestic and export markets. **??**

- **Umasankar Mahapatra,** Managing Director, Pulcra Chemicals

To capitalize on these opportunities, the industry must address several key issues. The first priority is to build capacities, as there is currently a notable deficiency in this area. Additionally, developing infrastructure and enhancing cost competitiveness, which continues to be a significant challenge, are essential. Lastly, addressing sustainability concerns is critical, as buyers are increasingly sensitive to issues such as human rights violations, child labour, and environmental abuses. Several industry leaders have already taken proactive steps to overcome these challenges. Meeting these critical requirements could turn 2025 into a defining moment, positioning Indian textiles for unprecedented growth and global dominance.

(The article is based on the ITJ webinar held on 18 December, 2024.)



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Why India Needs to Focus on Garmenting to Thrive

With fast-changing markets, consumption behaviour, and demand fluctuations, denim will keep changing too, informs **Urvashi Sharma**.

enim has risen above its humble beginnings as practical clothing for manual labourers to become a cornerstone of modern fashion. Amidst the ever-changing landscape, denim has stood the test of time. With its enduring appeal and versatility, denim has become a timeless staple in wardrobes across the globe irrespective of gender, age, and status in the economic pyramid.

Global denim apparel market is growing at a moderate pace

The global denim apparel market, valued at \$95 billion in 2024, has witnessed a 5 per cent CAGR over the past 5 years and is projected to reach \$135 billion by 2031. This growth is driven by factors like increased retail channels, competitive pricing, urbanisation, a growing working-class population, and the acceptance of casual





Figure 1: Global denim apparel market (US\$ bn)

Data Source: Wazir Advisors



Figure 2: Key global denim apparel markets Data Source: Wazir Advisors

wear in office settings. The rising popularity of coloured denim and the continuous introduction of new styles further contribute to the expanding demand for denim.

While the market is projected to grow, there has been a recent downturn in major market demand

The EU and US remain the dominant markets, together making up half of global demand. The EU, holding approximately 28 per cent of total market demand, had denim apparel imports valued at \$4.9 billion in 2019. This positive trend continued until 2022, but due



Figure 3: EU Jeans Imports (US\$ bn)

Data Source: Eurostat

to the recent geopolitical scenario, imports declined to \$4.3 billion in 2023, reflecting a CAGR of -3 per cent.

The US is closely trailing with a market share of 22 per cent. Its denim apparel imports, valued at \$3.6 billion in 2019, followed a similar trend to that of the EU, showing an upward trajectory until 2022. However, imports declined to \$3.2 billion in 2023, reflecting a CAGR of -3 per cent. The fall in denim imports in two of the major markets for apparel and textiles, can be attributed to the sluggish demand in the markets due to economic slowdown triggered by the Russia-Ukraine war-induced high inflation that forced the consumers to prioritise their basic needs.

Asian countries have risen as significant suppliers to fulfil the global garment demand

Suppliers	2019	2023
Bangladesh	1,377	1,206
Türkiye	1,018	1,015
Pakistan	810	729
Tunisia	364	369
China	380	205
Cambodia	175	151
RoW	803	625
Total	4,927	4,300

Table 1: Major Denim Apparel Exporters to EU (US\$ mn)

Table 2: Major Denin	n Apparel Exporters to	US (US\$ mn)
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Suppliers	2019	2023
Bangladesh	550	661
Mexico	799	646
Pakistan	256	374
Vietnam	366	334
China	655	314
Egypt	172	159
RoW	829	1,117
Total	3,627	3,176

Data Source: Eurostat & OTEXA



Figure 4: US denim apparel imports (US\$ bn) Data Source: OTEXA

Key exporting nations such as Bangladesh, Türkiye, and Pakistan stand as prominent suppliers to the EU market. Among them, Bangladesh accounts for the largest share at 28 per cent, followed closely by Türkiye at 24 per cent, and Pakistan at 17 per cent. Free Trade Agreements (FTAs) play pivotal role for the EU market, particularly for Bangladesh, Pakistan and Türkiye granting them significant advantages and enabling them to become leading suppliers in the region.

In the US market, a similar trend is evident, where Asian countries comprise over half of the imports. Bangladesh leads with the highest export share at 21 per cent, followed by Mexico at 20 per cent, Pakistan at 12 per cent, Vietnam at 11 per cent, China at 10 per cent and Egypt with a 5 per cent share. Türkiye's proximity to the EU and Mexico's proximity to the US has positioned them as the key suppliers.

As China experiences a decline in exports, other nations are seizing the opportunity. However, India is still in the process of fully capitalising on this shift. India's exports to the EU market are relatively modest, registering a CAGR of -9 per cent. Similarly, in the US market, India demonstrates negative growth and holds a small market share.

Global trends shaping the industry

The denim industry is in a state of continuous evolution, driven by growing emphasis on various factors such as environmental concerns, geo-political issues and consumer preferences among others. Below are the key trends influencing the industry:

Sustainability has emerged as foundational trend across the value chain: In light of denim's substantial environmental footprint, brands are prioritising ecofriendly practices and actively seeking out sustainable suppliers for collaborative efforts towards a more environmentally conscious industry across the denim value chain.

Brands are diversifying out of China: China's combined denim apparel exports to the US and EU dropped from \$1 billion in 2019 to \$0.5 billion in 2023 at a -16 per cent CAGR, attributed to multiple factors like inflations, high labour cost, distrust b/w China and the West. Levi's has significantly reduced the number of its Chinese suppliers by 72 per cent from 2019 to 2023.

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In line with its post-COVID sourcing strategy, Levi's sourced from 32 countries worldwide in 2023 and does not obtain more than 30 per cent of its products from any single country . Similarly, reflecting a broader trend among denim brands to reduce reliance on China, Guess decreased its dependence on Chinese suppliers from 43 per cent in 2019 to 31 per cent in 2023.

Another trend is the preference for vertically integrated suppliers by major brands. Major denim brands are also consolidating sourcing activities. The market has also witnessed a diversification in product offerings and consumer preferences, with a surge in demand for stretch denim for comfortable fits like leggings and joggers. Additionally, there's a growing consumer demand for color variations beyond traditional Indigo.

India's exports of denim apparel are falling

Currently, India has small share of 1 per cent in global denim apparel exports largely because denim apparel is domestic focused and there are only few large exporters.







Figure 6: Key markets of India for denim apparel Source: Wazir Analysis, Volza

India's denim apparel exports in FY24 were \$195 mn. which has declined as compared to recent past largely due to global market challenges. Key markets for India are USA with a share of 28 per cent, followed by UAE (22 per cent) and EU (16 per cent).

The European Union (EU) and the United States (USA) are the largest importers of denim apparel, with a combined market value of \$9.5 bn. Historically, China has been the leading supplier to these markets; however, due to geopolitical and other business factors, buyers are looking to diversify their sourcing to other countries. To capitalise on this trend and compete with other major exporters, India must focus on enhancing its denim apparel exports.

Manufacturing capacity has expanded over the years



Figure 7: Installed Denim Fabric Capacity (MMPA)

Data Source: DMA



Figure 8: India's Denim Fabric Domestic Consumption (Values in Mn. Meters) Data Source: DGCI&S

India's installed denim capacities have seen significant growth over the years. As of FY24, India boasts a substantial denim fabric manufacturing capacity of 1,740 million metres per annum (MMPA). Average CAGR of capacity growth since FY 11 is around 7 per cent. In last 5 years capacity has grown by 2.3 per cent CAGR. This growth trajectory includes the addition of around 90 MMPA in last year, demonstrating ongoing investments in expanding production capabilities. Currently there are 48 active mills operating at an average capacity utilization of 73 per cent.

Denim Industry is largely domestic focused as 88 per cent of total fabric produced is used for domestic purpose. Historically, the industry has witnessed substantial growth of 7 per cent since FY 11 in its domestic market consumption.



Figure 9: Creating ecosystem for denim garment manufacturing

This growing production in denim, provides India an opportunity to amplify its share in exports by strategically aligning with the global demand.

Indian denim industry has opportunities for accelerated growth

The Indian denim industry is on the brink of significant growth, offering opportunities for both existing players and new entrants. India's denim apparel exports currently amount to \$195 mn., there's immense potential to increase that value. By optimising underutilised capacity and converting fabrics into garments, India could potentially increase apparel exports by 7-fold. The "China + 1" strategy also positions India as a viable alternative in the global supply chain. Following opportunities can be leveraged to boost garment exports:

Integrated and sustainable manufacturing facilities: Global brands are seeking integrated facilities for direct garment sourcing, streamlining their supply chain and ensuring consistent quality. India should invest in integrated garmenting units covering all production stages, from fabric creation to finished garments. This will attract more international brands and enhance capacity utilisation and operational efficiency.

Free Trade Agreements: India has the potential to boost denim apparel exports to new FTA partner countries like Australia and UAE.

Supportive government policies: India has several supportive government policies which collectively create an enabling environment for the Indian denim industry to thrive at both domestic and international fronts.

Large domestic market: With a population exceeding 1.4 billion and dynamic fashion trends, India's vast consumer base, coupled with a growing middle class, presents significant potential for the domestic denim

industry.

To tap the outlined opportunities India can focus on the following strategies: ➤ Collaborations and partnerships: Collaboration for advanced technologies, integrated suppliers, and strategic collaborations for sustainable production.

- Product development and innovation: Embracing cutting-edge fabric technologies and customisation options for global growth and competitiveness, solidifying its position on the global stage.
- Incorporating technology and automation: Embracing advanced technologies, such as 3D modelling, automated manufacturing processes, etc. to enhance efficiency, quality and market competitiveness.
- Compliance with International Standards: Compliance with international standards is crucial for global brands when selecting manufacturing partners. Factories meeting stringent norms in labour practices, safety, and environmental regulations are preferred. India should upgrade its garment factories to these standards, enhancing competitiveness and appeal to international brands, ensuring sustained business and growth.

In conclusion, denim is here to stay, and it will continue to evolve and expand. With fast-changing markets, consumption behaviour, and demand fluctuations, denim will keep changing too. By adopting strategic approaches, denim manufacturers must focus on garmenting and vertical integration to position themselves at the forefront of the global denim industry. They should leverage their strengths in innovation, sustainability, and cost competitiveness to become an integrated supplier, ensuring they stay ahead in this dynamic market.



About the author: Urvashi is a Consultant at Wazir Advisors, specialising in strategy development, research, and business analysis within the textile and apparel industry. She has been involved in various projects, including shaping policy recommendations, conducting detailed market studies, and developing strategic plans.





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Indian Textile Industry Weaving Recovery

President Trump's stance from his previous term on reducing dependency on China is likely to strengthen India's position in the US market in the medium term, informs **Krunal Modi** and **Akshay Morbiya**.



he Indian textile industry, being moderately reliant on exports, saw a 10 per cent decline in exports in CY23 due to impact on consumer demand arising from high inflation and rising interest rates, but it recovered by 6 per cent in 10MCY24. Gains in CY24 include shift in orders from Bangladesh and government measures to protect the Indian polyester yarn industry. Missed opportunities involved delays in the India-UK FTA and weak response to PLI 1.0. The Indian textile industry is expected to grow by 8-9 per cent in CY25, especially if cotton and polyester yarn (being crude oil derivative) prices remain relatively stable and forex rate is favourable, which could improve the operating profitability of textile players by 40-80 bps.

With export accounting for ~25 per cent of the Indian textile industry, global demand plays a crucial role in influencing the prospects of the industry. The home textile, readymade garment (RMG), and cotton yarn segments of the Indian textile industry derive 70-75 per cent, and 25-30 per cent each of their revenue, respectively, from exports. While domestic demand remained steady over the past two years, export demand faced challenges due to high inflation and rising interest rates in key export markets, adversely impacting demand. India's textile and apparel exports stood at \$ 32.8 billion in CY23 (refers to the period from January 01 to December 31), a decline of 10 per cent over CY22. After witnessing a decline, exports recovered in 10MCY24 and grew by 6 per cent on a y-o-y basis to \$ 29.26 billion.

Indian textile industry's performance in CY24

Cotton yarn exports declined by 5 per cent in 11MCY24 over a relatively high base of 11MCY23, as 33 per cent growth in Bangladesh exports was offset by a 61 per cent de-growth in exports to China on a Y-o-Y basis. Cotton yarn exports depend on the parity of raw cotton prices in domestic and international markets. Domestic cotton prices largely remained higher than international prices since April 2024, which adversely impacted export of cotton yarn from India. Additionally, China's textile industry also faced a slowdown in domestic consumption, which coupled with muted global demand for textile products, and the China+1 strategy being adopted by global suppliers and brand

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Indian textile and apparel industry (in \$billion) Source: Ministry of Textiles and CareEdge Ratings

owners, impacted India's cotton yarn exports to China. Despite the decline in exports, India's cotton yarn production and sales volumes remain largely stable as the RMG, and home-textile sector have seen a notable recovery. RMG exports grew by 7 per cent in 11MCY24 on a Y-o-Y basis and stood at \$ 13.2 billion, mainly supported by growth in exports to major consuming nations like the US and UK which together constituted nearly 43-45 per cent of total Indian RMG exports.

Gains and missed opportunities in 2024

The gains from 2024 are as follows;

Benefit from the Bangladesh crisis: Bangladesh occupied the 2nd position in global RMG segment with around ~8-9 per cent market share, while India stood a distant 7th with a market share of ~3 per cent in 2023. However, the socio-political disturbances erupting in Bangladesh during 2024 have shifted some RMG orders to India. India's RMG exports have consistently outpaced that of Bangladesh's since the onset of the abovementioned crisis. India's RMG exports grew by ~13 per cent in Q3CY25 while that of Bangladesh declined by 1 per cent during the period on a Y-o-Y basis. India continued to grow at a higher pace compared to Bangladesh even in October 2024.

Safeguards provided to domestic polyester yarn industry: To safeguard the domestic polyester yarn industry against import of cheaper and inferior quality products, the Government of India (GoI) implemented a quality control order (QCO) from October 2023 on polyester yarn, which has curtailed polyester yarn imports into India by 59 per cent (67 per cent from China) during Oct'23 to Sep'24 on a year-on-year basis. The GoI further imposed a minimum import price (MIP) on synthetic knitted fabrics in March 2024 to curtail cheaper imports of inferior quality polyester fabric, which was extended till December 31, 2024. The missed opportunities are as follows; Delay in the signing of FTA with UK: The India-UK Free Trade Agreement (FTA) negotiations started in January 2022 and originally set for completion by Diwali 2022 are progressing far behind schedule. The delay is due to political changes in the UK, elections in both countries and some key issues that remain unresolved after 14 rounds of negotiation to date.

Weak response to PLI 1.0: Under PLI 1.0, nearly 73 applicants were selected with a proposed investment of Rs 283.87 billion against which eligible investment made under the scheme was just Rs 33.62 billion as of March 31, 2024. Considering the weak response for PLI 1.0, PLI 2.0 is awaited after more than a year. Despite industry demand to include cotton garments and lower the criteria for minimum investment and turnover, no notable changes were made during the second application round of PLI 1.0.

Expectations for 2025

There has been a growth in RMG and home textile exports in the past few months following the stabilisation of inflation and interest rate cut prompting global brands and retailers to replenish their lean inventories. Additionally, political instability and increasing labour costs in competing nations, along with the increasing adoption of the China+1 strategy, shall support Indian textile exports in the near to medium term.

India's textile exports are expected to grow by 6 per cent in 2024 to \$ 34.75 billion and further grow by ~8-9 per cent and remain over \$ 37-38 billion in 2025. RMG exports are expected to grow by 7 per cent in 2024 to \$ 15.5 billion and further to grow by 12-13 per cent to reach \$ 17-18 billion by 2025. Domestic demand for RMG is expected to grow by 9-10 per cent in 2025.

The home textile segment is expected to grow by



Indian textile and apparel industry (in \$billion)

Source: Ace equity; financial results of listed textile companies.

8-10 per cent in 2025, supported by stable cotton prices and increased demand from key importing countries, primarily the US.

Domestic demand for cotton yarn will outpace exports in the near to medium term, driven by recovery in downstream segments. Despite the decline in cotton yarn exports, increased demand from RMG and home textiles should support the overall demand for cotton yarn. Cotton yarn exports are expected to remain lower by 5 per cent in 2024 and are expected to grow by 2-3 per cent in 2025. Overall, cotton yarn volumes are expected to grow by 5-6 per cent in 2025, primarily due to strong domestic demand.

If the Bangladesh crisis persists, India is expected to gain around 6-8 per cent of Bangladesh's monthly export orders in the near term, translating into a monthly incremental export opportunity of around \$200-250 million. Although cost is an important factor in the selection of suppliers for major apparel brands, the reliability of supply is also critical. Considering the ongoing social unrest in Bangladesh, apparel brands and retailers are looking for reliable alternative suppliers, which is evident from the recent surge in India's RMG exports. Industry players have seen strong growth in inquiries and order inflows during the last few months. Companies with adequate capacities, especially in knitted garments, are expected to benefit the most. While in the short term, India can absorb the immediate demand, the medium to long-term benefits would be contingent upon building additional capacities, strengthening the supply chain, and becoming more cost-efficient.

Operating profitability to improve marginally: Higher sales volume, expectation of stable cotton and crude oil prices along with a favourable forex rate, is likely to benefit the Indian textile industry's operating profitability by 40-80 bps in FY25 and FY26. Improvement in operating profitability and controlled debt level is likely to result in an improvement in interest coverage ratio to 3.5x and 3.8x in FY25 and FY26 respectively.

Likely FTA with the UK: The government of India may sign the FTA with the UK in 2025 which shall enhance the competitiveness of Indian exporters.

Launch of PLI 2.0: While the existing PLI scheme for textile sector, introduced in 2021, is limited to the production of man-made fibre (MMF) fabrics and apparel and technical textiles, PLI 2.0 is likely to cover garments, made-ups and accessories of all input material, including cotton.

Key monitorable

A proposed hike in GST for apparel may impact domestic demand for RMG. Moreover, any major change in the tariff structure by the incoming US Government may temporarily impact demand for Indian textile products. However, President Trump's stance from his previous term on reducing dependency on China is likely to strengthen India's position in the US market in the medium term. Lastly, the parity of domestic cotton prices with international cotton prices would also be crucial.

About the authors:



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Akshay Dilipbhai Morbiya brings around 8 years of experience at CARE Ratings, where he is the Assistant Director and Group Head of the Large Corporate Team. He specialises in financial analysis, corporate ratings, and industry research, and holds an MBA in Finance.



"Geo-political Issues was the Biggest Headache for the Chemical Industry."

ipul group of companies currently serves clients across a broad spectrum of industries ranging from textile, paint, printing ink, cosmetics & food industry, plastic and several other industries and has presence in both local and international markets. **Mihir V Shah, Executive Director, Vipul Organics**, shares the company's performance and the expectations from 2025 to **Divya Shetty**.

How do you see your company's performance in the calendar year 2024?

Our topline stood at R\$1.17 billion in the first three quarters of the calendar year 2024, as against R\$1.06 billion in 2023 for the same period, marking a 10.38 per cent growth, despite a lackluster year with geo-political issues, global elections and an understated economic growth. The saving grace was a robust Indian market, which was subdued in one quarter due to elections, but made a strong resurgence and we were able to benefit from our continued domestic thrust.

In the first quarter of this calendar year (Q4 of previous fiscal), our topline grew by 29.8 per cent Y-o-Y and PBT and PAT by 19.5 per cent and 34.5 per cent respectively. This was an impressive quarter and the growth was mostly due to the exports opening up after the geo-political situations starting to stabilise. In addition we witnessed a good response to newer verticals like Paper, cosmetics and seed colouring, etc.

In the second quarter of the year (Q1 of new fiscal), the topline went up only marginally but the bottom-line saw pretty decent uptick because of value added products and optimisation at the manufacturing end. Since this was the year of global elections, where half of the world's GDP went into elections – India, US, South Africa, UK, Mexico, Venezuela, Indonesia, amongst around 30 more, the buying was cautious and the countries developed a wait and watch policy, causing sluggish growth.

In the third quarter of the year (Q2 of the new fiscal), the topline grew by 7.7 per cent Y-o-Y and PBT grew by 64 per cent Y-o-Y and 11 per cent Q-o-Q. This was because of the continued domestic market growth for us.

Despite the global challenges for the industry as a whole, we managed a pretty decent growth in revenues and did massive capacity expansion at Ambernath Facility. We also opened up new verticals, esp. Paper where we saw some amazing success. In addition, our continued focus on new product development saw us develop a refined grade of organic intermediate for



manufacturing a specialty chemical to be finally used for the Automobile Industry

What do you think were the gains as well as the missed opportunities in 2024?

Geo-political issues remained the biggest headache for the chemical industry. From 2020 onwards, we had started to focus on the domestic markets to hedge our bets and our focus started to pay off in 2023-2024. In the year 2024, we have increased the market share in domestic markets and today around 35 per cent of our topline comes from within the shores and this is the reason why our topline continues to grow, slowly but surely, despite headwinds. Despite challenges, we are bullish on the segment and this is witnessed in our capex in the year and this will start reflecting in our revenue growth shortly.

We can't really think of any missed opportunity in 2024. In fact, we did quite well, all things considering.

What your expectations for the calendar year 2025 and fiscal year 2025 (in terms of exports, domestic operations, impact of global crisis)

We are optimistic about growth opportunities in the export market, particularly with favourable economic

conditions under current global leadership. Our focus on innovation, sustainability, and strategic market expansion underscores our commitment to meeting the evolving needs of our customers worldwide.

Some of the key drivers of growth and the reason for our optimism are;

Adoption of digital printing inks: As digital printing technology gains widespread acceptance, the demand for high-performance pigments tailored for this market continues to grow. We offer advanced pigment solutions that ensure vibrant, durable, and eco-friendly outputs. making us a preferred partner for industries like textiles, packaging, and publishing.

Development of high-performance pigments: Our R&D team is dedicated to creating innovative pigment solutions with enhanced colour fastness, light stability, and environmental compliance. These products cater to diverse industries, from automotive coatings to specialty applications in inks and plastics.

Focus on sustainability: We've integrated sustainability into our operations by producing ecofriendly pigments that align with stringent environmental standards. Our products are designed to reduce carbon footprints while delivering superior performance.

Advanced manufacturing capabilities: With state-ofthe-art production facilities, we ensure consistent quality. scalability, and efficiency. Our ability to produce custom pigments tailored to client needs strengthens our competitive edge in global markets.

We also believe that we will witness better than peer group growth because of our Strategic Expansion Initiatives:

Strengthening export reach: We export to over 45 countries and continue to build strategic alliances with international partners to enhance market penetration and explore new geographies.

Enhancing internal sales processes: By streamlining our sales funnel, we aim to increase conversion rates and reduce client churn. Data-driven strategies and improved customer engagement are central to this initiative.

Participation in global exhibitions: We actively participate in international trade shows and exhibitions to showcase our cutting-edge pigment solutions and connect with global industry leaders.

Commitment to customer-centric solutions: Vipul Organics focuses on understanding client requirements and delivering tailored solutions. Our agile approach ensures quick turnarounds and effective problem-ITJ solving, further strengthening client trust.

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"Despite the Challenges, we Remain **Confident and will Continue to Grow."**

xita Cotton, established in 2011, has emerged as a significant player in India's cotton industry, focusing on sustainable production and high-quality standards. The company operates a state-of-the-art ginning and pressing plant in Kadi, Gujarat, equipped with 48 advanced ginning and pressing machines. The plant has the production capacity of approximately 87,600 MTPA of seed cotton. Strategically located near key cotton-growing regions like Saurashtra, Axita is able to source cotton efficiently and ensure seamless production. With a strong presence in both domestic and international markets, Axita exports to key countries such as Bangladesh, Vietnam, China, Indonesia and Thailand. Axita also serves the customers across Europe, the Middle East, and Asia. The company's focus on eco-friendly operations and sustainable practices has positioned it as a trusted name globally says Kushal Patel, Managing Director, Axita Cotton, in this interview with Divya Shetty.

How do you see your company's performance in the calendar year 2024?

Axita Cotton has demonstrated steady performance in 2024, with consistent growth in both domestic and international markets. Despite challenges in the global market, we have been able to maintain a strong position by focusing on quality, sustainable practices, and expanding our product offerings. Our efforts to strengthen relationships with farmers and ensure fair trade have paid off, leading to improved sourcing and better customer relationships. Additionally, our international exports have continued to grow and have helped balance any volatility in the domestic market. Overall, 2024 has been a year of continued resilience and strategic growth for Axita.

What do you think were the gains as well as the missed opportunities in 2024?

One of the major gains in 2024 has been the strengthening of our international market presence. Axita's commitment to sustainability and high-quality standards has resonated well in export markets. It has led to expanded business relationships. Moreover, our focus on renewable energy and eco-friendly production processes has also gained traction, aligning us with the growing demand for sustainable textiles. There were some missed opportunities as well for us in terms of scaling our organic cotton product offerings. While we made strides



in sustainable farming practices, the full potential of organic cotton production remains an area we could have further explored this year. Additionally, the impact of global supply chain disruptions did pose some challenges in terms of cost management and delivery timelines.

What are your expectations for the calendar year 2025 and fiscal year 2025 (in terms of exports, domestic operations, impact of global crisis)?

Looking ahead to 2025, Axita Cotton expects to see significant growth in both domestic and international markets. Our focus will continue to be on expanding our organic cotton product portfolio. We are also planning to invest in technology and energy-efficient practices to enhance productivity and reduce operational costs. In terms of our exports, we aim to expand further into new markets and deepen relationships with existing customers. Back in India, we plan to strengthen our ties with farmers and continue to promote fair trade practices. As a responsible company, we are mindful of the potential impact of global crises and supply chain disruptions. Despite these challenges for the cotton industry, we remain confident in our ability to adapt and continue growing by staying committed to sustainability and high quality.



"Our Focus will be on Improving our Technology Integration."

atsal Exports LLP began with a focus on exporting high-quality textiles and has since expanded into agri-commodities and pharmaceuticals. We are committed to providing comprehensive solutions that combine superior product services with modern facilities. Vatsal Gaudani, Founder, Vatsal Exports LLP, in this discussion with Divya Shetty, shares how he expects his company's performance in the year 2025.

How do you see your company's performance in the calendar year 2024?

I am optimistic about our performance in 2024. And for 2025, we are focused on expanding our global reach, enhancing product quality, and strengthening our relationships with clients. With a continued emphasis on innovation, sustainability, and operational efficiency, we are well-positioned to meet the increasing demand for our products in international markets. Our team is committed to delivering exceptional value to our customers, and I'm confident that the investments we're making in technology and supply chain improvements will drive significant growth. I believe 2025 will be a year of exciting opportunities and continued success for Vatsal Exports LLP reaching sky heights.

What do you think were the gains as well as the missed opportunities in 2024?

We successfully expanded our reach in key international markets making it to 25+ countries, strengthening our position as a reliable exporter. Our focus on quality and sustainability has been wellreceived by clients, and we've seen an increase in repeat business. Investments in supply chain optimization have enhanced our operational efficiency, helping us reduce costs and improve delivery timelines. Additionally, we've fostered deeper partnerships, opening doors for new and long-term collaborations.

While we made tremendous progress in previous years, we see every year as an opportunity for continuous improvement. In 2024, there were areas where we could have accelerated our growth even further—such as tapping into emerging markets and expanding our digital presence. However, these are areas we are already planning to focus on in the coming year. We are confident that with our strong foundation and forward-thinking strategy, we'll seize these opportunities in 2025.



What your expectations for the calendar year 2025 and fiscal year 2025 (in terms of exports, domestic operations, impact of global crisis)

Our expectations for the calendar year 2025 and fiscal year 2025 are centered around growth, efficiency, and adaptability.

We plan to expand our footprint in emerging markets, focusing on increasing exports through strategic partnerships and digital platforms. By diversifying our customer base and strengthening relationships with key clients, we anticipate a solid rise in export volumes.

Domestically, our focus will be on improving production efficiency through technology integration, streamlining the supply chain, and maintaining high standards of quality. We aim to enhance our sustainability efforts, which are increasingly valued by consumers and partners alike.

Impact of Global Crisis: While the global crisis continues to create uncertainties, we are proactively managing risks by diversifying our supply chain and investing in digital solutions. This strategic approach will allow us to mitigate potential disruptions and continue to meet market demands effectively, positioning us for growth despite challenges.



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COVER STORY: OUTLOOK 2025





Unlocking Opportunities for Global Brands in India

India's retail market holds immense potential for international apparel brands, driven by a young population, rising incomes, and shifting preferences towards sustainability and digital retailing, says **Vyshna R** and **Ridhi Kukreja**.

ndia's vibrant retail market, driven by a young population and rising incomes, is increasingly attractive to foreign apparel brands. With a positive economic outlook for the next two decades, over 25 international lifestyle and luxury brands are expected to enter India.

This article explores how global apparel brands can capitalise on the India opportunity, addressing FDI policy challenges, prevailing trends, and potential improvements to facilitate entry and growth.

Megatrends driving apparel industry growth in India

India's economy ranks among the top four globally, with the retail sector growing at 9-10 per cent, outpacing overall economic growth. Apparel, accounting for 8-9 per cent of retail demand, is expanding at a CAGR of 10-11 per cent and is expected to grow further. This growth is driven by several trends:

- > Shift from unbranded to branded
- Growth in organised retail
- Customer shift from "value" to "aspirational"
- Growth in tier 2/3 cities
- Increase in usage occassions

FDI policies for foreign brands – current regulations: Pros & cons

Apparel retailing models include:

- Single Brand Retail Trading (SBRT) sells products under one brand (e.g., Marks & Spencer, Uniqlo, Nike, Adidas)
- Multi Brand Retail Trading (MBRT) features multiple brands in one store (e.g., Pantaloons, Lifestyle, Shoppers Stop).

The FDI regulations are different for the two-retailing model, which can be summarised as follows:

Parameter	Single Brand Retail Trading (SBRT)	Multi Brand Retail Trading (MBRT)
Approval route	As of January 2018, 100 per cent FDI is allowed under the automatic route for SBRT, eliminating the need for prior government approval.	FDI is capped at 51 per cent, and prior government approval is required. There is no automatic route available for MBRT
Sourcing requirement	Foreign brands owning over 51 per cent of a single-brand entity must source 30 per cent of their product value locally from the 6th year.	At least 30 per cent of goods must be procured from Indian small and medium enterprises (SMEs)
Coverage and E-commerce restrictions	No restrictions on coverage, and SBRT entities are also permitted to sell through e-commerce platforms	Multi-brand retailers with 51% FDI can only operate in cities with >1 million population and must use brick-and-mortar stores, not online channels.
Pros	The 100 per cent FDI automatic route eases market entry, while the 30 per cent local sourcing boosts domestic textiles.	Under MBRT, Large investments boost economic growth, develop infrastructure, create jobs in the apparel industry.
Cons	Meeting the 30 per cent local sourcing requirement is challenging for specialised brands, as it becomes difficult to source a few high- quality products domestically	The 51 per cent FDI cap deters full control. The \$100 million minimum investment, with 50 per cent for back-end infrastructure, and the e-commerce ban complicate investments.

Challenges and strategic moves by foreign brands

Over the past decade, the apparel industry has seen approximately \$700 million in FDI inflows, which is below its potential. Several challenges have hindered greater foreign investment are finding local partners, e-commerce restrictions, regulatory uncertainties and domestic sourcing requirements.

Meeting 30 per cent local sourcing requirement in India for foreign brands in SBRT and MBRT is a complex but achievable task and requires strategic adjustments. Some challenges faced by foreign brands are quality control, supply chain complexity and regulatory hurdles.

Brands like Hollister and Lululemon have avoided India due to these challenges, and even luxury retailer Saks Fifth Avenue abandoned its 2015 entry plan due to regulations. The MBRT regulations, particularly affecting apparel, have hindered foreign retailers from entering the Indian market.

However, global brands like Decathlon, H&M, and Zara are thriving in India by embracing local sourcing. Collaborating with local manufacturers ensures compliance and quality, while also offering several advantages:

- Cost efficiency: Reduces import duties and logistics costs.
- Market adaptation: Allows quicker response to market trends and consumer preferences.
- Sustainability: Lowers carbon footprint by minimising long-distance shipping.

Some successful examples:

Decathlon: Transitioned to single-brand retail in 2013, now operates 129 stores, and supports the 'Make in India' initiative by sourcing locally.

H&M: Entered in 2015, rapidly expanded, and met the 30% local sourcing requirements through partnerships with local suppliers.

What other changes can be made to the current FDI policies to help the foreign brands

India's FDI policies are stricter compared to countries like Vietnam, Singapore, and Bangladesh, for example:

Vietnam allows 100 per cent foreign ownership with fewer restrictions and no stringent local sourcing requirements, making it easier for foreign investors.

Singapore offers tax incentives, grants, and a streamlined regulatory framework to attract FDI.

Bangladesh attracts FDI in apparel through tax holidays, duty-free machinery imports, and export incentives.

The above comparison draws some areas where India can improve its attractiveness for foreign investors:

> Ease local sourcing requirements: Provide more



flexibility to make compliance easier for foreign brands.

- Streamline regulations: Simplify processes and provide clear guidelines to reduce entry barriers.
- Relax FDI Caps: Increase caps and ease e-commerce sales policies to attract more investment.
- Grant industry status: Simplify single-brand FDI policies and enhance access to financing. At Bharat Tex 2024, CMAI highlighted that industry status would improve regulatory compliance and access to structured financing

Easy route for foreign brands to enter India: Advantage to domestic retailers

Facing various challenges, many international brands prefer partnerships like licensing, joint ventures, and franchising to enter India rather than the SBRT route. These methods allow foreign companies to own equity in Indian businesses under India's FDI policy. Joint ventures and licensing agreements are particularly popular due to India's restrictions on foreign equity in the retail sector, prompting international brands to collaborate with local companies.

India's retail industry is steadily growing, with global

brands expanding their presence. For instance, Chinese fast fashion giant Shein will re-enter the Indian market through a licensing agreement with Reliance Retail Ventures Limited.

Licensing agreements offer a flexible entry method for foreign brands, with Indian companies investing in marketing and launching the brand, often paying fees or royalties. Sometimes, the foreign brand owner may invest in the Indian retailer to enhance brand visibility and market reach.

Examples of leading conglomerates like TATA Trent and Reliance have capitalised on this opportunity, partnering with brands like Zara, Marks & Spencer, and Hugo Boss. ABFRL has also partnered with Christian Louboutin, Hackett London, Fred Perry, and Ralph Lauren. Upcoming collaborations, including Reliance Retail with ASOS, Old Navy, and Pull&Bear, and ABFRL with Galeries Lafayette, highlight a significant shift in India's retail landscape, helping foreign brands navigate the market and leverage local insights.

Conclusion

India's retail market holds immense potential for international apparel brands, driven by a young population, rising incomes, and shifting preferences towards sustainability and digital retailing. Brands like Levi's are implementing take-back programs and resale platforms, while Nike and Adidas are enhancing their online presence with AI and AR technologies and adopting omnichannel strategies for a seamless shopping experience. Despite FDI challenges, strategic partnerships and alternative entry models can ensure successful market entry. Easing FDI policies could significantly boost market growth.

About the authors:



Vyshna R is a Consultant at Avalon Consulting specialising in cost optimisation, market entry, and performance improvement. He is MBA graduate from IIM Mumbai. Vyshna has engaged closely with India's largest fashion & retail house.



Ridhi Kukreja is a consultant at Avalon specialising in Consulting, Advisory and Risk Management. With an MBA from IIFT in Strategy & Marketing, she offers strategic insights to clients at work. Apart from this, Ridhi is a dancer and writes occasionally.

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网格圈密度与纱支对照表

Relations between apron density and spinning yarn count





Relations between apron density and spinning yarn count						
网格圈密度 Apron Density	目数 (纬密/英寸) Latitude Per Inch	网孔数 (孔/CM ²) Mesh/CM ²	可纺纱支范围 (支) Possible spinning range of yarn count	最佳适纺纱支 (支) Best spinning range of yarn count		
А	150	3500	> 30*	70°~100°		
В	140	3000	20 °~100°	50°~80°		
С	120	2200	10 °~80°	20 °~60°		
CD	100	1600	20 °~100°	30 [*] ~80 [*]		
D	80	1000	Wool 毛纺	Wool毛纺		

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Decoding 2025's Key Trends

India's Make in India initiative is driving significant growth in the textile and apparel sector, positioning the country as a regional hub for sustainable and technical manufacturing.



he Textile & Apparel 360° Report 2024 by Groyyo was released highlighting pivotal trends shaping the global textile and apparel (T&A) industry. The report examines India's growing significance in this dynamic sector. With the global textile and apparel (T&A) trade expected to grow at a compounded annual growth rate (CAGR) of 5.8 per cent, reaching \$1.53 trillion by 2033, India stands at a critical juncture to harness its potential as a leading textile hub.

As the global T&A market races towards \$1.5 trillion, Groyyo Consulting's report underscores the critical role of innovation, sustainability, and localisation in shaping the future. China continues to dominate T&A exports, contributing 30 per cent of global apparel trade with exports worth \$154 billion in 2023, while the EU-27 remains the largest importer of T&A products, accounting for 41 per cent of readymade garment (RMG) imports.

Key findings in Global T&A Trade:

- China leads in yarn and fabric exports, while Bangladesh and Vietnam maintain strong positions in apparel exports.
- The EU and the US are the largest importers, with EU imports worth \$183 billion, followed by the US at \$82 billion.
- Increased focus on regional partnerships and supply chain optimisation highlights significant growth potential across value chains.

The report underscores India's dual role as a rising exporter and importer in the T&A sector. While apparel exports from India to the US, UK, and UAE dominate, India also experienced notable growth in textile imports, particularly yarn (+11 per cent) and knit fabrics (+4.7 per cent) between 2019 and 2023, a concern for the growth of homegrown industries.

Speaking on the findings, Pratik Tiwari, Co-Founder, Groyyo, the company that brought out the report

analysing ITC Trademap data, emphasised, "This report demonstrates India's increasing integration into the global textile ecosystem, offering significant opportunities for businesses to tap into new markets and drive sustainable growth."

Key Trends from India:

- Export highlights: India's share in global T&A exports stands at 4 per cent, with a mixed performance in recent years. While yarn and fabric exports grew by 2 per cent and 1 per cent respectively (2019–2023), fibre exports declined by 4 per cent. This should improve by the end of 2024 in response to improving export opportunities for Indian manufacturers.
- Import shifts: Imports of textile yarn surged by 11 per cent during the surveyed period, driven by increasing demand for synthetic fibers and fabrics. However, fibre imports decreased by 5.6 per cent, indicating growing domestic production capabilities. In this regard, the Indian government's anti-dumping duties policy will help protect the producers at home.
- Growth prospects: India's "Make in India" initiative is driving significant growth in the textile and apparel sector, positioning the country as a regional hub for sustainable and technical manufacturing. Policies like the Production Linked Incentive (PLI) Scheme are boosting the production of man-made and technical textiles, enhancing exports, and reducing import dependency. Alongside this, a strategic focus on digital capacity building for Small and Medium Enterprise (SME) manufacturers is fostering innovation, improving efficiency, and enabling inclusive growth.

Abhishek Yugal, Managing Partner at Groyyo, stated, "The global textile industry is evolving rapidly, and India has the opportunity to emerge as a leader by focusing on high-value products and sustainable practices. By leveraging digital technologies and capitalising on government initiatives, Indian manufacturers can achieve significant growth in exports and redefine their role in the global supply chain."

The company aims for the Textile & Apparel 360° Report 2024 to serve as a comprehensive guide for stakeholders across the industry, from manufacturers to policymakers, charting a course toward innovation and collaboration in a rapidly evolving market. *Article Courtesy: Groyyo*

SPOTLIGHT: WEAVING



"Developing International Quality Machines can Boost our Demand."

Restaurce to the speed sectional warping machine, warping creel, single end sizing machine initiated under technical collaboration with Gamatex, Italy. Amoli Shah, Director, Prashant Group of Companies, in this conversation with Divya Shetty, shares the company's future plans.

How would you assess the current state of the Indian weaving industry in terms of its growth, innovation, and global competitiveness?

Indian weaving industry is currently showing quite sustained activities. Especially in filament application, we foresee very good growth in coming years as many players are diverting their product lines from spun to filament looking at the price advantages as well as the new technologies improving feel and handle of filament fabrics.

Initiatives like establishing Textile parks, PLI scheme etc. at central level and development of clusters in remote / backward area with respective state government schemes / policies providing subsidies will definitely boost textiles activities across India and of course, weaving industry will get benefitted out of it. Moreover, looking at the current scenario of Bangladesh, we anticipate some of our Industry players will shift their base in India for making weaving and garmenting units in India.

As a growth aspect for any industry, Innovations and development is a continuous process. In weaving industry, we have seen various weaving machines offering new features optimising the machine speed, performance of shedding motion controls and thereby productivity with Industry 4.0, data matrix etc. facilitating the industry. As a weaving preparatory machinery manufacturer, we have focussed on innovation and R&D as a part of our vision and journey so far. With innovative launch of Lasertronic Sectional warper way back in 2008 and then after Asia's first Robotic Sectional warping mc MB3 in 2011-12 followed by an advanced model PB 9, high end Techtronic Sectional warping mc up to 60 KN beaming tension in 2014-15 and onward launch of Indigo Slasher range with Nitrogen Technology way back in 2017 offering substantial savings in water and dyes and chemicals, patented EMT tensioner for Denim and filament application and then after during COVID, successfully introduction of filament sizing mc and assembly line respectively for polyester and viscose



and direct warper and sizing for jute.

Such developments help us to maintain our leadership in preparatory sector not only in the Domestic market but also among our overseas customers who have entrusted us with repeat orders. Our well-equipped manufacturing facility together with design studio and an experienced team is geared up to meet upcoming challenges.

Can you highlight any recent innovations introduced by Prashant Group that are shaping the future of the weaving industry?

During the recent past, we have introduced series of tensioners ranging from 20 cN to 500 cN (with precision tension controls) for different applications launched in the Industry. Our TT tensioners capable to offer 500 cN tensions to take care of processing up to 20000 Denier warp. Magnetic tensioner series MHTD can offer yarn tension up to 250 cN to meet demand of heavy article for Technical textiles. Similarly, MLTD series tensioner can offer tension up to 20 cN with control within 2 cN, for fibre glass application. Such developments help us to meet growth and challenges in Technical textiles sector. Unrolling creel for Polybeamer can provide smooth movement of polypropylene tapes with minimum friction to facilitate beaming with lowest possible tension. Direct warpers with V creel and Sizing for spun yarn application are also enhanced with features for meeting highest requirement for high speed airjet weaving machines. Latest introduction of Fibre glass Sizing mc as an extension to well proven direct warper and Assembly line will make a turnaround in global weaving industry.

In your opinion, what strategic steps should India take to establish itself as a global leader in the weaving sector?

Taking into consideration the global textile market and positioning of India, if Indian textile industry focuses more on R&D for developing new technology that can improve productivity and cater wider application of fabric base in cost effective manner. As a player in weaving preparation mcs, Prashant Group has successfully catered the needs of the Indian Weaving Industry. However, we are still lagging in weaving MCs and have to rely upon European or Japanese weaving machines. Developing international quality of airjet and rapier weaving machines can boost domestic weaving sector a lot.

What are the key challenges currently confronting the Indian weaving industry, and how can they is effectively addressed?

Indian Weaving Industry is facing major challenge with respect to availability of skilled workforce, and experienced technical personnel. Moreover, dependence on manpower from the other states is also a factor.

For filament weaving industry, we have to rely upon imported yarn especially for yarns meant for Technical textiles etc.

Development of skilled manpower with integrity is also quite necessary to achieve such objectives. Industry, together with government institutions can take a lead for same. Government should also focus on producing yarn like Kevlar or Fibreglass etc within India.

Could you elaborate on Prashant Group's short-term and long-term goals, and how these align with the evolving demands of the weaving market?

Prashant Group has always considered offering highest technology in a cost effective manner.

We have different solutions to cater the demand of small and decentralised customer base as well as highly demanding corporate customers and the overseas customers. Satisfying the need of our existing customers is somewhat short term goal whereas taking global weaving Industry as a whole, Prashant rely on long term goals of meeting customer requirement for most challenging requirements such as optimising performance of Robotics Sectional Warping mc or continuously updating our Spun and Filament preparation MCs including fibreglass sizing and Techtronic Sectional Warping mc.

How does Prashant Group integrate sustainability into its operations, and what role do sustainable practices play in the future of the weaving industry?

We believe in सर्वे जना: सुरवीनो भवन्तु: To encourage ecology and sustainability, apart from having installed a solar plant of 500 kw in our current setup, our group company PPI, during year 2023, has moved into a new administrative premises as well as workshop, which are complete green building. All our upcoming expansion / new building will be a green one only. Existing shop floors are also equipped with prefabricated structure with sizable insulation and jumbo cealing fans saving a considerable energy as compared with the conventional pedestal fan.

As a part of our efforts to provide sustainable solutions to the industry, Prashant Group provides a unique solution for the Denim Industry which requires a huge quantum of water on 24*7*365 basis. PWP Slasher Indigo dyeing range, equipped with an advanced Nitro technology can offer tremendous saving up to 50 per cent in water, 15-20 per cent in dyes and chemicals and significant saving in space requirement as compared with the conventional Slasher dyeing technology. It offers sizable reduction in ETP requirement as well. Our overseas customers of PWP Nitro dyeing range are highly satisfied with its performance.

Moreover, our high end machines are equipped with Servo motors. Apart from better accuracy and higher torque, it also offers energy saving as against the usual Induction motor.

What role do advanced technologies such as automation and AI play in transforming the weaving landscape, and how is Prashant Group leveraging these advancements?

Automation with Industry 4.0 is the need of the hour. It helps the industry to integrate the features like production, quality, cost just-in-time production and digital integrated production etc. for various applications. It offers advantages like streamed line production efficiency, customisation, sustainable work practice and waste reduction, textiles recycling planning, design and innovation, fabric defect identification and analysis CAD software process, fabric inspection and supply chain management and customer behaviour and market trend etc.

Prashant Group has equipped our products with AI tools for guiding the end user about production schedules, monitoring the health of the equipment and reduction in downtime with preventive maintenance. Thereby, one can achieve increased productivity and reduction in operational costs.

SPOTLIGHT: WEAVING



"India is Recognised as a Reliable Supplier in these Uncertain Times."

harat Beams has been manufacturing quality warper and weaver beams. The company is supplying their products to OEM manufacturers from India and other countries in Europe, Africa, South East Asia, etc. **Snehal J Panchal**, **Director, Bharat Beams**, shares his insights on the current state of the Indian weaving industry and the innovations his company has introduced in this journey, in conversation with **Divya Shetty**.

How would you assess the current state of the Indian weaving industry in terms of its growth, innovation, and global competitiveness?

Currently, India has become one of the leading exporters in the global textiles and apparel industry. Owing to the current Textile Policies of various states, planning of new Mega Textile Parks as well as PM Mitra scheme, India is having immense opportunities to excel in the market, particularly in basic textiles and apparel. Many sourcing companies in the US are seeking alternatives due to global macroeconomic factors, prevailing political turmoil in the countries and challenges faced by other suppliers. While China remains a dominant player, there is a sizeable shift towards diversifying sourcing options. India is very wellpositioned today to capitalise on these changing sourcing strategies, with companies increasingly looking to expand their markets across the globe.

To take the advantage of scaling factor, lot of very well established players from India have currently expanded their manufacturing capacities as well as some

To take the advantage of scaling factor, lot of very well established players from India have currently expanded their manufacturing capacities as well as some green field projects are also coming up in new future.



green field projects are also coming up in new future. Apart from the conventional textiles, the technical textile players from India are also growing considerably well, with new innovations in their product ranges. They are now penetrating lot of new markets worldwide. Undoubtedtly, India is recognised as a reliable source of supply in these uncertain times.

Can you highlight any recent innovations introduced by Bharat Beams that are shaping the future of the weaving industry?

We have supplied lot of customized extra heavy duty beams nowadays to cater to the weaving industry in technical textiles. The said beams play a very critical and crucial role as far as operational speed and Fault free performance over a very long period for their specific applications. We have invested a lot in our fully integrated manufacturing plant in special purpose machines to design, develop and manufacture such extra heavy duty beams. The investment done by us will certainly pay of considering the future requirements by our prominent customers.

What are the key challenges currently confronting



the Indian weaving industry, and how can they be effectively addressed?

Currently, the key challenge for Indian weaving industry is relatively slow demand in export market owing to the current global macroeconomic factors. Nowadays, the export market is gathering upward momentum and with the recent investments done by the Indian textile players in world class textile machineries as well as in solar / wind power generation and recycling will definitely pay off in short term as well as in long term. It will certainly help the Indian textile players to fulfil the quantitative and qualitative demands by the export market with the competitive prices.

How does Bharat Beams integrate sustainability into its operations, and what role do sustainable practices play in the future of the weaving industry?

We have installed rooftop solar panels, which not only reduce the usage of fossil fuels but also promotes energy efficiency. We are also doing rain water harvesting which really helps us a lot. Apart from the above, we have installed a lot of energy saving equipment in our plant which save the operational costs to a greater extent.

As far as weaving industry in India is concerned, nowadays lot of companies are investing huge amounts in Solar power and wind power generation in large capacities, which reduce overall carbon footprint.

In recent times Indian manufacturers are addressing the excessive waster water generation through innovative solutions. Some companies are reusing wastewater in their manufacturing processes and applying water recycling systems, which reduce their overall water footprint and promote water management in the sector.

Could you elaborate on Beams' short-term and long-term goals, and how these align with the evolving demands of the weaving market?

As such, we are currently the largest manufacturer and exporter of weaver beams and dynamically balanced warper beams from India and are catering to the textile mills for their yarn applications right from 100 per cent cotton to a very heavy duty applications comprising of kevlar, aramide and monofilament yarn. We have expanded our production capacities to cope up with the huge influx of beam orders received from India as well as from across the globe. Also, we have equipped ourselves with the latest manufacturing technologies to provide the desired product quality so as to satisfy our customers' needs. We are innovating our products as per the customers' specific requirement. Mainly, these practices help us to align with the evolving demands ITJ of the weaving market.



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"Our Goals are Aligned with the Evolving Demands of the Market."

Radiatex Group was incepted in the year 1962, and used to manufacture basic sectional warping machines, material handling-storage machinery, and customised machinery. Now the company offers advanced computerised sectional warping machines, single end sample warping machines, single end sizing machines, Speciality warping creels with electronic controls, precision tensioner, material handling – storage equipment for various textile industry, customised tailor made machinery for technical textile. **Keyur Panchal, Executive Director, Rabatex Industries,** shares insights into the company's offerings and future plans in this discussion with **Divya Shetty**.

How would you assess the current state of the Indian weaving industry in terms of its growth, innovation, and global competitiveness?

The Indian weaving industry has experienced significant growth and transformation in recent years. Growth:

- Increasing demand: The Indian textile industry has witnessed steady growth, driven by rising domestic demand and exports.
- Government initiatives by central as well as state: Schemes like the Production-Linked Incentive (PLI) and the Amended Technology Upgradation Fund Scheme (ATUFS) have encouraged investment and modernisation.
- Growing e-commerce: Online platforms have opened new avenues for weavers to reach customers directly.

Innovation:

- Adoption of technology: Indian weavers have started embracing automation, computer-aided design (CAD), and digital printing.
- Sustainable practices: There's a growing focus on eco-friendly and sustainable weaving practices, such as using natural dyes and organic cotton.
- Design innovation: Indian designers are experimenting with new patterns, colors, and fabrics, giving traditional weaving techniques a modern twist.

Global competitiveness:

- Rising exports: India's textile exports have increased, driven by growing demand from countries like the US, EU, Asia, and Africa.
- Need for upgradation: To remain competitive, Indian weavers must invest in modern machinery,





Can you highlight any recent innovations introduced by Rabatex Industries that are shaping the future of the weaving industry?

Rabatex Industries is proudly introduced the "SPLITMATIC" – mono mother yarn split sectional warping machine in mid-2024. This revolutionary technology seamlessly integrates the yarn splitting process into the warping stage, yielding significant benefits for textile manufacturers.

The SPLITMATIC offers a trifecta of advantages:

- Enhanced efficiency: Substantial reduction in manpower costs and processing time.
- Optimised resource utilisation: Minimised yarn waste, resulting in cost savings and environmental benefits.
- Superior quality: Production of high-quality weaver beams, ensuring exceptional textile products.

The SPLITMATIC has already made a significant impact in the domestic market, with customers praising its performance, reliability, and return on investment. As a testament to our commitment to innovation and customer satisfaction, the SPLITMATIC is poised to revolutionise the textile industry's warping process.

In your opinion, what strategic steps should India take to establish itself as a global leader in the weaving sector?

India, with its rich textile heritage and vast weaving expertise, has tremendous potential to become a global leader in the weaving sector. To achieve these following steps might be helpful : Strengthening of Industry-Academia Partnerships, Enhancing Design and Product Development, Encouraging Innovation and R&D, Investment in Infrastructure Development, to Promote Skill Development and Training, Implementation of Sustainable and Eco-Friendly Practices, Developing a Strong Brand Identity (Made in India), Foster International Collaborations and Trade, Leverage Digital Technologies, Better/realistic Government Support and Policy Framework.

What are the key challenges currently confronting the Indian weaving industry, and how can they be effectively addressed?

The Indian weaving industry, despite its rich heritage and potential, faces several challenges that hinder its growth and competitiveness. Some of the key challenges are:

Outdated technology and infrastructure, such as reliance on manual looms, hinder productivity, while inconsistent quality and lack of standardisation affect reputation and exports. Limited access to finance and markets, especially for rural weavers, further restricts opportunities. The industry also struggles with competition from cheap imports, environmental and social concerns like pollution and unfair labour practices, and a significant skill gap. Additionally, weak branding and marketing efforts make it difficult to compete globally. Addressing these issues through modernisation, quality control, sustainable practices, training programs, and strategic branding can drive the industry's growth.

To effectively address these challenges, the Indian government, industry stakeholders, and NGOs can collaborate on the following initiatives:

Revitalising the Indian weaving industry requires key initiatives. Incentives for adopting modern looms, vocational training to bridge skill gaps, and strategic branding through campaigns and trade fairs are essential. Providing rural weavers with access to finance, marketing support, and e-commerce platforms will expand opportunities. Emphasising sustainability and fair labour practices can address environmental and social concerns. These measures can help the industry overcome challenges, enhance competitiveness, and achieve sustainable growth.

Could you elaborate on Rabatex Industries' short-

term and long-term goals, and how these align with the evolving demands of the weaving market?

Rabatex Industries, as a leading player in the weaving sector, has a clear vision for its future growth and development. Our goals are aligned with the evolving demands of the weaving market, which is driven by factors such as sustainability, innovation, and customercentricity.

Over the next 4–5 years, our short-term goals focus on driving growth and innovation. We aim to expand production capacity by 50 per cent to meet increasing demand in domestic and international markets. Investments in technology upgradation will modernise machinery, enhance efficiency, reduce costs, and improve product quality. To stay ahead of industry trends, we plan to diversify our product portfolio with innovative, value-added weaving solutions. Additionally, we will prioritise stronger customer engagement through regular feedback, tailored solutions, and exceptional after-sales support.

In the next 5–7 years, we aim to lead in sustainable weaving by adopting eco-friendly practices and reducing waste. A dedicated R&D centre will drive innovation, creating advanced solutions for evolving markets. We plan to expand globally into Asia, Africa, and Latin America through strategic partnerships and local manufacturing. Additionally, we will leverage Industry 4.0 technologies like AI and IoT to optimise operations and enhance customer experiences.

What role do advanced technologies such as automation and AI play in transforming the weaving landscape, and how is Rabatex Industries leveraging these advancements?

Advanced technologies like automation and Artificial Intelligence (AI) are revolutionising the weaving landscape, transforming traditional manufacturing processes and driving innovation. These technologies play a crucial role in:

At Rabatex Industries, we utilise advanced technologies to boost efficiency, improve quality, and reduce costs. Automation and AI streamline production, minimise errors, and enhance productivity, while AI-powered systems ensure consistent quality with real-time defect detection. These technologies enable rapid design changes and flexible production scheduling to meet market demands. We also reduce operational costs by optimising energy use and minimising waste.

We invest in Automated Sectional Warping Machines, AI-driven quality control, and data analytics with IoT sensors to monitor processes and reduce downtime. Digital design and simulation tools speed up prototyping, and we explore cobots to improve safety and productivity.

SPOTLIGHT: WEAVING

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Revolutionising Fabric Testing in Weaving

Understanding the nuances of weaving technology and providing testing instruments to ensure quality aspects of weaving is essential to meeting the diverse and ever-changing needs of textile manufacturers.

eaving, the intricate art of interlacing threads to create fabric stands as one of humanity's oldest and most transformative crafts. From its origins in ancient civilisations where hand-operated looms were used to weave basic textiles, to today's highly sophisticated automated machinery weaving has continuously evolved to meet the demands of a growing and dynamic industry. This progression reflects not only technological advancement but also the creativity and ingenuity that have propelled the textile sector to new heights.

For machinery, testing instrument manufacturer like Paramount Instruments being the pioneer and leader in its domain, this evolution is more than a historical journey. It is a foundation for innovation and excellence. Understanding the nuances of weaving technology and providing testing instruments to ensure quality aspects of weaving is essential to meeting the diverse and ever-changing needs of textile manufacturers. Paramount Instruments takes pride in offering state-ofthe-art testing solutions that are tailored to enhance productivity, ensure accuracy, and deliver exceptional fabric excellence.

Exploring modern weaving technologies

Today's weaving industry relies on various high-tech machines tailored for specific fabric types and production needs. Here's a closer look at the most prominent weaving technologies. Also, the Output (Fabric) from any of the below looms can be;

Air jet looms: Air jet looms are among the fastest weaving machines available using a high-pressure jet of air to propel the weft yarn through the warp shed. These looms are ideal for high-volume production of lightweight to medium-weight fabrics such as shirting, sheeting, and technical textiles.

Quality control: Paramount has a comprehensive range of testing instruments to check various quality parameters in home textiles, upholstery and fashion fabrics.

Advantages of air jet looms:

> Exceptional speed reaching up to 1,500 picks per

minute.

- Energy-efficient operation compared to other high-speed looms.
- Compatibility with a wide range of yarns including synthetic and blended fibers.

Water jet looms: Water jet looms utilise a jet of water to insert the weft yarn making them particularly effective for weaving synthetic fibres like polyester and nylon. These looms excel in producing smooth, high-quality fabrics for applications such as sportswear and home textiles.

Quality control: Paramount has a comprehensive range of Testing Instruments to check various Quality Parameters in Home Textiles, Upholstery and Fashion Fabrics.

Advantages of water jet looms:

- > Superior fabric finish with minimal yarn fraying.
- > Cost-effective for synthetic materials.

> Minimal environmental impact with proper water recycling systems.

Rapier looms: Rapier looms use a rapier mechanism to carry the weft yarn through the warp shed. These looms are renowned for their versatility and ability to handle a wide variety of yarns including delicate and bulky types. They are commonly used for fashion fabrics, upholstery, and intricate patterned textiles.

Quality control: Paramount has a comprehensive range of testing instruments to check various quality parameters in home textiles, upholstery and fashion fabrics.

Advantages of rapier looms:

- Suitable for complex patterns and multi-color designs.
- Can handle a diverse range of yarns from cotton to silk.
- High production speeds with excellent fabric quality.

Projectile looms: Projectile looms use a small projectile to transport the weft yarn across the warp. Known for their durability these looms are ideal for heavy fabrics like denim, canvas, and industrial textiles.

Quality control: Paramount has a complete range of testing instruments to set an in-house testing lab for

denim, canvas and industrial fabrics.

Advantages of projectile looms:

- Robust construction for long-term performance.
- > Energy-efficient operation with low maintenance requirements.
- \geq Ideal for weaving wide-width fabrics.

Key quality control testing instruments for the weaving industry

Here are few very important testing instruments;



Tensile Strength Tester i11 IIOT: This next generation pneumatically controlled tensile strength tester with twin load cells is a state-of-the-art piece of equipment designed to meet the demands of fast technological advancements. It is regularly upgraded to ensure it remains future-proof and adaptable. This advanced tester is capable of

testing a wide range of materials, including fabrics, yarns, garments (for seam slippage), sportswear, home furnishings, footwear, leather, plastics, paper, packing materials, films, foils, non-woven materials, and more. It is supplied with the latest QC VATION IIOT Software, which features simple and clear navigation, making the testing process easy, efficient, and enjoyable. In addition to data collection and presentation, Paramount's proprietary QC VATION IIOT Software goes beyond these functions, offering tools for charting and analysis through multi-test reports and real-time graphs.

Stretch and Recovery Tester i9: This next generation



instrument is an accurate testing equipment designed to test the stretch growth and recovery properties of both knitted and woven fabrics, with a particular focus on sportswear and athleisure clothing. It is used to determine the stretch, comfort, and fit of fabrics, as well as to

assess how well the fabric returns to its original

condition after being stretched. GSM i9:

Round Cutter for GSM i9 is a high quality aeronautical grade aluminum casted round cutter for GSM.

AccuSHRINK i9 (Shrinkage



Tester): This specially designed

equipment is used to directly determine the percentage of dimensional change in all types of fabrics, offering both accuracy and convenience. It features a calibrated

scale that allows for the measurement of dimensional change, ranging from 0 per cent to 15 per cent for both shrinkage and stretch, with no calculation required.



Key picks glasses for precise reed/pick measurement

PGLS-006: This precision-engineered equipment is specially designed to detect Reed/Pick and various types



of defects in fabrics, including woven, non-woven, knitted, and denim.

PGSC -009: This innovative equipment when connected to a computer uses image analysis

to detect Reed/Pick in any type of fabric. Its advanced software also allows for the

examination of yarn micron, yarn hairiness, yarn diameter, and more. The digital microscope is suitable for use in weaving, dyeing, printing, and embroidery, offering a magnification range from 40X to 1000X.



Empowering textile innovation

The weaving industry stands at the intersection of tradition and creativity driven by advancements in technology and a commitment to brilliance. Paramount Instruments stands as a beacon of innovation for the weaving industry. With decades of expertise the company has established itself as a trusted partner for textile manufacturers. By offering a range of advanced quality control testing instruments and precision-engineered components Paramount Instruments ensures that its clients are equipped to meet the demands of a competitive market.

Paramount Instruments further solidifies its reputation as a trusted partner by offering a lifetime buyback warranty on its each testing instrument. This unique policy reflects the company's confidence in the durability and performance of its products while also providing clients with peace of mind and financial flexibility. The buyback warranty underscores Paramount's dedication to long-term relationships ensuring customers always have access to the latest technology without the worry of obsolescence.

By combining originality, reliability, and an unwavering focus on client's needs Paramount Instruments empowers textile manufacturers to lead in a competitive global market. Through its visionary approach the company is not just delivering quality control instruments for woven fabrics but is shaping the future of weaving industry to go to the next level, one ITJ thread at a time.



Assessing Carbon in Textile Processing

Vijay Shirole believes that through such assessments, textile industries can work toward more sustainable practices and meet global environmental standards.



he carbon footprint, which represents the total amount of greenhouse gases (GHGs) emitted by human activities, has become a key metric in the context of climate change mitigation. These emissions contribute directly to global warming and climate change, which threaten ecosystems, economies, and human health.

The carbon footprint of textile wet processing industries refers to the total amount of greenhouse gases (GHGs) emitted as a result of various activities contributing to carbon emissions during textile wet processing, including energy consumption, water heating, chemical reactions, and waste disposal.

- Energy use (electricity, steam, fuel)
- > Water and chemical inputs (dyes, surfactants, etc.)
- > Emissions from dyeing and finishing
- > Transportation and Supply Chain Emissions

These processes are highly energy-intensive and often involve substantial water and chemical use, making it crucial to calculate the associated carbon emissions in order to identify opportunities for reductions and improve sustainability.

Process wise CO2 emissions and its contribution: The textile industry, according to the US Energy Information Administration, is the 5th largest contributor to CO2 emissions. Thus, the textile industry is huge and is one of the largest sources of greenhouse gasses on Earth. In 2008, annual global textile production was estimated at 60 billion kg of fabric. The estimated energy and water needed to produce such quantity of fabric is considered to be

- 1,074 bn kWh of electricity or 132 million MT of coal and
- About 6-9 trillion litres of water

Thus, the thermal energy required per metre of cloth is 4,500-5,500 Kcal and the electrical energy required per meter of cloth is 0.45-0.55 kwh.

Total carbon footprint of textile wet processing: The carbon footprint of the textile wet processing industry varies based on several factors, including energy consumption, the type of chemicals used, the scale of production, and the geographic location of the facility. Here's an estimated breakdown of the overall carbon footprint in a typical textile wet processing facility:

Total carbon footprint of textile wet processing:
Average range: 3.0 - 9.0 kg CO2 per kg fabric processed

The importance of carbon footprint assessment A carbon footprint assessment involves the quantification of greenhouse gas emissions directly and indirectly caused by an individual, organisation, event, or product. It enables stakeholders—governments, corporations, and consumers—to:

- Quantify environmental impact: By understanding the total GHG emissions from an activity or organisation, stakeholders can gauge the environmental consequences and focus on the largest sources of emissions.
- Support decision-making: Accurate carbon footprint data can help organisations and governments make informed decisions on resource allocation, sustainability investments, and carbon mitigation strategies.
- Identify hotspots for emission reductions: Carbon footprint assessments can highlight areas where the greatest emissions occur (e.g., energy use, transportation, waste) and guide strategies to reduce these emissions.
- Regulatory compliance: Many countries and regions are now mandating emissions reporting, including carbon footprint calculations, as part of environmental laws. Accurate assessments help organisations comply with regulations and contribute to national and international GHG reduction targets.
- Improve transparency and accountability: By measuring and reporting carbon footprints, organisations can demonstrate environmental responsibility, which can enhance their brand

Process	Energy consumption (kWh/unit)	CO2 emissions (kg CO2/unit)	Contribution to total carbon footprint (%)	Key factors affecting emissions
Desizing (starch removal)	1.5 - 3.5 kWh/kg fabric	0.9 - 2.1 kg CO2/ kg fabric		Energy used for heating water, steam, and drying fabrics
Scouring	1.0 - 2.5 kWh/kg fabric	0.6 - 1.5 kg CO2/ kg fabric	20 - 30%	Energy consumption in hot water and chemical use
Bleaching	1.5 - 3.0 kWh/kg fabric	0.9 - 1.8 kg CO2/ kg fabric		High energy for heat and oxygen-based bleaching agents
Dyeing (reactive/ acid)	3.0 - 6.0 kWh/kg fabric	1.8 - 3.6 kg CO2/ kg fabric	35 - 45%	Energy for heat and steam, and use of energy-intensive dyes
Printing	2.0 - 4.0 kWh/kg fabric	1.2 - 2.4 kg CO2/ kg fabric	10 - 15%	Energy use in printing machines, curing, and drying
Finishing (softening, starching, anti- wrinkle treatment)	0.8 - 2.0 kWh/kg fabric	0.5 - 1.2 kg CO2/ kg fabric	5 - 10%	Energy for steaming, heat-setting, and chemical treatments
Water and wastewater treatment	0.5 - 1.0 kWh/m ³ treated water	0.3 - 0.6 kg CO2/ m ³ treated water	5 - 10%	Energy for pumping, filtration, and chemical treatment
Chemical production and transport		0.2 - 0.5 kg CO2/ kg fabric	5 - 10%	Emissions associated with the production, transportation, and storage of chemicals used in the processes
Miscellaneous (maintenance, building energy, packaging)		0.2 - 0.4 kg CO2/ kg fabric	5 - 10%	General facility operations and maintenance activities, as well as the impact of packaging materials used in shipping products

Note: This table is meant to serve as a general guideline and may vary depending on the specific setup of a textile processing plant. For more precise data, a life cycle assessment (LCA) for a specific facility or product would be required.

image and strengthen consumer trust.

Enable carbon offsetting: Accurate assessments allow organisations to identify emissions that cannot be eliminated and offset them through carbon credits or projects aimed at reducing global emissions.

Key concepts in carbon footprint calculation

A carbon footprint is typically calculated based on the amount of greenhouse gas emissions (GHGs), expressed in carbon dioxide equivalents (CO_2e), from a specific activity or product. The major GHGs include:

- Carbon Dioxide (CO₂): The most common greenhouse gas, emitted primarily from the burning of fossil fuels.
- Methane (CH₂): A potent greenhouse gas emitted from agriculture, waste management, and energy production.
- Nitrous Oxide (N₂O): Emitted from agricultural practices, industrial processes, and the use of fertilizers.
- Fluorinated gases: A group of synthetic greenhouse gases used in industrial applications

such as refrigeration and air conditioning. These gases have different global warming potentials (GWPs). CO_2e is used to standardise the impact of all gases, making it easier to compare and aggregate emissions.

Methodology for carbon footprint calculation

To calculate the carbon footprint of textile wet processing, we can break down the process into several components and estimate emissions based on key factors such as energy consumption, water use, and chemical inputs.

The Carbon Footprint is assessed in 2 layers;

- Primary footprint monitors carbon emission directly through energy consumption - burning fossil fuels for electricity, heating and transportation, etc.
- Secondary footprint- relates to indirect carbon emissions (Life cycle of products and Sustainability). Thus, the most effective way to decrease a carbon footprint is to either decrease the amount of energy needed for production or to decrease the dependence on carbon emitting fuels

The calculation process generally involves quantifying direct emissions (e.g., from energy use) and indirect emissions (e.g., from the production of chemicals or from transportation). The following steps outline the methodology and approach for calculating the carbon footprint for textile wet processing.

Key steps in carbon footprint calculation

> Identify boundaries: Determine the scope of the study (cradle-to-gate, cradle-to-cradle, or cradle-to-grave). For wet processing, it typically covers the stages from fabric preparation (e.g., dyeing, bleaching) to the final product leaving the factory.

Data collection: Collect data on:

- Energy consumption (electricity, steam, fuel) used in wet processing operations.
- Water use for dyeing, washing, and finishing processes.
- Chemicals and auxiliary inputs used in dyeing, bleaching, finishing, and printing.
- Wastewater and chemical waste generated during the processes.
- Transportation and logistics (for materials, chemicals, etc.).

Emission factors: Apply emission factors to convert the inputs (energy, water, chemicals) into CO₂-equivalent (CO₂e) emissions. Emission factors are available in databases such as those provided by the Intergovernmental Panel on Climate Change (IPCC), EPA, and Eco invent.

Calculate direct and indirect emissions:

- Direct emissions: These include emissions from energy consumption, fuel use, and process-related emissions (e.g., CO₂ released from burning natural gas for steam generation).
- Indirect emissions: These emissions result from the supply chain, such as those associated with the production and transportation of chemicals, dyes, or raw materials.

Summing up emissions, aggregate the emissions from all stages of textile wet processing to obtain the total carbon footprint.

Strategies for reducing carbon footprint in textile wet processing

Certain strategies are listed below;

- Cleaner production technologies: Identification of clean technologies that reduce energy consumption, chemical use, and waste generation.
- Eco-labelling and certification: Overview of environmental certifications and standards such as GOTS (Global Organic Textile Standard), OEKO-TEX, and ISO 14001, and their role in driving sustainable practices.
- Circular economy in textiles: Exploration of the potential of circular economy principles, such as recycling and reusing textile waste, in reducing

the carbon footprint of textile production.

- Shift toward sustainable fabrics: Discussion on the use of sustainable materials, including organic cotton, hemp, and recycled fibres, as a means to reduce environmental impacts.
- Energy efficiency: Implementing energy-efficient technologies and practices can significantly reduce Scope 1 and 2 emissions.
- Renewable energy: Transitioning to renewable energy sources (e.g., solar, wind, hydro) can reduce Scope 2 emissions from electricity use.
- Sustainable transportation: Shifting to electric vehicles (EVs), improving logistics, and reducing travel distances can cut down emissions in Scope 3 from transportation.

Conclusion

The carbon footprint calculation for textile wet processing involves estimating emissions from key activities like energy use, water treatment, chemical consumption, and waste management. By applying emission factors to these activities, companies can calculate the total carbon footprint of their processes. These calculations are crucial for identifying areas where energy efficiency, chemical use, and water consumption can be optimised to reduce the environmental impact of textile production. Through such assessments, textile industries can work toward more sustainable practices and meet global environmental standards. If the facility wants to assess the carbon footprint, BTRA team is ready to assist the same.

References

- 1. Comprehensive list of scholarly articles, industry reports, and other relevant sources used in the paper.
- 2. Allwood, J. M., et al. (2006). "The Environmental Impacts of the Textile Industry." Cambridge University Press.
- 3. Kering (2020). "Environmental Profit & Loss: Textile Footprint Report."
- 4. Global Fashion Agenda (2021). "Circular Fashion: The Apparel Industry's New Agenda."
- 5. ISO 14040:2006, "Environmental Management—Life Cycle Assessment—Principles and Framework."
- Sharma, P., et al. (2020). "Energy and Water Management in Textile Wet Processing." Journal of Cleaner Production, 123, 142-158.

About the author:



Vijay Shirole is presently working as Senior Scientific Officer-I in Technical Services Department at BTRA, Mumbai, he has more than 20 years of experience in textile processing industry. He has worked mainly in home textile, yarn dyeing shirting divisions and has vast experience in quality as well as process control in textile processing.



Optimising Logistics Costs for Brands

In addition to leveraging technology, clothing brands are increasingly focusing on sustainability as a cost optimisation strategy, says **Alina Kisina**.



n the highly competitive fashion industry, efficient logistics management is paramount for maintaining profitability and customer satisfaction. As e-commerce continues to reshape retail, clothing brands are increasingly focusing on cost optimisation strategies in their logistics operations. This effort enhances their bottom line and overall operational efficiency. However, rising costs, supply chain complexities, and reverse logistics present significant challenges that require strategic solutions.

Rising costs and supply chain challenges

The fashion industry is currently grappling with escalating costs and intricate supply chain issues. Global factors such as political tensions, economic instability, and rising commodity prices are impacting the market, leading to concerns about sustainability and budget constraints. Managing the transportation of goods from suppliers to warehouses and then to customers is crucial in shaping overall logistics costs. Implementing a Just-In-Time (JIT) inventory management strategy decreases storage requirements and expenditures. However, thorough interaction with suppliers is required to ensure timely delivery.

Additionally, geopolitical tensions and trade policies have led to increased tariffs and regulatory hurdles. For instance, the US-China trade war and Brexit have disrupted traditional supply chains, forcing clothing brands to seek alternative sourcing and manufacturing locations. This not only affects production costs but also complicates logistics planning and execution.

Managing omnichannel complexity

Clothing brands are also facing the challenge of

managing omnichannel complexity. Customers frequently visit physical stores before making purchases online, therefore the logistics operation must enable a seamless customer journey. This includes ensuring product availability in-store, on the website, and at third-party retailers, facilitating easy returns, and optimising storage for varied product types. Effective storage methods, such as hanging racks and shelves, are crucial for efficiently handling numerous orders.

The rise of omnichannel retailing requires robust inventory management systems that can synchronise stock levels across multiple platforms in real-time. Investing in logistics management software offers real-time visibility into inventory levels, shipment tracking, and delivery route optimisation. Using datadriven demand forecasts to avoid overstocking and stockouts. Techniques such as just-in-case (JIC) inventory management, which keeps a safety stock on standby to safeguard against disruptions, can be considered with JIT for a more balanced approach. This synchronisation helps prevent stockouts and overstocking, reducing associated costs and improving customer satisfaction. Furthermore, efficient warehouse management systems (WMS) and automated storage and retrieval systems (AS/RS) enhance storage efficiency and order fulfilment speed.

The reverse logistics conundrum

One of the most significant challenges in logistics for clothing brands is reverse logistics, which refers to the process of managing returns, exchanges, and repairs. The fashion industry is particularly vulnerable to high return rates due to the fast-paced nature of trends and the need for customers to stay up-to-date with the latest styles. According to a recent report, nearly 60% of fashion purchases will be made online by 2024, further exacerbating the issue of reverse logistics. Apparel brands highlighted the issue of reverse logistics' impact on the margins leading to additional shipping cost and taxes to the brand at the Borzo Connect conference. In fact, they even highlighted that these costs are lower if the purchase takes place through the brand's website compared to large ecommerce websites.

Returns can be complex and costly due to several factors. First, the variability in return reasons—ranging from size issues to quality concerns—requires a flexible and responsive returns management system. Second, the condition of returned items can vary widely, necessitating careful inspection, processing, and potential

refurbishment before they can be resold. This process requires additional labour, time, and resources, adding to the overall logistics costs.

Strategies for optimising reverse logistics

To tackle the challenges of reverse logistics, clothing brands are implementing various strategies. One approach is improving the returns process itself. By providing clear and easy-to-follow return policies, brands can reduce the incidence of returns and streamline the process when returns do occur. Return data should be analysed to discover trends and product faults. This can help design and manufacturing processes reduce returns due to poor fit or quality issues or brands may offer virtual fitting tools to help customers make better purchasing decisions. Additionally, investing in automated return management systems can help in quickly processing returns.

Moreover, some clothing brands are adopting sustainable practices in their reverse logistics operations. This includes refurbishing and reselling returned items, recycling materials, and reducing waste.

Strategies for cost optimisation

To navigate these challenges, clothing brands are adopting various strategies for cost optimisation. One key approach is to outsource logistics operations to third-party logistics providers (3PLs). These companies offer specialised expertise in managing inventory, shipping, and returns, allowing brands to focus on sales and marketing. By leveraging advanced inventory management solutions and dynamic demand forecasting, brands can mitigate the risks associated with overstocking and stockouts, improve operational efficiency, and enhance their responsiveness to market changes.

3PLs can also provide scalable solutions that adapt to seasonal fluctuations and market demand shifts, helping brands manage peak periods without incurring unnecessary fixed costs. Additionally, these providers often have established networks and relationships with carriers, which can lead to better shipping rates and service levels.

Technology integration and collaboration

Another critical aspect of cost optimisation is technology integration and collaboration. Advanced ERP systems, AI for forecasting, and blockchain for transparency are examples of how technology can provide the tools needed for real-time decision-making and seamless adaptation to changes. Effective communication and collaboration among all stakeholders, from suppliers to retailers, are essential for ensuring a seamless flow from production to customer delivery. For instance, AI-powered demand forecasting tools can predict sales trends and inventory needs with high accuracy, reducing the chances of overstocking or stockouts. Blockchain technology can enhance transparency and traceability across the supply chain, ensuring that all parties have access to the same information and reducing the risk of fraud and errors.

Collaboration platforms that integrate with supply chain management systems can facilitate better communication between manufacturers, suppliers, and retailers, ensuring timely updates and coordinated responses to disruptions.

Sustainability and cost efficiency

In addition to leveraging technology, clothing brands are increasingly focusing on sustainability as a cost optimisation strategy. Sustainable practices, such as using eco-friendly materials, optimising production processes to reduce waste, and implementing energyefficient technologies in warehouses, not only benefit the environment but also lead to cost savings in the long run. Minimising vacant space in shipments and optimising packaging sizes can also help to reduce carbon impact.

Brands are also exploring circular economy models, where products are designed for reuse, recycling, or upcycling. This approach reduces the need for raw materials, decreases waste, and creates new revenue streams from recycled products. Moreover, sustainability initiatives often resonate well with consumers, enhancing brand reputation and customer loyalty.

Conclusion

Cost optimisation in logistics is crucial for clothing brands to stay competitive and meet customer expectations. While forward logistics has advanced through technology and partnerships, reverse logistics remains a significant challenge. By improving returns processes, leveraging data analytics, outsourcing to 3PLs, integrating advanced technologies, and focusing on sustainability, brands can manage reverse logistics more effectively, reduce costs, and enhance overall efficiency. Embracing these strategies will position clothing brands to thrive in the dynamic retail environment.

About the author:



Alina Kisina, in her present role with Borzo, is leading Global Business and operations for the company. Prior to being elevated as CEO, she was building last-mile delivery for enterprise customers globally as VP Sales. With her nearly two decades of experience, Alina has been responsible for revenue growth and made Borzo pivot and transform into the enterprise delivery segment.

She is an expert in building strong, efficient sales teams for achieving revenue targets.

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NAPS: Building Skills for India's Apparel Sector

The National Apprenticeship Promotion Scheme (NAPS) includes not only technical skills but also soft skills and workplace readiness, explains **Dr A Sakthivel**.



he National Apprenticeship Promotion Scheme (NAPS), introduced by the Ministry of Skill Development and Entrepreneurship (MSDE) in 2016, seeks to address the skills gap across industries, creating a workforce ready to meet sectorspecific demands. With its focus on apprenticeship as a pathway to hands-on learning, the initiative has played a critical role in sectors like apparel, made-ups, and home furnishing. The Apparel Made-Ups and Home Furnishing Sector Skill Council (AMHSSC) have been pivotal in tailoring apprenticeship training programs to meet the unique needs of this labour-intensive sector.

Understanding apprenticeship training programs

Apprenticeship training programs combines two critical components:

> Basic training, which provides theoretical and

practical knowledge.

On-the-Job Training (OJT), where apprentices gain hands-on experience in a workplace setting.

This dual approach ensures that apprentices develop a strong foundation in both theoretical knowledge and practical skills, making them immediately productive upon entering the workforce.

Objectives and benefits of NAPS

The core objective of NAPS is to expand the reach and effectiveness of apprenticeship training program across the country. By addressing skill shortages and enhancing employability, it creates a skilled workforce aligned with industry standards.

- Key highlights of the scheme include:
- Encouraging establishments to adopt apprenticeship training programs, particularly

small and medium enterprises (SMEs).

- Making training more accessible and affordable for employers through cost-effective models.
- Extending apprenticeship opportunities to urban and rural areas, promoting balanced economic development.

Applicability in the apparel sector

Under the Apprenticeship Act, 1961, establishments with 30 or more employees must engage apprentices, ranging from 2.5 per cent to 15 per cent of their workforce annually. For the apparel sector, which is labour-intensive and skill-centric, this mandate is particularly significant. The structured training provided under NAPS has been instrumental in equipping apprentices with expertise in sewing operations, textile finishing, quality control, and design processes.

The role of basic training

Basic training is a critical segment of apprenticeship training programs, particularly for fresher apprentices without prior skill training. It imparts theoretical and labbased practical instructions, ensuring apprentices have a foundational understanding before progressing to OJT. For individuals with institutional training, such as ITI pass-outs or graduates of NSQF-aligned courses (e.g., PMKVY), this requirement is waived, enabling them to move directly to workplace training.

The core objective of NAPS is to expand the reach and effectiveness of apprenticeship training program across the country.

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Importance of NAPS in the apparel sector

The apparel sector, known for its vast workforce requirements, benefits significantly from NAPS in bridging the skills gap. Apprenticeships under the scheme focus on practical training for high-demand roles like sewing machine operations, textile finishing, quality control, and design processes. This approach ensures that apprentices are equipped with industry-relevant skills, making them productive contributors from day one.

AMHSSC's efforts in implementing NAPS have ensured that these apprenticeships address both immediate and long-term industry needs. By identifying emerging trends and workforce gaps, the council facilitates training programs that are aligned with real-world requirements, ensuring that the apparel sector remains competitive and agile in an evolving global market.



Basic training is a critical segment of apprenticeship training programs, particularly for fresher apprentices without prior skill training.



Expanding workforce inclusion

NAPS have extended skill development opportunities beyond urban centres, reaching youth in rural and semi-urban areas. These apprenticeships provide individuals from diverse backgrounds with access to structured training programs, contributing to balanced economic development. By empowering rural and underserved communities, the scheme also supports localized growth in regional industries.

AMHSSC's role in shaping NAPS

AMHSSC plays a vital role in driving the success of NAPS in the apparel sector. Collaborating with industry stakeholders, the council ensures that apprenticeship training programs are both relevant and forward-looking. This includes not only technical skills but also soft skills and workplace readiness, giving apprentices a wellrounded foundation.

National Apprenticeship Promotion Scheme has emerged as a transformative initiative, fostering practical skill development and workforce readiness across India. In the apparel sector, AMHSSC's active involvement has ensured that apprenticeships align closely with industry needs, preparing a new generation of skilled professionals. While the scheme's focus is not primarily on financial incentives, its structured training framework and inclusive approach have laid the groundwork for sustainable growth in India's manufacturing and service sectors.

About the author:



Dr A Sakthivel is the Chairman of the Apparel Made-Ups & Home Furnishing Sector Skill Council. AMH SSC has been launched with a primary mandate of enhancing and to build a capacity in skill development. One of the salient features of the AMH SSC is designing of the training programmes, based on industry demands of different segments and to ensure that all successful trainees are certi-

fied through accredited assessment agency.

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How Supply Chain Finance Drives Textile Growth

Supply chain finance is revolutionising the textile industry by tackling key challenges such as cash flow constraints and delayed payments, informs **Munindra Verma**.



ndia's textile industry is a key driver of economic growth, contributing 2.3 per cent to GDP, 13 per cent to industrial production, and 12 per cent to exports. In the first half of FY 2024-25, India's textile and apparel exports reached \$17.660 billion, making up 8.28 per cent of the country's total merchandise exports. The industry is expected to grow at a CAGR of 10 per cent, reaching a market size of \$350 billion by 2030, including \$100 billion in exports. Globally, India ranks as the second-largest textile producer, contributing to a multi-trillion-dollar industry. The global apparel market is expected to grow at a CAGR of per cent, reaching \$2.37 trillion by 2030, while the global textile and apparel trade is set to grow at a CAGR of 4 per cent, reaching \$1.2 trillion in the same period.

Despite its prominence and steady growth, the textile sector faces many challenges. The industry grapples with working capital constraints, delayed and uncertain payments, rising input costs, counterparty risks, and the complexities brought on by global geopolitical disruptions. The need for an enduring, efficient and effective supply chain ecosystem has never been more crucial for the textile sector to thrive amid these trials.

Current challenges facing the textile sector

India's textile industry, despite its growth, faces persistent challenges that hinder its full potential. One of the most pressing issues is working capital constraints including global risks. The textile industry operates on high-volume production cycles, where financing needs are ever-present to maintain smooth operations. Delayed payments from customers (sometime default too) and a weaker vendor ecosystem can worsen cash flow problems, making it difficult for businesses to meet day-to-day operational needs.

Furthermore, rising input costs, particularly for raw materials like cotton, and the volatility in shipping costs due to geopolitical tensions, further strain the industry's ability to scale and maintain profitability. The textile sector must build robust supply chain ecosystems to address these issues and sustain its growth trajectory. This is where Supply Chain Finance (SCF) solutions can make a significant impact.

The role of supply chain finance in the textile sector

SCF optimises liquidity flow within the supply chain ecosystem, allowing businesses to access funds quickly and efficiently. Solutions like invoice discounting, factoring, and ITFS (International Trade Finance Solutions) help smooth transactions between buyers, suppliers, logistics providers, financial institutions, and insurers. These solutions improve liquidity, minimise risks, and reduce the financial burden on textile businesses, enabling them to operate efficiently and scale faster.

How SCF aligns with the textile industry needs

SCF addresses various industry needs mentioned as below;

- Addressing working capital requirements: The textile industry is a cash-intensive sector. The need for working capital is immense, from procurement of raw materials to labor costs and shipping expenses. SCF solutions help textile businesses secure funds quickly, supporting production cycles and enabling smooth operations without depending on external loans or delayed customer payments.
- Ensuring timely payments to suppliers and vendors: The textile industry's vast supply chain

encompasses everything from raw material suppliers to garment manufacturers and distributors. SCF can help ensure timely payments across the entire network, maintaining strong supplier relationships and avoiding disruptions.

- Enabling small and medium exporters to compete globally: Small and medium-sized enterprises (SMEs) in the textile sector often struggle to compete globally due to limited liquidity. SCF can give these businesses access to capital, improving their ability to fulfill larger orders, negotiate better terms with buyers, and increase their competitiveness.
- Efficient risk transfer & management: Offbalance sheet solutions, supported by overseas import factors or trade credit insurance providers, facilitate early payment realisation while minimising risk.

Geopolitical crises and the rising importance of SCF

Global geopolitical tensions have disrupted supply chains worldwide. Shipping costs have surged, and raw material availability has fluctuated, challenging textile exporters. SCF offers a solution by providing a steady flow of funds, mitigating the risk of supply chain disruptions, and ensuring that businesses can meet the demands of international buyers without worrying about financial uncertainty.

For example, SCF solutions have helped textile businesses in India manage cash flow during periods of instability, allowing them to fulfill orders on time, maintain supplier relationships, and keep their operations running smoothly, despite global challenges.

Enhancing the value proposition of Indian textile exporters

SCF can propel exports by adding these values to the exporters;

- 1. Accelerating exports with SCF: The Indian textile export sector has grown significantly, with apparel exports rising by 17.30 per cent in September 2024. These solutions empower exporters to fulfill larger and more frequent orders without the financial strain of waiting for payments. This ensures they can take on new business opportunities, accelerate their growth, and maintain consistency in their production processes.
- 2. Driving competitiveness through innovation: SCF platforms like ITFS and cross-border trade finance are revolutionising the textile sector by digitising financial transactions. The use of technology

streamlines financial processes, making them faster and more efficient. Additionally, data insights from SCF platforms enable better financial planning and operational efficiency, allowing textile businesses to make informed decisions.

3. Strengthening the supply chain ecosystem through ITFS platforms: India has been making significant strides in enhancing its trade finance capabilities, thanks to the establishment of the International Financial Services Centre Authority (IFSCA) and International Trade Finance Services (ITFS) in the Gujarat International Finance Tec-City (GIFT City). These initiatives are poised to transform the landscape of trade finance in India and, in turn, boost the country's exports.

Future prospects

India's textile industry is poised for significant growth, driven by government initiatives like PM MITRA Park and the Production Linked Incentive (PLI) scheme. By 2030, the sector is expected to reach a \$350 billion market size. SCF will be pivotal in this growth, offering stability for businesses to adopt sustainable practices, enhance profitability, and reduce environmental impact. These platforms set a new standard for the sector, ensuring that textile businesses can thrive in a competitive global market while embracing sustainability.

Conclusion

In a nutshell, supply chain finance is revolutionising the textile industry by tackling key challenges such as cash flow constraints and delayed payments. It helps businesses improve liquidity, ensure timely payments, and enhance competitiveness in global markets. The Indian textile sector stands to benefit significantly, positioning itself for long-term growth and flexibility. As the industry continues to innovate and expand, adopting these financial solutions will be crucial for exporters to stay ahead. With government support and increasing demand for technical textiles, the market is projected to reach US\$ 209 billion by 2029. Leveraging these financial tools will strengthen India's position as a global leader, ensuring sustained growth. The future looks promising, driven by strong domestic consumption and export demand, alongside major initiatives to ITJ boost the technical textile sector.



About the author:

Munindra Verma is the Chief Executive Officer of M1NXT. Verma, a seasoned banking professional with over 27 years of experience in corporate and transaction banking, brings wealth of knowledge and expertise. At M1 NXT, Verma is focused on building and establishing the company's position as a trusted Trade Finance solution provider.

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"Today's Consumer Expects more Functionality out of their Apparel."

ctive Apparel Group (AAG) offers premium end-to-end solutions in the design, development, production, and distribution of technical performance apparel. Known for impeccable craftsmanship, AAG customers receive the benefit of over 35 years of deep technical expertise in performance textile development, garment engineering, design, and manufacturing. With a comprehensive network that reaches across the globe (Asia, USA and Europe), AAG innovates and sources fabric from some of the world's leading textile suppliers. **Henry Jones, CEO, Active Apparel Group**, in this interview with **Divya Shetty**, discusses the latest trends and consumer preferences in activewear.

What key factors contribute to your Activewear manufacturing process, and how do you ensure that your products meet the evolving needs of consumers in a competitive market?

We adhere to three key pillars: Craftsmanship, Innovation and Solutions. With our unwavering commitment to craftsmanship and quality, we offer within our wholly owned centre of Excellence factory, in house bonding, laser cutting, quilting and beyond. We pride ourselves on our Innovation Lab where we R&D forward thinking approaches, i.e.: water based printing and avoidance of chemical usage, full recycling of fabric offcuts in our facility, thermoregulating fabrics to dovetail with macro environmental challenges, low environmental impact materials, and investing in our future.

To further satisfy the needs of our partners, we offer an array of tailored solutions to meet each of their needs, i.e., fabric sourcing and development, technical design, full garment design, product development and finally pick & pack/logistics.

As demand for high-performance fabrics continues to grow, how does Active Apparel Group approach the development of technical stretch fabrics and performance textiles that deliver both comfort and durability for active wear?

We have specialised teams with deep technical expertise in sourcing and fabric development that enable us to stay ahead of consumer demand and also satisfy the specific requests of our partners.

We are proactively scouring the planet for the latest fabric innovation, down to the fibre level so that we can bring that innovation to our partner brands helping them



to create beautiful, market relevant, yet innovative products to drive their growth and differentiation.

With athleisure becoming a dominant segment globally, what are the current market trends you observe in swimwear and activewear? How do you foresee the market evolving in the coming years, especially with the increasing focus on functionality and style?

Athleisure has become an expansive market; we see a rising demand to empower 'everyday athletes' and enhance human performance, a great indicator of this is 6 of the top 10 highest-valued single apparel brands are in Sports Athleisure. There is a real focus on health and wellbeing that is not going away.

The rise of technical, human-performance-enhancing apparel is reshaping the market and will continue to do so.

Today's consumer is super savvy and expects more functionality out of their apparel without sacrificing design and comfort. It is the blending of the two that will set our partners and us apart.

As India's athleisure market grows, how do you evaluate its potential compared to other global

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TECHNICAL TEXTILES: VIEWPOINT

markets? What specific strategies does Active Apparel Group have in place to cater to the unique preferences of Indian consumers?

The Indian market shows huge potential and whilst Active Apparel is a global organisation with reach across Europe, the United states and Australia. As it stands today, India is untapped by us - but certainly a market we would love to explore in the future.

Sustainability in textile manufacturing is more crucial than ever. How is Active Apparel Group incorporating sustainable practices, particularly in the production of performance fabrics and swimwear?

Sustainability and our environmental impact is something we take very seriously and, AAG recently earned B Corp Certification after a rigorous two year journey.

B Corp certification is independently verified by B Lab, a global nonprofit organisation, which ensures rigorous external validation of a company's social and environmental performance which reflects our dedication and commitment to social responsibility, environmental sustainability and ethical practices.

We have also developed ambitious programs designed to tackle the big issues that confront us now and in the future, like our use of reprocessed fabrics and using biodegradable materials that will disappear from the planet over a period of several years. We recycle almost 100 per cent of fabric offcuts in our factory, we have measured our carbon impact across our business and have set reduction targets.

We see these practices as crucial across all aspects of our business and help to set the standard for us and our partners.

Which emerging segments within athleisure wear do you believe have the greatest growth potential? How is Active Apparel Group positioning itself to capture these opportunities, especially in the face of changing consumer preferences?

Consumers embracing active,

healthy lifestyles seek versatile, highquality apparel that supports wellness and transitions seamlessly between fitness and daily life, blending functionality, comfort, and style is something we are specialized and experienced in. Our customers choose us as experts in manufacturing performance/stretch apparel and that crosses over from typical athletic wear to commuter wear, as the consumer is seeking "comfort" in all aspects of their life.

How would you assess Active Apparel Group's performance in recent years, and what steps are being taken to expand your global presence, particularly in markets such as North America, Europe, and Asia?

We are incredibly Proud of AAG and how we have positioned ourselves as a leading manufacturer of performance and lifestyle apparel for global premium brands. We have a focus on our long term growth strategy to maintain our position as a premium provider of high-quality performance apparel across the USA, Europe/EMEA and Australia and deepen our relationships within these geographies and beyond.

What are the key strategic goals for Active Apparel Group over the next 3-5 years? How do you plan to remain at the forefront of innovation in the swimwear and athleisure wear industries?

As mentioned above, we ascribe to three main pillars.

Innovation and craftsmanship to be a trusted partner in driving innovation, and delivering unique, differentiated and quality products, with seamless execution, efficient and on time delivery.

Continue to provide bespoke solutions to meet our customer needs.

Drive profitable growth through streamlined operations, and cost competitiveness for us and in turn our customers.

By operating within these principles, we will remain in the forefront of what we do now and in the future.

SPIN & WIN

Clever P-clearing Under All Circumstances

Designed for spinning mills facing fluctuating humidity levels, the system is proven to offer better fabric quality while maintaining the cut rate.

oepfe has been at the forefront of mastering polypropylene clearing for years, and PRISMA is the latest proof of this expertise. As PRISMA is an evolving system, Loepfe proudly announces a further improvement in P-clearing. Designed for spinning mills facing fluctuating humidity levels, the system is proven to offer better fabric quality while maintaining the cut rate.

Over the past 12 months, extensive trials have been conducted, and tons of data has been collected and used to upgrade the level of accuracy in polypropylene detection. The data was used for optimisation in signal processing and to offer an additional setting function specifically for spinning mills that must contend with pronounced climatic fluctuations.

Polypropylene clearing

Contamination of cotton with synthetic fibres remains a significant concern for spinning mills. Polypropylene contamination, typically stemming from bale packaging, can lead to a myriad of issues throughout the production process. These include broken needles in knitting applications, thread breakage during weaving, and visible defects in the final product after dyeing. Effective contamination clearing substantially enhances yarn quality, while overly stringent measures can negatively impact production efficiency and increase waste.

For spinners, clever P-clearing balances the need for quality yarn with the imperative to maintain operational efficiency. Loepfe's approach combines advanced technology, precise signal processing, and tailored settings to address various production scenarios, now enhanced to account specifically for humidity fluctuations.

New climate compensation

In response to the unique demands of spinning mills operating in environments with significant humidity variations, PRISMA now features an innovative climate compensation setting. Extensive testing of this new functionality at affected spinning mills has demonstrated several benefits, including:

- Enhanced overall classification accuracy
- Improved clearing performance

- Consistent cut rates coupled with superior final fabric quality
- ➢ Same cuts and better clearing performance

The new function makes it easy to counteract the changing climate in a spinning mill. The system then takes into account the increasing humidity and calculates an average value between the standard deviation and the peak values.

By providing this enhanced climate compensation setting, Loepfe empowers spinning mills to sustain peak performance and exceptional quality, even when confronted with challenging environmental conditions.

P-Clearing Matrix



P-Matrix allows operators to input specific parameters

The P-Matrix allows operators to input specific parameters, starting with a pre-generated clearing curve by the Autostart function that considers the most crucial factors for optimal and efficient clearing results. By easily adjusting the settings - raising or lowering the clearing curve - operators can tailor outcomes to meet their individual production needs.

How to set P climate compensation

Go to Default Group Settings and set Climate Compensation to 50 per cent. Select the checkbox Adjustable in Group to show it in Group Settings optional. This 50 per cent will be applied to all the groups by default. The service key is required to access the Default Group Settings. The Climate Compensation value may be influenced by the yarn count and cotton variety. It is recommended to start with a value of 50 per cent as various trials show that the best result can be achieved between 35 per cent and 75 per cent.



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"Gen Z is Shaping the World and Making us Rethink our Strategies."

entric Software was founded in Silicon Valley 20+ years ago, the company works in close partnership with the brands, retailers and manufacturers to deliver ground-breaking innovations that overcome industry-specific challenges. These solutions are market-driven, leverage best practices and are highly configurable in order to serve companies of all sizes and business models, including multi-category, multi-geography and multi-process. **Stacey Charbin**, **Global CMO, Centric Software**, in this captivating conversation with **Divya Shetty**, gives a glimpse of her company operations and how is it catering to the Indian market.

Could you share an overview of Centric Software with us?

Consumer goods, including most items we buy in stores, are typically made by a group of people, often spread across different rooms, buildings, time zones, and countries. These teams have diverse expertise. For example, in the fashion industry, which is where Centric Software was born, there are experts in textile design, dyeing, finishing, knitting, and pattern making. Similarly, industries like cosmetics and food share some aspects with fashion, such as seasonal trends, but involve different requirements like formulation, packaging, and compliance. In food, tracking ingredients is crucial, as some are banned.

Our solutions help companies conceptualise products—not by designing them, but by determining what the consumer wants. We help ensure that the product fits with a brand's DNA and promise. We guide companies through the process of material selection, sourcing strategy, and specifying manufacturing details. Some of our clients are manufacturers, while others work with OEMs or ODMs to source products. We support them from the beginning, helping with product design and its subsequent manufacturing.

Centric Software solutions also assist with the financial side, specifically merchandise financial planning, for retailers. This includes deciding on product assortments, pricing, and the timing of sales.

Our solutions cover the entire planning process, from product conceptualisation to execution. We guide clients through the preseason phase, strategy development, and sales planning. Once the selling season begins, we help with stock management, replenishment, and end-ofseason activities. End-of-season strategies are



increasingly important due to sustainability regulations, which prohibit the destruction of unsold goods in some countries. Selling out stock is both a financial and environmental best practice, and we help companies navigate this phase effectively. In summary, our solutions cover every aspect of the product lifecycle—from planning and conceptualisation to execution and sustainability.

How is Centric Software supporting businesses in India?

Our history with India can be divided into two phases. Initially, we worked with software development partners, customer support teams, and project managers in India for over a decade—around 12 or 13 years.

About three years ago, we shifted focus to directly serving Indian customers and building our own teams, including retail and technology experts. These teams now advise companies and share best practices. We currently work with around 990 customers, nearing a thousand, and are preparing for a company celebration when we reach that milestone. Our expertise, built over nearly 20 years, is now integrated into our software and being applied to the Indian market.

Some of our prominent customers in India include

Trent, Pantaloons, Style Union, Ethnicity, Derewala (jewellery), and Chennai Silks (traditional Indian clothing), showcasing the broad range of industries we serve. We're just getting started in India. And in fact, we just signed our first food company in India, Graviss Group.

How do you perceive the current state of the Indian fashion industry, and what is your outlook for its future?

That is a difficult question because India is a large country with diverse cultures and regions, each at different levels of maturity. However, in general, I perceive that India is ready to advance technologically. There's significant potential for Indian brands, retailers, and manufacturers to serve both the domestic and international markets.

Many Indian companies, especially newer ones, are starting out digitally enabled. Even before they begin selling, they are investing in the right technological foundations, knowing it's essential to stay competitive. This trend is happening globally, but it's already taking shape in India. Additionally, some companies that began traditionally, using paper or basic tools like spreadsheets and emails, are now realising they need more to stay competitive. They seek efficiency, agility, and real-time information, leveraging tools like AI and automation to guide decision-making and position themselves for the future. This is an exciting development, and I believe there's a big opportunity for India.

Its said that the company accelerates the process of bringing the right products to market on time. Given the current global uncertainty, has this had any impact on your process?

No, the reality is that there is always global uncertainty. Post-COVID, we had supply chain disruptions, followed by inflation. Now, there are concerns about potential tariffs from the US, the impact of AI, and the influence of Gen Z. Gen Z is shaping the world, and it's prompting brands and retailers, and all companies in general, to rethink their strategies.

There's always been evolution, change, and disruption, but what's different now is the complexity many companies are facing, partly due to Gen Z. There's a shift towards individualised, personal products, driven by micro-communities and the discovery of new interests through social media and the internet. People want products that reflect their unique tastes—whether in sports, music, food, or art.

So, while this idea of change isn't new, it feels more acute now.

What are some fashion trends that we see emerging right now?

Sustainability, digital fashion, and personalisation dominate 2024. Brands are adopting eco-friendly practices, leveraging virtual and AI-driven experiences, and catering to gender-fluid, tech-integrated, and retro-inspired preferences.

Could you please provide a more detailed explanation of the Product Life Cycle Management (PLM) solutions that your company offers?

PLM is all about operational efficiency, delivering classic business benefits like accelerated time to market, reduced cost of goods sold, and achieving more with the same headcount. It minimises risk by reducing errors, which can lead to costly mistakes, such as product recalls or noncompliance, often due to people lacking access to the right information. PLM consolidates all that information, preventing issues like copy-pasting and data piecing from multiple systems. These are the core expectations from customers, whether in India or elsewhere.

What's new is the concept of competitive market intelligence, as defined by Gartner. We acquired a company that developed an AI tool for this purpose. It scrapes data from over 1,000 retailers in 100 countries, analysing billions of products. We've been gathering and summarising this publicly available data for years, enabling brands and retailers to see how they compare with competitors.

This tool helps identify product gaps, price differences across countries, discount strategies, and which sizes or colours are selling faster. It also provides insights into search engine trends, presenting them in a way that is relevant to fashion and outdoor sectors. For example, trends like the popularity of pink jeans were identified early through search spikes. Today, you can see up to 10 concurrent fashion trends in any category, a significant shift from just one or two trends a few years ago.

This data is real-time, allowing brands to drill down into product categories, geographies, and sales channels. It's a powerful tool for informing decisions, whether designing collections, making product choices, or setting pricing and promotion strategies based on competitor analysis.

How was the performance of both the company and the global textile industry in 2024, and how do you envision it evolving in 2025?

Centric Software had a stellar 2024, expanding globally and enhancing our AI-driven PLM solutions. The textile industry faced challenges like rising costs but showed resilience with digital transformation and sustainability initiatives. In 2025, we expect continued growth in technology adoption, localised sourcing, and sustainable practices, driving innovation and market recovery.

ITJ

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Shaping the Future of Cotton in India

This ambitious project will leverage ARISE's extensive network of industrial parks to support a new era of textile manufacturing in Africa.

ndia- Cotton Day 2024 hosted in Coimbatore, India, gathered industry leaders and experts to explore the latest advancements shaping the textile sector. Organised by Cotton Council International (CCI), the event focused on sustainability, technology, and global trade, highlighting the role of US Cotton and Indian textile Industry in the global cotton value chain. Key discussions centred on the innovations propelling the industry's growth and future success.

William Bettendorf, Director of Cotton USA Supply Chain for South Asia, provided valuable insights into the growing success of the US Cotton Trust Protocol program. "The Trust Protocol's exponential growth demonstrates a collective commitment to transparency and sustainability," he noted. "These innovations are not only fortifying supply chains but also opening new opportunities for Indian mills and brands."

A significant highlight of the event was the emphasis on Supima's contributions to the textile industry. Marc Lewkowitz, President & CEO of Supima, underscored the importance of collaboration. "Supima cotton's premium quality, alongside our innovative AQRe Project platform, enables Indian manufacturers to meet international demands with precision, responsibility, and authenticity" he said. "This partnership reflects a shared vision for a sustainable and future-focused textile industry."

The discussions also focused on the impact of removal of import duty on Extra Long Staple cotton. This policy shift has made high-quality US Pima fibre more accessible to Indian mills, enhancing their global competitiveness. Experts also noted the growing preference for US Pima cotton, India, this year accounts for more than 40 per cent of US Pima export commitment reflecting the demand for superior quality.

Peush Narang, Representative of Cotton Council International, opened the event by emphasising India's pivotal role in the textile sector. "India's textile industry remains at the forefront of innovation and sustainability, positioning it as a key player in shaping the future of global cotton trade," he remarked. He also highlighted the importance of US-India collaboration in fostering sustainable practices to meet the evolving needs of global markets. Narang further emphasised the need to remove the import duty on US Upland Cotton, which would



provide Indian spinning mills with greater access to high-quality fibre from the US, enhancing the competitiveness and sustainability of India's textile industry.

Technology and innovation were central themes throughout the event. The introduction of the Mill Performance Index—a live dashboard for tracking and optimising mill productivity— demonstrated the transformative potential of data-driven tools in the industry. Additionally, advancements in traceability, including insights from US Cotton Industry, Textile Genesis and Oritain showcased how technology can enhance transparency and build consumer trust.

Cotton Day 2024 offered a comprehensive outlook on the future of textiles, retail, and spinning mills. The event featured insightful sessions, including a detailed discussion on the Indian Textile Retail Outlook and the Emerging Trends Impacting the Fashion Retail Industry. Industry experts shared their perspectives on how the retail landscape is evolving and the key factors shaping the future of fashion retail in India.

Cotton Council International (CCI) is a non-profit trade association that promotes US cotton fibre and manufactured cotton products worldwide under the Cotton USA trademark. With over 65 years of experience, CCI works to make U.S. cotton the preferred fibre for mills, manufacturers, brands, and retailers, driving export growth and ensuring sustainability.

FIBRE & YARN



Parkdale and Trützschler Celebrate 55 Years of Partnership

Together, the two companies have successfully identified and adapted to several big transformations within the textile industry.



Parkdale recently ordered 34 carding machines equipped with Supertip wires from Trützschler.

arkdale is a top global provider of spun yarns - and a top partner for Trützschler too. Their collaboration stretches back more than 50 years and is now gathering momentum for the future, driven by the shared focus on continuous improvement for quality, innovation and sustainability. The latest step forward for this long customer relationship? Its Supertip card clothing wire.

For over 108 years, Parkdale has proven to be a reliable full-service yarn supplier. Operation began at its first facility in Gastonia, North Carolina, producing 425 tonne of thread yarn per year. Since then, it has grown into the largest consumer of cotton in the US Parkdale produces more than 8,000 tonne per week at 21 manufacturing sites in the US Mexico, Central America and South America. It supplies many industries worldwide with spun yarns consisting of fibre blends including cotton, polyester, rayon, nylon and acrylic.

Trützschler entered the US market in 1969 and almost immediately engaged in close cooperation with Parkdale. Together, the two companies have successfully identified and adapted to several big transformations within the textile industry. Those achievements are evidence of our shared focus on exploring new technologies and continuously improving production processes. As the latest step forward in this pioneering partnership. Parkdale recently ordered 34 carding machines equipped with Supertip wires from Trützschler on the licker-in, cylinder and doffer roller.

Taking clothing to the next level

Supertip wires are the newest innovations in Trützschler's range of clothings. Parkdale selected these wires because they achieve big contributions to quality and precision, Specifically, the customer values the outstanding durability of Supertip wires. All Supertip offer a service lifetime that is up to 30 per cent longer than conventional solutions, which cuts maintenance



Supertip offer a service lifetime that is up to 30 per cent longer than conventional solutions.

requirements by up to 25 per cent. In this way, Parkdale can now minimise service disruptions and ensure smoother processes - with lower costs

Parkdale uses a variety of Supertip wires for its uniquely diverse range of applications and process parameters In total, more than 300 versions of the Supertip clothings are available - and our teams are constantly expanding that portfolio This wide range of innovations makes certain that we always have the perfect wire for each customer's unique needs It also eliminates the need to grind newly fitted clothing, which further extends intervals between maintenance tasks. I

TRADE TALK



Carpets Industry Reaches New Heights

The leading trade fair for technical textiles and nonwovens is responding to the growing demand from users and the requirements of suppliers for a centralised and concentrated industry platform for textile chemicals and dyes.



or the first time, Techtextil bundles the range of exhibitors in the field of Textile Chemicals & Dyes in an independent product area from 21-24 April 2026 in Frankfurt. The leading international trade fair for technical textiles and nonwovens is creating a central hub for suppliers and users. It thus emphasises the increasing demand and relevance of textile chemicals and dyes for the global textile industry.

Techtextil 2026 concentrates textile chemicals and dyes in a separate product segment for the first time. It thus emphasises the broad range of applications and the growing economic importance of these products. The leading trade fair for technical textiles and nonwovens is responding to the growing demand from users and the requirements of suppliers for a centralised and concentrated industry platform for textile chemicals and dyes. Techtextil is creating new synergies with this future bundling. Textile chemicals and dyes will be located in the same hall as fibres and yarns and performance apparel textiles. Preliminary stages, suppliers and users will come together in the immediate proximity of each other. This makes it easier for them to communicate specific requirements and needs and find solutions more quickly.

'Textile Chemicals & Dyes are becoming increasingly important for the production of technical and performance textiles. At the same time, the demands on suppliers and users are increasing, for example with regard to environmental regulations or supply chains. At Techtextil, we will bring the players even closer together in future. In this way, we enable dialogue, comparability and raise even more awareness for this promising sector,' says Sabine Scharrer, Director Brand Management Technical Textiles & Textile Processing at Messe Frankfurt.

Their growing importance is underlined by a 2021 analysis by the market research firm 'MarketsandMarkets'.1 According to the study, the global market for textile chemicals is expected to grow to a volume of 33.1 billion US dollars by 2026. The study cites a number of factors as drivers of this growth, including the increasing demand for chemicals for the

rapidly growing technical textiles market.

Techtextil is the most important international platform for technical textiles, nonwovens, functional apparel textiles and textile technologies. Textile Chemicals & Dyes are an important part of this portfolio and are relevant for all application areas such as outdoor and protective clothing, industry, automotive, aerospace, medical technology, filtration and construction.

Whether for nonwovens, coated textiles or functional clothing textiles - chemicals and dyes are indispensable for textile production. In various pre-treatment, dyeing and finishing processes, they determine the visual appearance of fibres, yarns, nonwovens and textile surfaces. More importantly, they give them important functions. Textile chemicals give outdoor rain jackets their water-repellent impregnation, work clothes their performance and ensure crease-free and soft bed linen despite frequent washing.

Moreover, they sterilise medical textiles for safe use in operating theatres, protect erosion protection fleeces in road construction from UV radiation and make industrial textile filters oil and water repellent. They also ensure the flame protection of firefighter suits and improve the durability of airbags so that they function reliably for the life of the car.





ITMA Asia 2025 Expands Space

Scheduled to be held at the Singapore Expo from 28 to 31 October 2025, the exhibition has attracted over 770 technology and service providers from 33 countries and regions to apply for space.



TMA ASIA + CITME, Singapore 2025 has received overwhelming support, surpassing the show owners' expectations with a 30 per cent increase in the number of applicants to date.

ITMA ASIA + CITME, Singapore 2025 is owned by CEMATEX (the European Committee of Textile Machinery Manufacturers), China Textile Machinery Association (CTMA) and the Sub-Council of Textile Industry, CCPIT (CCPIT TEX).

Scheduled to be held at the Singapore Expo from 28 to 31 October 2025, the exhibition has attracted over 770 technology and service providers from 33 countries and regions to apply for space. They include many international textile machinery manufacturers, as well as new technology providers. As a result of the increased demand, the show owners have expanded the booked hall space from 60,000 to 70,000 square metres.

Speaking on behalf of the owners, Alex Zucchi, president of CEMATEX said: "We are grateful to have the continued support of the industry. To accommodate all the eligible applicants, we have increased the booked hall space to allow more machinery manufacturers to showcase their latest products and solutions to the region's buyers who aspire to leverage technology to drive cost efficiency and remain competitive.

"The strong interest in the Singapore edition, despite being scheduled just a year after the Shanghai edition, highlights the need to penetrate deeper into emerging markets to sustain and grow our manufacturers' businesses." Gu Ping, president of CTMA, concurred: "In recent years, digital technology has significantly influenced the development of the textile industry, with burgeoning new demand from regions such as South Asia, Southeast Asia and the Middle East. In response, we have added the Singapore edition between ITMA ASIA + CITME 2024 and 2026 exhibitions to meet the expectations of global exhibitors and visitors, hoping to bring them greater benefits."

At the close of space application on 12 November, almost all the booked exhibition space at Singapore Expo had been snapped up. Since then, applications have continued to stream in, prompting the show owners to expand space at the venue.

Hall sector plan

Spanning seven halls of the Singapore Expo, the sector plan features 19 product chapters of the complete textile and garment manufacturing chain. Based on the exhibition's unique selling proposition, the exhibits have been clustered in product sectors, enabling buyers to source more conveniently. The three biggest sectors based on space booked are finishing, followed by spinning and knitting. Billed as The Leading Textile Technology Exhibition Driving Regional Growth, ITMA ASIA + CITME, Singapore 2025 will be held from 28 to 31 October 2025. The exhibition is organised by ITMA Services and co-organised by Beijing Textile Machinery International Exhibition Company. Japan Textile Machinery Association (JTMA) is a special partner of the exhibition.

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The Indian Textile Journal	5400	810	4590	Titan Duffle Bag MRP ₹2150 + Century Laptop Backpack MRP ₹2,450
Project Reporter (Digital Copy)	10500	1575	8925	VIP Strolley MRP ₹8500

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Indian Cement Review	9000	2700	6300	Titan Duffle Trolley MRP ₹3980 + Titan Duffle Bag MRP ₹2150
Industrial Products Finder	9000	2700	6300	Titan Duffle Trolley MRP ₹3980 + Titan Duffle Bag MRP ₹2150
The Indian Textile Journal	9000	2700	6300	Titan Duffle Trolley MRP ₹3980 + Titan Duffle Bag MRP ₹2150
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EXHIBITIONS, CONFERENCES AND SEMINARS

SL NO.	EVENT	DATE	ORGANISER	LOCATION	
1	Garfab - TX Surat 2025	04-06 January, 2025	Vardaan Events	Surat International Exhibition and Convention Centre, Surat	
2	TexIndia - Textile Sourcing Fair 2025	17-19 January, 2025	SS Textile Media	Dana Mandi, Ludhiana	
3	Fibers & Yarns	23-25 January, 2025	Tecoya Trend Publications	Jio World Convention Centre, Mumbai	
4	Hometex Tech Expo 2025	28 -30 January, 2025	Essential Events & Trade Fairs	New anaj mandi, Panipat	
5	Fabrics & Accessories Trade Show 2025	07 - 09 February, 2025	SS Textile Media	Karnataka Trade Promotion Organisation, Bengaluru	
6	Bharat Tex 2025	12 - 15 February, 2025	Garment Technology Expo	India Expo Centre & Mart, Greater Noida	
7	India International Garment Fair 2025	14 - 17 February, 2025	India International Garment Fair (IIGF)	Pragati Maidan, New Delhi	
8	India International Mega Trade Fair - Bhubaneswar 2025	14 - 24 March, 2025	GS Marketing Associates	Janata Maidan, Bhubaneswar	
9	DenimsandJeans India 2025	14 - 15 May, 2025	DenimsandJeans	The Lalit Ashok Bangalore, Bengaluru	

TWIT-BITS

Shandilya Giriraj Singh Ministry of Textiles

Clothtech is a vital part of India's Technical Textiles, enhancing the quality, durability, and performance of garments, footwear, and specialty fabrics. It drives innovation, strengthens global competitiveness, and creates specialized jobs, encouraging growth in the textile sector.



in Gokaldas Exports

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Apparel Export Promotion Council

The India-European Free Trade Association (EFTA) free trade pact, with a committed \$100 billion investment flow into India from the four-member European bloc, is likely to be ratified in the first quarter of 2025 following which the two sides will put in place "institutional mechanisms" to ensure fast-track clearances of proposals, sources have said. The EFTA countries, including Switzerland, Iceland, Norway and Liechtenstein, in recent meetings with the Indian government and industry, have indicated interest in investing in sectors like renewable energy, shipping & maritime, pharmaceuticals, IT and engineering, among others.





Ambassador @manojifs highlighted the key role of textiles in India's exports & immense potential for India-Guatemala collaboration. He stressed India's global textile leadership, advanced manufacturing, & events like BSM in building markets & strong partnerships.



X Textiles Committee

Hon'ble Union Minister of Textiles, Sh. Giriraj Singh Ministry of Textiles, Government of India inaugurated High Volume Instrument facilities at The Cotton Corporation of India Ltd. Sh. Kartikay Dhanda, Secretary TC explained the instrument features to Hon'ble Minister.



in Libas

We're thrilled to announce that Libas HQ has been awarded the Platinum Green Building Rating by the Indian Green Building Council (IGBC)! This recognition highlights our commitment to sustainability,

commitment to sustainability, from renewable energy systems to zero-waste operations, rainwater harvesting, and EV charging facilities. At Libas, we're redefining workspaces with eco-conscious innovation while staying true to our ethos of progress and responsibility. Here's to creating meaningful impact—one green step at a time!



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