

IN THE DRIVER'S SEAT

With leaps in technology, consumer demand and regulatory changes, logistics is set to rise to prominence, dictating production and last mile, while transforming retail as we know it

By Chetan Nayak

Customers want their packages delivered with minimal waiting time, making logistics and supply chain the backbone of retail today.

CURRENT STATE OF LOGISTICS IN INDIA

Thanks to technology and policy changes, logistics in India has become far more efficient than before. The implementation of GST has eliminated multiple state taxes, allowing firms to employ efficient practices such as bulk-breaking and cross-docking from a central location. Furthermore, logistics has also been bumped to infrastructure status, helping companies in the sector attract huge investments.

“Retail logistics is perhaps the most talked about these days; a far cry from what it was a few years back” said Vrinda Jain, Marketing, Future Supply Chain. “The overall retail sector is poised for a decent growth of about 10-12% year-on-year, for the next decade,” she added. This translates to India touching a potential of US\$ 1.6 trillion by 2026, from US\$ 641 billion in 2016.

Among the various reasons behind this, the prime one is the rapid growth



of organised retail, both brick-and-mortar stores and E-commerce. As of 2018, India is the top fifth economy in the world in terms of dollars, up from the 10th position it occupied in 2014. This drastic change in just four years is largely due to improvement in the online retail movement, explains Gopal Krishna, Head Supply Chain, Big Basket.

With a rapid increase in online shopping, comes a need for a more efficient logistics model, even more essential in a nation this large. “Currently, all retailers aim to cut inventory levels and improve the speed of product flow. This involves reducing order lead-time, and moving to more frequent deliveries of smaller consignments, both

internally (between distribution centres and shop) and externally (between supplier and distribution centres),” Krishna further added.

PROBLEMS THAT STILL EXIST

The Logistics Ease Across Different States (LEADS) study found that supply chain efficiencies and economies of scale are yet to be unlocked, mostly due to sub-optimal investment in building scale in infrastructure, automation, human capital and technology. It highlighted problems such as inadequate terminal capacity, poor last-mile terminal connectivity and issues in regulatory services provided by government agencies, among others. It also underlined issues specific to certain states.



For example, labour unions create impediments for trade efficiency in states like West Bengal, Kerala, Maharashtra and Himachal Pradesh.

The industry is also highly fragmented, with several small and large players competing for the same set of customers.

INNOVATIONS IN INDIAN LOGISTICS

“We will see greater influence of technology in retail logistics, right from software being used to design networks, to robotics in the warehouse, to IoT (Internet of Things) enabled devices that help people manning the logistics control tower of the logistics service provider (LSP) and the shipper to get high quality real time data. This, along with, automated transport planning and warehousing solutions, will help streamline operations and help companies utilise their assets better,” said Harish Sattanathan, Solutions Advisor, JDA Software.

Many innovations in logistics are already taking shape; and they will significantly change the game. For instance, delivery by drones is a regulated reality for now but might become commercial soon. 3D printing, once perfected and

commercialised, will eliminate the need to store a wide variety of products at stores where customers may want to size up, touch and feel the products. This will reduce unnecessary transportation and save space on the front-end, creating shelf space for other goods.

Large scale logistic companies have been quick to foresee the shift and implement innovations to increase efficiency in response to market demand. Future Supply Chain, for example, implemented the Put-To-Light sortation system, and replaced it with the High Speed Cross Belt Sorter, increasing the DC throughput by three times. It can sort a million units per day, to 400 destinations at a time, using the 200 double decker chutes. The company has integrated its Warehouse Management Systems (WMS) and Transport Management Systems (TMS), reducing the loading and dispatching time drastically. The TMS combined with Vehicle Tracking Systems (VTS) gives pinpoint online visibility of consignments on the move. The last mile again is fully integrated with Proof Of Deliveries being updated online immediately.

WHERE IS THE COUNTRY'S LOGISTICS HEADED?

“Logistics industry, in the coming years, will see expansion by domestic LSPs and increased investment from international LSPs,” said Sattanathan. The boom of omni-channel retail is an important factor driving this. As new players bring



INNOVATIONS ACROSS THE WORLD

Last-Mile Delivery

Amazon has developed a service that not only closes the last-mile gap between retailers and consumers, but also allows a delivery person to unlock your door and enter your home.

Exoskeletons

GEODIS, a third-party logistics provider, is using exoskeletons to support and protect employees' backs at its warehouse in Venlo, the Netherlands. Staff wears the exoskeletons—an external type of brace—for lower back support as they lift and carry objects during their pick and pack activities.

Autonomous Vehicles

A project called ILLAD (Intra-Logistics with Integrated Automatic Deployment) is developing new fleets of autonomous self-optimizing forklift trucks which can operate safely and efficiently in warehouses alongside human co-workers.

Airborne Warehouses

Retail giants Amazon and Walmart have designed flying warehouses for their respective businesses, which are basically blimp-sized aircraft capable of holding a set amount of high-in-demand items. Amazon has already been granted a patent for its airborne fulfilment centre (AFC) from which drones could launch to make local deliveries. Walmart, meanwhile, has applied for a patent for a blimp-like aircraft that would fly at heights between 500 feet and 1,000 feet, contain multiple launching bays, and be operated autonomously or by a remote human pilot.

innovative and disruptive ideas, expanding the scope of organised retail, logistics will evolve to keep up with the increasing demand.

He added that we will also see more start-ups and niche technology providers entering this industry and providing services like a virtual marketplace for truck hiring, supply chain risk analysis

through Big Data, and visibility to asset through a cloud platform. Already, start-ups like Shadowfax and Shippy are using artificial intelligence and predictive analysis to address last mile connectivity by using large, daily data to provide actionable business insights.

The future belongs to integrated supply chains that target

coordination problems at the tactical and operational level by feeling the market pulse and feeding it to the back-end, which responds almost immediately to any changes. This will mean more use of sophisticated systems and technology, a high degree of consolidation of the service providers with an increasing shift towards organised players.

Another change to expect according to Sattanathan is the way customer demand—especially in tier 2, tier 3 cities and rural areas—will drive logistics providers to increase the number of pin codes they serve, enabling omni-channel players to expand their reach.

The change, that will be fundamental and disruptive, has already begun. “Product companies have realigned themselves to meet customer expectations, and supply chain management mostly dictates what to produce, how much to produce, and where to produce,” said Jain of Future Group, indicating the shift in the importance of supply chain & logistics from a supporting role to a decisive one.

“The need to give visibility to the consumer, the retailer, the store, the brand and the producer - in a seamless fashion, is what will drive the change in retail logistics in the coming days,” she said.

Echoing her sentiments, Sattanathan added, “Change will be driven through changes in regulation and customer demand.” 