

Logistics sector needs to harness technology

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The Indian logistics sector has traditionally been manpower-driven and underleveraged by an unorganised and fragmented industry structure. Even so, internal push and external pull have together transformed it for the better. Innate strengths, the ability to adapt to circumstances and ambitious players were innate triggers, while a slew of pro-market reforms, especially in recent times, stimulated growth from outside, alongside changing global factors.

Initiatives like GST, consolidation in the warehousing sector and removal of regulatory hurdles to augment efficiencies in the transportation sector have led to optimisation of resources and scale economies. Growth in the e-commerce logistics sector, rapidly changing consumer retail dynamics and the uptick in manufacturing activities are emerging as growth stimulants for the domestic logistics sector.

Amid these paradigm changes, technology is the next big pivot around which the Indian logistics growth story will unfold. The efficacies of the supply chain will be augmented and the sector will gradually be directed towards an organised framework with the deployment of new-age digital tools. The digital revolution need not just be external, that is, client-facing. It should have an integrated three-way approach involving customers, vendors/partners and internal upgradation of systems and processes.

The logistics industry is fast gearing up to face the challenges of a rapidly evolving technological ecosystem. The warehousing and transportation industry, for instance, is undergoing a transformational change with the adoption of technologies like automated storage and retrieval systems. Seamless movement of cargo is being facilitated through real-time tracking with the aid of tools such as global positioning system. The functional paradigms of the industry are rapidly changing, with a large number of players creating a digital blueprint for their service portfolio and offering online cargo solutions.

Future growth will largely depend on leveraging the potential of data-driven technologies such as big data and the Internet of Things (IoT). Big data is emerging as a disruptive technology in the logistics domain and companies will invest in developing advanced analytics platforms in the near future. Route optimisation analytics will ensure faster last-mile deliveries and reduced operational costs, leading to increased customer satisfaction. Data algorithms can also help companies in gaining valuable customer insights.

IoT is the combination of mobile computing, analytics and cloud services, and its implementation by logistics players is bound to change the dynamics of delivery logistics. IoT can go a long way in augmenting the efficiencies of long-distance

cargo transport and creating a real-time data processing and product monitoring mechanism. Parameters like traffic movement and volume specifications can be easily gauged through the deployment of advanced sensor technology. India is also fast emerging as a hub for ideation of these technologies.

E-commerce also has witnessed drastic changes. The stupendous growth of this segment in India has largely been driven by a rise in the number of smartphone users in the country, increase in footfalls across online shopping portals and global e-commerce players tapping into the flourishing Indian e-commerce market. To remain relevant and competitive in a highly volatile market milieu, the industry would need to bring broad-based changes in its supply chain strategies and warehousing policies.

Globally, leading e-commerce players have already resorted to technology advancements like robotics. Chinese e-commerce giant Alibaba's logistics arm Cainiao has deployed 60 state-of-the-art robots in the country's largest smart warehouse in South China. Also known as automated guiding vehicles, the robots are Wi-Fi-enabled and self-charging, and are utilised for moving cargo in the warehouse to human workers.

According to the market research company eMarketer, with e-commerce sales in China accounting for half of global online retail sales in 2017, with transactions of \$1.132 trillion, robotic technology will be a key driver in boosting centralised warehousing automation processes. Amazon's acquisition of robotics company Kiva Systems in 2012 (since named Amazon Robotics) and the deployment of Kiva robots in

Amazon warehouses have resulted in improved inventory management and operational efficiency for the company.

Companies that are agile and quick to realign their operational strategies with the next wave of the digital revolution will retain a crucial competitive edge and reap rich dividends from investments in technological tools. Maersk for example has collaborated with IBM to implement a digital networking system based on the disruptive blockchain technology for tracking global shipping container movements. This is expected to enhance supply chain efficiencies and reduce operational costs for the shipping and logistics industry.

Industry players need to create a robust technological infrastructure and focus on implementing critical technical processes to drive business innovation. The transition from a labour-intensive model to a technologically upgraded operational structure is bound to unlock values of scale for customers and stakeholders across the supply chain. Technology can emerge as a key differentiator in positioning India as a global logistics hub.

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