Big data analytics enhances adaptability and scalability of logistics services

Logistics is predominantly a data-driven business. The introduction of big data analytics has shown to the industry how to filter the voluminous data to unearth precious insights.

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The fast-paced economic growth has changed the strategic outlook both on the manufacturing as well as the distribution side. The concept of vertical integration has taken a backseat in the manufacturing and product development activities with more and more companies concentrating on strengthening their core competencies.

Regional segmentations of the overall product demand meanwhile have significantly reduced the product life-cycle. All these transformations have added to the supply chain complexities. Alternatively, on the distribution side, customers have become quite demanding. As a result, elements likedynamic shipment routing, just-in-time supply, same-day delivery, etc. have become essential parts of logistics operations.

The efficiency of the logistics service delivery and the adaptability of the logistics services to the changed scenario have become extremely critical for the companies when it comes to bolstering market competitiveness and increasingmarket access.

The ability to localize operations, adaptability and scalability of the logistics services are being continuously tested and the challenges multiply on-ground because of the fragmented nature of the industry. However, the growing service delivery complexities can be addressed if the interoperability among supply chain stakeholders strengthens and a networked functional ecosystem is established.

To achieve those objectives, the logistics service providers must invest in extrapolating data-driven insights to gain accuracy in their decision-making process. When stakes are high, there is no room for instinctive decision-making.

Apart from enhancing warehousing-transportation infrastructure, developing human capital and raising growth-capital, the logistics companies must set up a robust data-driven decision-making mechanism to reconfigure the existing operational framework to meet the evolved clients' needs. Implementation of big data analytics, indeed, is the way forward for the logistics companies and in fact, logistics companies have an edge over companies from other sectorswhen it comes to adopting big data analytics.

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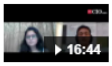

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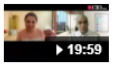

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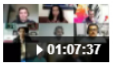

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While managing movements of consignments across geographies – domestic and beyond, the operative framework of a logistics operation generates huge volume of data. Big data analytics helps the decision-makers derive the value from those infinite data outpouring. Big data analytics processes and refines the data to create value. Insights from those data lead to enhanced customer experience, superior resource optimization and productive business model. The transformational impact of big data analytics is increasingly being witnessed in the logistics industry.

On the face of it, logistics operations are all about transportation of consignments from one place to another. One may ask, how much deep diving into big data analytics is required? It's actually the huge number of consignments and the destinations whichturn the apparently uncomplicated operation into a massive challenge and that's where big data analytics comes into play.

To optimize resources and delivery time as well as enhance service delivery coverage, the logistics companiesrely on timely and accurate information. Big data analytics with cutting-edge predictive techniques and real-time processing offers actionable data to facilitate better capacity projection and resource management.

Big data analytics can play a key role in making the last-mile delivery far more efficient. Thanks to real-time optimization of delivery routes, logistics companies can enhance the performance of the delivery fleet. The real-time data captured by the big data analytics can help in altering the delivery routes depending on the traffic scenario. On the other hand, analyzing past capacity utilization data, companies can make accurate capacity demand projection and intelligently invest in storage and fleet capacity.

Big data analytics is all set to transform operations management, be it warehousing, first mile, mid-mile or last mile deliveries by enhancing operational decision-making efficiency. The real-time tracking thanks to big data analytics makes the transportation process transparent and optimised. The concept of smart warehouse which is redefining performance and efficiency is powered by big data analytics.

Logistics is predominantly a data-driven business. The introduction of big data analytics has shown to the industry how to filter the voluminous data to unearth precious insights. It has managed to address operational bottlenecks to boost the operational efficiency and enhance customer centricity. Big data analytics treats data as assets and utilizes the data to help companies make differentiating impacts.

The author is Chief of Supply Chain Operations, Gati-KWE