

# The Way Forward for Fulfillment and Parcel Delivery Operators in the E-Commerce Era

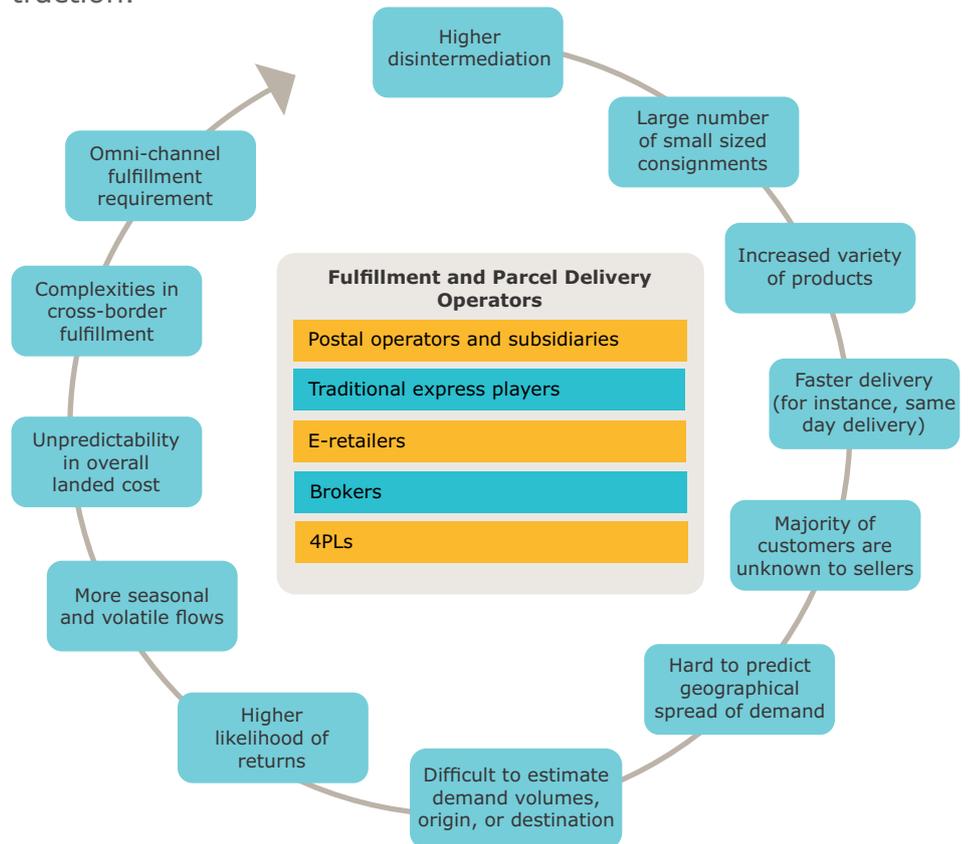
According to eMarketer's latest forecasts, global e-commerce sales are expected to surpass two trillion dollars by 2016. The growth rate of e-commerce is expected to be about four times the rate of traditional retail sales. The volume of cross-border e-commerce is also expected to triple over the next five years. <sup>1</sup>

## Abstract

The e-commerce industry is rapidly expanding, driven by the emergence of new markets and transformational shifts in the conventional retail models of developed markets. While e-commerce companies have been largely successful in evolving their selling models, the fulfillment and delivery process, with its strong association with customer experience, needs to mature significantly. This process serves as the only physical touch point with the customer and has a significant impact on building customer confidence in the e-commerce model.

## Challenges in the New Global Marketplace

Ensuring the on-time delivery of goods purchased online is quickly emerging as a top priority for the e-commerce sector. However, fulfillment and delivery operators are faced with a slew of complexities as the e-commerce business model gains traction.



*Complexities in delivery and fulfillment*

Service price and availability issues essentially occur due to low volumes and insufficient interoperability between fulfillment and delivery operators. Very few players currently offer the breadth of services required across the network, at competitive prices, as demanded from e-commerce players.

Current inadequacies in the fulfillment and delivery process in e-commerce, result in disgruntled customers, primarily due to:

- High prices for small-sized consignments and cross-border deliveries
- Service availability issues related to speed and convenience of delivery, broader geographic areas, re-direction, and return options
- Inadequate information about delivery prices, point options, and expectations, as well as limited availability of electronic notifications about delayed or non-delivered items, failed delivery attempts, and out-of-stock situations

## Crafting a Winning Strategy to Meet E-commerce Related Demands

Agility, operational excellence, and innovative design of an extensive and high-density network of assets are going to be crucial for fulfillment and parcel delivery operators to meet the rising e-commerce delivery requirements. At a strategic level, it requires fulfillment and delivery operators to have an optimal asset base and a well-knit network of transport and warehousing capabilities. This enables them to cater to baseline volumes, with capacity fluctuations being handled in respective geographies through partners and alliances, or through acquisitions of local players. This also prevents chances of high overheads due to low asset utilization.

The choice of alliance with other fulfillment and delivery operators will be driven by the presence of their own networks and related costs and quality. This includes the ability to exchange associated data in real time and reciprocal business. The warehouse location should be aligned with the overall hub and spoke design for cost-effective geographical coverage, integration with the networks of supply chain partners and collaborators, and the demand mix emanating from omni-channel B2B and B2C ecommerce delivery and returns. Besides location, the demand mix for omni-channel delivery also influences the type of warehousing to be set up.

To optimize delivery and fulfillment capabilities, operators need to consider two dimensions: intra-enterprise and inter-enterprise.

### Strategies for the Intra-Enterprise Level

Resource or asset management has to be done within the enterprise at both the functional and cross-functional level. Processes and data flows have to be standardized and measured.

Fulfillment and parcel delivery operators need to have comprehensive systems to integrate marketing, warehouse, inventory, analytics, financials, and other ERP functions.

Speed and accuracy in stocking, warehousing, shipping, and return activities within the enterprise, are key factors in e-commerce fulfillment. Traditional warehouses, characterized by manual operations, generate high logistics costs of parcels. They need to transform to new-age, high-efficiency, multi-user

distribution centers. Comprehensive process automation is one of the ways to boost efficiency.

For an omni-channel setup, adjustments need to be made in the layout and space of the facility to ensure efficient and error-free pick-up. Enablers such as cross-channel batch pick-and-sort and interface with pick-to-light or pick-to-voice solutions, requires a more sophisticated warehouse management system (WMS).

## Strategies for the Inter-Enterprise Level

In the dynamic, global e-commerce environment, a critical success factor is that all discreet entities of a supply chain, including partners, operate as a synergistic and agile whole. Fulfillment and delivery operators need to work with other supply chain participants to develop appropriate logistics and supply chain strategies (for demand capture), which have to be executed simultaneously with sales and marketing strategies (for demand creation).

Fulfillment and delivery operators and other supply chain participants need to adopt emerging technologies for closed-loop integration, from supply chain planning to execution, to gain an end-to-end view across demand, order management, inventory management, transportation, and warehouse management. They have to collaborate to identify joint business objectives, craft action plans, implement common processes, share data, and monitor performance. This collaboration has to be extended to enable real-time planning, timely decision-making, and enhanced responsiveness to changing customer needs.

A confluence of digital technologies such as mobility, RFID, analytics, cloud, and social media can be used to facilitate the dynamic and real-time integration of operations to meet the visibility and optimization needs of an e-commerce delivery and fulfillment process. Real-time insights into the physical location of goods and asset tracking can be obtained through automatic data collection from mobile and wireless devices, RFID tags and scanners, and GPS. Integration of this information with supply chain systems could enable greater efficiency through better visibility of orders, effective event handling, re-routing, rescheduling, and precise reporting. Real-time visibility of Available to Promise (ATP) inventory and tracking of in-transit inventory will also enable allocation for small orders in the B2C e-commerce space. Relevant analytics pertaining to service

For Driver Vehicle Inspection Reports (DVIRs), LSPs can replace the traditional paper-and-pen approach with an IoT solution that combines sensors for real-time data gathering, a mobile app, and predictive analytics to make DVIR inspections smarter and more efficient.

inventory tradeoffs, stock-outs, cost-to-serve, on-time delivery, and number and causes of return can be leveraged to ensure effective fulfillment. Fulfillment and parcel delivery operators can significantly improve their services by gleaned insights from experiences shared by customers on social media platforms and consumer forums.

## Conclusion

The last few years have seen a tremendous rise in e-commerce across industries, thanks to the rapidly growing internet penetration in developed and emerging markets alike. While the change in business models has made B2C and B2B companies realign their selling strategies, fulfillment and parcel delivery operators have been caught off guard. The rise in the volume of parcels has provided the necessary boost to sagging top lines of delivery operators in the wake of a drop in physical mail volumes. To keep up with market fluctuations and sophisticated customer demands, it is now necessary to leverage technology to boost inter-enterprise effectiveness and collaboration, and create a robust and widespread network.

By implementing changes at both the inter- and intra-enterprise levels, fulfillment and parcel delivery operators can provide dependable services, improve delivery timelines and processes, and reduce operational overheads.

## References

[1] eMarketer, Inc., "Global B2C Ecommerce Sales to Hit \$1.5 Trillion This Year Driven by Growth in Emerging Markets" (February 2014), accessed August 17, 2015,

<http://www.emarketer.com/Article/Global-B2C-Ecommerce-Sales-Hit-15-Trillion-This-Year-Driven-by-Growth-Emerging-Markets/1010575>

## About The Authors

### Vinay Maheshwari

Vinay Maheshwari is a Senior Consultant with the Travel, Transportation, and Hospitality business unit at TCS. He has 20 years of experience across IT delivery and transportation consulting, with over 10 years in shipping, logistics, and postal domains, offering consulting and advisory services for business process improvement and IT rationalization and optimization.

## About TCS' Travel, Transportation and Hospitality Business Unit

For over two decades, TCS has been delivering value and business results to leading travel, transportation and hospitality (TTH) companies across the globe. Our portfolio of offerings is tailored to our client needs, enabling them to drive customer intimacy, improve operational and process efficiency, modernize infrastructure and the application landscape, improve IT productivity, and embrace emerging technologies.

In addition to being associated with some of the largest IT transformation programs and pioneering technology initiatives in the TTH industry, TCS also has some of the best functional and technical consultants with rich experience in TTH. Our Travel & Hospitality Innovation Lab, part of the larger TCS Co-Innovation Network (COIN™), provides the ecosystem to research emerging trends, develop proofs of concepts and co-innovate with clients. Partnerships with leading industry bodies, joint product offerings with clients, and investments in developing TTH solutions, assets and capabilities, reinforce our focus and commitment to our clients.

## Contact

Visit TCS' Travel, Transportation and Hospitality unit page for more information

Email: [global.tth@tcs.com](mailto:global.tth@tcs.com)

## Subscribe to TCS White Papers

TCS.com RSS: [http://www.tcs.com/rss\\_feeds/Pages/feed.aspx?f=w](http://www.tcs.com/rss_feeds/Pages/feed.aspx?f=w)

Feedburner: <http://feeds2.feedburner.com/tcswhitepapers>

## About Tata Consultancy Services Ltd (TCS)

Tata Consultancy Services is an IT services, consulting and business solutions organization that delivers real results to global business, ensuring a level of certainty no other firm can match. TCS offers a consulting-led, integrated portfolio of IT and IT-enabled, infrastructure, engineering and assurance services. This is delivered through its unique Global Network Delivery Model™, recognized as the benchmark of excellence in software development. A part of the Tata Group, India's largest industrial conglomerate, TCS has a global footprint and is listed on the National Stock Exchange and Bombay Stock Exchange in India.

For more information, visit us at [www.tcs.com](http://www.tcs.com)