



cutting through complexity

# Transport & Logistics Pulse

Industry insights

## E-commerce retail logistics

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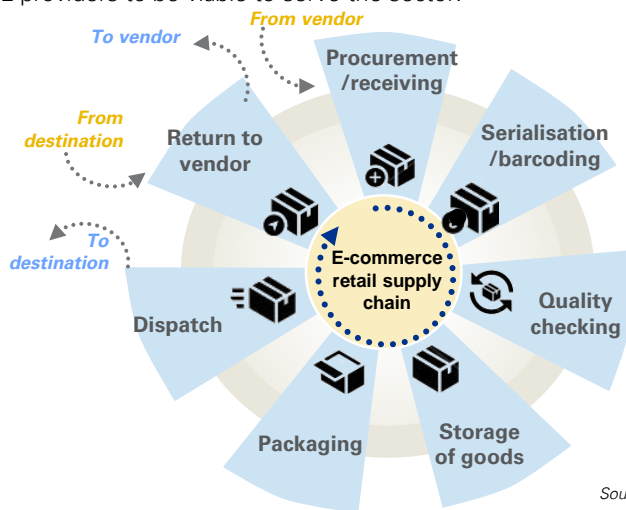
### Introduction

The e-commerce retail market is amongst India's fastest growing and exciting markets. It is poised to be worth **USD 36.5 billion** by 2020, from **USD 3 billion in 2014**, growing at a **CAGR of approximately 52 per cent**. Factors driving this growth include rapid rise in internet and digital device penetration, favourable shifts in user demographics, easing market regulations and compelling propositions offered by the e-commerce retail companies. There is a growing realization of the role of logistics in enabling this sector as well as catering to the rising demand more efficiently and profitably. As a result, many of the e-commerce retail companies are also investing in building their logistics networks and capability.

### Overview of the e-commerce retail supply chain

Products bought online undergo a range of processes before they finally reach the customer. The supply chain for e-commerce retail ranges from procurement of goods from a vendor, barcoding for tagging the inventory and registering it in a warehouse management system, followed by a quality check, before it is finally moved for storage to the warehouse. This process constitutes the **first-mile logistics activity**.

This is followed by the **fulfilment activity** which involves picking and packaging of products at the time of order, followed by **last mile delivery** which involves dispatch and shipping of products from the fulfillment centres to the mother hubs and then to the delivery hubs, from where they are shipped out to the customers. Another important aspect of e-fulfilment is the **returns process** which can be customer initiated or due to a delivery failure. The segment is also characterised by **cash-on-delivery (COD)** model for payments, which is a must-have capability for 3PL providers to be viable to serve the sector.



Source: KPMG in India analysis, 2014

Logistics cost as a percentage of revenue for e-commerce retailers may vary from **5 to 15 per cent** depending on the category of products being offered. Further, high percentage of **returns (as high as 15 to 20 per cent)** in the sector, increase in time-bound delivery commitments along with the prevalence of the cash-on-delivery model further increase logistics costs.

**Logistics cost** for e-commerce retailers can be split across components of consolidation, sorting, line-haul and last mile delivery. **Last mile delivery** comprises a major chunk of the fulfilment costs. Return charges are additional to forward charges and therefore may be in the range of **1.5X – 2X the forward charges**. These cost functions may however vary by **scale and use of technology**.

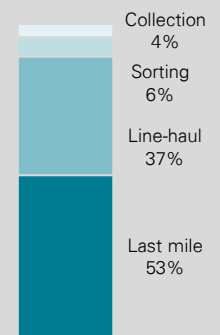
Logistics is a **key enabler** for the growth of e-commerce retail sector and is increasingly emerging as a differentiator for customer service and satisfaction. To build scale while sustaining business margins, e-commerce retailers are increasingly partnering with logistics players in India. While this exhibits significant opportunity for logistics companies to adopt and take on to e-commerce, there is an increasing complexity in e-commerce retail logistics given the **unique service levels, increasing reach, supply chain security requirements** and the surging **demand for day-definite and time-definite delivery services**.



“  
Logistics is critical to the success of e-commerce retailers as the market reach, service levels, need for time and day definite services and supply chain security requirements continue to rise.”

**Jaideep Ghosh**  
Partner and Chief  
Operating Officer,  
Management Consulting

### Components of logistics cost



Source: Indian Internet – Sector Outlook, CLSA, March 2012

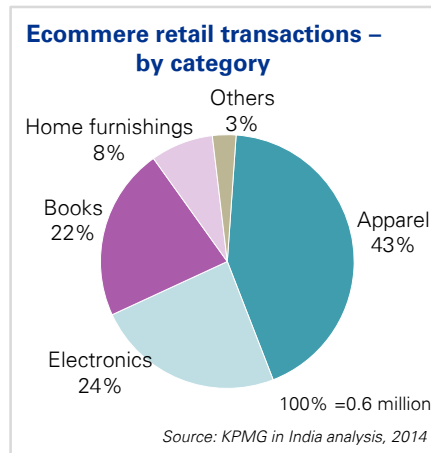
## E-commerce retail logistics

### E-commerce retail business models

The e-commerce retailing industry is currently witnessing approximately 0.6 to 0.7 million **transactions per day**; being lead by categories including **apparel** (~43%), **electronics** (~24%), **books** (~22%) and **home furnishings** (~8%). With rapidly rising scale of operations, e-commerce retailing players have been strategically opting for viable operating models depending on the nature of products and operations.

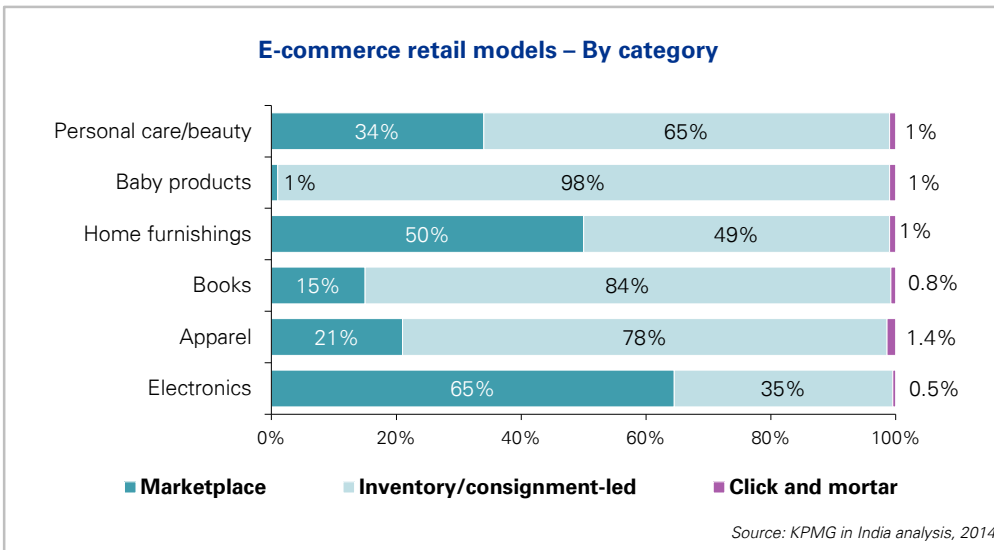
Common business operating models in India are the **consignment/inventory lead model** (wherein the inventory is owned and maintained by the e-commerce retailer) and the **market place model** (wherein products are shipped from the seller's warehouse).

While the inventory/consignment-led model has been the prevalent model, the market is rapidly moving towards a marketplace model. High value products such as electronics tend to operate on the marketplace model given the high value of products can lead to blocking capital for e-commerce retailers. Further, since electronic products are standardised branded products, quality issues due to direct delivery from sellers is often not much of a challenge.



“  
The e-commerce retail market is witnessing a shift towards adoption of the market place model for high value products and the inventory-based model for lower value, fast moving products.”

**Prahlad Tanwar**  
Director  
Transport and Logistics



The market has witnessed an increasing trend of inventory/consignment led online retailers moving towards a **hybrid model**, wherein the market place model is being adopted for high value products, while the inventory model is adopted for relatively lower value, fast moving products. The rising penetration of the marketplace model has led to an increasing need for fulfillment centres in tier-2 and certain tier-1 cities to provide control and convenience to e-commerce retailers and vendors.

## E-commerce retail logistics

### Emerging industry trend – Shift of e-commerce retailers towards outsourced fulfilment centres

The Indian e-commerce retail market continues to grow and evolve. In its initial years, e-commerce retailers were dealing with low product volumes, with limited geographic reach, and hence managing operations in-house was relatively less complex. Moreover, higher costs and limited external capability in case of outsourcing fulfilment also drove several e-commerce retailers to manage their fulfilment in-house. However, with increase in scale of business and emergence of mid-tier e-commerce retailers, the industry seems to be undergoing a modular shift towards outsourcing the fulfilment process.

Shift to the marketplace model and convenience to vendors is expected to drive the demand for outsourced fulfillment centers. Category specific focus and concerns are further driving e-commerce retailers towards outsourcing fulfillment.

- Large e-commerce retailers may manage their own fulfillment but players who need last mile fulfillment, such as furniture may look at external fulfillment as they require hubs for fulfillment near their markets
- Vendors are likely to outsource fulfillment for categories that have high number of SKUs since it requires complex process management
- Vendors who are making thin margins may not outsource this activity to a fulfillment center since it would further erode their margins.

The **market potential for fulfillment centers** is estimated to increase from about USD34 million in FY14 to

**~ USD430 million**

by FY20, depending upon commodity-wise preference to outsource and vendor preferences

*Source: Industry discussions, KPMG in India analysis, 2014*

### Key growth drivers to outsourced fulfilment centers

#### Rising customer service requirements

Growing customer demands for better service, next day or same day delivery, better order tracking services and customer service centers can be better managed through specialised e-fulfillment centers.

#### Platform for mid-tier e-commerce retailers

The growth of e-commerce in India is expected to spur multiple small e-commerce retailers. They may not have the scale, investment appetite or need to set up in-house fulfillment centers/warehouses, thereby driving need for outsourced e-fulfillment centers.

#### Vendor issues

An outsourced fulfillment centre can efficiently manage growing number of orders and multiple e-commerce retailers, which may be difficult for the vendor to single-handedly manage. Outsourcing also reduces the hassle of first mile logistics management along with other inventory issues.

#### Penetration of marketplace model

Increasing penetration in the marketplace model could require vendors to store inventory, as e-commerce retailers may no longer have their warehouses for inventory storage and management. Vendors may thus require e-fulfillment centers for managing inventory.

#### Cost of outsourcing fulfilment

Cost of outsourcing fulfilment is lesser as compared to managing it in-house, especially in tier II cities. The investments and OPEX for operating a dedicated facility may be high for an e-commerce retailer, while a 3PL operator may achieve economies of scale by consolidating volumes from several players.

#### Scale of e-commerce retailing in India

The sustained growth of e-commerce retailing market in India is expected to drive the requirement for higher warehousing space. Beyond a certain scale, e-commerce retailers may find it difficult to manage multiple warehouses and move towards outsourcing.

### Conclusion

Sustained growth of over 50 per cent in the Indian e-commerce retailing industry underlines the need for 'efficient and sustainable logistics operations' for all sizes of e-commerce retailers in India. The market place model is expected to continue to gain prominence and a combination of delivery speed, upgraded warehousing infrastructure, better service capabilities, technological advancements and innovations could be some 'must haves' for the e-commerce logistics service providers in the longer run.

KPMG in India views the rapid growth of e-commerce retailing and associated logistics challenges as an opportunity for e-commerce companies and logistics providers to step-up and work in coherence for inclusive growth.

The emerging trend of outsourcing e-commerce retail fulfillment centers to logistics providers would depend on commodity-wise preference to outsource and vendor preferences. Scale of operations shall play an important role in maintaining cost efficiency, and at the same time addressing delivery related challenges for e-commerce retailers. Henceforth, logistics providers could expand strategically and functionally to capture the emerging opportunities from e-commerce.



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