Research Paper *IJBARR*
Impact Factor: 3.072 *E- ISSN -2347-856X*
Peer Reviewed, Listed & Indexed *ISSN -2348-0653*

LOGISTICS – A GAME CHANGER IN E-COMMERCE

Dr. K. Natarajan
Assistant Professor of Business Administration,Directorate of Distance Education,Annamalai University, Annamalainagar , Tamilnadu, India.

Abstract
Contemporary trends in globalization and internationalization give great importance to the logistic system management. Electronic commerce, as a distribution channel in contemporary business conditions, is one of possibilities for gaining competitiveness. The Internet is noticeably distorted the way commerce is conducted. E-commerce is expected to radically change customers' shopping experiences. Market figures show that even though e-commerce has already taken off, the path to realizing its full potential is still long. In the physical goods segments, the strategic importance of logistics both as a cost driver and as a service enabler has been recognised by the majority of companies, but it remains unclear how to adapt the logistics strategy to possible forms of the logistics problem. Traditional logistics is radically changed with electronic commerce. The essence of electronic commerce has changed the way how logistics functions, which brings new challenges in gaining efficiency of logistic system. Characteristics of logistics in electronic commerce are customized to specific product ordering, inventory management, warehousing, distribution and packaging of products which is delivered. For efficient functioning of electronic commerce it is necessary to have consistent logistic system that will be support for the electronic commerce system through warehousing, inventory, delivering products, and returning the product that is inadequate. The paper discusses the significance of logistics system in e-commerce partnership and future plan of e-commerce industries to strengthen the business through the construction of a logistics system that satisfy the customer.

Keywords: E-Logistics, E-Commerce, Retail Stores, Logistics System, Goods Delivery.

INTRODUCTION

Nowadays spirited pressures necessitate goods-producing firms to concurrently administer the numerous cross managerial information and substance flows in organize to basis, produce, and distribute their products improved, sooner, and cheaper. The role of logistics in e-commerce is to reduce the risk that arises from the virtual relations, to a minimum. Logistics in e-commerce reduces the risk in the relationship between the seller and the customer, by ensuring that the right product, is in the right place, at a certain time and to specific customer in the global market. This modify participated in a fundamental transfer in the thoughts about the structural design of construction, the significance of customary supply chain relationships, and most prominently, the position of logistics. It has been documented as a different function inside the organization, the chief position of logistics has been the association of goods and materials from end to end down the production supply chain. One of the main disadvantages of e-commerce is the speed of disposal of the product which does not correspond to the speed of ordering. Namely, the speed of ordering may take a few seconds, but time of disposal of the product is postponed until the delivery of the product, and it can take up to several days.

Logistics is defined as the broad Range of activities concerned with effective and efficient movement of semi-finished or finished goods from one business to another and from manufacturers or distributors or retailers to the end consumers. These activities include freight transportation, warehousing, material handling, protective packaging, inventory control, processing, marketing, forecasting and customer service. The logistics can be categorized as Business-to-Business logistics and Business-to-consumer logistics. B2B logistics is very important and forms about 80 percent of total logistics activity. B2C logistics, also called the retail logistics, is the management of goods and delivery from manufacturer or distributors or retailers to the end consumers. The Internet has fueled the growth of e-commerce and has revolutionized the so called front-end system of order placement, sales and marketing. Fast and easy ordering of customized goods over the web has raised the expectations of fast reliable and convenient delivery among consumers. This is repeated in the world of B2B e-commerce as well.

REVIEW OF LITERATURE

The importance of logistics in the development of a successful e-commerce initiative is also recognised in the scientific literature. Many authors claim that logistics plays a key role, both as a cost driver and as a service level enabler. Ricker and Kalakota (1999) state that companies succeed or fail in their online business based on the efficiency of their fulfillment strategy. Cho (2008) study revealed that logistics capabilities are positively related to company performance in the e-commerce market. The identification of a logistics strategy is, however, quite a complex issue, both in the online and offline channels due to a wide range of design variables as well as the number of contextual factors to be considered (e.g., demand and product features). The aim of many studies that have focused on logistics strategy in general was the identification of the principles which, given the contextual factors characterizing the distribution problem, can drive the generation of the best logistics alternatives.

GROWTH OF E-COMMERCE IN INDIA

E-commerce has seen an unprecedented rise in business in the past year, with Paytm joining Flipkart and Snapdeal in the eight-member unicorn club. A report by Bank of America Merrill Lynch in 2015 stated that the e-commerce market in India will be worth $220 billion by 2025. Yet, e-commerce is beyond just sales and GMV numbers. Speed of delivery is as important as the product quality for a customer. It would not be wrong to say that logistics could be the defining factor for success of e-commerce companies in retaining their customers. At present, the country's logistics industry is worth $300 billion, according to the 'Logistics Market in India 2015-2020' by market researcher Novonous . Indian logistics market itself is estimated to grow at a CAGR of 12.17 per cent by 2020. Innovations are very important in this sector, as the demand is always for more reach and faster shipping at lower costs. Yet, the companies will need to invest in automation, while utilising existing resources well.

CHARACTERISTICS OF LOGISTIC IN E-COMMERCE

In traditional sales, a customer buys a physical manifestation of the product because customer buys the product with the conviction that it serves its purpose, and on the other hand the seller receives equivalent in money for the product. In the virtual world, the subject of the sales relationship is a virtual product and virtual money, and the physical manifestation of the product, its purpose and value, is in charge of logistics. Logistics system, that supports all the characteristics of electronic commerce, needs to provide and maintain a value for which customer has decided to buy in the electronic way, rather than in the traditional way. With e-commerce, traditional logistics is radically changed. The typical buyer of electronic commerce is unknown entity, who ordered products on an individual basis, based on impulse, seasonal demand, prices, etc. The manufacturer or online seller must be able to adapt to individual order, deliver product directly to the customer anywhere in the world, follow the delivery in the supply chain, answer to customer inquiries, and monitor the return of the product by the customer (reverse logistics). It should also be borne in mind that the users of these logistic services have a much greater expectations, in terms of speed and reliability of delivery, to compare with the traditional way of buying.

Characteristics of logistics in electronic commerce are evident in every logistic activity. Distribution challenges are reflected in the delivery of several smaller logistics units in different locations, so it is necessary to integrate all aspects of shipment management, multi-modal distribution, monitoring of routes and timing, and management of transit and receiving shipments. Warehousing in electronic commerce implies the existence of warehouse management system, which should enable easier tracking of products in the warehouse and quickly preparation and sending the ordered products. Procurement system should be integrated so that follows requirements, adequately manages inventory, monitors inventory by accounting inventory, plans the sale, so that the products that have the potential and frequency of purchase are available, and that products which are not purchased do not create additional costs. Adequate documentation in the logistics and management of the delivery process is necessary to provide shipment tracking and recognition of items, and mobile applications should provide shipment tracking for all stakeholders (including customer who purchased the product). The process of reverse logistics includes all mentioned activities in the process of returning the product. The management of this process needs to answer the question what to do with the product that is returned, and find the right solution for the customer that had returned the product. The main areas of business logistics system include [6]: implementation of orders, inventory, warehousing, transportation and packaging, which have new dimensions in terms of e-commerce. Starting from orders, in electronic commerce, orders are collected electronically, from customers on the website, and sent to realization.

FACTORS AFFECTING THE LOGISTICS PROBLEM

The logistics problem can be described as a collection of product and service drivers of complexity whose values affect the choice of logistics strategy. Drivers of product complexity are those factors of physical goods which most impact on logistical performance. They were selected on the basis of the importance ascribed to them in the literature.

- **Value density -** Among the product drivers, this is the most cited. It is considered to be a very important factor for many reasons. First, it is a key driver of inventory carrying costs and influences the choice of inventory ownership. Second, it is related to the incidence of logistical costs on the final product price. This in turn has to do with the inclination of customers to pay the delivery fee and of merchants to provide expensive services (i.e., the management of returns in the apparel and consumer electronics industries). This is true to the extent that thedelivery cost of low value density products becomes a key issue for the profitability of the business. Third, customer expectations are higher for products with a high value density.
- **Product range -** Offering a wider range of products than offline shops is a critical success factor for many e-commerce retailers (i.e., the so called "complete online resellers"). The product range is a very important factor because it has a significant effect on the logistics problem, making inventory management more complex and increasing inventory carrying costs. Moreover, the greater the product range, the greater the complexity of the procurement network and, as a consequence, the higher the procurement costs.

- **Obsolescence risk -** The shorter the product life cycle, and the more subject to depreciation and/or obsolescence products are, the higher the expected inventory related costs. This is typical of many items in the consumer electronics and apparel industries, whose value usually drops significantly within just a few months, and of perishables in the groceries/food industry.
- **Product-specific needs -** In the grocery industry, the need for controlled temperature and humidity has to be considered in both the warehouse and in delivery management. Though less demanding, there are also some specific needs in the apparel industry that require efficient solutions in order to maintain profitability.

RECENT TRENDS OF E-COMMERCE AND LOGISTICS

It would suffice to say that 2015 was the year of logistics for e-commerce in India, with many startups coming up in the space, and investments flowing into them. Online marketplaces such as Snapdeal, Flipkart, and Paytm came up with innovative strategies in logistics and supply chain management, backed by ample investment. Following the most significant trend in 2015, Snapdeal took the hyperlocal route and launched 'Snapdeal Instant' to allow delivery of packages to customers within an hour of placing the order. Having received a whopping $500 million in funding in 2015, Snapdeal also launched four-hour delivery, card-on-delivery, and 90-minutes reverse pickups. At present, the company is fulfilling 60 per cent of its orders from its own fulfillment centres, as compared to the seven per cent at the start of 2015.

Amazon added eight new fulfillment centres in 2015, increasing their storage capacity to nearly five million cubic feet across all 21 centres in India. Amazon claims that this is the largest storage capacity and warehouse infrastructure in India in the e-commerce industry. Investing in better data analytics and forecasting customer demands was the mantra for the e-commerce players looking to cut down cost of deliveries. Flipkart tied up with partner stores that act as alternative delivery channels, so that customers can pick up their shipments at their convenience. By bringing together core capabilities of IoT, devices, data and automation, it started implementing the automation technology to pick and move packages to designated picking station, among several other applications that make warehouse processes quicker and smoother from Ekart, the logistics arm of Flipkart.

Trends of E-commerce Majors

Company	Major Developments in 2015	New Partnership in Logistics	Services Launched in 2015
Flipkart	EKartbecome independent.WSRetail Re-acquired	Map MyIndia Blackbuck QikPod	Nearby App for Grocery Delivery
Snapdeal	1.3 Million square Feet of ware housing space added over 25 cities	Invested $20 million in Gojavas	90 minute reverse pickup. Delivery within an hour after placing the order
Amazon	Pickup now available in 50 cities	Partnering with NGO run by BASIX	Kirana-now with 5 stores in Bangaluru
Paytm	e-fulfillment centres	Invested $10 million in Loginext	Two hour delivery for mobile phones

Source: Your Story Research

Local networking for faster deliveries also gained momentum in 2015. Paytm launched a two-hour delivery model for mobile phones, similar to Snapdeal's omni-channel strategy. E-fulfillment centres and return processing centres have also aided Paytm's growth in 2015. Increasing the reach of our delivery network by partnering with local delivery companies was another focus area [in 2015]. Going forward in 2016, a lot of focus will be on strengthening city local delivery network and setting base for local fulfillment. Shopclues claims that its logistics initiatives have ensured better delivery service level agreements (SLA). They invested and developed technology that integrates with 90 per cent of third-party logistics partners to ensure faster tracking and information flow between merchants and customers. This has resulted in faster shipping, integrated tracking and real-time updates on deliveries both in the forward as well as returns.

VEHICLE TRACKING AND FASTER DELIVERY SYSTEM IN E-COMMERCE

Since the logistics market is highly unorganised in India, under-utilisation of resources is not surprising. Increasing adoption of technology in operations is essential to keep up customer satisfaction. Snapdeal has been building strategic technology solutions that are leveraged by its third-party logistics partners to improve tracking of shipments. Amazon added that fast, reliable and resourceful internet connectivity across devices will help use technology better for vehicle tracking. Vehicle

tracking plays a significant role in providing necessary control and effective route planning for faster delivery. In September 2015, Paytm invested in logistics solutions provider Loginext to exploit tech ecosystem for supply chain. Flipkart benefited by its investment in Blackbuck in capturing data on vehicular movement and utilisation, and utilising the data for better planning. Technological developments in logistics have surely surpassed manual methods in connecting sellers, third-party logistics partners and customers. It has also made possible card on delivery, electronic proof of delivery etc., for these players. Logistics solutions provider Loginext–which caters to Paytm, Myntra and Amazon among others – even provides 'heat maps' for giving information on those areas where maximum delays are happening.

LogiNext working with cold chain logistics service providers for delivering perishables. Scheduler takes input from the system about the products being transported and accordingly schedules the deliveries. Also, the temperature and other settings required for a particular product could be set via app used by delivery boys. Shopclues' strategy is to work with third-party logistics partners which have enabled vehicle tracking or working toward adding on this function. However, infrastructural improvements are essential for seamless tracking. Vehicle tracking in India is primarily dependent on the mobile infrastructure available. Inadequate coverage across the country affects tracking of vehicles.

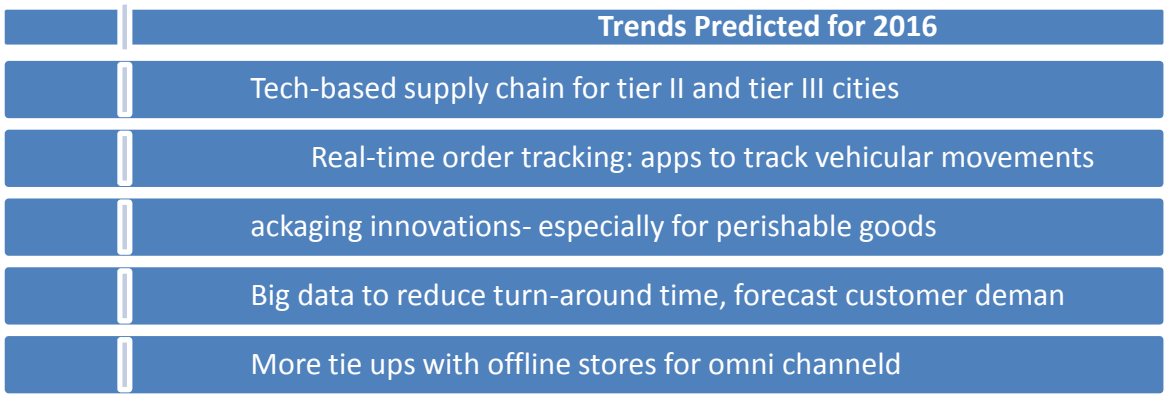
GROWTH OF E-COMMERCE IN TIER II AND TIER III CITIES

The higher affordability of 3G and 4G smartphones has given rise to more orders from Tier II and III cities. Snapdeal gets 60 to 70 per cent of its orders from Tier II and III cities, while Flipkart gets only 20 per cent of its orders from those areas. Despite the handicaps caused by inadequate coverage, e-commerce majors have come up with innovations for high-speed delivery. Snapdeal has built its supply chain towards many regions of the country like the North East. Flipkart claims that its algorithm on routing makes delivery and pick-up more accurate and faster than anyone else in this business. Flipkart's investment in MapMyIndia has helped the company too. The accurate address data for both sellers and buyers will allow better schedule deliveries and pickups.

Going a step further, Amazon India has engaged with an NGO in a pilot project of rural delivery network in Tier III & IV towns, through logistics firm Connect India E-Commerce Pvt. Ltd., incorporated by founders of BASIX group. The plan is to ensure last-mile delivery with the help of the well-established rural distribution network of BASIX. To establish rural distribution centres in rural India, Amazon has been training teams in packaging, checking shipments, tracking deliveries through a mobile app, route planning to make deliveries on time etc. Amazon has a 'service partner' programme too for last-mile delivery in remote areas. Budding entrepreneurs in these areas act as Amazon.in's local distribution network providers and create the last-mile delivery footprint. This programme now covers more than 100 satellite towns and Tier II and III towns and villages.

TRENDS PREDICTED FOR THE YEAR 2016 IN E-COMMERCE

Money will be flowing into developing logistics for e-commerce this year. Having invested in B2B logistics startup Blackbuck, Flipkart has announced that it will be putting in $2.5 billion into logistics needs over the next four to five years. Besides roping in GoJavas, Snapdeal made six acquisitions last year–most in technology and logistics sectors–reducing its delivery times by 70 per cent. Logistics system in India is underdeveloped and there is no big player that can provide pan-India access at economical cost. A lot of the trends observed in 2015 are expected to continue in 2016 too. While technology-enabled supply chain will see greater penetration into Tier II and III cities, highly personalised and specialised services are also required. The specialised cargo delivery will add to the complexity of delivery in 2016.



Source: Your Story Research

Roads are sure to continue as the most important mode of transport, but improvements are essential here as well. The Union government's decision to earmark 20 per cent of the $1-trillion reserved for infrastructure brings hope in this direction. Since the cost of manpower is rising, there is a possibility of sharing of resources among logistics companies to reduce the delivery time. There is need to look for consolidation and sorting of packages at a central location irrespective of the e-commerce company. With Amazon, Flipkart, Snapdeal, and even Paytm expected to overtake even offline biggies, taking a leap of faith in logistics seems like the inevitable next step.

CONCLUSION

Traditional logistics is radically changed in conditions of electronic commerce. Logistics system, that has and supports all characteristics of electronic commerce, needs to provide and maintain a value for which customer has decided to buy in the electronic way, rather than in the traditional way. It should also be borne in mind that the users of logistic services in electronic commerce have a much greater expectations, in terms of speed and reliability of delivery. At present ferocious pressures necessitate companies to concurrently direct the manifold cross-organizational information and textile flows in arrange to foundation, produce, and deliver their products improved, faster, and cheaper. All logistic activities applied in electronic commerce environment need to be adjusted to special needs of this complex way of buying. In that way, it is essential to be considered, that all specific logistic activities take different principles of functioning in terms of electronic commerce. This transform has precipitated a essential shift in companies philosophy about the structural design of manufacture, the significance of conservative supply chain associations, and most prominently, the function of logistics. In e-commerce suitable e-logistics processes are usually one of the cornerstones of a successful online retail channel. e-logistics and e-commerce should be developed together in retail companies in order to achieve a successful supply chain and business model.

REFERENCE

1. Venkatesh, J., Sathish Kumar, D. (2011). E-Commerce and Its Impact on Logistics Management. International Journal of Multidisciplinary Management Studies. Vol.1 (3). pp 228-233.
2. http://Yourstory.Com/2016/01/Commerce-Logistics-2016/ .
3. Antonio Ghezzi, Riccardo Mangiaracina and Alessandro Perego. (2012). Shaping the E-Commerce Logistics Strategy: a Decision Framework. International Journal of Engineering Business Management. Vol. 4, Special Issue Digital and Mobile Economy, pp.1-13.
4. Cho JJK. (2008). Logistics capability, logistics outsourcing and firm performance in an e-commerce market. International journal of physical distribution & logistics management. 38(5): 336-359.
5. Richer FR, Kalakota R (1999) Order fulfilment: the hidden key to e-commerce success. Supply chain management review. 11(3): 60-70.
6. Hesse M (2002) Shipping news: the implications of electronic commerce for logistics and freight transport. Resource Conservation & Recycling. 36(3): 211-240.
7. Weltevreden JWJ (2008) B2E e-commerce logistics: the rise of collection and delivery points in the Netherlands. International Journal of Retail and Distribution Management. 36(8) 638-660.