International Journal of Multidisciplinary Approach and Studies

ISSN NO:: 2348 – 537X

# E -Commerce Logistics: The New Wave

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**ABSTRACT:**

*E-Commerce is a new way of doing business. All business transactions right from placement of order to payment collections are carried out electronically. All the transactions are carried out at electronic speed; hence the flow of information is much faster as compared to the normal transactions. This helps in tracking real time movement of material in the entire supply chain system. Manufacturing companies in the Business to Business ( B2B ) domain require e-logistics solutions for their e-commerce transactions, which should be evolved to ensure better and sure service to their clients. Online information sharing increases visibility, speed and accuracy in material movement across the supply chain. The present paper deals with the need of E-Commerce Logistics for the enterprise to bring efficiency and effectiveness in material delivery to the customer. Logistics Resource Management ( LRM), a new Information Technology tool have been suggested which provides browser based software for automating, planning, managing and optimizing e-commerce logistics activities.*

**INTRODUCTION:**

Technological innovations have totally changed the way business is conducted. Traditionally, buying has been a personalized behaviour of the consumer and was based on the relationship of the seller. From the days of trading by bartering till recently, buying and selling activities were performed within the limitations of time and place boundaries. But progress in information technology have created new waves and redefined business frontiers. The development of the Internet and the World Wide Web led to the birth of new concept i.e. electronic commerce. E-Commerce means commercial transactions through electronic media. It is the process of two or more parties transacting business via computers, using the

electronic network. It is the application of the concepts of logistics to business conducted via the internet. The electronic commerce traditional logistics is totally transformed and takes an entirely new approach. Customers are widely spread over a large geographical area and there are a large number of low value orders. Being mostly consumer items, delivery requirements are urgent. The e-commerce business is characterized by large volume of transactions, speed in material movement, wider product portfolio and small value of individual orders.

**SUPPLY CHAIN COMPONENTS:**

**Benefits of E-Commerce Logistics:**

E-Commerce Logistics systems ensure the following benefits to sellers, buyers and service providers.

- Improved Communication.
- Improved customer satisfaction.
- Transparency in supply chain.
- Cost reduction,
- On time delivery and
- Improvement in efficiency.

In e- commerce there are two distinct component of supply chain.

**Upto Distribution Centres.** There would be a requirement to establish region wise distribution centres. They are to be well stocked as per the pattern of consumption of that region . Minimum stock level to be maintained keeping in mind the manufacturing as well supply chain factors, time lag in recouping the stock and any disruption envisaged.

**Upto Retailers/Customers.** The talent in this supply chain has to be as per the local scenario, it should be so chosen to adapt to the characteristics of the region. Skilled manpower as well as mode of transportation needs to be chosen carefully.

**E-COMMERCE LOGISTICS STRUCTURE AND OPERATIONS:**

A review of literature shows that following are the components of E-Commerce Logistics Systems:

**Order Processing:** After opening the website, the customer may select one or more items for purchasing. The dialog box will display re-confirmation from the customer through price checking. For low unit price items or low value orders, full payment may have to be made online, through credit card. However, for large value orders the customer may not pay the full amount at one stroke through a credit card. In such case, the order will be processed with credit terms as per the credit norms and on the basis of the past payment history of the client.

For repeat purchases, in case of Business to Business (B2B) transactions, the order processing system needs to build a data base to prepare the past order history, for offering certain credit concessions, discounts or giving an automatic signal for execution. The inbuilt software will check all the prices, taxes, payment terms and delivery. The order will be accepted for execution only after it is technically and commercially cleared.

**Inventory Management:** In e-business, the firm has to integrate online order capture with order processing, inventory planning and fulfillment system. In case the item is not in stock and is under processing, its late delivery will have to be confirmed to the client before the order is accepted. In e-commerce, honouring delivery commitments to customers is of great concern to the seller to remain competitive. For this purpose, the firm needs to have a back-up inventory control system that closely co-ordinates the resources and monitors the inventory movement right from the source of supply to the manufacturing unit, distribution centres and finally to the customers.

**Order Execution:** Once the order is accepted for execution, the order filling instructions are passed on to the inventory incharge or directly to the vendor for case filling and packaging. The delivery instructions will incorporate the consignee details, item details, quantity and packaging. The vendor or warehouse incharge instructs the courier to pick up the consignment for delivery to the client. This will be done electronically. The delivery details will be immediately conveyed to the customer along with an invoice copy for the customers to be ready with balance payment against the delivery by the customer or logistics firm.

**Shipping:** The transportation will be organized either through courier service or through logistics partner of the firm. The decision software will decide online about the choice of the carrier, scheduling of dispatch, and transportation mode considering the clients location.

**Tracking and tracing:** The bar coding system with satellite communication will help in tracking the consignment. Sellers provide consignment tracking facility on their website for the clients as a value added service.

**Payments:** In Business to Customer ( B2C ) transactions, payments are accepted through credit or debit cards. For such transactions, the system needs credit management support to decide, on the credit terms to individual clients, based on their past payment history and volume of business received.

**Transaction Security:** Security may be enhanced by using an electronic fraud checking system. This system checks the customer credit card electronically by running anti-fraud algorithms or other types of authentication system at the time of order processing or material dispatch.

**Order Postponement, Cancellation And Substitutions:** E-Commerce firms have to carefully evolve their policies for order cancellation, postponement and substitutions if any, in the event if inventory is not available due to the problems in the supply chain. In such cases, the firm may have to inform the customer in time and request cancellation of orders. The firm may offer substitute products or postpone delivery. The system should automatically signal the likely bottlenecks / eventualities of stock outs so that customers are informed well in advance.

**Reverse Material Flow:** In case if the customer does not like the product, the product performance is below expectation, or the product is damaged during transit, the firm needs to evolve the product return policy. The time frame to lodge the complaint or return the product at the assigned collection centres has to be carefully spelt out in the sales contract displayed

on the web side. The responsibilities of both the seller and the buyer for return of goods have to be indicated to avoid customer dissatisfaction.

**E-Commerce Logistics Software:** E – Commerce Logistics efficiency and effectiveness depends on the comprehensiveness of the web based logistics solutions. Improvement in operational efficiency requires timely communication across the extended business enterprise from customers to warehouses, distribution centres, manufacture, vendors and transporters etc. The web provides the way to access the information stored in the transaction database. The E-Commerce Logistics Software architecture needs to address a number of transactions application areas as shown in fig. 1

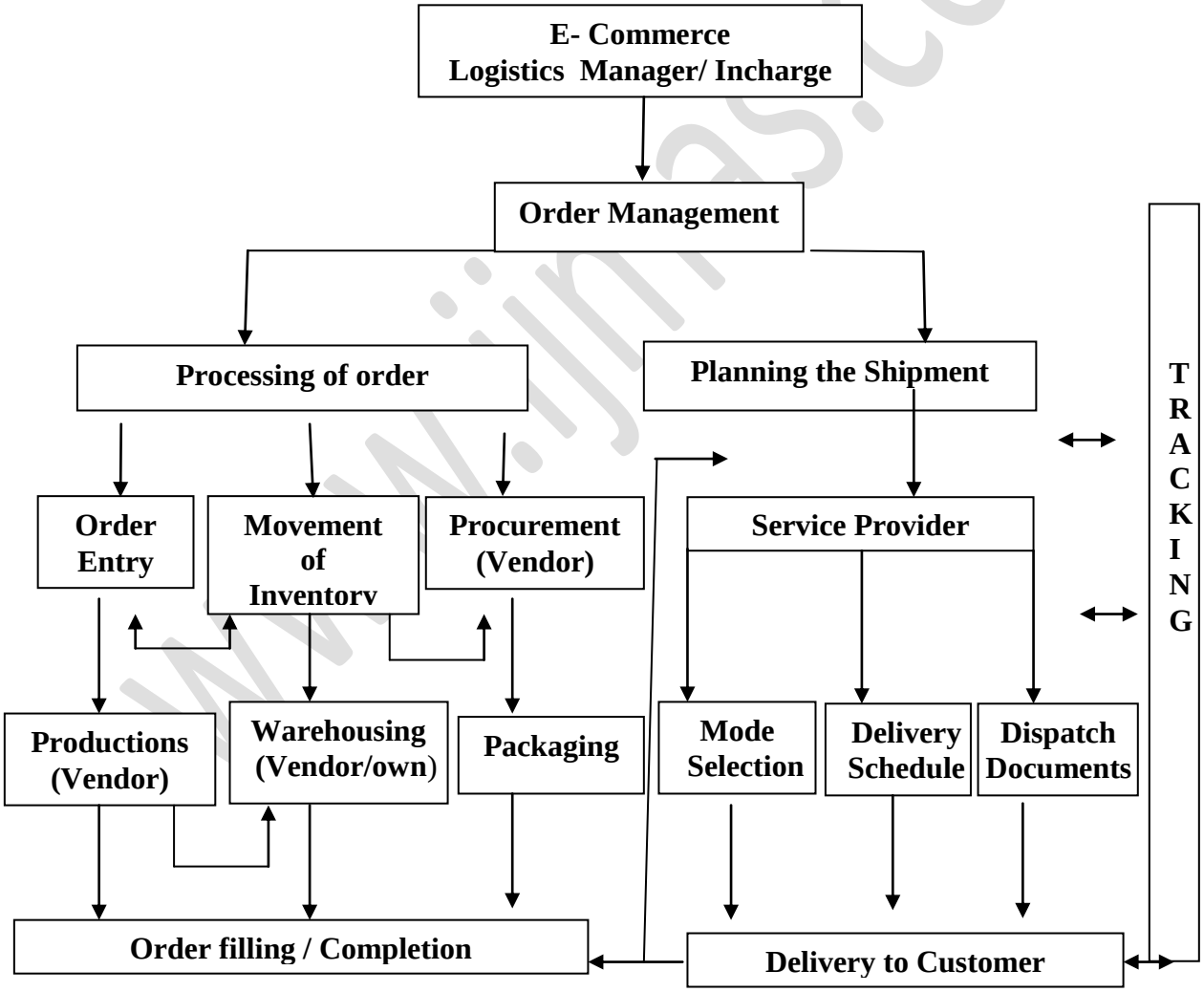


*Fig. 1 E-Commerce Logistics Software Application.*

The E-Commerce Logistics Software involves application in both internet and intranet web based business solutions.

**Logistics Resource Management:**

Logistics Resource Management is a new Information Technology tool which provides browser based software for automating, planning, managing and optimizing e-commerce logistics activities. Logistics Resources Management (LRM ) provides information on the following :

- Total landed cost (including taxes, duties etc. );
- Cross border regulatory compliance ;
- Support carrier selection and negotiation ,
- Track goods movement; and
- Alert notification in exceptional situations

Logistics Resource Management includes use of prescheduled and dynamic dock scheduling, automatic material picking application, real time routing of trucks and material handling equipments.

**CONCLUSION:**

E- Commerce Logistics is a collaborative solution to improve the efficiency and effectiveness of fulfillment and on time delivery to the customer. It allows the firm, the logistics service providers, trading partners and customers to communicate and collaborate in the supply chain, providing 24 x 7 online information sharing. A firm desirous of offering goods on – time to the customers should apply Logistics Resources Management concept, which is a new weapon for logisticians to make proactive decisions in a dynamic marketing environment.

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