

AN IMPLEMENTATION OF E-LOGISTICS FRAMEWORK IN E- COMMERCE**I. MARY SHARMILA^{a1} AND J. BHAVANI^b**^{ab}Department of Management Studies, Sathyabama University, Chennai, India**ABSTRACT**

The paper focuses on the design and implementation of an Optimization of E Logistics Frame work in E Commerce field. The increasing use of electronic commerce and techniques will shape the business process for the foreseeable future. This paper introduces such a framework for e-logistics processes integration based on Web Services via incorporating common alliance layer adaptation layer; data binding mechanism. Companies should understand their options and their impacts when making decisions to support their supply chain systems.

KEYWORDS: E-logistics, Optimization, E-commerce, Web Service

With the development of e-business and supply chain management, more and more logistic facilitators become the coordinators in the integrated supply chain. For overcoming the disconnection of information in the supply chain, the e-logistics based on information platform has appeared. In a broad scope the purpose of our paper intends to develop an understanding of the e-logistics. Firstly the paper describes the development of the logistics, analyzing the definition of the e-logistics, comparing the e-logistics with the traditional logistics from four aspects. Then it presents the core problems of the logistics and analyzes the levels of the information and integration. Finally the paper discusses two patterns of the e-logistics development.

DEVELOPMENT OF E LOGISTICS SYSTEM

The development of logistics falls into three stages, namely military logistics, business logistics and e-logistics, in which the e-logistics has been the latest word appearing in the logistic industry. Presently the e-logistics has been mostly defined according to the definition of Electronic Logistics, in which the most typical one is that electronic logistics refers to the process which utilizes web technology as an important tool to manage the whole logistic process or some sectors of it; Prof. Zhai Xuewei regards e-logistics as the combination of logistics supporting e-commerce and the electronic technology for logistics. Based on the above definitions and other literature, the author holds that e-logistics, namely e-logistic commerce, which has been characterized with electronic technology, network technology and automation, can be regarded as the integration of information flow, fund flow and logistical service. E-logistics realizes the utility of electronic technology and integration of logistic organization, trade, management and service modes. It is entitled to share data, knowledge and other information with partners in the supply chain. Seen from these definitions, as e-logistics has been combined with the meaning of commerce, then it is also equipped with the same procedure of commerce from negotiation, contract signoff, payment, and implementation to balance counting and utilizes electronic technology in each step.

THE DEVELOPMENT PATTERNS OF E-LOGISTICS

Development patterns of E-logistics are divided into two categories. The first one is defined in the e-logistic information market which is a new information system established on Internet. In this 251 pattern, the information about the logistics information of the consignor or about the usable vehicles of transportation companies can be input on the Internet and both the parties can sign a contract in accordance with this information. In other words, the consignor can put such information involving transferred goods categories, quantities and destinations on Internet and the transportation company can provide related information (such as the location of usable vehicles) to the consignor through Internet; and then based on the above information both the parties can sign a contract. The main functions of this pattern include information search, dissemination and bid; other functions mainly refer to providing such services as industry information, goods insurance, logistic tracing, road condition and GPS. For example, National Transportation Trade Market (www.Net.net), as an electronic transportation market, builds a trade Internet for the consignor, the logistic company and the transporter through Internet technology.

The second pattern is based on an e-logistic system specialized in providing supply chain management for logistic enterprises. It is characterized by electronic technology, which utilizes Internet to complete the coordination, monitoring and management of the whole logistic process and provide all mediate services between Internet foregrounding and end customers. Typically, this pattern combines various software technologies and logistic services, in which way the close link among fund flow, logistics and information flow can be completed. What's more, this type of link can provide visibility among enterprises, which enables these enterprises to control and manage storage to a maximum extent. Meanwhile, with the aids of such advanced information technologies as customer management system, the integration of commercial intelligent computers and telephones, geographical information system, GPS, Internet and wireless net technology as well as such logistics management technology and modes as rationing optimization,

dynamic monitoring, intelligent transportation and storage optimization, the e-logistics provides an advanced and integrated management system and then enables enterprises to establish supply chain system as soon as possible. It can be imagined that without electronic technology, it is impossible for all participants in the supply chain to operate regularly when they have to receive thousands of cases involving hundreds of suppliers and retailers.

E-LOGISTICS PROCESSES

When it comes to logistics, the challenge has always been how to deliver products to customers as quickly as possible. Logistics is concerned with the flow of materials in the supply chain, from source through the industrial process to the customer, and then on to re-use/re-cycle or disposal. By coordinating all resources, logistics have to ensure that service levels agreements with customers are honored. E-logistics is defined to be the mechanism of automating logistics processes and providing an integrated, end-to-end fulfillment and supply chain management services to the players of logistics processes. Those logistics processes that are automated by e-logistics provide supply chain visibility and can be part of existing e-Commerce or Workflow systems in an enterprise. The typical e-logistics processes include Request For Quotes (RFQ), Shipping, and Tracking. As shown in Figure 1, e-Logistics interacts with the business process manager in an e-Commerce server.

E logistics Model frame work

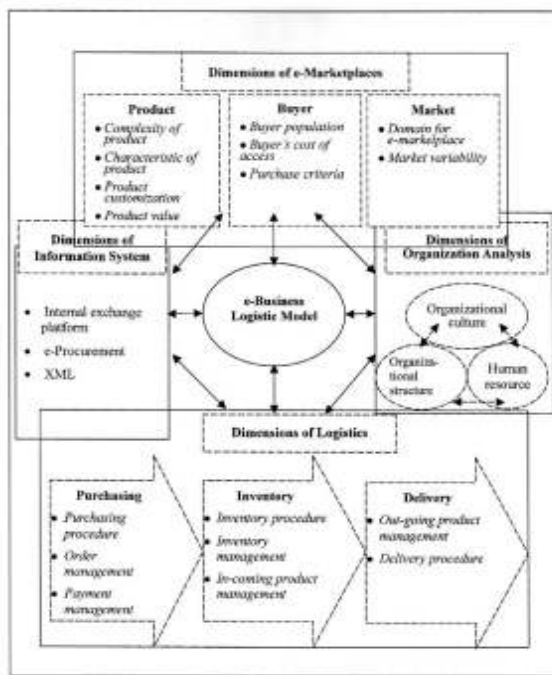


Figure: An e-Business Model for the Logistic Industry

The business process manager invokes the RFQ process to get the basic services such as getting the quotes in an e-logistics process. Whenever the response is obtained, the purchase order (PO) is updated. Shipping process is also invoked by the business process manager and upon completion updates the PO. Once goods are shipped, the tracking number is given to the customer and that tracking number is mapped to the PO number in an e-commerce system. Customers can track their shipment with the help of that number.

CONCLUSION

E-Logistics poses numerous managerial challenges in terms of establishing strategic alliances based on core-competencies while developing a logistics value chain. Moreover, how the logistics component of the value chain can be integrated with the rest of the supply chain needs to be addressed so that an integrated business process can be achieved. The behavior and role of logistics managers will be different in E-Logistics from those of traditional logistics systems which are based on centralized resources.

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