



Logistics infrastructure in India with special reference to Bihar

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Abstract

Due to a gradual change in the business functions itself, there has been a transformation in the concept and scope of the logistics within the gamut of management. The discipline of business logistics has advanced from the warehouse and transportation dock to the boardroom of leading global enterprises. Logistics has become a strategic issue for almost all the industrial sectors due to its significant mission of ready availability of goods, best possible customer service and minimum total logistics costs. That is why, logistics management nowadays, contributes significantly both at the macro and micro level. It has the capability to create an unbeatable long-run competitive advantage in the market place.

Keywords: Bihar, India, logistics, logistics infrastructure, logistics management

Introduction

Logistics is a recent addition in the jargon of integrated business management, formerly with the traditional fields of marketing, finance, production and personnel, although it has been an integral part of these sectors since the Industrial Revolution. Business logistics, physical distribution, materials management, out-bound logistics, in-bound logistics, logistics management, supply chain management are only some of the terms being used to define and describe the concept of approximately the same subject-logistics, perhaps due to a rapid change in the scope and wide use of the subject matter.

The term 'Logistics' stems from the Greek word 'Logisticos', meaning 'the science of computing and calculating.' Since ancient times, logistics has been performed but earlier, it was used first within the facet of military science. In the military sense, Webster defines Logistics as 'the procurement, maintenance and transportation of military materials, facilities and personnel' (Webster's Dictionary, 1963).

Today, in the industrial and commercial world, logistics has acquired wider meaning. Essentially, it covers activities for the material flow from the source to the processing facilities, and subsequent distribution of finished goods from there to the ultimate users. Previously, the term physical distribution was commonly used, which refers to 'manufacturing and commerce to describe the broad range of activities concerned with efficient movement of finished products from the end of production line to the consumers'.

Logistics management refers to designing, developing, producing and operating an integrated system which responds to customer expectations by making available the required quantity of required quality products as and when required to offer best customer service at the least possible costs.

It is an internal integration of interrelated managerial functions to ensure a smooth flow of raw materials from the point of inception to the first production point, semi-finished goods within production process, and finished goods from the last production point to the point of consumption. Hence, a set of activities which

are involved in the gamut of logistics include procurement, materials handling, storage and warehousing, protective packaging, order processing, forecasting, inventory management, transportation, and related information system. After careful analysis and review of various definitions, the major features of logistics management may be drawn as:

1. It ensures a smooth flow of all types of goods such as raw materials, work-in-process and finished goods.
2. It has the ability to meet customer expectations and requirements of goods.
3. It ensures the delivery of quality product.
4. It offers the best possible customer service at the least possible cost.
5. It is an integration of various managerial functions for optimization of resources.
6. It deals with movement and storage of goods in appropriate quantity.
7. It enhances productivity and profitability.

Logistics in India

The term 'logistics, itself is not very well understood though its individual components are often over-emphasized without seeing the interrelationships. For example, in India, logistics is the most important aspect given the country's size, geographical heterogeneity, population pressure, natural calamities, shortage of essential commodities, etc. Yet there is no professional society or association which professes an integrated systems approach to logistics. The Indian Institute of Materials Management (IIMM) was primarily an offshoot of purchasing and the emphasis is still on that aspect. There are giant government or public sector organizations like the DGS & D, Central Warehousing Corporation (CWC) and Food Corporation of India (FCI), where total logistic system concepts can improve the supply performance with the lowest over all cost. But it is hardly in evidence. Even educational institutions do not emphasize logistics in their curriculum. Unless awareness of the concept

spreads, one cannot expect major changes in the existing pattern. Thus, training in logistic systems management is a vital but missing component in countries like India.

Though the concepts of TQM have become popular, the customer hardly plays a role and is invariably at the receiving end literally. Due to the lack of effective consumer protection, competition, and service attitude on the part of those who are supposed to serve, managers of the logistical system hardly realize that the customer is the very cause of their existence. This is particularly true of the state-controlled Public Distribution System (PDS)- a network of fair price shops' supplying rationed commodities of essential nature. Though PDS has recently come under a programme for operational improvement, the bureaucracy of operations and the indifferent attitude of its managers has led to a huge number of man hours wasted in queuing up to avail those so-called 'fair price' or low quality supplies. If the indirect cost of waiting and lower quality of supplies are taken into account, the 'fair price' may not really be quite so fair.

Performance appraisal systems for logistical systems are hardly clear about what constitutes a good performance, reducing visible cost at the expense of a significant increase in an invisible (hidden) cost is taken to be a measure of system performance, whereas quality, availability and timeliness of supplies are taken for granted. Even costs are narrowly interpreted rather than on life-cycle cost basis. Short-term gains dominate over total cost considerations. Quality of service is neither explicitly defined nor

is objectively monitored. Optimal level of service quality by judicious balancing of performance and cost is an exception rather than a rule in management of logistics operations.

Logistics Infrastructure in Bihar

The development of infrastructure is a basic requirement not only for industrial growth, but for growth of overall as well, including agricultural sector. For understandable reasons, the economic backwardness of Bihar is often attributed to its infrastructural deficiencies. This has been a historical phenomenon, both during pre-independence and post-independence era. Bihar has also suffered because a substantial part of the investment in infrastructure in the post-independence era was made in the Jharkhand region, which is now a separate state. In the recent past, the state government has undertaken a number of initiatives to improve the status of infrastructure in Bihar and this is reflected in the higher growth rate of the state's economy. The transport sector is an important component of the overall infrastructure in an economy. Because of development of this sector, the contribution of transport sector to the GSDP of the state has increased from 4.65 percent in 2011-12 to 6.41 percent in 2016-17. A similar trend is also observed for communication, another component of infrastructure. The contribution of communications sector to GSDP has increased from 2.21 percent in 2011-12 to 3.20 percent in 2016-17. Both these sectors have registered double-digit growth rates in last five years (Table 1)

Table 1: Contribution of Transport and Communication Sectors in Gross Value Added (GVA) at 2011-12 Prices

Item	2011-12	2012-13	2013-14	2014-15	2015-16(P)	2016-17(Q)	CAGR (2011-16)
Transport	4.65	5.32	5.90	6.25	6.41	6.41	13.0
Railways	1.14	1.33	1.52	1.52	1.45	1.35	10.9
Road Transport	3.48	3.96	4.36	4.71	4.91	5.00	13.7
Water Transport	0.02	0.01	0.01	0.01	0.00	0.00	-25.4
Air Transport	0.01	0.02	0.01	0.02	0.04	0.05	34.2
Communication	2.21	2.33	2.61	2.89	3.18	3.20	14.6

Source: Website of Central Statistical Organisation, Government of India

Growing Importance of Logistics Management

At the macro level, India spends nearly 13 percent of its GDP on logistics, as compared to an average of 10 percent in developing economies. Transportation and inventory costs constitute over 50 percent of the value added in India. Worldwide, the Logistics costs have decreased from 12.2 per cent in 1992 to 11.7 percent as a result of better supply chain management. There is definitely scope for improvement in India for reducing costs through a better supply chain design, inventory management and operations.

With globalization and shortened product life cycles, the Indian industry is focusing to re-engineer their supply chain and logistics activities to achieve the competitive edge. Indian companies are increasingly integrating their supply chains and outsourcing their Logistics and Supply Chain Management requirements.

This has created the need for a range of Logistics and Transportation solutions for the industry, ranging from solutions for multimodal transport, freight forwarding, material handling, warehousing, shipping, air cargo, packaging, inventory management and, more importantly, in integrating logistics and supply chains, etc., to name a few. A potentially huge demand for Logistics and Transportation solutions and a developing

infrastructure has made India- the Logistics market of the twenty-first century and thrown open unprecedented opportunities for companies involved in the Logistics business (Agrawal, 1999). At the micro level, after decades of continuous development, leading companies across industries now closely match one another in most of aspects of production, manufacturing, sales and marketing. With a lot of work already done in these areas, only a gigantic innovation can bring about a significant change. Logistics and supply chain management is an area in which leading corporate enterprises, especially, automobile, FMCG, steel, and other allied industrial sectors have been working since the last six to seven years, reaching high dividends. Across industries, firms are now facing the need to fulfil the never ending 'value for money' demand from the end user and the ever increasing 'threat' of product supplies from low-cost, small-sized players. Thus, the stage is now set for logistics to perform as an amazing change agent and provide a competitive edge to companies. Logistics, by virtue of being a function that can work across the chain, will now emerge from the shadows of other functional areas, as a supply chain coordinator and ensure better service to customers by means of phenomenal changes in the corporate mindset aimed at quality delivery.

Conclusion

On the basis of the foregoing points of fact, it is crystal clear that fragrance of logistics has been pervading, which is the gift of the early nineties due to mounting pressure on firms to reach the market at the most opportune time and place at a least cost. In other words, we can say that logistics not only leads a firm towards productivity and profitability by elimination of wastage, curtailment of cost and acceleration of sales but can also be used as an instrument of core competency to offset competition.

Keeping in mind the overwhelming contributions of logistics as stated above, nowadays, a large number of firms are striving to develop a logistics system in their organizations, which is never a Sunday-gardening, or child's play. It requires huge infrastructural investment, a high degree of technical excellence as well as sufficient time. Speedier flow of information is the pivotal point of any logistics system. That is why, HLL has invested a substantial amount on infotech to connect 240 locations, covering 120 depots, 40 factories and 13 branches across the country in order to reduce replenishment cycle time of almost two weeks by three-and-a-half days. Or take another instance of Samsung, which has recently invested \$ 1.2 million to have on-line connection of its corporate office with plant and 16 branches. Similarly, Nicholas Piramal is investing Rs. 1.5 crore on logistical information system. Thus, at last, it can be said, 'mere reduction the only climax of logistics but the real excitement is the enhancement of productivity and profitability for core competency by providing superior customer service (Agrawal, 1999).

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