

The Impact of Logistic Management on Global Competitiveness

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ABSTRACT: Logistics is an important part of the business economic system and is a major global economic activity. Worldwide logistics cost amount to Rs. 9,00,000 crores. The logistic cost are estimated to be between 9 – 20 % of the gross domestic product. The logistic market in India alone is estimated to be Rs. 2,80,000 crores. This paper examines the salient features of the Indian logistic systems. It will also highlight the trends and developments around the world. Various emerging opportunities like tracking systems, transport exchanges, 4PL logistics and logistics BPO will be discussed. An industry wise opportunity in India for logistic will be discussed. A comparative analysis of old practices and new trends will be discussed. Various critical success factors which need to be attended like 4PL services, integrated logistic infrastructure, integrated state of the art networking system, reduced cost through collaborative logistic efforts, optimized supply chains through ideal network configuration, dynamic visibility of inventory to companies, improved services such as unadulterated diesel, parking, repairs, developing business model to achieve 10% of transport cost and 20% in in-transit inventory will be discussed.

I. INTRODUCTION

Logistics is an important part of the business economic system and is a major global economic activity. Worldwide logistics cost amount to Rs. 9,00,000 crores. The logistic cost are estimated to be between 9 – 20 % of the gross domestic product. The logistic market in India alone is estimated to be Rs. 2,80,000 crores. The logistic costs as a percentage of GDP for few countries are given below.

LOGISTICS COST – GDP RATIO	
COUNTRY	LOGISTIC COST / GDP (%)
India	13.0
China	18.0
US	7.8
Europe	10.0
Japan	11.4

Each manufacturing and marketing company spends about 5-35 percent of sales on logistics. The major cost components are transportation, handling, warehousing, and inventory carrying. Improvements in logistics get reflected in reduction in inventory levels, shorter delivery schedule and improved servicing standards with significant savings in cost and reduction in damages.

II. SALIENT FEATURES OF THE INDIAN LOGISTICS SYSTEMY

- A. In India various elements of the logistics market and its components are mostly run like cottage sector.
- B. Logistics system consists of more than one million transporters owning and running more than four million trucks. There are only 500 large transporters who own more than 100 vehicles each.
- C. The road transport system in India can be classified as primary transport and secondary transport. Primary transport covers movement across states. While secondary movements are localized. The average lead for primary movement is 800 km. and for secondary 125 km.
- D. Any technology than can improve productivity in transportation operations will be a great boon to the economy directly and indirectly with opportunities for 10 to 12 per cent reduction in costs – Rs. 30,300 crores a year through the usage of high technology linkages in logistics.
- E. Savings for downstream users of transport will be much higher and the cost multiplier effect on the economy will be reduced to that extent.
- F. Warehouses were most built in India by landlords and enterprising transporters. Most warehouses are being run as stand alone service providers to store goods, except for central/state warehousing

corporations and operations managed by a few FMCG and pharmaceutical units. There is lack of automated warehousing facilities.

- G. At present, most of the companies providing logistics services in India use traditional technologies and cater to stand alone services like transportation, warehousing and clearing and forwarding. There is tremendous scope to upgrade the technology, integrate the entire supply chain, improve productivity levels and bring down operating costs. Given the emerging business and technology trends there are possibilities for the adoption of innovative logistics solutions specifically designed for India.

III. INDIAN CONTEXT

Coming to the Indian environment and the way supply chain management is shaping its future, one need to keep two critical factors in mind – Infrastructure and regulations. Infrastructure, and more specifically roads, continue to be an area of concern. A sound domestic and international transport infrastructure is one of the critical enablers for the evolution of logistics in any country. In terms of sourcing and more so in terms of distribution, India has huge rural pockets which provide logistics challenges. Infrastructure improvement will have a direct bearing on supply chain management efficiencies.

Development related to infrastructure and regulations will continuously redefine logistics trends, as are witnessed in Indian context.

IV. KEY TRENDS

Two critical components of effective supply chain management are planning and procurement of raw materials and distribution of finished products. According to industry sources (Centre for Monitoring Indian Economy), almost 60 percent of the countries logistic costs is attributed to inventory and transportation. On various aspects linked to these two components. India still lags far behind the developed economics. This provides huge challenges to effect efficiencies and also a huge opportunity.

At the holistic level, India provides skilled manpower at very low costs while Indian consumers are highly price sensitive with low purchasing power. Product industries such as FMG, durables and pharma are quite evolved, but with a high degree of fragmentation characterized by the presence of a large number of companies and brands with small shares. All these factors make the evolution of logistics for different industries much more specific and challenging.

Broad industry trends		
Domain	Old practices	New Trends
Organisational Structure	Logistics always a support function	Separate Logistics function with senior management control.
Focus	Supply focus – how to cater to present demand Focus on production and distribution	Scientific forecast of demand, better materials planning and minimal inventories Efficient matching of supply with demand while keeping production and distribution costs low
Overall Approach	Minimise procurement, production and distribution costs	Collaborative design of products, processes and supply chain through active involvement of logistics partners.
Business practices	Little outsourcing in the entire supply chain	Trends towards outsourcing of non-core services to Logistics providers
Information and use of IT	IT usage restricted to separate individual modules of dispatch and production. Little orientation towards IT enhancing supply chain effectiveness	IT integrate all supply chain management activities across the organization, resulting in optimum inventory control.
Relationship between client and Logistics service provider	A fragmented approach , multiple partners	Move towards consolidations, including regional and global consolidations

V. EMERGING OPPORTUNITIES

The following are some of the emerging opportunities:

a) Tracking systems

Trucks in India travel roughly 250-350 km per day as compared to 800 km per day in developed countries, leading to high transit time and lower turnaround of vehicles resulting in inefficient and high cost operations. Inability to pinpoint the truck location – the only available means of communication – is telephone system which is costlier and originates from the truck driver only. High tech devices are needed to monitor the movement of vehicles over long distances. As the Indian market develops into a matured one, truck users will need tracking devices and companies are already putting pressure on truck owners to install tracking devices in their trucks. Thanks to innovation in communication and tracking technologies, many tools are available to provide the needed information to shippers / truck owners based on tracking system.

b) Transport Exchanges

Inefficiencies due to partial truck loads and delayed matching of return loads can be reduced by aggregating information available with target customers and transport partners. There are very low levels of coordination to consolidate part truck loads and complete lack of return load matching in the Indian truck market. Normally, brokers are engaged to bring additional business to bridge the information and business gap. E- Logistics will provide e-contracting of transportation on all India basis. It also provides other transport related services including bid evaluation, dynamic truck visibility, load collaboration, return load guarantee and scanned information on driver/carrier over the internet through collaborative Logistics.

c) 4PL Logistics

Profit-conscious companies are demanding greater performance and maximum worth from Logistics operations. This means dealing with the realities of service and cost. Warehousing and distribution groups are continually fighting for limited resources. Therefore, outsourcing of Logistics becomes a viable option. The benefits of outsourcing Logistics services are overall costs are reduced, focus on their core competencies, labour cost and labour diversity are reduced, provide specific services to specific internal department of the company, managing the supply chain through superior planning, improve overall effectiveness of the supply chain.

d) Logistics BPO

Most of the enterprises going for globalisation. Just in time, vendor maintained inventory management and complex distribution network compel Logistics service providers towards global, multifunctional capabilities and reaching out to different segments. NASSCOM is expecting many Indian companies to enter the Logistics BPO market.

INDUSTRYWISE OPPORTUNITY

An industrywise opportunity in India for Logistics is given below:

Industrywise opportunity	
Industry	Logistics marketsize (crores)
Pharma	800
FMCG	3,600
Automobiles	600
Electronics	1,000
Chemicals	10,000
Others	1,84,000
Total	2,00,000

Selected technology enablers of the Logistics industry and the business opportunities are given below:

- eTrack alone has the potential to generate revenue of Rs.3,000 crore one time and a recurring revenue of Rs.1,500 crore per year.
- eTransport has the potential to generate a recurring revenue of Rs. 2,200 crore a year.
- eWarehousing can generate a recurring revenue of Rs.1,200 crore a year.
- Truck parks can be set up for servicing the industry.
- Container depots and container freight stations have great potential

VI. CRITICAL SUCCESS FACTORS FOR INDIA

There are abundant opportunities to build business. But the following critical success factors need to be attended

- a) Indian companies need to opt for 4PL services
- b) Indian companies should bring in savings through usage of high technology tools, systems and collaborations.
- c) It should convert the cottage sector into the organized sector – creating branded products and services
- d) Develop a business model to achieve a saving of at least 10 percent of transport costs and 20 percent in in-transit inventory and share the saving with collaborators.
- e) Integrate Logistics infrastructure such as transport, warehousing and highway parks
- f) Achieve consolidation of part loads across companies
- g) Provide return loads to trucks and thereby increase asset utilization and consequently reduce freight rates.
- h) Provide truckers improved services
- i) Provide dynamic visibility of inventory to companies consumers.
- j) Optimise supply chains through ideal network configuration
- k) Integrate through state-of-the-art networking systems
- l) Aim for reduced costs through collaborative Logistics efforts.

Finally, the Logistics service provider should bring down the logistics cost to clients, while concurrently improving the service standard.