



CHALLENGES IN THE OPERATION OF MULTIMODAL TRANSPORT SYSTEM: THE CASE OF INDIAN SHIPPING AND LOGISTICS SERVICES ENTERPRISE

Muhammed Fasil P.K and Prajay Birla

ABSTRACT

Article investigates the key challenges in the multimodal transport system. The multimodal concept can be defined as the combination of various types of transport modes used in a national or international transport operation, which provides door-to-door services, under the responsibility of one single transport operator. Few of the challenges faced by the operator were identified and a research was done on them. The research methodology used is primary and secondary and statistical tool used is descriptive. The key challenges like infrastructure and rail connectivity etc. were identified.

Keywords: Multimodal transportation system, services, transport

Introduction

The transportation system is one of the key drivers in trade logistics. In developed nations, businesses enjoy the best logistics and transportation professionals, systems, and infrastructure in the world. Transportation costs are higher when dealing with shipping materials over long distances in international trade. Although several authors defined the International Multimodal Transport differently, the most authoritative definition of the term is defined by UNCTAD (United Nations Conference on Trade And Development), (2001) which reads as follows: ‘the

carriage of goods by at least two different modes of transport on the basis of a multimodal transport contract from a place in one country at which the goods are taken in charge by the multimodal transport operator to a place designated for delivery situated in a different country...” The multimodal transport operator is any person who on his own behalf or through another person acting on his behalf concludes a multimodal transport contract and who acts as a principal, not as an agent or on behalf of the consignor or of the carriers participating in the multimodal transport operations, and who assumes responsibility for the performance of the contract.

India has witnessed growth in Multimodal transport in the recent times and the sector is still evolving. The advent of containerization along with initiatives from the Government such as passing Multimodal Transport Act in the Parliament in 1993 to the recent implementation of Goods and Services Tax have helped the country to progress towards an integrated transport system. The Association of Multimodal Transport Operators of India (AMTOI) represents the interests of the MTOs in India and ensures that there is a constructive dialogue between the authorities and the MTOs to further evolve Multimodal Transportation in India. It has been estimated that Indian Logistics sector will generate revenues amounting USD 200 billion by the year 2020. In order to realize this potential, the country will need to make effective use of its strengths in IT and look out for collaborations with experts in this field.

The Multimodal transport act was passed by Indian Parliament in the year 1993; the main objective of the act was to establish a liability regime for Multimodal Transport operators. The Director General of Shipping was notified as a Competent Authority under the aegis of this law. The passing of the MMTG Act paved the way for various Indian Logistic Service providers to get themselves registered with the authorities and start issuing Multi Modal Transport Document. This helped the shipper community in India in a big way as now they could ship goods from any inland point in India to any destination in the world under a single Contract of Carriage. After enactment of the law various logistic service providers got themselves registered as Multi Modal Transport Operators and started offering Multimodal Transport Services to meet the growing requirements of India Shippers. The MTOs could offer more comprehensive services than the normal operators, as post-registration they were equipped with international Network to handle shipments from any place to any place in the world and more importantly they also had the

insurance coverage to Page 4 of 6 cover the carrier's liability which protected the shippers from the perils of Multimodal Transport across various modes.

Literature Review

What is multimodal transport?

Multimodal Transport is the combination of different means of transport, in order to facilitate the movement of cargo, i.e. making it faster and more efficient. When it comes to this mode of transportation, there is more than one kind of vehicle necessary to take the goods to their final destination, by the use of trucks, trains, ships, airplanes or some other mean of transport for the delivery. The advantage of Multimodal Transport lies in the most efficient combination of multiple means of transport, whilst optimizing deadlines, cutting back on inventory costs, therefore keeping the costs of the merchandise under control. The combination of these also results in high environmental sustainability, since Multimodal Transport reduces the environmental footprint of transportation. Despite the support of environmentalists and cargo transportation experts, multimodality might induce certain costs through the use of modal interfaces, such as transshipments, handling, etc. However, you may hire a Freight Forwarding Company that provides an interface between the various types of transport, without getting the Importer or the Exporter involved in this exchange. For more complex shipments, or a more thorough exploration of the quality/price ratio of each part of the transportation, multimodal transport is a good, often the only, option to consider, especially to/from countries that do not border on the sea.

Overview of Indian Logistic Sector

The Indian logistics industry was valued at an estimated US\$ 130 billion in 2012-13. It has grown at a CAGR of over 16 per cent over the last five years. The industry comprises the following main segments: Freight and passenger transportation via road, rail, air and water Warehousing and cold-storage The contribution from the movement of goods including freight transportation and storage is about 90 per cent. Aggregate freight traffic is estimated at about 2-2.3 trillion tonne kilometres. Road dominates the mode of freight transport mix and constitutes about 60 per cent of the total freight traffic. Rail and coastal shipping account for about 32 per cent and 7 per cent, respectively, while the share of inland waterways transportation and air is

less than 1 per cent each. Warehousing comprises industrial and agricultural storage. Of the total warehousing space of about 1,800 million sq ft, the industrial and agricultural segments constitute about 86 per cent and 14 per cent, respectively. Government organisations including Food Corporation of India, Central Warehousing Corporation and the state warehousing corporations account for about two-thirds of the agricultural warehousing segment. Warehousing also includes cold storage, comprising over 5,300 units; most of which are concentrated in the states of Uttar Pradesh, Punjab and West Bengal. According to the Ministry of Agriculture, at present, the cold chain capacity is about 9 million tonnes.

Article Review

1. Tilahun Lemmi Butta and Mekonnen Bogale Abegaz(2016) in their article title “Challenges in the operation of multimodal transport system: The case of Ethiopian shipping and logistics services enterprise” talks about multimodal transport used in the Ethiopian logistics industry. objective of the article is to understand the issues in the multimodal transport system in Ethiopia. Research methodology used was primary and statistical tool. The statistical tools was descriptive statistics. The key identified challenges are network connectivity, lack of ICT usage at each level, lack of railway infrastructure, and lack of clear laws and regulations that support the involvement of privately owned service providers. The study suggests that in order to improve the services of Multimodal Transport System these key challenges should be solved. In order to encourage competition between private operators and the Ethiopian Shipping and Logistics Services Enterprise, the government or Ethiopian Maritime Affairs Authority is recommended to produce the possible new law or/and proclamation which requires private potential Multimodal Transport Operators to be established at the national level for developing and maintaining competitive advantage.
2. Mariamu Nassoro (2011) in the article an analysis of benefits and challenges facing the growth of multimodal transport networks in tanzania talks about an analysis of benefits and challenges facing the growth of multimodal transport networks in Tanzania. Research methodology used is descriptive and inferential statistics. The key findings are the poor investment in infrastructures; high transportation and distribution charges institutional and managerial barriers for intermodal transport. The barriers results into high transport cost and low speed transit time and poor revenues to the farmers, producers, importers and exporters of goods as the barriers for intermodal transport and these barriers impede greater scope for

country's development. Enhancing investment in the physical, managerial, financing, policy and operational capabilities of the Tanzania's multimodal transport are recommended strategies to reduce the barriers.

Research methodology

This research was a descriptive research. This type of research was preferred because it is scientific and can be used together descriptive information of particular problems. For this case the barriers that operators face in using intermodal transport was sought.

Methods of Data Collection

Data for this study was gathered through secondary and primary data collection methods. Primary data was gathered using a combination of methods i.e. questionnaires, interviews.

Secondary data

Secondary data was gathered through library research and documentary evidence. Both published and unpublished sources of information were reviewed.

Primary data

Primary data was gathered through a survey using a questionnaire with both closed and open ended questions, and interviews. Around 10 Logistics providers from south Gujarat was taken.

Interpretation

Table : The key challenges of Multimodal Transport System based on the mean score from the respondents' data

Variables	N	MIN	Max	Mean	S.D.
Connectivity	10	3	5	4.3	0.711
Railways infrastructure	10	2	5	4.18	0.855
Completion in MTS	10	1	5	3.98	0.855

Coordinating challenges in MTS	10	1	5	3.93	0.806
Length of the procedure	10	3	2	3.62	1.12
Skilled manpower	10	1	5	3.18	0.806
Infrastructure	10	3	2	3.98	0.909

As summarized in table above, respondents were asked to rate the key challenges of Multimodal Transport System based on its degree of seriousness by using a five point Likert scale ranging from 1 to 5. According to the responses given by the sample respondents shown in the summary table above, the ranks of the variables are identified from its very serious problem to serious problem in decreasing order.

From the variables identified above, variables were rated as the key challenges of Multimodal Transport System. These are the challenges are Network connectivity (with the mean value 4.3 and Std. Deviation 0.711). Network connectivity means the connectivity to port or railway station where goods can be loaded and unloaded. So from the above data, the network connectivity is considerably good. Railways infrastructure (with the mean value 4.18 & Std. Deviation 0.855) as railways infrastructure is a major issue related to port connectivity as domestic cargo movement is satisfactory but port connectivity is what causes problem when its a dry port. As railways and government are trying to keep railways updated and efficient despite of that there are various problem faced related torailways infrastructure and connectivity to port. Competition in the Multimodal Transport System (with the mean value 3.98 & Std. Deviation 1.12) there is considerable amount of completion in MTS model but still this concept is new and growing. Infrastructure (mean value 3.96 & Std. Deviation 0.953) is the main problem faced by the companies as the infrastructure is needed to be developed despite of heavy government investment in infrastructure. Still problem is faced like port infrastructure, poor maintenance of road etc. Coordination challenges in the Multimodal Transport System (the mean value 3.93 & Std. Deviation 0.806) there is considerable amount of coordination required as the material have to go through various mode of transportation in order to reach the destination. Still they face

coordination issue like truck drivers won't reach at time, accident of trucks, delay in pickup, documentation etc. The length of procedures (the mean value 3.62 & Std. Deviation 0.964) the main problems faced in logistics is documentation which takes considerable amount of time specially if they need to export or import. skilled manpower (the mean value 3.18 & Std. Deviation 1.114) they don't face shortage of man power.

Conclusion

This study is aimed to investigate the challenges of Multimodal Transport System at Indian Shipping & Logistics Services Enterprise. The related theoretical literatures and empirical studies issues were incorporated in this study to provide a theoretical basis for the development of the research. The main Challenges faced by the companies are lack of infrastructure and lack of railway connectivity to port as well as documentation. Still the companies need to adopt proper communication infrastructure to have proper coordination for transportation of goods through various modes. Skill worker isn't a problem for companies.

Reference

1. Chamber of Commerce and Sectorial Associations, The study of the Management of Commercial Road Transport in India, 2009.
2. Banomyong R. Multimodal transport in South East Asia: a case study approach. PhD Thesis, Department of Maritime Studies and International Transport, Cardiff University, 2000.
3. Bowersox J, Closs J, Cooper Bixby. Supply Chain Logistics Management. Michigan State University, 2002, 66-92.
4. Branch Alan E. Global supply chain management and international logistics. New York International Business/Shipping Consultant. 2009; 2:79-80.
5. Waters D. Global Logistics New directions in supply chain management. 6TH Edition, the Chartered Institution of Logistics & Transport (UK), 2010; 494- 497-498.
6. Wood Donald F, Barone Anthony P, Murphy Paul R, Wardlow Daniel L. International logistics. 2nd edition, American Management Association (United States of America), 2002, 47-5.
7. World Bank 2nd India a Update Laying the Foundations for Achieving Middle Income Status. 2013.

8. World Bank. Development Economics, Operations and Strategy; Africa Finance & Private Sector Development, Light Manufacturing in India: Creating Jobs and Prosperity by Fostering Competition. The World Bank Group, Washington, DC, 2012, 1.