

TRENDS IN
MULTI MODAL TRANSPORT
OPERATIONS

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ABSTRACT:

The continued population growth expected will bring increasing demand for mobility and pressure to expand the capacity of the transportation system, including intercity transportation. If historic trends are any indication, we know that no single mode—rail, air, or highway—by itself can meet this increasing demand. Making the best use of each mode and creating Interconnections among them are the key to coping with rising demand for transportation.

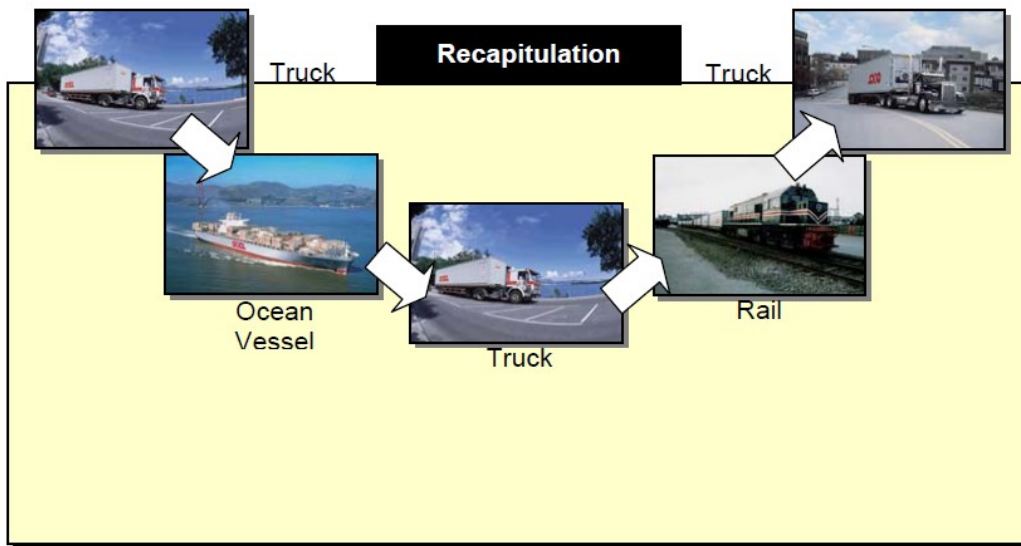
Multimodal transportation is not a recent invention since any consignment coming from overseas and destined inland will be traveling on multi modes of transport utilizing sea, rail, air or road. What is new is that such a transport can be made without breaking bulk, i.e. carriage of goods by more than one mode of transport under a single contract. When a freight forwarder acts as a multimodal transport operator, he assumes responsibility for the execution of the multimodal transport contract, and of the carriers participating in the multimodal transport operations. It involves the use of

more than one means of transport such as a combination of truck, railcar, aero plane or ship in succession to each other.

The advantages of multi modal transports are minimises time loss at trans-shipment points, provides faster transit of goods, and reduces cost of exports. The result of the container “revolution” which has occurred over the last 20-30 years and with the development of Ro-Ro vessels, trailers or sea-ferries creating land-bridge routes.

MULTIMODAL TRANSPORT DEFINED:

Multimodal transport, as understood by many, refers to a transport system usually operated by one carrier with more than one mode of transport under the control or ownership of one operator. It involves the use of more than one means of transport such as a combination of truck, railcar, aeroplane or ship in succession to each other e.g. a container line which operates both a ship and a rail system of double stack trains.



ADVANTAGES OF MULTIMODAL TRANSPORT

Minimises time loss at trans-shipment points

Multimodal transport, which is planned and coordinated as a single operation, minimises the loss of time and the risk of loss, pilferage and damage to cargo at trans-shipment points. The multimodal transport operator maintains his own communication links and coordinates interchange and onward carriage smoothly at trans-shipment points.

Provides faster transit of goods

The faster transit of goods made possible under multimodal transport reduces the disadvantages of distance from markets and the tying-up of capital. In an era of Globalization the distance between origin or source materials and consumer is increasing thanks to the development of multimodal transport.

Reduces burden of documentation and formalities

The burden of issuing multiple documentation and other formalities connected with each segmented of the transport chain is reduced to a minimum.

Saves cost

The savings in costs resulting from these advantages are usually reflected in the through freight rates charged by the multimodal transport operator and also in the cost of cargo insurance. As savings are passed onto the consumer, demand increases.

Establishes only one agency to deal with

The consignor has to deal with only the multimodal transport operator in all matters relating to the transportation of his goods, including the settlement of claims for loss of goods, or damage to them, or delays in delivery at destination.

Reduces cost of exports

The inherent advantages of multimodal transport system will help to reduce the cost of exports and improve their competitive position in the international market.

FORMS OF MULTIMODAL TRANSPORT OPERATIONS:

Currently, different types of multimodal transport operations involving different combinations are taking place, such as:

Land-Sea-Land

An example of this form of the transport is as follows:

- An empty container is picked up from the line's container yard in Singapore and trucked to shipper's factory in Johore (Malaysia) for stuffing; thereafter the FCL is trucked to Singapore and transported by ocean vessel to New York.
- Truck from vessel to rail-head New York
- Rail from New York to rail-head Chicago
- Truck from Chicago rail-head to consignee's warehouse.
- There can be several additional links, for instance, if the container was carried by rail from, say, Kuala Lumpur to Singapore.
- Where LCL cargo is concerned, the individual shipments would be delivered to the freight forwarder's CFS or the shipping

line's CFS and consolidated into a FCL which, in Chicago, is trucked to the CFS, where from it is picked-up by the consignee's truck.

Road/Air/Road: A combination of air carriage with truck transport is a frequent method of multimodal service. Undoubtedly, pick up and delivery services by road transport are usually incidental to air transport. But apart from this, road transport is now being increasingly used, particularly in Europe and U.S.A., for trucking air freight over long distances, sometimes across national boundaries, to connect with the main bases of airlines operating long haul services such as trans-Pacific, trans-Atlantic and inter-continental. Several airlines are building up a number of trucking hubs in Europe to act as focal points for road-based feeder operations.

Many airlines provide road service to cities which they either find uneconomical to service by air, or to which they do not enjoy landing rights. This road transportation is often effected with own vehicles, and to and from their own facilities, but on occasion they do also use highway common carriers.

Sea/Air/Sea

This combines the economy of sea transport and the speed of air transport and is becoming increasingly popular in several international trade routes like the Far East Europe route. The

economics of this combination mode favour high value items like electronics, electrical goods, computers and photographic equipment as well as goods with high seasonal demand such as fashion wear and toys.

This multimodal operation is particularly applicable where the route to be covered combines large distances via land and water, and where transit time is important.

Frequent sea/air services routes are: ORIGIN	MODE	VIA	MODE	DESTINATION	OPERATION
Asia	Ocean	Dubai	Air	Europe	Sea/Air
Asia	Ocean	Seattle	Air	Europe	Sea/Air
Europe	Ocean	E. Canada	Air	W. Canada	Sea/Air
Nepal	Air	Singapore	Sea	Europe	Air/Sea

Rail/road/inland waterways/sea

This combination mode is in common use when goods have to be moved by sea from one

country to another and one or more inland modes of transport such as rail, road or inland waterways, have to be used for moving the goods from an inland centre to the seaport in the country of origin or from the seaport to an inland centre in the country of destination.

Mini-bridge

This involves the movement of containers, under a through bill of lading issued by an ocean carrier, by a vessel from a port in one country to a port in another country and then by rail to a second port city in the second country, terminating at the rail carrier's terminal in the second port city. The mini-bridge offers the consignor a through container rate inclusive of rail freight up to the final port city in the country of destination. The railways are paid a flat rate per container by the ocean carrier for the rail transit. This system is in operation on certain routes covering the trade between the United States and the Far East, United States / Europe, United States / Australia, etc.

Land bridge

This system concerns itself with shipment of containers overland as a part of a sea-land or a sea-land-sea route. In this case also, the railways are paid a flat rate by the ocean

carrier who issues the through bill of lading. This system is in operation for the movement of containers on certain important international routes such as:

- Between Europe or the Middle East and the Far East via the Trans-Siberian land bridge; and
- Between Europe and the Far East via Atlantic and Pacific coasts of U.S.A., continental U.S.A. which is being used as a land bridge.

INNOVATIONS IN MULTI MODAL TRANSPORT:

The result of the container “revolution” which has occurred over the last 20-30 years and with the development of Ro-Ro vessels, trailers or sea-ferries creating land-bridge routes. Heavy loads can also be sent in barges which in turn can be loaded onto vessels in the same manner as containers, in systems known as “lash” or “Aseabee”.

Ro-Ro (Roll-on/Roll-off)

This mode combines different means of transportation (sea and road), and is used most often with new automobiles, which are shipped by sea and



them simply driven off the vessel to the importer's warehouse. Heavy and over-dimensional cargo is also suitable for Ro-Ro transport.

L.A.S.H. (Lighter Abroad Ship)

LASH transport is the combination of deep sea and inland waterway transportation. An example is the route from Germany to the Mississippi Ports where the barges sail down the Rhine, Elbe or Weser in Germany, are loaded onto LASH container vessels in Rotterdam, Hamburg or Bremen; are then carried across the Atlantic, only to be unloaded at a Mississippi delta port to sail upstream in the U.S.

It must be noted that LASH vessels are expensive, and furthermore it is necessary to check on the availability of the special handling facilities necessary in the ports of destination.



Piggyback

This is a system of unitised multimodal land transportation, a combination of transport by road and rail. It has become popular in Latin American and European countries because it combines the speed and



reliability of rail on long hauls with the door-to-door flexibility of road transport for collection and delivery. The goods are packed in trailers and hauled by tractors to the railway station. At the station, the trailers are moved onto railway flat cars and the transport tractors, which stay behind, are then disconnected. At destination, tractors again haul the trailers to the warehouses of the consignee.

The system has undergone refinements and sophistication by the introduction of the so-called "trailer train"

which uses the same trailer as a vehicle on the road and a rail vehicle on the rail. In other words, the trailer



moves on its wheels as a truck on the road but the wheels can be retracted by an air suspension system and connected to a rail bogie for movement by rail. At the end of the rail journey, the conversion back to being road vehicle is effected for delivery of the goods to the customers.

Sea train

This is another innovation in the multimodal transport system involving the use of rail and ocean transport. It was originally adopted in the U.S.A. It is similar to the roll-on, roll-off (Ro-

Ro) system except that in the place of the Ro-Ro vehicle a rail car is



used so that geographically separated rail systems can be connected by the use of an ocean carrier. Typically these vessels are long and thin and consist of one main deck running the length of the ship. They are quicker at loading trains than general cargo vessels since the train's carriages do not need to be detached from one another.

MULTI MODAL TRANSPORT STRATEGY IN INDIA:

At present, the capacity of our country's multimodal transportation sector is nearly 3 million containers per annum. Currently, there are over 300 Multimodal Transport Operators (MTOs) operating in India, out of which 120 MTOs are registered with the Association of Multimodal Transport Operators of India. The multimodal industry in India is governed by the Ministry of Surface Transport. The industry maintains close business ties with leading logistics bodies in the country, such as the Federation of Freight Forwarders Association and the Association of Multimodal Transport Operators. These bodies are also affiliated with the International Federation of Freight Forwarders Association.

Though multiple advantages of multimodal transportation are untapped, the introduction of containerisation might prove to be a major business driver for the logistics industry in the years to come. In addition, the convergence of multimodal transport with other modes of transportation will further increase the formers potential in the sector. Containerisation is considered to be one of the most vital factors of today's multimodal transportation as it combines the consistency of rail, the flexibility of road, the cost-effectiveness shipping, and the speed of air transport.

India is slowly realising the potential of multimodal transportation. As the first step towards boosting this segment, the government has planned a mega multimodal transportation project worth US\$1.1 billion in Myanmar. The objective behind this ambitious project is to connect eastern Mizoram with Sittwe Port by a shipping link. As the project progresses, the link will be extended to Kaletwa in Myanmar through river transportation. The construction of a road from Kaletwa to Mizoram will also be a part of this project. This project is believed to be a landmark step taken by the government of India to promote multimodal transportation in the country.

CONCLUSION:

The three most important criteria for success in international trade are price, quality and timely delivery. It is not possible to meet this criterion without having a proper logistics and multi modal transport form an integral part of any logistics and supply chain. Everyday new and innovative methods are discovered and improvisations made in improving the quality of products while simultaneously lowering the costs is by lowering inventory

levels and introducing just in time concepts. Thus Indian merchandise cannot become competitive without containerization and multimodal transport.

As stated earlier the Indian policy makers have realized the importance of containerization and multi modal transport but they face two major constraints while attempting to realize the full potential of containerization and multi modal transport.

- Inability to develop the necessary infrastructure due to lack of financial resources.
- Inadequate institutional and legal environment which does not encourage growth

Hence unless awareness is created on the importance of developing seamless infrastructure for multi modal transport, the potential of the Indian foreign trade cannot be realized. In this regard international organizations like IMO, UNCTAD and WTO have a major role to play in disseminating information and sharing experience and knowledge.

REFERENCES:

- www.unescap.org/publications
- www.shipping.nic.in
- www.concorindia.com
- www.indianrailways.gov.in