Marketing strategies for freight traffic on Indian railways

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Abstract
Indian Railways had lost its market share in high rated freight commodities especially cement, POL, and iron and steel. IR was missing an overall strategy for freight business, which was overcharged without sensitivity to competition. Over time, other transport modes, especially road and pipeline in the case of POL captured a very significant share of freight due to their faster and door-to-door deliveries. Several initiatives have been taken in the recent past to make IRs? Strategies market oriented like increased axle loading, better pricing strategy, and improved services. The above analysis has implications for leveraging the four Ps of marketing; product (service attributes), price, promotion, and place (logistics). This paper attempts to evolve marketing strategies for freight traffic, based on the OD market analysis specified above.

Keywords: Indian railways, product, public, transportation

Introduction
Indian Railways (IR) is Asia’s largest and the world’s second largest network under one management, with a separate Ministry and its own annual budget. The key activities of IR are transportation of freight and passengers. The network carried about 15.7 (14.7) million passengers and 1.8 (1.6) mt freight every day on the network of 63,332 (63,465) km in 2005-06 (2004-05). Broad Gauge (BG) is the primary gauge for the freight movement. Meter Gauge (MG), which was far more significant earlier, is being increasingly converted to BG.

Market Share
IR’s overall share of freight has come down from 89 percent in 1950-51 to 40 percent in 2000-01. The road sector has captured the largest share of it. In the recent years, pipeline has captured some share through POL movement. Coastal shipping has emerged as a potential threat for IR. Due to lower prices, some bulk traffic like coal, iron ore, POL and even cement is now moved by coastal shipping. Inland waterway transport is a potential competitive mode, though it needs a lot more investment to make it effective.

IR’s own freight policy had many shortcomings. The freight segment was overcharged without being sensitive to the competition. To deal with increasing costs, it was politically expedient to increase freight fares rather than passenger fares. Fares are but one element of the total logistics costs faced by the customers. The other costs elements are an outcome of shipment volume, first mile and last mile inter-modal access, reliability in transit times, and availability of wagons as per requirement. The total logistics cost influences the customer’s mode choice. It can be seen from that the loss of market share is in high rated commodities i.e. iron & steel, cement and POL. Iron & steel and cement shares have been taken by road. POL share has mainly gone to pipelines.

The production growth v IR’s loading growth between 1991-92 and 2003-04 for five bulk commodities. IR’s loading growth for coal and food grains has been higher than the production growth. In the case of high rated commodities, IR’s loading growth has been lower than the production growth.

Freight Traffic
Freight traffic accounts for nearly two third of IR’s revenues. The freight traffic broadly consists of two groups, ‘bulk’ comprising of seven commodities and, ‘other goods’ consisting by and large of 42 commodities. The bulk traffic constitutes about 90 percent of freight traffic in tons and in earnings, while it constitutes 86 percent in NTKM. Coal occupies the dominant position due to transport linkages to thermal power plants and steel plants.

In the early 80’s, IR changed their policy of ‘yard to yard’ movement of rakes to ‘end to end’ movement of rakes. While this policy provided significant operational gains for bulk commodities, which could offer rake load traffic, it resulted in loss of share in other commodities due to their inability to offer rake load traffic. Road transport offered a competitive choice to these customers, even at a higher price due to the flexibility, frequency and door to door delivery. IR was unable to offer feasible options to these customers, if the volumes were insufficient for rake load movement. However, these commodities have potential for the future, especially due to growth in containerization.

Initiatives by IR
During 1999-00 and 2000-01, IR’s financial situation was very critical. Surplus and fund balance had reached a record low and the operating ratio (ratio of total working expenses to total earnings) had reached a record high. Poor infrastructure imposed many safety concerns. In 2001, The Expert Group on IR submitted their report stating that the IR was heading towards bankruptcy [NCAER, 2001]. A number of steps had been taken during the tenth plan period (2002-07). A Special Railway Safety Fund (SRSF) of Rs 17,000
crores was created in 2001 to replace and renew over-aged tracks, bridges signalling systems and rolling stock. Some of the major steps taken in improving the IR’s share in freight traffic were -

- Rationalization of freight tariff structure to leverage price elasticity of demand
- Incentives to premier customers generating freight earnings of more than Rs 25 crores per annum for traffic originating from the sidings
- Policy to attract short lead traffic through higher freight concessions
- Computerization of freight movement through Freight Operations Information System (FOIS)
- Providing warehousing facilities through CWC and private freight terminals. MOU has been signed for providing integrated freight terminals at 22 locations in the country
- Focus on improving port connectivity and inter-modal transport
- Privatization of container movement on IR

FOIS
FOIS enabled freight customers to have instant access to information regarding the current status of their consignments in transit, for just in time inventory. It is a system for management and control of freight movement that also assists managers to optimise asset utilisation. FOIS comprises the Rake Management System (RMS) for handling the operating portion and Terminal Management System (TMS) pertaining to the commercial transactions [CMC Ltd, 2007]. FOIS has been designed to give strategic advantages to both IR and its customers.

The implementation of the system is envisaged to eventually achieve the following

- Extension of the current business practice of bulk movement in train load formation to piecemeal traffic to increase the market share by clubbing and moving together similar type of stock in a "hub & spoke" arrangement.
- Global tracking of consignments in real time, whether in rakes or in individual wagons, to enable timely planning and just in time inventory management.
- Facilitate acceptance of customer's orders, billing and cash account from identified nodal customer centres which may not necessarily be the handling terminals. These facilities could even get extended to customers’ premises and along with introduction of e-commerce help in reducing the burden of logistics management.

Volume Growth Incentive Schemes
These schemes are aimed at promoting higher volumes of traffic particularly during the lean season. Customers may avail discounted freight rates for incremental traffic, lean season, empty flow directions and for premier customers.

Specific schemes under this category are
1. Incremental Traffic
2. Loyalty Scheme
3. Traditional Empty Flow Direction
4. Long Term Special Incentive Schemes

Cargo Aggregation Schemes
With the objective of promoting rail, road and warehousing integration and coordination, IR has already launched Rail Side Warehousing Scheme for private participation. In order to take the process forward, Cargo Aggregation Schemes are offered to freight forwarders. Special composite freight rates may be availed by cargo aggregators / customers offering two-leg traffic in covered wagons subject to certain stipulations.

Specific schemes are
1. Freight Forwarder Scheme
2. Freight Forwarder in Empty Flow direction
3. Two Leg Scheme

Consignment Volume Based Schemes
IR offer several transportation options differentiated by the volume of consignment booked to a destination terminal. These products have varying tariff rates.

Options are offered to rail users are
1. Block Rakes
2. Mini Rakes
3. Two Point Rake (Covered Wagons)
4. Multi Point Rake (Covered Wagons)
5. Two Point Rake (Other than Covered Wagons)
6. Multi Point Rake (Other than Covered Wagons)
7. Rakes from Two Originating Terminals (Other than Covered Wagons)

IR’s market share is improving as a result of initiatives taken in the recent past. Provides data on production and IR’s loading growth for different years. Recent years figure on IR’s loading have improved significantly and in fact, IR’s loading growth has surpassed the production growth in high rated commodities for 2004-05 to 2005-06

Originating Traffic
The origins are categorized as
- Industry/Collection Centre
- Mine
- Port

First, the IR traffic from the ports is estimated by assessing the port wise commodity wise import and then applying the IR market share. For major ports, the share of IR for each port and commodity is taken as the modal splits estimated by the planning commission (PC), except for other ores, fertilizers, and iron & steel, which were not estimated. For these commodities, the authors made assumptions based on the nature and quantum of cargo, and the rail-port connectivity. More than 80% of the ‘other ores’ import is through Tuticorin. IR is estimated to be carrying only 30% of this traffic. Fertilizers import is largely at Visakhapatnam, Kandla, Chennai and New Mangalore. Existing rail connectivity from these ports enables IR to have higher share in the traffic, which is estimated to be around 70%. Iron & steel, which is largely imported through Mumbai and Kandla is estimated to be carried only 30% by rail.

A similar methodology was followed for non-major ports. Coal, POL, food grains, fertilizers and some dry bulk are the major commodities that are imported through the non-major ports in
Gujarat and Maharashtra. Rail share is estimated to be the same as from the major ports, except for the thermal coal, which is entirely carried by IR.

**Terminating Traffic**

The destinations are categorized as
- Industry
- Port
- Distribution Centre

First, the IR traffic to the ports is estimated by assessing the port-wise commodity-wise export and then applying the IR market share.

For major ports, the share of IR for each port and commodity is taken as the modal splits estimated by the PC, except for thermal coal, which was not estimated. For this commodity, the authors assumed 100 percent rail share, since this entire amount is brought from mines to the ports for the coastal movement.

**Conclusion**

The commodities originating at ports are first examined to identify the destinations. Coal, other commodities, iron ore and other ores terminate at industries, while containers, POL, fertilizers, food grains, and iron & steel terminate at distribution centres.

The commodities terminating at ports are similarly examined to identify the origins. Containers and POL are from industry/collection centre, while iron ore and other ores, and coal are from mines.

**References**