

RESEARCH AND DESIGN OF TRANSPORTATION MANAGEMENT SYSTEM IN INDIA BASED ON INTERNET

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ABSTRACT

The transport industry in India is still in its developing stage. The majority of transport enterprises are small and medium sized ones, have few service-functions, and serve small areas. Transport alliance can improve Indian Transport enterprises' strength greatly. This paper had a research on the internet based management of collaborative transport system, discussing the feasibility, architecture and the key issues in the system's realization. This paper also provides a framework which provides solution for collaborative transport management.

Keywords: Transport enterprises, Collaborative Transport System, New Framework

I Introduction

The roads goods transport industry in India has never been regulated the way it has been in many other countries. But as mentioned earlier, a regulatory framework in the form of the Motor Vehicle Act has been in place since 1939. This did provide for restrictions on permits but over a period of time these has been relaxed to a very large extent permitting easy entry into the industry and for movement all over the country. This is perhaps the only deregulatory move that has taken place in India as far as the trucking sector goes. The credit for this development goes to the Indian railways, which had no capacity to offer on a regular basis even with regard to bulk items. But as observed by the various committees and pointed out by the different studies, the Motor Vehicles departments of states have mainly focused on the collection of revenue (tax and otherwise) rather than on effective

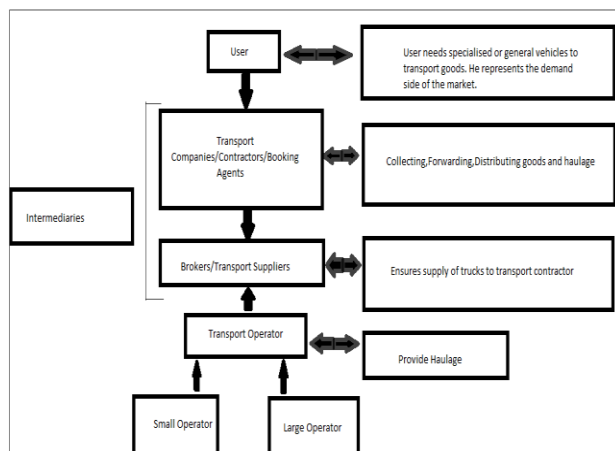
enforcement of the provisions of the Motor Vehicles Act.

As a result, an effective regulatory framework has never been attempted to be put in place. This has emerged over the years as a major external impediment (in terms of a number of dimensions) to the effective growth of the trucking industry in India. This is a matter of concern especially when viewed in the context of an emerging globalised competitive economy.

II Discussing the Existing Framework

The structure of road freight transport industry in India is highly fragmented. The industry broadly consists of players who provide the transportation services, intermediaries (booking agents) who offer haulage services, brokers supplying equipment, drivers for commission and the consignors constituting the ultimate demand for the services.

This structure can be explained in detail with the help of an example which is given below:



It is primarily composed of three key players as described below:

Transporters: This includes trucking companies which have contact with shippers and receiving customers. Their tasks include freight, bill, collect, accounts, responsible for cargo loss, damage claims. These companies own a fleet of trucks, warehouses and terminals. They rely on small truck operators for their intercity transportation. For example, Transport Corporation of India (TCI).

Truck Operators: This includes individuals which are also called owner-operators own one or a very small fleet of trucks which are usually financed by debt. This category includes a large number of truck operators. The reason behind this large number is that: i) there are low capital requirements, ii) very little expertise required in terms of education, iii) easily available capital and iv) easily available driving licenses and permits.

Intermediaries: i) Booking Agents/Transport Companies/Transport Contractors: This includes firms or persons who accept and store goods, arrange for their movement, represents the demand on behalf of users, responsible for collecting, forwarding goods, cargo loss and damage claims. In addition to this they also provide advance money to operators, discounts in their bills. ii) Brokers/Commission Agents/Suppliers of vehicles: This represents the supply side. They take commission from customers for representing their demand and also from truck owners. These are the dominant players in the market and are in fact the real makers of the market.

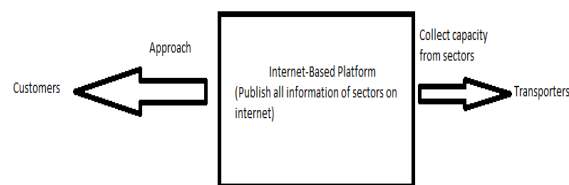
IV Problems with the Existing Model

Demand Supply Mismatch: This includes two problems i.e. Under Supply and Over Supply. At the time of peak business demand for trucks increases for movement of goods but since the supply is limited, this leads to the problem of Under Supply and Over Supply is vice versa i.e. less demand and more supply. These problems also effects cost.

Capacity Utilization: The total transport cost includes Rate/Km; Weight carried which plays as the most important factors in deciding the rate of transportation. For example, a truck has to transport goods from Delhi to Bombay. Now suppose truck weighs 30 ton and the rate is 2000/ton. So truck earns 6000/trip i.e. for one side. Now if weight available is 60 ton then there is loss in revenue.

V Proposed Model

In this model we have divided India into sectors where each sector will collect information about demand and supply of that area, rates, capacity, and routes of that area. We will include all the transport companies of that area. Then we will create an internet-based platform which will collect information from all these sectors and will use this information to serve the customers. This platform will publish all the information related to the sectors which will help the customers to make a quick choice. This platform will be structured just like travel websites (eg. Yatra.com).



In this approach platform will collect information from sectors and will publish this information on internet. Now customers will login into the platform and will ask for the services suitable to them which will then be provided by the platform after charging a certain fees from the customers. Platform will charge fees from both customers as well as Transporters, but this fee will be affordable.

V Advantages of Proposed Model

Organized Industry: This model will help in organizing the transport industry as this model will

confine all the information at one single platform which will in turn save time and money of customers as well as transporters. Since the need of going to the transporters will not be there any more so this will save time of the customers.

Better Capacity Management Since platform will have all the information related to each sector so this can also help in managing the capacity. Suppose there is more demand in sector 1 and less demand in sector 2, and then in that case capacity can be transferred from 2 to 1. This will minimize the wastage of the available capacity.

Provide better solutions: Customers will have a single platform to deal with all the transport related queries and the platform will provide the best solutions according to the requirement of the customers.

VI Summary

This model will help in improvising the structure of transport industry. This will help the customers in finding solutions to their queries at a single point. This approach helps in saving time and money as all the requirements can be fulfilled by directly logging in the platform and finding the solutions.

References

[1] www.competitioncommission.gov.in/Market.../Link_of_Study1.pdf

[2] indiabudget.nic.in/es2011-12/echap-10.pdf

[3] O'Neill, E. The Future Is a Foreign Country: We'll Do Things Differently There. *Internet Computing, IEEE*. 2011, 15(2): 82 – 85

[4] Michael Mealling. Auto-ID OBJECT name Service(ONS). I.0[SI]. <http://develop.autoidecenter.org/TR/2003.8>

[5] Brock David. The Electronic Product Code(EPC): A Naming Scheme for Physical Objects[SI]. <http://www.autoidecenter.org/publishedresearch/,2001>

[6] Plessky, V, Reindl, L. Review on SAW RFID tags. *Ultrasonics, Ferroelectrics and Frequency Control, IEEE Transactions on*. 2010, 57(3): 654 – 668