

# Road Goods Transport Online Management System

Santosh K S  
4th Semester, Dept. Of MSIT,  
Jain University, Jayanagar 9th block,  
Bangalore

Dr Suchithra R Nair  
Head of the Department, Dept. Of MSIT,  
Jain University, Jayanagar 9th block,  
Bangalore

**Abstract**—Implementation of technology in the current transportation system is not an easy task. Educating the personnel involved in existing system and creating awareness about the advantages like the ease of truck booking process and other transportation management will be a boon. Following different proposed methodology to find the factors hindering the existing system and trying to eliminate it through the proposed system is the main intention of this research.

## I. INTRODUCTION

The road transport mode serves as one of the key factors in the developmental process of any economy. India's transport sector is large and diverse and the truck carry almost 65% freight. The Indian trucking sector contributes about 4.5-5 per cent of the GDP and accounts for 70 per cent of the contribution made by the transportation sector to GDP. The Indian trucking industry has been witnessing phenomenal growth and will continue this growth momentum in years to come.

However, several challenges like poor quality of infrastructure, unrealistic taxes, shortage of skilled manpower to service the industry and mainly lack of technology involved in the process. The main aspects that hinder the transportation quality is the time consumed in moving around the goods before it takes its route to reach the destination and the loss occurred during this process. Transportation sector is one of the main source of income for nation along with the high requirement of its service. The government's lack of interest in development of this field is hindering the growth and booming of this sector.

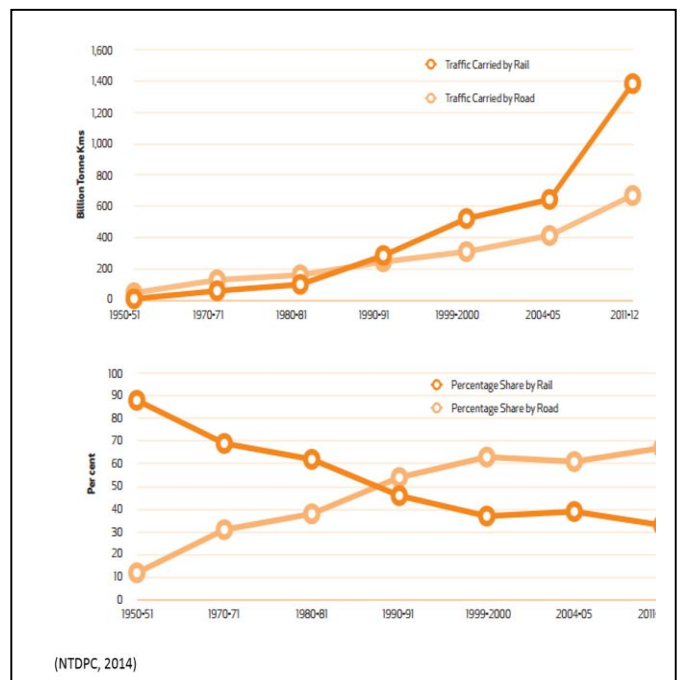
With introduction of many E-Commerce websites and the transactions involved with it has increased the movement of goods all over the nation exponentially. With this kind of situation in this kind of scenario introducing online platform for the manufacturers and the transporters to meet online will be a boon and the currently existing systems are trying their best to provide quality service. But the lack of knowledge about these systems among the personnel involved in this system is a bad thing. Thus, the proposal to improve the existing system by eliminating the flaws and educating the people involved in the system on the basis of the survey results obtained is necessary and advisable. Hence in this paper the attempt has been taken to discuss the benefits of involvement of technology in the road goods transportation system. The National Transport Development Policy Committee (NTDPC) has tried to estimate the overall freight traffic until 2031-32, using a growth rate of 1.2 times the GDP growth rate. Based on this multiplier of 1.2, the expected freight traffic would be as below.

Figure 1: Estimation of growth in Road Transportation Sector by 2032 (NTDPC 2014)

Year	GDP growth (%)	(btkm)	Rail:Road share
2011-12	--	2053	-
2016-17	6.9	3056	35:65
2021-22	8.0	4834	39:61
2026-27	8.5	7856	45:55
2031-32	9.0	13118	50:50

(NTDPC, 2014)

Figure 2: Increase in growth of Road Transportation over Rail Transportation (NTDPC 2014)



## II. OVERVIEW

Indian logistics players are increasingly investing in IT and it is playing a vital role in modernizing and organizing the logistics sector in India. With the adoption of the latest technology logistics service providers are no longer restricted to the geographical boundaries and they can expand their business to any location across the globe and maintain visibility and control. IT solutions are currently being used for all supply chain management functions. It is expected that this

would help in consolidation and thus reduction in costs of transport. The uses of Global Positioning System (GPS), RFID, scanning and web based solutions are aiding logistics firms to improve their productivity. RFID Devices monitors and tracks your shipment in real time. Besides, holograms and 2D barcodes, Laser authentication and Molecular markers, which is used in pharmaceutical logistics, BPR (Business Process Re-engineering) provides a powerful link between the entire value chains extending from the customers to the suppliers. With all the involvement of technology in the system we also need to make sure that it is being utilized properly. The currently existing online system for truck booking is actually failing according to the survey done and the reasons for it is being lack of both transporters and manufacturers seeking the help of technology to ease their work along with the elimination of their traditional thoughts about the technology being of help in this sector. The platforms providing service to the brokers and manufacturers is not of a good quality because of the lack of interest and investment in the product. Increasing the quality and the productivity of the system by providing interactive interface will help the users to perform their transaction in a smoother way.

### III. LITERATURE SURVEY

Considering the nature of this research, its main emphasis is on the user experience with the platform. Interviews, the best possible way of measurement and has been adopted to find the results of this research, which could get the experience of the users with the platform [11]. Questionnaires are structured and built by the researcher which is carried out just like a casual conversation considering the users are not well aware of the technology in most of the cases. Conducting the interviews as a qualitative research method is not only for the purpose of finding out the result aiding the research outcome, but also consists a meaningful relations to the research [12].

The important objective of a qualitative research interview is to understand the interviewees view and say on the subject which generally covers both the factual and meaning level.

The prepared object questions in the interviews are:

- Are you familiar with the online booking system?
- Were you able to understand the language or the terminology used in the website?
- Was the platform descriptive enough for you to perform the required operations?
- What was the main intention of yours to use the platform?
- Were you satisfied with the different services provided on the platform?
- How did you feel about the flow of the platform?
- How do you feel about these kinds of website?
- What do you think about the future scope of these kind online platforms?
- Do you expect to see more of these kind of platforms?

- Do you think these platforms can help in the growth of road goods transportation sector in India?

The reason for asking these questions is that they are related to research objective and the user opinion on the question will directly affect the proposed system indicating that the impact on the platform is directly based on the user needs or the user convenience. The gathered data is an essential information for analysis in order to find out the answers of research.

Upon visiting various brokering agencies as well as the manufacturer offices many were interviewed based on their experience in the field and the give inputs were recorded as these personnel are going to be the potential users of the proposed system as well the existing users of current system. So in these interviews, the obtained results are analyzed from the data collected.

### IV. PROPOSED SYSTEM

The Indian Road Transport market is unorganized and the operations are being done mostly through phone calls. But, with the help of proposed system they will be able to post, quote, view and manage all at the same time. In the current system shipment coordinators have a very little information about LTL (Less than truck load) shipments. In spite of empty vehicles available in the particular market place the cost for the shipment sores high, due to lack of common online market place. The proposed system is to create transparency and visibility in Transport Sector, allowing smooth, efficient and cost effective deliveries of goods. It will be possible to create customized solutions for full truck loads, part truck loads, single haul, reverse haul, multiple truck types. The proposed system will provide comprehensive and powerful reports to help shippers make decisions about their logistics activities. Single Point of Contact (SPOC) for planning, documentation, management. The proposed system will serve Manufacturers, Brokers and anyone who wants to ship something. The Real-time reporting and analytics will optimize the work day giving user the power to supervise their daily workflow, react to trends, and monitor their earning, from anywhere. The proposed implementation of interface would be of great benefit to the sector players. The system will help enable the creation of a common market thus permitting free and unobstructed movement of goods and services across the country. This will significantly reduce the vertical imbalance between the Central and the States by enhancing tax base of the states. Introduction of the proposed system will also reduce the number of warehouses required to be maintained in different states, thereby resulting in a substantial increase in demand for integrated logistics solutions. It is likely to bring in transparency in the taxation system prevalent in India.

### V. CONCLUSION

The development of the proposed system provides a smoother, faster, less ambiguous and novice friendly platform to handle the operations involved in the booking system for the users on both the end along with the security and the status of the goods being transported. By the introduction of this kind of system its accessibility will become a boon to

both the users to interact and settle deals with a faster medium and by eliminating the usage of traditional phone directory and the dependency on contacts to respond in time during urgencies. Thus, by using this technology the platform can connect the brokers as well as the manufacturers all over the world or nation for better quality booking system. This platform also encourages the organization and virtual agencies to provide quality services to their customers. Further, the platform can collaborate with other institutions, corporate sector, government, and research and development center to establish an excellent bridge between end to end user to perform their work and also helping with the statistics on how, when and where the goods move along with collection of different data related to revenue and other consistent valuable information that can aid the growth of this sector.

#### ACKNOWLEDGMENT

The Author of this paper would like to thank Principal and HOD of MSIT, Jain University and Management of Jain University, Bangalore for their support.

#### REFERENCES

- [1] G. Raghuram , An Overview of the Trucking Sector in India: Significance and Structure
- [2] S.Sriraman, Anand Venkatesh, Manisha Karne, Vidya Mohite, Competition Issues in the Road Goods Transport Industry in India with special reference to The Mumbai Metropolitan Region
- [3] Udai S. Mehta, Research Study of the Road Transport Sector In India
- [4] Pankaj Chandra, Nimit Jain, The Logistics Sector in India: Overview and Challenges
- [5] Dr. Harendra Mohan Singh, Revenue From Road Transport In India
- [6] Athira A Nair, Logistics to be the game changer for e-commerce in 2016
- [7] NTDPC 2014, India Transport Report : Moving India to 2032
- [8] Ministry of Shipping, Road Transport and Highways (MORTH), National Road Transport Policy, Department of Road Transport and Highways, Government of India, 2010
- [9] Ministry of Shipping, Road Transport and Highways (MORTH), Transport Year Book (2006-07 to 201112). Department of Road Transport and Highways, MORTH, Government of India.
- [10] McNamara, C. (1999). General Guidelines for Conducting Interviews. Minnesota
- [11] Kvale, S. (1996). Interviews: An Introduction to Qualitative Research Interviewing. Thousand Oaks, California, USA: Sage Publications.