



## Management Concerns of Public Road Transport in India

### KEYWORDS

Public Transportation System, Passenger Road Transport System (PRTS), State Transport Undertaking (STU)

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**ABSTRACT** Since the economic liberalization, development of infrastructure in India has progressed at a rapid pace, and today there is a wide variety of modes of transport by land, water and air. Even with rising income power of the rapidly growing middle class of India, the numbers of private vehicles are also on the rise. But, Public Transport has still remained the primary and preferred mode of transport for most of the population, and India's public transport systems are among the most heavily utilized in the world. Despite improvements, several aspects of transport are still riddled with problems. There are increasing concerns for managing the public transportation system effectively and efficiently, as it is turning out to be a 'white elephant' incurring huge losses year-by-year. This paper discusses the present scenario of public transportation system in India with special emphasis on road transport in general and passenger road transport in particular. It also highlights its problematic issues and remedial measures to ensure its smooth and efficient functioning.

### 1.0 INTRODUCTION:

With a land area of 3,287,240 Kms. and an estimated population of more than 125 Crores; transport in India is both a necessity as well as a convenience. Since the economic liberalization of the 1990s, development of infrastructure in the country has progressed at a rapid pace, and today there is a wide variety of modes of transport by land, water and air. As Figure 1 shows, with rising income power of the rapidly growing Indian middle class, the numbers of private vehicles – both two wheelers and four wheelers – are also on the rise, creating pressures on the available road length.

Period	Vehicles						Roads					
	Two-Wheelers	Cars, Jeeps & Taxis	Buses	Goods Vehicles	Others*	Total	NHs	SHs & PWD	Rural	Urban	Project	Total
1961-1961	12.5	6.9	5.3	7.4	26.5	8.1	1.9	4.0	4.5	NA	NA	2.7
1971-1961	20.7	8.2	5.1	7.4	15.0	10.9	0.0	2.6	6.0	4.5	NA	5.7
1981-1971	16.3	5.4	5.6	4.9	18.1	11.2	2.9	4.5	5.9	5.5	3.5	5.0
1991-1981	18.4	9.5	7.4	9.4	10.9	14.8	0.6	2.1	4.0	4.3	1.2	3.0
2001-1991	10.5	9.1	6.7	8.1	8.6	9.9	5.5	3.1	1.4	5.0	0.6	2.1
2011-2001	10.2	10.5	6.9	9.1	8.0	9.9	2.1	3.0	4.4	5.0	2.6	3.4

Note: NHs: National Highways, SHs: State Highways, PWD: Other Public Works Department roads  
 \* Others include tractors, trailers, three-wheelers (passenger vehicles/LMVs) and other miscellaneous vehicles which are not classified separately.  
 NA: Not Available  
 Sources: 1. Offices of State Transport Commissioners/UT Administrations  
 2. Basic Road Statistics of India, 2009-11

**Figure 1: Compound Annual Growth Rates (in %) in Vehicles and Road Length**

Source: Road Transport Year Book-2009-10 & 2010-11

Public Transport has still remained the primary and preferred mode of transport for most of the population, and India's public transport systems are among the most heavily utilized in the world. Despite improvements, several aspects of transport are still riddled with problems due to outdated infrastructure and a burgeoning population, and demand for transport infrastructure and service has been rising by around 10% a year (Owen, 1984). Although India has only 1% of the world's vehicles, it accounts for 8% of the world's vehicle fatalities. India's cities are extremely congested - an average

bus speed is 6-10 km/hour in many large cities. India's rail network is the longest and the fourth most heavily used system in the world. India's growing international trade is putting strain on the ports in India. The country's overburdened airports have just begun to get a makeover, with modernization work and greater investment in the aviation sector. In general, the public transport in India, even though being used virtually as a life line; suffers from outdated technology, incompetent management, corruption, over staffing, and low worker productivity.

### 2.0 ROAD TRANSPORT IN INDIA:

Road transport is vital to the economic development and social integration of any country in general, and a developing country like India in particular. Road transport fulfils a major role in the Indian economy involving a wide range of industries and services from vehicle manufacturers and suppliers to infrastructure builders, services, energy providers, public authorities, insurance and many others. Road transport, together with the other modes of transport, provides indispensable mobility for all the citizens and goods; and thereby contributes to the economic prosperity of a nation. It is a key factor to social, regional and economic cohesion, including the development of rural areas.

Easy accessibility, flexibility of operations, door-to-door service and reliability have earned road transport an increasingly higher share of both passenger and freight traffic vis-à-vis other transport modes. As per the data up to March, 2010, out of total land passenger requirements of India, 85.2% are met by road transport while the remaining 14.8% are carried by railways at present.

Sustained economic growth has brought about expansion of the transport sector. The share of transport sector in GDP of India has increased from 5.8% in 1999-2000 to 6.5% in 2010-11. In particular, the contribution of road transport sector in GDP has increased from 3.8% in 1999-2000 to 4.7% in 2010-11. The share of various subsectors of the transport sector in the GDP is given in Table 1.

**Table 1: Share of Different Modes of Transport in GDP**

Sector's Contribution in GDP	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
	As % of GDP (At Factor Cost and Constant Prices)											
Railways	1.2	1.2	1.2	1.2	1.2	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Road Transport	3.8	3.9	3.9	4.1	4.3	4.8	4.8	4.8	4.7	4.8	4.7	4.7
Water Transport	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Services*	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.3

Total from the Transport Sector	5.8	6.0	6.0	6.2	6.3	6.7	6.7	6.7	6.7	6.6	6.5	6.5
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\*Services incidental to Transport.

Note: All shares in GDP are inclusive of Financial Intermediation Services Indirectly Measured (F.I.S.M.). Data up to 2003-04 are at 1999-2000 prices. Data from 2004-05 onwards are at 2004-05 prices.

Source: Road Transport Year Book-2009-10 & 2010-11

Table 1 clearly indicates that road transport has emerged as the dominant segment with a share of 4.7 per cent in India's GDP in comparison to railways that has a mere 1.0 per cent share of GDP in 2010-11. It may be noted that the entire increase in percentage share of transport in GDP since 1999-2000 has come from road transport sector only, with share of other modes remaining nearly constant. Over the last twelve years (1999-2000 to 2010-11), the road transport is growing at a much higher rate compared to other competing modes.

**2.1 Passenger Road Transportation System in India:**

Public Land Passenger Transport services in India can be classified into two groups - the Rail Passenger Transport and the Road Passenger Transport. Buses take up over 90% of Road Public Transport in Indian cities, and serve as a cheap and convenient mode of transport. India's passenger road transport for short and medium distances is bus oriented. Buses even compete with railways on certain long-distance routes by offering night services (Dhar, 2008). Services are mostly run by government owned state transport corporations. All passenger buses use the standard truck engine and chassis and are not economical for city use - there are virtually no buses in India specifically designed for urban conditions. As a result, available urban mass transport services are overcrowded, unreliable, and involve long waiting periods. However, after the economic liberalization, many state transport corporations have introduced various kinds of special buses like low-floor buses for the disabled and air-conditioned buses to attract private car owners to help decongest roads (Patankar, 1989).

Off late also, new initiatives like Bus Rapid Transit System (BRTS) and air-conditioned buses have been taken by the various state governments to improve the bus public transport systems in cities. BRTS already exist in many cities like Pune, Jaipur, Guwahati, Delhi, Visakhapatnam, Thiruvanthapuram, Indore and Ahmedabad. In 2005, the Central Government had come up with the Jawaharlal Nehru National Urban Renewal Mission, where the Central, State and local governments come together to fund and create better infrastructure for cities (Trivedi, 2009).

**2.2 Operational Framework of Passenger Road Transport System in India:**

In India, as in many other parts of the world, investment in Passenger Road Transport System (PRTS) is treated as a part of public provision of services whereby the key focus is on meeting the social obligation of an affordable, safe and reliable bus service to the country people (Transport Research Wing, 2002).

In India, the Road Transport Corporation Act, 1950 enabled State and Central Governments to establish the Road Transport Corporations. Similarly, the Motor Vehicles Act, 1950 was subsequently amended to make special provision for State Transport Undertakings (STUs) (Singh, 1993). This Act was further amended in 1969 for promoting "State Monopoly" in passenger road transport services. Henceforth, The Indian bus transport industry is dominated by the publicly owned STUs; and the PRTS in India has been organized in four forms (Singh, 2000):

- (a) **Public Corporations** like Andhra Pradesh State Road Transport Corporation (APSRTC), Maharashtra State Road Transport Corporation (MSRTC), Gujarat State Road Transport Corporation (GSRTC), Karnataka State Road Transport Corporation (KnSRTC), Uttar Pradesh State Road Transport Corporation (UPSRTC), Rajasthan

State Road Transport Corporation (RSRTC), Kerala State Road Transport Corporation (KSRTC), Delhi Transport Corporation (DTC), Madhya Pradesh State Road Transport Corporation (MPSRTC) etc.

- (b) **Departmental Undertakings** like State Transport Punjab (STPJB)
- (c) **Municipal Undertakings** like Bombay Electricity Supply & Transport Undertaking (BEST); and
- (d) **Government Companies.**

These four types of set up basically fall under the broad category of State Transport Undertaking (STU), even known as State Road Transport Undertaking (SRTU). Presently, in India, there are total 21 such Public Corporations constituted under the provisions of the Road Transport Corporation Act, 1950; while 31 undertakings are formed under the Indian Companies Act, 1956. The Urban Transport is operated by 10 Local Municipal Councils; while the remaining 9 Undertakings function as part of the Government Departments.

Corporations account for about 75% of the bus fleet strength followed by Companies (17%); the share of Municipal Undertakings (4.5%) and Government Departmental Undertakings (3.5%) were lower. The largest among them are the Maharashtra State Road Transport Corporation (MSRTC) and the Andhra Pradesh State Road Transport Corporation (APSRTC) with a fleet of about 17000 passenger buses each.

Ironically, over a period of time, except the consoling and very promising example of Tamil Nadu State, most of these STUs have accumulated deficits only and ironically have not been able to meet increasing transport needs of the public (Singh & Kadiyal, 1990). Thus, despite its prime position in the movement of people especially in remote rural areas, these STUs are subjected to criticism due to heavy losses incurred by them every year (Thomas, 2000). On the part of these STUs, one major constraint is that the State Government controls the STU's fares as well as the most relevant aspects of their supply (ILO/UNDP Project on STUs in India - A Study of Performance, Problems and Prospects, 1982). Hence, these STUs have relatively few incentives to run their business efficiently (Jha & Singh, 2000); and are always seen as 'public servants' without much botheration about their profitability (Chakrobarthy, 2007).

**3.0 PROBLEMS OF PRTS IN INDIA:**

As development of road transport is mainly assigned under the State Government, the Nationalization of this sector also comes under the preview of State Governments. This explains the absence of uniformity in nature of nationalization of passenger transport in the different states. The nationalization is also gradual and sometime partial, in the given state. The heterogeneous characteristics of the STUs in different states are responsible for different problems:

**- Legal Constraints:**

It is common experience that the operations of different STUs are different owing to many legal constraints. For instance, the Motor Vehicle Act imposes many administrative procedures to get permit for route of the bus services. The demand pattern for passenger travel is also uneven and sometime more random in nature than generally observed in the case of other productive enterprises. Rising cost of many inputs required for bus operations is uncontrollable cost component as the operations have no influence to control the prices of fuels, tyre and spares. The economic rationale demands the immediate upward change in the fare structures based on

cost of the operations, but owing to legal and administrative procedure, the various steps needed appear to be highly time consuming. Resistance from the public and political authorities is also creating problems even for justified increase in fare. The lag in increase in fare and high cost of operations owing to non-controllable cost component creates the long term problem of financial viability of the organization.

• **Heavy Burden of Taxation:**

The taxation on road transport industry in India is highly burdensome. The fixed component of taxation which is independent of vehicle utilization per day creates fixed liabilities on the organization. When the prices of inputs affecting variable cost component are rising, the fare is not flexible as needed; the burden of taxation is to be reduced so that the financial viability would be possible.

• **Issue of Industrial Relations:**

For healthy and competent operations of nationalized bus transport undertakings, the congenial employer-employee relationship is a pre-requisite. It appears that the managerial efforts to boost up the labour productivity do not get adequate response from labour. So the real challenge lies in how to provide incentive by providing good atmosphere so that the additional expenditure is compensated by increase in the productivity of bus services.

• **Nature of the Nationalization of Road Transport Industry:**

How the nationalization is being implemented in a particular State is also very much vital for economic operation of the STUs. If there is a partial nationalization compelling the STUs to compete with private operators, many problems would crop up as private operators are having special advantages; which may create the problems for highly legalized and accountable organization like STU. So, as far as possible, the partial nationalization should be avoided.

#### 4.0 THE ROAD AHEAD FOR PRTS IN INDIA:

All said and done, what needs to be done to ensure smooth and efficient operations of the life line of Indian Transport – the Public Road Transport? Here are some broad guidelines:

**Privatization:**

One possible solution for the problems might be the selective privatization of India's PRTS; either through opening up the market to private firms (who would own, manage, operate and finance their own systems) or by having public agencies contract with private firms to operate services on a system wide basis, for selective routes, or for selected functions (like maintenance). Mishra & Nandagopal (1993) suggested that with the severe and continuing resource problems besetting the Indian economy, and with the pressure on policy makers to increase economic growth, there is a need to privatize State Transport Undertakings (STUs). Kulshrestha (1994) also opined that faced with tough competition with other means of transport and from the private operators, privatization seems to be an option for PRTS in India. This is because in a comparison of public and private bus operators in Delhi, the World Bank found that private bus firms carried twice as many passengers per bus per day (1,584 vs. 751), earned twice as much revenue per bus per day (2,700 vs. 1,321 Rupees), required less than half the staffing per bus (4.6 vs. 9.6 employees), cost less than half as much per km (7.7 vs. 17.2 Rupees), and actually made a profit (3.2 Rupees per km) while the public bus firms incurred a loss (11.0 Rupees loss per km).

It appears that privatization has much potential to improve efficiency, but it must be accompanied by strict regulations, performance standards, and overall coordination to ensure better services. Thus, privatization of STUs, being a serious and sensitive issue, demands considerable attention.

**Change of Outlook/Orientation – Social to Business:**

As the Public Transport in India is seen as a matter of "Social

Welfare", it is often required to provide unprofitable services on lightly used routes to achieve social objectives (Ramanyya, Nagadevara & Roy, 2005). So, unlike a viable business entity, the PRTS in India runs with social orientation instead of business orientation. So, the system is unable to match cost & revenue in regard to the consequences of restricted fare, higher taxes, and sporadic subsidies from the government. Even there is inability (due to political compulsions) to link the price of the service to the increase in the input cost due to fuel, spares, depreciation, and wages. Added to this, the government treats the system as an organization for employment generation. Consequently, the manpower cost is almost double the private operators. So, there is an urgent need to change the outlook/orientation of PRTS in India from social to pure business orientation.

**People Management:**

One of the major concerns of PRTS in India has been the non-participative employees and their indifferent and detached view to the operating and financial health of the STUs. Even, decision making is very slow, as for taking a small decision; it has to go through a long bureaucratic hierarchy. The mentality of being government employees leads to non-performance among majority of the employees. Even, performer and non-performer are treated in similar line in terms of monetary benefits. So, gradually, the performers prefer to be enjoying like the non-performers. To overcome all these people issues, systematic efforts must be made to ensure better quality of work life to boost the morale and motivation of these employees. At the same time, to motivate the performers, and to keep the non-performers on their toes, objective and standardized performance appraisal system must be initiated. Efforts must also be initiated to ignite a sense of belongingness among these employees. In this context, the attitude of Trade Unions in favor of increase in productivity is to be encouraged.

**Monitoring/Regulatory Mechanism:**

The real challenge for the vast operations of the STUs would be regulatory oversight at not too high a cost, which also ensures that the employees adhere strictly to their timetables and do not omit services. Independence of observing and certifying agencies, while necessary is not adequate since collusion is possible and a public entity could be slack. The only solution is to raise the punitive measures against service omission and to bring in competitors' monitoring of each other. The crucial determinant of success would be a regulatory mechanism that ensures route discipline and service frequencies.

**Decentralization:**

Decentralization of the PRTS also appears to be a promising solution, as it is visible in case of Tamil Nadu State initiative (Mishra & Nandagopal, 1993). In Tamil Nadu, a strategic decision was taken to set up a number of state road transport corporations under the Companies Act of 1956 with operations limited to one or two districts. Contrary to this, in all other states, the major problem is having only one STU under the Road Transport Corporation Act of 1950 to run the service for the whole state. So, in Tamil Nadu, this decentralization has triggered the much needed element of healthy competition among the transport undertakings within the state itself, as financial and social indicators can be used to compare their relative performance. In a way, it introduced the possibility of yardstick comparison as well as paved the way for more cohesive management, which is always found missing in most of the Government owned and operated undertaking. Even the company form of these undertakings provided operational autonomy and boosted the development and further nurturing of business culture and professionalism in the seemingly bureaucratic set up of the STU. That's why the STUs in the state of Tamil Nadu present striking positive variations – a very encouraging picture of productive efficiency as compared to their counterparts in other states of our country (Singh, 2000).

**5.0 CONCLUSION:**

All said and done, despite its far reaching relevance and importance, PRTS in India is at crossroads, requiring major transformation initiatives. Being vital to country's economic development, this sector needs to be backed by stringent regulatory framework along with progressive management practices leading to professionalism in its operations and creating congenial working climate. Then only, this "Life Line of Transportation" would have "Long Life" in India.

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