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Public Road (Passenger) Transport Regulation in India

S Sriraman

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Author Bio:

Prof S. Sriraman is Walchand Hirachand Professor of Transport Economics in Department of Economics, University of Mumbai.

Email: sriraman@economics.mu.ac.in

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CUTS Institute for Regulation and Competition
R 75, First Floor
Greater Kailash I
New Delhi 110048
http://circ.in
circ@circ.in
+91 11 26463021/22/23

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Abstract

Over the years, road transport sector has emerged as a dominant mode of transport accounting for about five per cent of India's GDP. However, the road transport sector is beset with problems. Growth in vehicular population above 10% per annum has out stripped the modest growth in expansion of road network leading to severe congestion on many stretches of National/State highways. Besides, high growth in motor vehicle population has inflicted negative externalities on the society in the form of rising pollution, road accidents and time loss in commuting due to congestion. Over the years the share of buses in the vehicle population has fallen from more than 11% to barely 1% as a result of growth in personalised motorised mode (two wheelers and cars). Road transport being a State subject has led to complex and diverse regulations in terms of motor vehicle taxes, permit fees, passenger taxes etc. across the States making interstate operation of buses problematic.

In this backdrop, the paper examines the elements of the existing policy and a regulatory framework that ought to be in place for public passenger bus transport. Besides, the paper outlines the international experience of regulation and deregulation to offer some lessons for India. The paper acknowledges that recent initiatives by both the central and state governments, like JNNURM and Bus Rapid Transit System, are innovative approaches to address the derelict state of urban bus passenger transport in India.

1. Introduction

While the railways historically played a dominant role in the overall transport system in India, road transport has now come to occupy a pivotal role. According to Government of India estimates,[1] in 2010-11, road transport had a share of 4.7 per cent in India's GDP as compared to the railways share of 1 per cent. Most recent estimates give the road modal share at nearly 63 per cent in freight movement compared to 10 per cent in the early 50s.[2] In case of passenger movement, the road mode is estimated to cater to about 85 per cent of the demand with the private sector involved in a significant manner.

Over the past five decades, the growth of vehicular traffic on Indian roads has been far greater than the growth of the road network, as a result of which the main arterial roads have been working at more than their capacity. Between 2001 and 2011 the vehicular population grew at a compound annual growth rate (CAGR) close to 9.9 per cent compared to 3.4 per cent in the case of the entire road network and 2.1 per cent in the case of the National Highway segment. The composition of the vehicular population in the year 2011 reveals a preponderance of two-wheelers with a share of nearly 71.8 per cent, followed by cars with a share of 13.6 per cent.

Notably, the share of buses was at 1 per cent in 2011 compared to 11.1 per cent in 1951.

[1] GOI (2007). 'Report of the Working Group for Road Transport for the Eleventh Fiver Year Plan', Planning Commission, Government of India, New Delhi.

[2] Sriraman, S. *et. al*. (2007). 'Competition Issues in the Goods road Transport Industry in India with special reference to the Mumbai Metropolitan Region', Competition Commission of India, New Delhi; RITES (2009). 'Report on Total Transport Systems Study', submitted to the Planning Commission, Government of India.

According to PRTC[3] (as quoted by NCAER), in recent years, the bus mode dominates the public road transport scene in India with a share of nearly 55 per cent. While this may be true at an all-India level, at the level of the cities (urban areas), bus transport varies from 5 per cent for the smaller urban conglomerations to nearly 44 per cent in larger urban areas that do not have the services of railways.[4]

Passenger movement by road is expected to rapidly expand in the years to come in the light of a number of factors, such as rapid motorisation (especially car ownership) resulting from rising income levels, demand for quality services, and provision of upgraded road networks, among others. The public passenger transport system consists of a wide variety of modes which includes mass transit/metros, contract carriages (buses, taxi-cabs, and auto- rickshaws), stage carriages (high capacity buses, mini-buses). Each of these has distinctive characteristic features.

From a social perspective, bus transport is considered to be the most optimal road mode since it involves less fuel consumption, congestion (use of road space) and pollution, per unit of transport output, namely, passenger kilometre. Despite its importance, particularly in an increasingly carbon-footprint conscious world, it is however observed that the bus mode is plagued with many problems arising out of faulty policy and regulatory regimes (such as inefficient fare and permit policies, ineffective implementation of safety measures, etc.) which have implications on usage, efficiency of operations, technological development etc.

It is felt that in order to meet the emerging requirements in the public road (passenger) transport services, or Bus transport, instituting an enabling policy environment and a complementary regulatory regime is necessary.

It is against this background that this paper examines the elements of the existing policy and a corresponding regulatory framework that ought to be in place to enable the sector to play its rightful role in the Indian economy. It gives an overview of the existing Bus Transport regulatory structure in India, especially with reference to the market characteristics. We then examine the policy and regulatory environment under which it operated with a view to understand the limitations that have constrained its development. The paper outlines the international experience of regulation and deregulation in recent years, in order to derive some guidelines for the future. Drawing from this analysis, it concludes, with an outline of a regulatory policy framework that can better suit the sector to handle emerging requirements.

2. Bus Transport Laws and Regulatory Structure

Bus Transport: Its Evolution and Recent Market Characteristics

Bus transport services began in India nearly a hundred years ago. By the early 1920s, a large number of vehicles were already operating in several parts of the country. For nearly three decades from its inception, the service was almost exclusively provided by the private sector. Its growth was unprecedented, which led to unhealthy competition among the operators who were plying these vehicles for hire and reward and also proved to be a threat to the railways.

In the Mitchell-Kirkness Report,[5] it was thus recommended that the number of licences for buses on any route ought to be restricted and that conditions such as scheduling, publication of fares and compulsory insurance of motor vehicles should be prescribed. During pre-independence years, efforts were made to control and regulate the industry, both to avoid unhealthy competition and also to allegedly protect the railways

[3] NCAER (2007). *State Policies Affecting Competition: Passenger Road Transportation Sector*, Competition Commission of India, New Delhi.

[4] WSA (2008). *Transportation Policies and Strategies in Urban Areas in India*, Wilbur Smith Associates, Report submitted to the Ministry of Urban Development, Government of India.

[5] GoI (1932). 'Report of Mitchell- Kirkness Committee', Government of India.

revenues in which the Government had considerable financial stake. This control came in the form of the Motor Vehicles (MV) Act of 1939. According to Padam,[6] every expert opinion at that time suggested controlled monopoly as an answer to the evils of the system. Attempts to bring the operators into groups of operators however proved futile due to conflicting objectives of the parties concerned.

Soon after independence, it was accepted that the means of production must be closely controlled, if not owned by the State. This was also reflected in the case of road transport, which was listed in the Schedule B of the Industrial Policy Resolution which called for progressive nationalisation. This arose in the form of legislation, namely, the Road Transport Corporations (RTC) Act of 1950. This legislation was meant to enable the state governments to form transport corporations within their jurisdictions. Accordingly, many states completely nationalised public bus operation while some others provided for a limited role for the private sector. The passage of this legislation seemed to indicate the government's desire for increasing state control, with the MV Act, 1939 continuing to be the ruling legislation.

However, the RTC Act provided for monopoly and government ownership wherein the government would not only be the regulator but also be an operator. Consequently, special provisions were added to the MV Act in 1950s for publication of nationalisation of bus route schemes and for approval of these schemes by the government. This was reinforced further in the context of the Five Year Plans when the Planning Commission emphasised the importance of bus transport in the fulfilment of Plan objectives.

The bus mode of public transport has been generally provided by the respective State Road Transport Corporations (SRTCs) with the private sector playing a limited role. The growth and performance of State Road Transport Undertakings (SRTUs) during the past five decades have been no mean achievement, although there was considerable variation in the performance of these Undertakings in different states; following liberalisation in the early 1990s, the share of the SRTUs in terms of vehicle numbers has however been declining. The share of the private sector in the total number of buses increased from 57 per cent in 1980-81 to about 85 per cent in 2007-08. Thus, a rapid decline of the share of SRTUs buses from about 45 per cent in the mid- 70s to around 15 per cent in 2007 was observed. At present, there are 63 SRTUs having a total number of around a lakh of buses of varying fleet size.

In terms of passenger movement, since the 90s, the SRTUs have not been able to cater to the increasing demand, especially in urban areas, as reflected by the occupation ratio (number of Passenger kms per Seat kms) in the cities. Therefore, it became essential to re-allow private sector participation in areas where only public operators were allowed till the early 90s, and to enlarge private participation where it already existed to fill the gap between demand and supply.

But given the lack of effective implementation of the regulatory framework, across states many instances were noted of clandestine operations carried out by the private sector. This was more prevalent in mofussil (rural) operations, one motivation being the associated profitability of specified routes and the other being the indifference of the monopoly operator, namely, the SRTU, in meeting the genuine demands of the concerned areas, which has often resulted in the low load factors of many SRTUs thereby affecting their financial performance very adversely.[7]

Coming to the issue of market share, NCAER examined the market structure relating to bus transport in seven states in the country. Table 1 shows the market share of the private and

[6] Padam, S. Quo Vadis: Essays in Transport and Management, Pune: Central Institute of Road Transport, Pune (2001)

[7] World Bank (2005). 'Road Transport Service Efficiency Study', Mimeo, World Bank, Washington D.C.

public operators in these states, with the former often dominating the less developed states.

The above dynamics of the market structure must be viewed against the background of the overall transport policy of the Central government as well as the enabling policies of the different states which has in fact contributed to the lack of uniformity in patterns and concerns across states. Following the liberalisation of the economy in the early 90s, the Planning Commission issued guidelines on the means by which additional demand for bus transport was to be met.

In 1993-94, the Planning Commission laid down that all additional demand for bus services has to be met by the private sector. Accordingly, privatisation schemes for provision of bus transport were initiated in many states, especially those in which all routes had been nationalised earlier. While this encouraged private participation, they were also at the root of the many distortions which created more problems than they solved in the years to come. A few cases can be examined.[8]

In 1993-94, permits were issued to co-operatives of unemployed youth in Haryana with a view to generate employment opportunities in the State. These operators could provide bus services only on intra-district routes, which were essentially 'link' roads. To ensure monopoly of the Haryana Roadways in the profitable inter-state routes, these link roads could include National and State Highways, only up to a maximum length of 15 kilometres, leading to fragmentation and anticompetitive practices.

A peculiar feature of the bus transport sector in Rajasthan was that the route network was demarcated across the public sector and the private sector. The share of Rajasthan State Road Transport Corporation (RSRTC) in the total route-kilometrage went down progressively over a period of time. The trends indicated that any new expansion in route kilometrage had been in favour of the private sector. The load factors for the Corporation went down steadily during the late 90s with reports indicating that the tremendous growth of 'clandestine' operations on nationalised routes was at the root of the decline.

In Himachal Pradesh, service provision has been distinctly categorised in terms of three regions: (i) upper region or high-hills (ii) middle-region or mid- Himalayan regions and (iii) lower region or foot-hills. About 60 per cent of HRTC's services were being provided in the middle and the upper regions. The upper region roughly corresponds to the tribal belt of Himachal Pradesh which accounts for 42 per cent of the area of the state but only three per cent of the total population.

The HRTC has a total monopoly in this region. Most of the HRTC's routes were concentrated in the middle-region. Here, the HRTC faced competition from private operators mostly on remunerative routes. While, in the lower region, the HRTC faced competition from other inter-state operators such as the 'Delhi Transport Corporation', the 'State Transport Haryana', 'Punjab Roadways' as well as the 'RSRTC'. The load factor was lowest in the middle region due to progressive influx of private operators in this region. In comparison, the load factor was higher in the upper region because of the total monopoly of HRTC operations.

The World Bank in 2005 examined private bus operations in three states, namely, Karnataka, Maharashtra and Uttar Pradesh. In both rural and inter-city segments of the passenger transport market, stage carriage operations were found to be still predominant. Restrictions were reported with respect to grant of permits, both in nationalised and non-nationalised areas. To bridge the gap between demand and supply, clandestine operations seemed to be the rule with markets becoming ruthlessly competitive and most of the private buses having contract carriage permits violating the permit conditions and operating as 'stage

[8] The following case studies are based on: Sriraman, S. (2000). 'Report on State Road Transport Undertakings in India', submitted to the 11th Finance Commission, Government of India; and the World Bank (2005), *op. cit.*

carriages'.

They also had to compete with the multitude of smaller vehicles such as maxi cabs, jeeps, vans and LCVs and tourist cabs, all of which operated without any regard to the permits they hold and did not follow any regulations either in fares, on routing matters or in timings of operation with their operations being fully flexible and varying with traffic demand. In situations where SRTUs had not met market demand, the market was working around the failures of the government instruments - the SRTUs and the restrictive policies designed to protect them - to meet societal needs. The cases referred to above clearly reflected ineffective regulation while at the same time bringing into question the relevance and need for such restrictive regulation.

3. Contemporary Indian Regulatory Framework in regard to Bus Transport:

The MV Act and State-Specific Regulations

The current MV Act, 1988 came into force on July 01, 1989 after very comprehensive amendments to-date and is applicable throughout the country. It defines the powers of Central and state governments with regard to the regulations for road transport industry. We discuss in brief below the significant provisions relevant to our purpose. While some of these are valid across all states, some of them provide for additional regulations.

(i) Selection of Drivers: It is mandatory for drivers of stage carriages to hold a valid driver's licence as per the Act of 1988. The prescribed age limit for acquiring such a licence is minimum 18 years, which is valid across the country and the required educational qualifications may vary across states.

(ii) *Selection of Conductors:* It is mandatory for the conductors of stage carriages to hold a valid conductor's licence as per the Act of 1988. The prescribed age limit for acquiring such a licence is minimum 18 years which applicable within the state boundary and the required educational qualifications may vary across states.

(iii) *Registration of Motor Vehicles:* A certificate of registration issued by the state government is a basic necessity for operating the vehicle across the country. The validity of the certificate is 15 years for vehicles not used for public purposes. In Rajasthan, the same holds good for transport vehicles (which includes stage carriages as well as contract carriages) as well. However, in the case of change of ownership or place of residence, a new certificate specifying the same is required from the concerned authority. To obtain a valid registration certificate it is essential across all the states for the vehicle to carry a fitness certificate. This certificate is valid throughout the country but it cannot exceed the age limit of the vehicle. The age limit of vehicles may vary from state to state.

(iv) *Control of Transport Vehicles:* For the use of a vehicle as a transport vehicle a valid permit issued by the State Transport Authority (STA) or Regional Transport Authority (RTA) is required. Accordingly, there are *no entry barriers for operations* in a State. The permit prescribes the place and manner in which the vehicle (as a stage or contract carriage) is to be used. These relate to route or routes required the type and seating capacity of vehicle, number of trips to be provided, etc. Any individual or company may apply for a permit.

(v) *Fixation of Fares:* Under this provision, the state can set maximum and minimum fares. In the case of stage carriages, the proposed fare to be charged is also to be submitted along with the application.

(vi) *Exit Barriers:* There are also *no exit barriers*. As per the Act, an operator may curtail operations at any time by informing the concerned authority. The state also has the right to cancel or suspend the permit on certain grounds such as breach of conditions, loss of ownership of vehicle, etc.

(vii) *Special Provisions Relating to State Transport Undertakings:* If the state government feels that for the purpose of providing an efficient, adequate economical and properly co-ordinated road transport services it may be necessary in the public interest to reserve certain routes or areas for operations, it may do so under the provision of this Act. On such routes only temporary permits with one-year validity can be issued to the private sector. Under these provisions, some of the states have imposed their own restrictions such as complete nationalisation (Maharashtra), some routes reserved for the public operator (as in West Bengal and Orissa, Kerala, Rajasthan), confinement to rural areas or link roads (Himachal Pradesh, Haryana) and permits for operators who ran buses prior to nationalisation (Tamil Nadu).

(viii) *Control of Traffic:* It is mandatory for all vehicles to follow the maximum and minimum speed fixed under this Act. The state government may, however, vary the same in the interest of public safety or convenience either in the entire state or in a particular area or road. No vehicle which is not fitted with pneumatic tyres is allowed to be driven in any public place.

(ix) *Provision of Bus-Shelters:* The state government or any concerned authority also determines places at which motor vehicles may stand either indefinitely or for a specified period of time and also the places at which public service vehicles may stop for a longer time than is necessary for boarding or dropping passengers. While in Tamilnadu, Kerala, Orissa, Himachal, West Bengal and Orissa, private operators are allowed to park in public terminals while in Maharashtra, they park their vehicles outside the bus terminals.

4. Analysis of the Current Regulatory Regime - Provisions, State of Implementation and Limitations

Regarding entry controls in terms of issues of permits, it is widely recognised that while some degree of control is necessary so as to avoid excessive competition, the basis which should normally have been a comprehensive planning exercise has always been missing. Moreover, the issue of getting permits is by itself such a long-winded exercise that involves considerable delays which in turn constitutes a set of barriers to entry into the sector. NCAER (2007) has documented this aspect with regard some of the major States in the country. The exercise that was undertaken related to factors such a time taken for issue of permits, nature of permits (temporary or permanent), registration fees charged, maximum number of vehicles allowed, issue of permit for a single routs or for a network of routes, resulting in a with a competition index (see Table 2).

As is clear from Table 2, Rajasthan is at the top of the ranking of the competitive index. On the other hand, Maharashtra is at the bottom of the ranking. Amongst the six indicators analysed Maharashtra is at the bottom for all indicators. Himachal Pradesh is just above Maharashtra, i.e. at the sixth position in the ranking.

Road transport regulations in India as discussed earlier, have allegedly arisen from the need and desire to protect the railways. The permits confined road transport activities initially to a certain defined local area which was then extended to a region, then to the province and then finally to nation as a whole when the need arose for greater capacity over longer distances and especially when the railways were unable to lift the required tonnage at the right time and at the right place. In fact, the road mode is most optimal over short or medium distances, with the railways scoring over road only in longer distances. Optimality is defined in terms of minimum resource cost to society including energy and environmental considerations.

RITES (2009) have shown that the misallocation of resources due to non-optimal modal mix amounted to nearly Rs.40000 crores in 2006-07. This problem could perhaps be reduced to an extent by an appropriate combination of pricing and investment policies which takes into account the multi-modal nature of movements especially long-distance ones.

Section 67 of the MV Act 1988 empowers the state government to issue directives to the State Transport Authority regarding the fixing of fares and freights (including maximum and minimum) for stage carriages, contract carriages and goods carriages. It is, however, unclear to what extent the fare regulations are observed. The true situation is probably a mixed pattern, with the degree of adherence to statutory fares depending on how closely those fares happen to match the market prices at a specific time and place. But it is recognised that the regulation of fares has almost always been done in an inefficient manner which reflects two particular features.

One relates to excessive constraint of general fare levels which often affects the revenue required to fund expenditure on vehicular maintenance and replacement. Another issue relates to approvals for fare rise often taking a long time by which time the purpose of the exercise is lost. In a developing country like India, fare control would be required for a public service but the governance of such a provision needs to be improved significantly.

To a limited extent, there must be provisions for automatic fare increase based on market considerations such as fuel prices and consumer price index which indicates the general level of inflation for the common man. It must be remembered that all these features emerge out of the policy decision making framework some of which need to get formal approval from the regulatory authority.

The introduction of special provisions for SRTUs in the MV Act 1939 in 1950 (Chapter 6) has had, as it appears, varying impacts. The nationalisation process that followed was reasonably successful especially in the first three decades but the inability of the public sector to successfully meet the additional demand was due to financial constraints on fleet expansion and political interference; the emergence of the private operator in a formal manner and more significantly in a clandestine way (mostly due to local political support) also affected its role. In both rural and inter-city segments of the bus passenger transport market, restrictions have been reported with respect to grant of permits, both in nationalised and non-nationalised areas.

And yet the SRTUs have neither expanded their fleet nor (generally) officially allowed private operators in the nationalised areas, although recently, in some cases, private buses have been recruited under SRTU management under the 'km-scheme'. It must also be noted by many of the SRTUs (under the guise of special provisions) have become insensitive to the needs of users' - their primary clients - as result of which any private sector provision despite all its weaknesses has been accepted as a reasonable alternative to the SRTU.

5. Policy Initiatives in Recent Decades and their Implications

Intercity Movement since the 90s

As suggested earlier, a reversal in the policy direction since the 90s encouraged greater reliance on private sector provision by liberalising market entry in all market segments, except for certain 'nationalised' stage routes where the SRTUs still retained some legal monopoly rights. The role of the SRTUs in inter-city transport has now considerably reduced through most of India, and several states (mostly in eastern India) now rely exclusively on private provision.

Only Andhra Pradesh reportedly has as yet no substantial private bus competition to the SRTU. Private bus operators have also established a new standard of service in long-distance inter-city services (particularly in states like Tamil Nadu), while the market for shorter-distance transport is being transformed by the introduction of small to medium buses, which operate more efficiently on the rural routes.

In many states, a policy of hiring private buses by SRTUs to supplement their fleet strength and to operate under SRTU management on still- nationalised routes has also been introduced. In cases where the SRTUs have not met market demands, private operators have overlooked restrictive regulatory policies to operate clandestine services. Those operators having contract carriage permits violated permit conditions to operate as stage carriages. They competed with the multitude of smaller vehicles such as maxi cabs, jeeps, vans and LCVs and tourist cabs, all of which operated freely without any regard to the permits they held and did not adhere to any regulations concerning fares, routings or schedules, since their operations are fully flexible and can vary instantly with traffic demand.

From a user perspective it is fortunate that the market has managed to circumvent these restrictive regulatory policies resulting in a more flexible transport system, very responsive to the specific needs of the passengers. But this has been achieved at the expense of 'so-called' public regulation, and also to some extent, at the cost of meeting minimum international service quality (safety and environment) standards.

Public-Private Partnerships (PPPs) in Urban Bus Transport in Recent Years

The promotion of such partnerships has been an underlying objective of policy statements related to the transport sector that the Central and state governments in India have been putting forward since the late nineties. In recent years, serious efforts have been made to operationalise the concept in the context of bus transport as part of the implementation of the National Urban Transport Policy,[9] which has incorporated it, in some cases, as part of the Central government funded Jawaharlal Nehru National Urban Mission (JNNURM) that has prescribed model guidelines to the state and local governments. The emphasis has been on the need to promote public transport systems with a more directed initiative to promote the bus mode in the different cities for which funds for bus procurement are being liberally given even within the framework of PPPs.

The JNNURM proposed to provide 50 per cent of the funds required to buy the buses for city transport to 63 cities if they adhere to certain defined guidelines. Of the balance fund required, the state government would have to put in 20 per cent of the amount and balance 30 per cent would have to come from City municipal corporations or City transport corporations or a private party by way of a PPP. Some notable experiences of different PPP models are discussed.

The Indore Experience

Indore City Transport Services (ICTS) Limited was incorporated on December 01, 2005 with an objective to operate and manage the public transport system of Indore. IMC (Indore Municipal Corporation) and IDA (Indore Development Authority) took 50:50 stakes in a special purpose vehicle which has been run on a public-private partnership basis, while providing the policy and regulatory framework for private operators that provide services on different routes.

Initially, the company identified and took permission for 18 high travel demand routes from the Transport Authority of state government and started operation with 37 ultra-modern low floor buses with 2 broad doors which allowed passengers to board and alight quickly and easily, saving time and fuel, and giving better run-times and improved economy to the bus operators. Real time vehicle tracking and fully computerised ticket vending system were some innovations tried first time in the country. Operation and maintenance (O&M) and other regulatory measures were being exercised by the company.

The city bus route network system was scientifically planned and designed. Direction oriented 'hub and spoke model' of routing has been adopted and the model was designed keeping in mind the motto of 'Minimum Investment with Maximum Returns' for all parties involved in the business. A few years later, Indore has a fleet of modern, low-floor buses with computerised ticket vending. Electronic signboards at bus stops announce when the next bus is due based on satellite data. Investment in the system has risen to Rs 40 crore, all done privately. ICTS has made a profit since inception and so have its six private partners who run the buses. It has clearly displayed revenue generating ability and financial sustainability of the PPP structure.

The Vadodara (Baroda) Experience

Vadodara Municipal Corporation (VMSS) took up the initiative of organising a city bus

[9] GoI (2006). 'Draft Report on National Road Transport Policy', Ministry of Road Transport and Highways, Government of India, New Delhi, mimeo.

service on the basis of a public private partnership. As the lead implementing agency, it defined the bus routes, bus stops and fare structure and also the quality of service in terms of frequency. It had to follow guidelines for city bus services as per urban development and urban housing development department, was responsible to get NOC (No Objection Certificate) from the Gujarat SRTC (GSRTC) for stoppage of current services, given that the RTA was responsible for sanction of stage carriage permits under the MV Act. The bus stops were made by VMSS on a build-operate-transfer (BOT) basis. In lieu of the rights given to the operators for collecting fare, VMSS got a premium on a yearly basis from the operators.

On the other hand the private partner procured, owned and maintained buses; took care of expenditure on rolling stock and O&M (including cost of driver and conductor, supervision, fuel). It also provided uniforms to drivers and conductors. Another private party built and operated 124 pickup stands to give support to the bus services on basis of advertisements.

To begin with, 41 routes were operated with 100 buses. VMSS income increased from bus operations as also from bus stands. This income has been used for the infrastructure development of the city. VMSS has encountered several challenges in terms of the phenomenal growth of 3-wheelers and personalised vehicles (two wheelers and cars) which have created difficulties in bus movement. A move towards heavy occupancy vehicle lanes and then towards bus rapid transit system could pave the way for a vastly improved system to emerge.

The Jalgaon Experience

The motivation behind the application of the PPP model in Jalgaon was provided by the poor services that the then existing public operator, MSRTC, was providing. MSRTC sustained continued losses from the business and its demand for compensation from the Jalgaon Municipal Corporation did not receive any response. As a result, operations were discontinued in August 2009. The Municipal Corporation wanted to provide bus services but had neither the resources nor the requisite expertise to do so and hence there was no option but to go in for the PPP model.

A Special Purpose Vehicle (SPV) - JNTU was formed for this purpose. The SPV floated the tender for bus services which then received one response 'ECOBUS' that subsequently began operations with the fleet of buses fitted with EURO III diesel engines with rates being M3 for the first two kilometers and M0.60 per km thereafter. This system adopted e-enabled measured such as GPRS fleet tracking system, electronic ticketing system, LED and LCD displays in buses and stops, and smart card passes. The frequency on all routes was 15 minutes. As a result, the carrying capacity increased by 400 per cent while average occupancy rose to 55 per cent leading to a revenue increase of 500 per cent. All these were achieved due to sustained marketing efforts, more revenue from advertising, motivation of man power thereby providing high-quality services, and above all achieving high level of operational efficiency.

However, a little more than a year later, the services have been withdrawn due to a number of reasons significant among them being the lack of infrastructure provision as provided in the agreement between the public and private partners. Non co-operation on the part of MSRTC did not permit use of a terminal that has been lying unused ever since MSRTC stopped city operations. The absence of a bus terminus and depot space resulted in significant additional expenditure on diesel for bus turn-around on every trip and empty movement at the start and close of the day. While the tendering process had specified 15 routes to be bid for, only 5 were offered and the remaining were not being offered at the instance of the MSRTC. It is our understanding that even the routes proposed were never planned, which meant there is need for rationalisation of routes based on a comprehensive study that needs to be undertaken to examine origin-destination movements and also to categorise routes as trunks and feeder routes. This is a vital part of the urban planning and development department which is currently not being given adequate attention.

An analysis of the different case projects in Indore and Vadodara reveals that a proper PPP framework was one of the factors responsible for making a project successful. The regulatory body (the local agency or SPV) analyses demand, plans routes, fixes fares, gives out tenders, and monitors performance regularly. Success has resulted from proper identification of risks and rewards and their allocation to the party which was best able to manage it, quick decisions made regarding tariffs, routes, frequency, etc., transparent selection of the operator, continuous consultation with stakeholders and provision of space for facilities. In Jalgaon, failure resulted as many of these basic governance elements especially on the part of the public authorities were missing, including even proper planning and simple monitoring practices.

6. International Experience in Road Transport Regulation & Lessons for India

Transport Regulations - An Overview

A broad definition of regulation is: any measure or intervention which seeks to change the behaviour of individuals or groups. The purpose of regulation is to achieve better outcomes compared to the situation if regulation were not present. Historically, governments intervened to regulate transport for reasons of equity and later to lay down acceptable safety and environmental standards. It has equally been evident that governments tend to intervene when market forces do not produce either the desired efficiency or the type and kinds of services a society desire.

It is thus incumbent on the part of the government to ensure that the business of transport is reasonably profitable so that new technologies are introduced and the quality of service is enhanced. If there are too many restrictions affecting economic viability the result will be low technology, poor service and consequent immobility. Regulation must have a positive impact, i.e. to encourage rather than to discourage provision of better quality of service. The public, strategic and business interests may often conflict with one another, which is why the overall purpose of regulation is to balance and prioritise conflicting interests in such a way that the entire society benefits.

Essentially, economic regulation is about protecting the weak and restraining the powerful, so as to achieve economically and politically sustainable outcomes. It is about promoting and protecting investment on the one hand, while protecting the consumer and public interests on the other. Both need to be achieved.

Transport regulation - like infrastructure regulation - is necessary when the state determines that the provision of transport services cannot be left entirely to the private sector. This is because transport infrastructure - in most cases - will be a monopoly, and the holder of that monopoly will have an incentive and usually a tendency to abuse that position through charging excessive prices, demanding other unreasonable terms for access to the infrastructure, and providing a poor or declining quality of service, to the detriment of the users of the system and the public interest.

In the past two decades, almost all developed and developing countries have experimented with different forms of ownership and regulation of bus transport. Two basic considerations have driven this widespread experimentation: (a) bus services are important and (b) they are almost universally subject to a degenerative regulatory or managerial cycle that periodically endangers their availability. Accordingly, in such situations, many countries across the world have experienced a fairly similar cycle of private and public investment in bus services.[10] The recent experience in some

[10] Gwilliam, K. M. (2008). 'Bus Transport: Is there a Regulatory Cycle?', *Transportation Research* Part A, 42:1183-1194

countries can be examined in this regard.

UK

Private bus companies were common in Great Britain in the first half of the 20th century. As incomes and auto ownership began to grow and bus ridership fell, subsidisation of bus services began and most companies became publically owned. Public ownership and growing public subsidies were not very successful in arresting the decline in bus ridership. Efforts at privatisation were usually limited to contracting out operating functions such as maintenance, etc.

In one of the most dramatic and ambitious efforts ever undertaken to privatise public services, the British Transport Act of 1985 ordered the de-regulation and privatisation of bus services throughout Great Britain exempting only the Greater London metropolitan area (which followed a different model).

The 1985 Act had three features:

a) Controls on entry were relaxed so that public or private bus companies could offer bus services by giving 42 days' notice.

b) Publically owned bus companies were re-organised as separate for- profit corporations.

c) Local authorities put supplements on unprofitable or commercial routes by subsidising additional services (of social concern) but these supplements had to be secured through competitive bidding among the operators.

The Transport Act created a competitive free market in the United Kingdom for the local (outside London), suburban-country and long-distance bus services. The operators were free to develop their own routes and timetables without the need to acquire an operating licence. They were required to register new routes and the only restriction in the initiation of new routes could be made on the grounds of traffic conditions. The main administrative task, through the registration system, was to closely follow the development of the services and to ensure that socially necessary, but economically nonviable, routes are also provided. After the introduction of the system, heavy competition began in the market for local and suburban passengers (mainly in the running of more buses than the reduction of fares).

Competition in long-distance public transport sector also commenced after deregulation. This primarily took place on the popular and economically attractive routes with price competition as the device leading to a decrease in fares. Further, features included the use of innovative price formation, the introduction of rapid and express services, and an increase in the frequency of services, the utilisation of opportunities provided by the new motorway system.

In London, following the model of competition for the market, increased patronage growth at a very fast rate compared to other areas in the UK. London's success was due to three factors: strong regulatory powers, public subsidy and strong political commitment. However, improvements and the popular cheap fares policy would have been impossible without the subsidy paid for them. A strong political commitment has been essential in delivering a pro-bus and anti-congestion policy backed by adequate spending. It was observed that transport authorities outside London would have to have substantial funding in place before they could plan and specify networks, fares and other standards. Authorities would also need to consider the role of parking charges, the strategic allocation of road space, compliance, and possibly road space charging in order to improve services and encourage patronage growth.

But the results have also indicated limitations. The expectation that competition will improve the quality of services has not been realised though service innovations that have materialised. With the concentration in the marketplace, competition has virtually all but ended. Practical problems such as instability, lack of coordination, time tabling and information, bunching of buses at popular times, customer uncertainty, lack of information, different types of vehicles, difficulty in establishing demand patterns rose. Such difficulties could be significant but could possibly be minimised in other countries in similar situations with better planning procedures.

However, Gomez and Meyer[11] observed that the most distinctive lesson for developing countries from the British experience is the importance of innovations in service provision that was most likely stimulated by privatisation. Such cases of innovation practices have been reported in India in a response to user needs both from the private as well as public sector operators, though the regulatory framework has not necessarily been reformed to enable this.

Sri Lanka

Motorised road transport began in Sri Lanka at the turn of the 20th century with road transport becoming popular after the Second World War replacing railways as the primary mode of travel. Today, 68 per cent of all motorised passenger trips in Sri Lanka are made by bus even though the share of private vehicles, which has been rapidly gaining ground over the last two decades, stands out at 24 per cent. Sri Lanka saw four periods of distinctively different service provision in terms of ownership, management and regulatory structures during the past 100 years with the current one of regulated mixed competition beginning in 1979, the government providing encouragement for unrestricted entry for the private sector. The unplanned and rapid growth between 1979 and 1983 led to many owner driven buses entering the industry.

Instead of setting up a regulatory agency, district based operators' associations were given significant regulatory powers. With the ministry of transport not exercising any noteworthy control over district associations the general standard of passenger transport diminished very quickly. There were no entry qualifications for operators or bus crews. Generally, travel times increased and quality of service declined.

The enactment of National Transport Commission Act number 44 of 1991 saw the creation of a dedicated regulator for private bus transport. Even though the Act provided for specific regulatory instruments, the National Transport Commission did not develop all these regulatory measures and saw its role mostly as an issuing office for route permits. According to Kumarage and Jayaratne,[12] in this phase the private sector fleet increased rapidly but saw declining reliability and productivity. Moreover, private sector entry has fragmented the integration of the bus network because they operated only where and when it is profitable to do so.

In addition, a host of regulatory lapses was also been responsible for the situation. The lack of capacity of regulators as well as emphasis on revenue orientation instead of sector development has been identified as major concerns why regulators have not fulfilled their roles justifiably. This seems to be a problem of concern in the Indian context as well. Another source of concern has been the maintenance of service on unremunerative (mostly rural) routes. The essential cause of poor service accessibility was a combination of sole reliance on the public sector to provide subsidised services and the decline of its capability to perform that function. This could be overcome by moving to the competitive tendering of subsidised services which would allow the private sector to supplement the public sector supply.

US

Privately-owned unsubsidised firms provided almost all US transit services in the first half of the 20th century but most approached or actually entered into bankruptcy and were taken over by public authorities in the 1950s and the 1960s. A typical form of private involvement in bus transport in the US would

[11] Gomez-Ibanez, J A and Meyer, J R (1993). *Going Private: The International Experience with Transport Privatization*, Washington: The Brookings Institution.

[12] Kumarage, A. S. and Jayaratne, M. D. R. P. (2008). *Research in Transportation Economics,* 22: 109-117.

be managing companies or contracting services for the company owned by public authorities. This gradual and piece-meal privatisation through contracting-out in the US contrasts sharply with the sudden and wholesale privatisation that occurred, for example, in Britain. The gradual approach has, according to some experts, avoided the transitional problems experienced in Britain and has allowed public authorities to experiment with different contracting procedures that encourage new entry and competition. Further, the presence of competition has been more important than wholesale privatisation in evoking cost savings.

The long-distance bus industry now faces a highly competitive transportation environment. Not only were companies engaged in price war over potentially profitable bus routes while abandoning marginal routes, but they also had to contest for passengers with the new low-cost deregulated airlines and for packaged freight with trucks. Companies made considerable efforts to adjust to the new conditions by lowering prices, improving facilities, especially terminals, investing in new coaches, making rural connections with independent feeder lines and in establishing computer systems to assist with ticketing and routing. A disadvantage in contracting is that the services provided are designed by the public rather than the private sector. While contracting may evoke cost savings and productivity increases, it is less likely to encourage service innovations.

The basic lesson for developing countries, such as India emerging from the US experience is that the private sector performs best when it is asked to do a relatively well defined task and with minimum interference from public authorities beyond that which is required to prevent fraud or prevent other abuses.

Chile

Intercity bus regulation in Chile took place in the late 1970s. This allowed higher fares and new companies to enter the business. Following years of control it was expected that fares would rise and this indeed happened at first. However, subsequently fares fell back as new competitors entered the business so that ultimately fares were only slightly above the levels set under regulation. In subsequent years, the number of operators increased substantially. A period of consolidation began which was characterised by a growth in size of large bus companies. Many of these companies developed their own bus stations.

Deregulation thus resulted in more services being offered especially in rural areas and improved the frequency and quality on existing routes especially where many operators competed. The main concern was the level of competition on rural routes, which was quite low on secondary routes. This could be a genuine problem in the Indian context. However, provided that the local governments continue to offer facilities to other operators, the threat of new competition should in itself help to limit the risk of excessive fares and poor services being provided.

7. Some Lessons for India

The need to regulate fares on urban routes based on a thorough but quick understanding of underlying cost profiles and associated efficiency norms can be assessed only by a specialised agency. In rural areas, optimal reforms would be to combine privatisation with deregulation of fares. Here, operators can experiment with various combinations of fares with services and even provide for cross-subsidisation. However, this is dependent on maintenance of effective competition. Estache[13] points out the limits to such competition as arising especially from market failures.

Government intervention may thus be needed, critically in developing countries like India where there is potential for anticompetitive behaviour in the form of practices and procedures of route associations. While these associations offer

[13] Estache, A. (2004). 'The Limits to Competition in Urban Bus Services in Developing Countries', PRWP 3207, The World Bank, Washington DC.

important benefits in co-coordinating schedules, reducing unsafe driving, etc., they can limit competition by restricting entry or encouraging higher fares. But the implications need to be understood as well especially when there are universal service obligations/unviable but socially required routes.

Role and Performance of Sectoral Regulators

According to Gwilliam,[14] regulatory failure is almost by definition institutional failure. Such a failure emerges when there is no appropriate focal institution to handle, say, in this case, bus regulation. Given the existing regulatory arrangements such as the ones we have at present, there could be an acute problem of overlapping of jurisdictions of national, state and municipal level of governments. Basically, this begins at the level of formulation of policies and in transport all the three levels of government have their own focus areas to contend with. In the absence of effective co-ordination between these tiers of government at the policy formulation and implementation level, it is not surprising that the accompanying regulatory framework faces similar problems in practice.

It is widely recognised that the implementation of the MV acts has focused excessively on the revenue generating provisions to be concerned with active implementation of many useful provisions which when considered very carefully require a far more sophisticated framework involving technical skills to perform the expected role adequately. Mention may be made of fare control, for example, which can be exercised only after a thorough examination of an entity's cost profile its capacity to serve the requirements *vis-à-vis* the market.

In addition, we have already mentioned the need for a comprehensive planning exercise which serves as some reasonable basis for provision of permits. Today, there is complete arbitrariness in issue of permits, especially in regard to the need for additional capacity. Even when it comes to competitive bid franchising, the concerned authorities have hardly any idea as to what the service needs are. Accordingly, the need arises for a planning and specialist regulatory agency that has the expertise and skills to examine these issues with the implementation being left to the administrative authorities.

Gwilliam observes that only the existence of an effective multi-modal transport agency can aid in the emergence of a stable regulatory regime. In the Indian context, there is an urgent need for a National Transport Commission which besides reviewing India's transport priorities and policies within an integrated framework on a continual basis, could also monitor economic regulation and thereby promote competition.[15] There is also a need for such regulatory mechanisms at the State and local levels.

8. Conclusion and Policy Recommendations

Two important issues commonly arise when seeking to introduce or improve economic regulation:

1. What should be the basis of competition, either free competition (or 'competition in the market') or some kind of contracting or franchising (or 'competition for the market') and how is this ensured?

2. How is a government to monitor services and control anti-competitive abuses?

Planning and Policy Issues

In the case of urban bus services, particular issues arise over planning and regulating services. For non-urban bus services there may not be a case for major intervention by government in planning and controlling services. Leaving operators free to plan services in accordance with the needs of the passenger encourages service innovation and frees government to concentrate on the important task of setting and enforcing safety standards and of ensuring that competitive conditions prevail.

There are many ways of introducing fair competition in service provision to the inter-

[14] Gwilliam (2008), *op. cit.*

[15] Dalvi, M.Q. (1997). *Transport Planning and Policy on India*, Mumbai: Himalaya Publishing House.

city passenger transport markets in India. Route franchising is a means of maintaining some public control over the level of services and prices in the public passenger transport market, while using competitive forces to secure supply at the lowest cost. This can apply to non-remunerative bus services alone (as in most of the UK) or for all services (as in London) with the supplier either carrying only the cost risk (as in some cases in the UK) or carrying both the cost and revenue risk.

Competition between groups within a licenced franchise system can be promoted by ensuring that the routes for which monopoly franchises are granted overlap sufficiently to encourage competition for customers on common sections of route. This approach is practiced to secure competition between different bus operators' associations in Latin American cities and also between operators of different kinds of public transport vehicles in the context of some African countries. This form of competition makes it possible to some degree to organise supply, and limits anti-competitive operating practices, as long as there is a competent franchising authority to prevent the emergence of a single strong cartel.

It should be an accepted principle of good governance that any government that demands an operator meets unprofitable public service obligations should also be required to reimburse for those services given that the operator demonstrates efficient provision of services. Moreover, better accountability can be ensured when the government that demands the services is the one that meets the cost of such services, which is not the case if a different level of government (the central government) is expected to meet the obligations demanded by another level (often the local government). That the central government in India no longer financially supports the SRTUs but leaves this to state and local governments that demand reimbursement is therefore a step towards better governance.

Regulatory Issues

With a view to creating a market in which passenger services of various types and size compete with each other, unassisted, policymakers in India should be concerned with putting in place a proper regulatory environment. In particular: (i) regulations that internalise social costs, such as those related to the environment, safety and congestion, so that the market can allocate resources in a socially desirable way; and (ii) regulations that establish basic rules for fair competition should be developed and implemented.

There are two reasons why it may be necessary to retain some public regulation of the supply of bus transport in the inter-city bus markets. First, regulation may be desirable in some cases where an unregulated market process may result in: (i) mis-matching of schedules, (ii) increased pressure to engage in unhealthy operating practices, and (iii) perceptions relating to stability and reliability of service, with consequent reduction in vehicle utilisation.

Further, while cost reductions resulting from unfettered competition may allow previously unprofitable services to continue, and may even lead to more frequent services being provided on previously non-remunerative routes by certain service innovations using smaller vehicles that are better suited to low demand, social objectives may require direct financing of some services that might otherwise be lost through competition in the market as was the case of rural bus services in Sri Lanka. Enabling such markets to be 'contestable', could still allow non-remunerative services to be provided at the least cost. These failures of the market process may require qualitative controls, though not necessarily monopoly franchises, and never direct state involvement in service provision.

In an unregulated market, profit may be sought through the creation of an operators' cartel, as it happened in the bus industry in Chile, or by operators combining with suppliers of terminals or other infrastructure to exclude competitors from access to crucial facilities. The most efficient markets for road transport operations seem to normally comprise very large numbers of very small producers. However, if some firms or associations of firms, grow so large as to threaten the competitiveness of specific sub-markets, it is necessary for anti-monopoly authorities to intervene.

In the Indian context, it may be desirable to restructure SRTUs into a number of smaller firms to curtail their market power. The Tamil Nadu experience in the eighties and nineties revealed healthy competition between public sector units as well as between public and private sector entities. All these point to the removal of special provisions in regard to SRTUs in the MV Act as is being currently recommended by the Sundar Committee.[16]

The main focus of regulatory policies in the case of bus services should be qualitative standards related to ensuring the safety of the services and the minimisation of negative environmental impacts. Safety dimensions encompass vehicle road worthiness standards (brakes, steering, tires, visibility, lighting and signalling), driver qualifications and working hours, and avoidance of excessive overloading (riding on the outside or top of buses as happens from time to time in India is not conducive to safety).

Unfortunately, in India these beneficial regulatory dimensions are also not generally enforced for the same reasons that economic regulations are not generally enforced, i.e. transport operators generally find it more advantageous to make 'facilitation payments' to the transport authorities.[17] Qualitative regulations can contribute greatly to improved safety and environment. An MV Act containing only these aspects could continue to serve as a regulatory mechanism. The framework for economic regulation needs to be dealt with differently as suggested above.

Concluding Remarks

Having gone through a certain cycle of changes with respect to operator or supply response to emerging needs, the situation in developing countries like India is such that the emphasis is turning to the traditional bus transport mode, particularly in urban areas and for over short and medium distances, in part also due to concerns about road congestions and national carbon emissions. Public transport has a unique feature in that it is in competition with the private transport which is in the public interest to suppress. The emergence of public-private partnerships especially in public transport can be expected to mould the private sector entity in support of a publicly desired outcome.

The objective of the reforms agenda formulated for the urban areas, for example through JNNURM, to justify the bus component comprises of an elaborate set of guidelines for improving urban mobility and ensuring priority for public transport. These guidelines range from dedicated lanes for buses, special purpose financing and public private partnerships for setting up Bus Rapid Transit System (BRTS), dedicated transport funds to be set up though additional vehicle registration fees, congestion tax and green tax, urban bus specifications to be followed etc.

Preference for public transport is rightly stressed. In this context, the significant role of Unified Metropolitan Transport Authorities in matters relating to providing the elements of the economic regulatory framework for multi-modal integration, demand management, restraint on private automobile growth has been emphasised explicitly. Only such a specialised regulatory agency (currently handled by municipal agencies referred to in case studies of PPPs) can ensure the competitive position of public transport over personalised transport in the context of urban areas. This experiment could perhaps also provide the guidelines for a framework, which though qualitatively different, could apply in the other segments of bus transport. In this manner the government could best ensure well-functioning markets that provide the array of services the various market segments demand at least cost. But the concept needs to be taken forward further.

[16] GoI (2011). 'Report of the Expert Committee to Review the Motor Vehicles Act, 1988', Ministry of Road Transport and Highways, Government of India

[17] World Bank (2005), op.cit.

Table 1: Market share of Private buses: State Wise Trend over 2001-05 (per cent)

Sr. No.	Name of State	2001	2002	2003	2004	2005
1	Himachal Pradesh	36	40	46.1	49.2	49.6
2	Tamil Nadu	25.4	21.3	21.3	21.2	20.9
3	Orissa	93.8	94.8	95.2	95.7	96.8
4	Rajasthan	85.3	82	81.2	81.9	82.4
5	Maharashtra	10.7	10.1	9.4	8.8	7
6	West Bengal	85	85	84.6	85	85
7	Kerala	85.4	85.4	86.5	82.6	82.6

Source: NCAER, 2007

Table 2: Competition Index for Passenger Transport in Seven States

Sr. No.	States	Competition Index
1	Rajasthan	0.838
2	Orissa	0.764
3	Kerala	0.721
4	Tamil Nadu	0.622
5	West Bengal	0.602
6	Himachal Pradesh	0.595
7	Maharashtra	0.596

Source: NCAER (2007)

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CUTS Institute for Regulation and Competition (CIRC) was established in 2008 by CUTS International (www.cuts-international.org). With the mission to *be a Centre of Excellence on Regulatory and Competition Issues*, CIRC primarily focuses on economic regulation in infrastructure sectors, and competition policy and law with an objective of reaching out to the target audience in India and other developing countries in Asia and Africa. Its crucial role in research and capacity building in the area of competition policy and law and regulatory reforms has created an intellectual knowledge base. This rich experience of working on regulatory issues and competition policy and law has resulted in many national and international publications which has enriched a more informed discourse on public policies and greatly benefited different stakeholders in the society. Since its inception, CIRC has been undertaking several trainings, seminars and public lectures on competition policy and law in India and abroad. It also organises international symposia on the political economy of competition and regulation in the developing world and India.

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CUTS Institute for Regulation and Competition
R 75, First Floor, Greater Kailash I
New Delhi 110048, INDIA
Tel: +91 11 26463021/22/23, Fax: +91 11 40535921
Email: circ@circ.in, Web: www.circ.in