
SOME REVIEWS ON UTTAR PRADESH STATE ROAD TRANSPORTATION IN AFTER GLOBALISATION

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ABSTRACT

Indian roads can be traced back since long ago. In olden times, roads were constructed mainly by the kings or ruler especially for the purpose of war. The main roads and routes were well defined and adequately served the country's administrative, political and commercial needs. Roads and roads transport have to occupy a dominant place in the transportation system of our country. An efficient and effective road system is of vital importance to any economy. Roads are now recognized, as an infrastructure critical to economic and industrial growth and therefore proper up keep of physical condition of this infrastructure is very important. Roads are an enormous national investment and require regular maintenance to ensure safe passage at an appropriate speed and with low road user cost. Without adequate and timely maintenance, roads deteriorate in exorable, leading to higher vehicle operating cost, increased number of accidents and reduced reliability of transport services.

Key Words: Indian Roads, Education, Health Care

INTRODUCTION

It is observed that the principal mode of transport for passengers and goods movement in Uttar Pradesh will continue to be road. Railway cannot connect each and every corner of the state, while road transport has the advantage of door to door service and extended to hilly areas. It can transport goods of interior area and even load the goods of agricultural farms and industrial units located in remote areas. It provides the basic infrastructure for bringing the majority of people by connecting them with the rest of the country. Moreover, it has increased demand of road transport services, environment concerns quality of transport services, safety of operation and energy conservation has assumed significance. Thus the road transport has now to serve much wider range of purposes than before. Therefore, economic growth and prosperity of any country of state depends largely on the development of industrial sector as well as agro-based sector. The output of one is the input of others and both the sector are interdependent so far is input is concerned. In order to provide input timely the role of road transport is highly significant. There should come a rapid change for reviewing and updating the existing design practices and standards of construction and maintenance. The growth of road transport should grow at least at the rate of which economy is growing. In fact, the need to protect the existing road network and to keep it in good condition is paramount.

Transportation policies that allow households to reduce their vehicle ownership and fuel consumption tend to increase local and national employment. Large employment gains tend to result from policies that expand high quality public transportation systems, partly because of transit service employment and partly due to reduction in automobile expenditures.

Being a state owned Corporation, UPSRTC has been facilitating the passengers of the state with economical, safe and comfortable journey, while earning survival profits. But to stand in the competition with private bus operators and other SRTUs, UPSRTC have to start redesigning itself and to think innovative rather than operating in traditional ways. The Corporation day by day is adopting new technical know-how and enhance its marketing approach with the help of professional management.

From a review of the physical and financial performance of UPSRTC it was found that the corporation needs immediate attention for viability gap funding and needs to address several management, logistic, passenger

and crew issues. Also since UPSRTC largely caters to rural masses with low incomes, it needs to ensure affordability of fares while maintaining financial viability.

Population of 219,581,477 as on 1st March 2016 and the fleet size of UPSRTC was 8,893 as on 31st March 2013, i.e. UP has just 45 buses per 10 lakh population which is much lower as compared to other major states such as Andhra Pradesh, Karnataka, Kerala, Tamil Nadu and Maharashtra. Also UPSRTC has been running huge losses for the past two years. But public transport needs to be affordable and the entire burden of losses cannot be transferred to the customer as the end users are generally people from lower income deciles who cannot afford private transport. Thus in order to maintain financial viability, cost reduction needs to be emphasised vis-à-vis revenue increment. Also increasing revenue beyond a certain limit might also rob the corporation off its passengers as they will find alternatives such as private operators. But private operators do not offer any kind of amenities and are not accountable for the safety of the passengers. Therefore the onus of providing comfortable and safe public transport and sustaining the corporation falls primarily on UPSRTC itself and the UP State government as transport is a state subject.

DATA ANALYSIS

During study it was found that expenditure and financial performance i.e income (for the period from 2006 to 2016) are closely following each other. Also, a t-test of taking expenditure and financial performance (income) shows that there are no significant differences in their means ($t = 0.37756$, $df = 11$, $p\text{-value} = 0.7129$) as $p > .05$, also the t-value is positive. Thus, the null hypothesis stands rejected.

For judging the financial performance among the two zones, an independent t-test was performed taking in total income, total expenditure and total profit of the two zones. When it comes to total income, a significant difference was observed between the two zones ($t = -2.6872$, $df = 7.3039$, $p\text{-value} = 0.03$, $p < .05$), the mean in the Lucknow group is smaller than that of the Meerut group, indicating a better performance for Meerut group.

Secondly no significant differences were observed for total expenditure for both the zones as the t-test value ($t = -2.1259$, $df = 7.3713$, $p\text{-value} = 0.06913$, $p > .05$) was not significant.

Lastly, for total profit for both zones a significant t-test value was observed, $t = -3.066$, $df = 9.9162$, $p\text{-value} = 0.01203$, $p < .05$ indicating the profitability differs for both the zones. Also, the mean for the Lucknow group is negative indicating that it had earned less profit than Meerut zone.

As it is evident from the figure above Meerut and Lucknow have the highest number of buses as compared to all the other zones of UPSRTC. Thus, indicating their prominent role in the road transport sector.

Also, from the above regression model, we can see that Bus utilization has a significant positive effect ($\text{Beta} = 125.522$, $t = 15.5714$, $p < .05$) on profitability, as compared to %no. of buses on road and occupancy ratio. Thus, bus utilization should be increased to improve profitability. Road transport today plays a significant role in the movement of passengers and goods. It can function in an exceptionally flexible and diversified manner, supplementing other modes of transportation, opening up new avenues and offering new services. It results in saving of both, time and costs. It brings the remote areas into contact with the towns and cities.

Buses, the most pre-dominant mode of public transport for a majority of low and middle income group in the state, form a vital part of the economical and social fabric of all our towns and cities enabling people to work, to shop to get to educational institutions to socialize and to perform other activities. Travel demand in a region is the result of socio-economic and administration inter-actions among the various states, cities and towns, outskirts. Cities have the service like schools, hospitals, marketing centers, agricultural services units and so on, which attract people from the nearby settlements. Similarly, the towns that have better services like higher education and medical facilities, agricultural marketing units and so on, can attract travel from longer distances. Extending this argument further, cities, with the specialized facilities in the agriculture, industry, education, health care and so on, attract travel from still far off places. The resulting pattern of

travel in a region, therefore, comprises of layers of inter city travel, remote level service centers to higher level centers and inter city movements.

Keeping in view, the above stated needs UPSRTC and other private operators are playing an important role in moving the passengers and commodities from one place to another UPSRTC operates long distance and shuttle services in different parts of the state. These services are mainly operated to connect important towns with each other in the state and to join tehsils, blockhead quarters and other important rural areas with district headquarters. Deluxe and semi deluxe services, inter state services, and bus services to hilly regions are also provided by the UPSTRC. It also provides concessions to the students of rural areas. Monthly pass on 30 single journeys is allowed on rural areas basis. The facility of Janta pass is available in ordinary buses in rural areas. UPSRTC also issues concessions to handicapped/disabled person and his one escort.

UPSRTC is a public utility and important constituent of the nation's infrastructure are thus, providing city and inter-state cost effective and efficient public transport services to the poor and middle-income group of the state. It has played a great role in carrying people from their far-off scattered locations of households to work centers, improving mobility, minimising regional disparity, poverty and untouchability also contributing to the overall socio-economic reconstruction of the economy.

In contrast to the operational expansion, the financial performance, of UPSRTC, however had been less spectacular, with the corporation accumulating losses in its balance sheet for consecutive years. Turning around UPSRTC into a profitable and self-sustaining organization requires comprehensive efforts of all the stakeholders both from within and outside the firm boundaries. Such an initiative is more challenging in the context of state owned enterprises, given their conflicting objectives arising out of divergent utility perception of key stakeholders. To cite an example, UPSRTC charges very low fares to maintain affordability and is battling with rising fuel and staff costs as well.

To conclude, it may be said that the efforts of UPSRTC to bring technology to transport with an integrated approach. Also, UPSRTC has succeeded in obtaining 149 as their Interactive Voice Response System (IVRS) number which they plan to make pan India. UPSRTC has brought in technology but it needs to gear up to use it to its full potential and for that it needs to provide extensive training to its staff and ensure smooth functioning of the system by avoiding petty logistical issues. Once these small issues have been sorted out, ITMS can help UPSRTC rescue its dwindling finances in the near future.

RECOMMENDATIONS FOR UP STATE GOVERNMENT

The state government should realise that provision of affordable public transport and at the same time ensuring that providers of public transport are financially sound are its responsibilities. It should also fund UPSRTC to ensure rural connectivity and viability gap funding. These concessions could be funded by creation of a PUBLIC TRANSPORT FUND which could be funded through various channels such as:

- ☐ State and Central Government funds
- ☐ Cross subsidies: i.e. those who can pay fund those who cannot.
- ☐ CSR Initiatives: Big corporations could be pitched in to provide funds under the mandatory CSR spending.
- ☐ Penalties imposed on contractors for lapses in service delivery could be used to fund the corpus.
- ☐ Donations from organisations, individuals.
- ☐ Creation of a cess for UPSRTC in existing fuel charges or VAT rebate to UPSRTC buses.

Nationalise more routes, i.e. increase the percentage of nationalised routes from a meagre 9.65% to at least 50% and then after priority allotment of routes to UPSRTC, auction routes to private operators to prevent illegal plying.

SUGGESTIONS-

The problems which have been identified from the above assessment of the Indian road transportation system include poor road conditions (which causes loss of lives, man-hour and vehicles), corruption in the execution

of road projects and in the process of checking traffic violations (such as over-speeding, drunk-driving, overloading and lack of basic safety equipment to mention a few) and lack of roadworthy vehicles. Others include poor funding, poor transportation policy, poor security and poor maintenance culture. In order to address, the above certain measures need be taken as suggested below.

Policy makers in India need to develop strategies towards achieving a more efficient transport system which will definitely reduce money, time, land, and other resources which are lost in any inefficient system. It will also reduce the risk involved in transportation. An efficient transport system will promote economic development.

Such system will increase vehicles loads (larger trucks, shifts to rail, higher load factor); promote more efficient operation (faster loading, reduced downtime); lower equipment cost (less expensive and more durable vehicles, higher fuel efficiency) and reduce labour cost (automation, lowers wages and benefits). Other benefits are reduced shipping distance and volume (better distribution, reduced packaging and stores locating closer to consumers); higher travel speeds (faster vehicles and reduced congestion delays); truck and heavy vehicle lanes; and efficient road pricing (leading to higher-value trips).

Improving transportation options (improving walking, cycling, ridesharing, public transit, taxi, car sharing, delivery services, telework and more accessible land use) can increase economic efficiency if demand exists (new facilities and services are used sufficiently), and provide particularly large economic benefits if they substitute for more costly modes such as automobile travel.

Furthermore transportation planning reforms promotes efficiency through the engagement of accessibility-based planning which expands transport solutions to include improvements to alternative modes, mobility management, more accessible land use, and mobility substitutes such as telecommunications and delivery services.

The need to create employment and improve local economy also encourages public transport system. Considering the importance of road transport in recent years and increasing growth of both passengers and freight traffic the present road network should be strengthened and upgraded. The State government should give urgent consideration to the following suggestions, which are offered by the researcher after evaluating various aspects of UPSRTC.

It is suggested the roads should be free from potholes and patches. Road development department should make enthusiastic efforts to repair such potholes and patches timely, it will not only reduce accidents and damages to vehicles but will improve fuel consumption also.

It is recommended that to construct over, under, weak and narrow bridges on the railway crossings and where ever it is necessary to ensure uninterrupted flow of traffic.

It is suggested that Construction of bye passes, ring roads and express ways on state highways and major district roads where traffic has to be pass through congested town, it is also essential, such bye passes should be identified within a year on the basis of preliminary surveys and they should be constructed in the phased manner. Major town having a population of more than one million, need ring roads around them for better movement of traffic, ring road should be constructed in consultation with the housing department. And priority should be given those towns where local bodies should be willing to contributed 25 percent of the cost of the project. Expressways are also required to be constructed to facilitate fast vehicular traffic to curtail the traveling time. Construction of such expressways should be undertaken of the principal of build operate and transfer in the form of toll road.

It is recommended that in the development of roads in urban areas, public work department role should be widened and strengthened. And inter department committee headed by the district magistrate for the district towns and by divisional commissioner for the divisional towns should be set up to make suitable recommendation for the development of facilities needed for the smooth flow of urban traffic and such recommendation should be executed in a phased manner.

The private sector should contribute significantly for the construction of roads and bridges for which the private entrepreneurs should be allowed to collect toll to recover the cost of the project and a reasonable

return on investment. The rates of toll and the period of toll should be decided by the state government for each build operate and transfer project. The government should adopt a transparent should be provided equal opportunities and the work should be awarded on open tender basis and not on the basis of memorandum of understanding for such projects, as far as possible, government agencies should also forge joint sector partnership with private entrepreneurs, on the basis of equity participation. Detailed guidelines should be prepared and issued by the government for the execution of build operate and transfer projects in the state.

It is suggested that a certain degree of efficiency in construction is very essential for the development of reliable and durable infrastructure facilities. For this, standards of quality and definite procedures to ensure quality are to be clearly enunciated. The standard of quality in construction works should be the same as determined by the Indian roads congress and bureau of Indian standards. It is also essential to test the quality of construction works from time to time to achieve the desired quality. To ensure the required quality in the construction works, the following arrangement should be made.

1. Public works department should be entrusted with the work of maintenance of all the roads in the state.
2. As far as possible, funds to the extent of the entire cost of the project should be released at a time, so as to avoid the time and cost over runs. The department should fix the responsibilities of officers at different levels for timely completion of construction land maintenance work and necessary action should be taken against negligent officers. Uttar Pradesh State Bridge corporation should be the nodal agency for construction of projects under the Build-operate-Transfer System. Divisional Commissioners should be empowered to issue financial sanctions of works under the district sector schemes. It should lead to decentralization of power and quicker implementation of schemes.
3. The system of internal financial advisor should be introduced at the government level for better financial management, transparency and speedy issue of sanctions. For the development of human resource, in service training programmes should be conducted to impart training to Junior Engineer, Assistant Engineers and other Senior Officers according to the nature of their work and seniority so that they are kept abreast of the latest construction technology and are able to efficiently execute the constructions works with the highest standards of quality and in accordance with the financial rules.
4. In the context of shortage of funds in the road development, rationalization of road user charges, restructuring of road finance and diversification of finance must be considered. Scope for greater public participation and tapping of non-governmental sources has to be explored. "Road Maintenance Fee" should be charged from different vehicles and this fund should be used for road maintenance.
5. The existing design standards for road layouts need to be reviewed and revised so that these are more relevant for improvement of existing earthen tracks roads in agricultural areas. Instead of undertaking improvement of the whole length of the track as is conventionally done, only spot improvements can be undertaken at major bottlenecks to the traffic. These bottlenecks can be identified through road condition surveys. The spot improvement of drainage system, raising of the road formation in poorly drained areas, improvement of road sections passing through marshy areas or weak soils, selective provision of hard pavement crust and improvement of sight distance. Such improvements will be very cost effective
6. A large number of local materials including laterite, moorum, kankar, and natural soil gravel are available in the country, which can be effectively used for road construction. Good quality earth and gravel roads could be very conveniently constructed in most parts of the country by using the local materials. These roads are ideally suited to remote areas where the initial level of traffic is generally low and policy of stage development is to be adopted. These roads require low initial capital investment and low maintenance cost. With the growth of traffic, these roads could be suitable upgraded.
7. Simple quality assurance procedures can be developed and introduced for road construction to increase the overall service life of roads network. This could be achieved through setting up quality control laboratories in these areas with simple equipment for quality control and necessary training to the field staff in performing various tests related to quality control.

8. Integrated transport policy will have to address the issue of inefficiency, both in the context of vehicle productivity as well as workers, productivity. For this, necessary steps are properly maintained, upgradation of the existing technology and on the job training of workers.
9. In order to raise the necessary capital, the road transport sector should be declared a priority sector and the financial institutions should be encouraged to lend for the improvisation and overall computerization of the sector.
10. Traffic department should be strengthened to conduct different types of surveys periodically and to provide adequate effective services according to the Checking Inspectors and effective disciplinary action should be taken against inefficient hostile inspectors.
11. Over the years, it is observed that the overage buses are increased. The main drawback of increasing in such number is the reduction in the efficiency of Corporation. In order to overcome this problem, it is suggested that the corporation should launch new buses not only to improve its efficiency but also to minimize the incidence of overloads.
12. UPSRTC should start courier business of small size letters and parcels. It should ply goods vehicles on roads. It will play a rich dividend to UPSRTC.
13. UPSRTC should review its strategy of pleading from the government to reduce taxes and social concessions or merely to increase fares. The new strategy should be to take a major part in road development and claim from the budgetary allocations their capital needs on the promise of providing efficient road transport network. It should sign memorandum of understanding with Panchayat Samities and Zila Parishads on the level of service to be provided in these areas and in return seek capital grants for purchase of buses and provision of passenger's amenities without adequate transportation. It has been found that neither UPSRTC has achieved profitability, nor the passengers' satisfaction has been achieved by road transport service. The reasons are inadequate growth of services, old fleet and inadequate infrastructure facilities, absence of rational fare policy, high incidence of motor vehicles taxes, poor customers services, inadequate professionals and committed manager checking system, permits to private bus owners on profitable routes, large scale clandestine operations and wide variations in performance.
14. All the development programmes should be taken in a phased manner. The first phase should consist of collection and compilation of data on natural and human resources and preparation of integrated micro-level plans on all aspects of economic development taking into consideration the need of the people and by involving them and their representative in this process and recruitment and training of different categories of personnel within the district, blocks and villages for development tasks in the different sectors through the various State Agencies and the task force and its personnel trained for the purpose. A committee at state level under the chairmanship of the Chief Secretary should provide a system for periodic monitoring and evaluation of the plans and their execution in the district.
15. Researcher finds that there are serious gaps in the database for the road transport sector at the state and district level. Systematic information on traffic flows is not available because of multiplicity of transport agencies, predominance of single vehicle owner and absence of traffic recording procedures. In this context, following points may be taken into consideration.
16. When any accident takes place then UPSRTC has to pay compensation to the dependent of dead person or injured person / sufferer. In order to minimize number of accidents the UPSRTC should arrange the programmes of refresher training to their drivers. It is, therefore, suggested that UPSRTC should constitute a special fund in order to tackle this problem which is of serious concern.
17. The employees of UPSRTC do not perform their duty properly because of the job security makes them irresponsible, a remedy for such a problem is to privatise the UPSRTC.
18. In order to cover remaining avenues the UPSRTC should launch mini buses and inter city services in such a way that the earning of the Corporation will be enhanced.
19. In UPSRTC every Zone and Depot should be computerized so that UPSRTC can function smoothly and it will be very convenient to the passenger to get reservation.

20. In order to enhance the efficiency of UPSRTC and reduce the pollution the Corporation should use CNG buses.
21. Drivers found to be exceptionally good in their working performance should be adequately rewarded. Following are the procedures for the award to the drivers found par excellence.
22. At present, there is only one training school at Kanpur, which is insufficient for smooth functioning of UPSRTC. Keeping in view, the size of the corporation and state. It is, therefore suggested that the number of training school should be established either at depot level or zone level considering the financial implications in this regard. If this venture taken up by the UPSRTC on war footing, the researcher is of the opinion that the smooth functioning of UPSRTC will be ensured.
23. Presently, the UPSRTC annual report is published in Hindi only, which has caused problems to the researcher and author, as both of them are not familiar with the terms used in it. It is, therefore, suggested that it should be published both in Hindi and English.
24. Keeping in view the law and order situation in the state it is suggested that at least two security guard should be provided on long routes buses for the safety of the passengers not only in night services but also in daylight. This will result n building confidence among travelers for night traveling and the revenue could also be increased.
25. UPSRTC should form a Vigilance Committee to watch the responsibility of employees, to see whether capital investment is utilized properly or not and observe functioning of Dhabas (quality of food, low price, pure water etc) these are the key factors which need to be emphasise, therefore efficiency of UPSRTC will increase which would result in the profitability of the Corporation.
26. UPSRTC shall follow the fare differential policy in peak periods as well as during off-seasonal periods.
27. According to the changing needs of the competitive environment, the organisation shall change its technical know-how, operational criteria and service offerings.
28. The Corporation shall clearly define the line and staff functions performed by the upper, middle and lower level management. It helps in creating role clarity among management which leads to better plan and strategy construction.
29. Political interference in the external as well as internal affairs of the Corporation shall be minimised.
30. The organisation shall focus on the effective leadership through proper selection, training and development. Moreover, the decision-making chain should be minimised by distribution work according to the nature of the job specification.
31. Policies of fixing fares for passenger transport services shall be matched with the increased in the prices of the input cost.

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