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**AN ANALYSIS OF WORKING PERFORMANCE OF UTTAR PRADESH STATE ROAD  
TRANSPORT CORPORATION FOR LAST ONE DECADE: 2006-20016 WITH REFERENCE TO  
MEERUT ZONE**

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**ABSTRACT**

The road network constitutes one of the largest community assets. It is a universal truth that if assets once created are not adequately maintained and managed, then the possibility of erosion in asset values are not only high but the danger of losing the entire asset is also high. The agencies responsible for the transport infrastructure must maintain, operate, improve, replace and preserve this asset. At the same time, the financial and human resources needed to achieve the performance objectives of the road network are scarce and must be managed carefully. The concern of this report is to discuss as detailed as possible on the road asset management. Its intention is to describe, explain and comment asset management with respect to road infrastructure.

**Key Words:** Road Safety, Public Transport, Working Performance

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**INTRODUCTION**

In the development of a particular area the connectivity by roads is a key factor for the strong network will undoubtedly play an important role in overall growth of the state because roads play a vital role in the field of strategic, social, economical, educational and industrial development of the area. Road Transport in one of the most important infrastructures for the overall growth and development of our national economy. This sector has great importance in affecting the socio-economic development of the country because roads are veins without which no development can take place. The same holds good for the state of Uttar Pradesh (U.P) where road transport had assumed a pivotal position in the overall development of U.P. Therefore to regulate and promote transportation a Motor Vehicle Act 1939 was passed that is why, the Central government passed the road transport Corporation Act in 1950 to establish State Road Transport Corporation in various States to provide cheap and adequate transport services to the passengers, giving powers to the States governments to acquire exclusive rights for operating road transport services.

The U.P. government decided in 1947 that the passenger road transport services should be operated by the State. Other State governments also supported this decision of U.P. government. Uttar Pradesh has wide network of railways and most of the bus routes run parallel to the railways, which cause a sort of duplication of transport services. The result it that a very large area of the State is untouched by any means of transport. Road Transport Department has been given full control over the roads. It should not try a appropriate to itself only the more paying routes and neglect the un-remunerative to promote equal transport development a scheme was placed in the charge of Transport Commission of U.P. since 1947. The operation of Buxer War taken up in May, 1947 and whole State was divided into the nine region which are these: Gorakhpur, Kanpur, Lucknow, Allahabad, Agra, Bareilly, Meerut, Kumauon and Garhwal. This scheme has done development to a great extent and bids fair to serve as a model for other States. The roadways of U.P. government have functional as a department of government under the Administration control of the Transport Commission who is also enforcement of Motor Vehicle Taxation Passenger and Goods Tax. A bold and wide step was taken by strictly instructing the entire staff of the roadways to extend utmost courtesy to the traveling public.

There is no doubt that a relationship exists between transportation and economic development. Local economies need strong national networks (TCPA, 2010). TCPA further emphasizes that “If we are to achieve a thriving national economy, with all areas playing their part, we need a national framework that connects cities, regions and sub-regions across the country”. This further affirms that road transportation has a link with economic development. Various studies have revealed interesting and varied relationships between these two concepts. In certain quarters, it has been seen as a win-win situation for economic development when there is improved transportation. However, recent studies have revealed various dimensions to the relationship between road transportation and economic development. In the actual sense, the variations have been based on the scale of road projects involved, whether a developed or developing economy is involved and whether local, regional or national economy is in focus.

Government are placing greater pressures on road administrations to improve the efficiency and accountability for the management of the road assets. The asset management system allows enough scope for adoption of the simple methodologies and addresses the issues of timely removal of deficiencies even from project preparation/designing stage to make the road assets so created more sustainable.

### REVIEW OF LITERATURE

**Jagadish Gandhi P. (1998)** studied the structure, growth and performance of State Transport Undertakings with special reference to Thiruvalluvar Transport Corporation of Tamilnadu. According to him the state road transport undertakings cater the needs of the Indian mass keeping in view the lifeline of the economy. Moreover, majority of State Transport Undertakings are facing severe financial crisis.

**Bandgar P. K. (1999)** studied the role of BEST transport in Mumbai. He concluded that the efficiency of a public transport organization is proved by its better operational efficiency indicators, quality of service and lower operating cost. The fleet utilisation of BEST is the highest in India. The life of bus is also higher as compared to other similar organizations. The passengers carried per bus per day are also higher. The fuel performance is better. The financial performance is better than other organisation. It has ability to generate surplus. Fare structure is also just and reasonable. The quality of service is also satisfactory. However, there are complaints about the misconduct of the BEST employees especially bus drivers and conductors. It is possible that the image of the BEST might be tarnished because of some employee's rude behaviour.

**Singh S. K. (2000)** focused new information concerning the technical characteristics of State Road Transport Undertakings (STUs). This study founds the U-shaped average cost curve. In the long-run, both large as well as medium size STUs experienced diseconomies of state. Evidence of higher cost in a non-competitive context, together with decreasing returns to scale. It shows that the division of large size STUs into smaller firms covering different market segments, for which they could compare. It would lead to a higher level of productivity in the industry. As for as relative efficiency is concerned, on an average, smaller STUs appear to be more efficient than their larger counterparts. It seems that there is inverse relationship between ranking based on efficiency measures and size. It is also found that the STUs, which operates with large routes length per bus is most likely to experience a higher level of productivity.

**Patil S. D. (2003)** carried out a study on employees of Maharashtra State Road Transport Corporation (MSRTC) in Sangli district. The present work covered the aspects concerned with the growth and development of State owned transport in the district. Apart from these some of the other relevant factors and aspects such as socio-economic conditions, working conditions and role of employees in MSRTC with reference to Sangli district were covered. It highlights also the present financial situation of the MSRTC and the socioeconomic conditions of the employees.

**Ravichandran N. and Surya Prasad MVN (2005)** examined reasons related to the declining operating and financial performance of Gujarat State Road Transport Corporation (GSRTC). The contribution of various environmental and governance issues related to the decline productivity of GSRTC are identified. Based on this analysis, a detailed revival plan is proposed, which is consisting of a set of actions to be undertaken by the management. The responsibility of the government, the management and the employees in the implementing the revival plan are briefly discussed. This article concludes with a set of strategic priorities that need to be examined by government in reviving GSRTC and other similar state owned utilities.

**Competition Commission of India (2007)** conducted a study with objectives of examines the passenger road transport segment competition policies in interstate and intrastate. A study focused on the seven states.

**Mane K. H. (2010)** focused on the reason for dissatisfaction of passengers and areas of dissatisfaction in service of MSRTC. He found that majority of passengers were not satisfied with hygienic conditions especially in Kalyan and Bhivandi stations. 77 per cent passengers were not satisfied with drinking water facility. 71 per cent passengers were not satisfied with the behaviours of bus drivers and conductors and 63 per cent passengers were not satisfied with the waiting hall and canteen facilities, the maintenance of buses and seating arrangements in buses. He suggested that to appoint sanitation officer to inspect hygienic conditions in bus depots, to use hi-tech information system like computer digital display at important junctions of the bus depots in the local languages and arrange training for improve communication skills of conductors, drivers and bus depots officers and customers relationship management training is also provide.

**Bishnoi N. K. and Ms. Sujata (2010)** studied the economic profitability and productivity of Haryana State Road Transport Undertaking. They have found that total factor productivity was decreasing since 1988-89 to 2006-07. The productivity of HSRTC has declined during the study period. The paper has attempted to analyse the total factor productivity, total price performance and economic profitability of HSRTC.

**Jadhav Chandra and Amar (2010)** examine the pricing practices and operations of the Gujarat State Road Transport Corporation. They further studied operational scenario of the GSTRC. The study was concluded that the corporations need to reorient the policy of functional management with a better marketing oriented rationality in its pricing philosophy.

**V. Vijay and Durga Prasad (2011)** examined the existing amenities provided by APSRTC to passengers. In this paper, passengers' views and opinions about various facilities provided to them by APSRTC are carefully studied and analysed to reach the actuality. The satisfaction level of the passengers about these amenities is also measure by the researcher. According to the research numbers passengers are not satisfied with the amenities provided by APSRTC to them.

**Kadam B. S. (2012)** studied the personal and work life of the women bus conductors, the source of support and factors that become obstacles for the work life balance of women bus conductors. Accordingly, more than 50 per cent women bus conductors accepted that they were able to balance personal and work life. The researcher stated that work life balance is joint responsibility of employees and employers.

**Gawali S. N. and Waghare Y. M. (2013)** have put forward the importance of the Maharashtra State Road Transport Corporation (MSRTC) in their research. The paper evaluated the various services provided by State Transport to the people. MSRTC also try to provide good service to their passengers. MSRTC provided many types of bus services viz. Ordinary, Parivartan, Asiad, A. C. Bus Service, Sheetal and City Bus Service. The transport and communication sector in India, has undergone significant changes in the last two decades during this period the development of financial and market performance of UPSRTC these issues

have received little attention. Therefore in this present study an attempt has been made to study the development of UPSRTC after the initiation of economic reforms. It is seen that, even though there were many studies related to public transportation in India, yet UPSRTC have received little research attention. Although there is a plethora of research concerning public transportation, but performance of UPSRTC's Lucknow division after economic reforms and reforms in information technology have been untouched. Some studies have been done at state level but division wise and depot wise study of state transportation received little attention. Also depot wise and division wise trends in different types of expenditure and returns has given less emphasis. Beside depot wise passenger's satisfaction level have received less research attention. Transport system is an important part of the nation's economy but our country facing different issues related to fuel infrastructure, road infrastructure, and price sensitivity.

**Table 1.1**  
**Length of Roads in India during (2006-2016)**

Year	Total	Surfaced	Highways – Total	Highways – Surfaced	Urban Roads – Total	Urban Roads – Surfaced	Project Roads – Total	Project Roads – Surfaced
2006	2469524	1414547	1993858	1166209	252001	191797	223665	56541
2007	2499906	1451656	2025487	1200102	250295	190252	224124	61302
2008	2601957	1491359	2045370	1207578	297259	214951	259328	68830
2009	2669996	1526055	2107061	1238306	301310	218361	261625	69388
2010	2962463	1596451	2415941	1334875	286707	195277	259815	66299
2011	3014063	1637723	2459886	1370932	291991	200210	262186	66581
2012	3119923	1693500	2550838	1417409	300580	207052	268505	69039
2013	3174620	1745271	2600104	1458341	304327	212750	270189	74180
2014	3571509	2141301	2921091	1809644	373801	258279	276617	73378
2015	3682436	2243312	3001055	1889294	402448	279715	278933	74303
2016	3790344	2341479	3089966	1972740	411839	291894	288539	76845

### National Highways

The total length of roads in India is 33,15,231 Km, out of which national highways has 1.75 percent, state highways 4.13 percent, major district roads 14.17 percent and village and other roads having 79.93 percent share.

The Uttar Pradesh State Road Transport Corporation (UPSRTC), Meerut region, has successfully achieved its target of earning Rs 243.43 crore for the financial year 2015-16, a year after registering a huge loss of Rs 1.60 crore. The target revenue was set in such a way that losses of last year were also covered.

Not only has the corporation crossed its target income, it has also registered a profit of Rs 55 lakh. Authorities have credited controlled expenses and better utilization of available buses as the reason for registering profits in 2015-16.

**Table 1.2**  
**Physical Performance of UPSRTC**

(Figures in Lakhs)

Sr. No.	Parameters of Physical Performance	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13
1.	Buses Held	5843	6230	6561	6665	7003	7459	7382	6890	7259
2.	Over aged buses	1439	1310	1062	1294	1400	1551	1511	1168	1536
3.	Fleet Utilisation (%)	95	96	96	95	95	96	95	94	96
4.	Passengers Carried (crores)	37.68	39.63	42.49	44.33	46.65	47.75	47.05	49.11	52.65

<b>5.</b>	<b>Staff Employed</b>	36398	37339	35687	35314	34246	32081	30128	28170	27171
<b>6.</b>	<b>Bus-Staff Ratio</b>	5.64	5.59	5.12	4.95	4.66	3.95	5.12	5.22	5.17
<b>7.</b>	<b>Man-power Productivity</b>	54.64	58.64	65.45	69.93	75.48	90.81	67.14	68.41	68.32

(Source: Annual Report, UPSRTC, Lucknow)

Table reveals that the buses held by the Corporation shows continuous increase with very small decrease in the year 2010-11 and 2011-12 respectively. The maximum number of buses Corporation held was 7, 459 in the year 2009 -10, however the minimum number in the year 2004-05 (5, 843 buses) with an average of 6, 129 buses. The figure under over aged fleet shows very impulsive growth. It varies from 1, 062 buses to 1, 551 buses with an average of 1, 227 buses.

Wherever, the fleet utilisation doesn't vary a lot. It ranged from 96 to 94. Further, the passengers carried by the Corporation shows continuously increasing trend. It increased from 37.68 crores (in 2004-05) to 52.65 crores (in 2012-13).

The Corporation was able to reduce its man-power in the past decade. It was recorded 36, 398 number of employees in 2004-05 which further decreased to 27, 171 in the year 2012-13. In case of bus -staff ratio, the Corporation was able to reduce the ratio from 5.64 to 3.95 during the period of the study. The analysis of man-power productivity reveals that it shows increasing trend till 2009-10 from 54.64 (in 2004-05) to 90.81 (in 2009-10). Afterwards, it becomes impulsive in nature with an average of 61.88. However, the analysis of above table reveals that the overall physical performance of the Corporation was good.

**FINANCIAL PERFORMANCE-** Cost analysis is important in case of passenger road transport. The total cost can be classified into a number of components. The usual classification of the total cost in the case of transport operation is into personnel, material, overhead, depreciation, tax and interest. Table 2 shows the Total Cost, total Revenue and Profit/ Loss earned by the Corporation-

**Table 1.3**  
**Total Revenue, Total Cost and Profit/Loss Position of UPSRTC**

(Figures in Lakhs)

Year	Total Revenue	% change over the Previous Year	Total Cost	% change the Previous Year	over Profit/ Loss
<b>2004-05</b>	87223.46	-	86836.00	-	387.46
<b>2005-06</b>	101867.94	16.79	100491.19	15.73	1376.75
<b>2006-07</b>	114117.46	12.02	110114.44	9.58	4003.02
<b>2007-08</b>	124073.93	8.72	120003.02	8.98	4070.91
<b>2008-09</b>	141385.87	13.95	140318.70	16.93	1067.17
<b>2009-10</b>	165702.01	17.20	170899.35	21.79	-5197.34
<b>2010-11</b>	207439.73	25.19	211289.04	23.63	-3849.31
<b>2011-12</b>	232398.32	12.03	235855.47	11.63	-3457.15
<b>2012-13</b>	252935.80	8.84	261195.82	10.74	-8260.02
<b>Mean</b>	<b>158571.60</b>	-	<b>159667</b>	-	<b>-1095.39</b>
<b>Maximum</b>	<b>252935.80</b>	-	<b>261195.8</b>	-	<b>4070.91</b>
<b>Minimum</b>	<b>87223.46</b>	-	<b>86836</b>	-	<b>-8260.02</b>

The profit and loss position of the Corporation is quite impulsive in nature. It was positive for first five years and then it became negative for the next four years. In 2004 -05, the Corporation earned a profit of Rs. 387.6 lakhs. However, in 2012-13 the Corporation had faced Rs. 8, 260.02 lakhs as losses. During the study, the profit/ loss in the Corporation was recorded as high as Rs. 4070.91 lakhs and as low as Rs. 8, 260.02 lakhs (as losses), with an average of Rs. 1, 095.93 lakhs as losses.

UPSRTC is a renowned name among the public. It is the most preferred, economical and safe mode of transportation. It recorded very nominal number of accidents, i.e. 798 accidents in the year 2012-13. The Corporation also recorded continuous fall in the accidents per 10 lakh kms, which stood at 0.09 in the year mentioned above. Which make it a preferable and common mode of transport among public?

The UPSRTC has a large number of qualified and experienced man-power. The upper level management is placed with the people of IAS's and PCS's rank. The Central and State government places IAS's and PCS's as the MD's and Chairman's of the Corporation. It provided employment to 27, 171 peoples in the year 2012-13. With such huge human capital, UPSRTC has a great market network all over the state. It covers nearly all parts of the State and provides connectivity between people and places.

### **GENERAL PROBLEMS FACED BY THE CORPORATION-**

- **POLITICAL INTERFERENCE-**

The price of input costs, like fuel, spares, wages and salary are external factors which cannot be fully controlled. So, to meet such expenditures, the Corporation needs to increase the revenue. But the Corporation is unable to increase the price of traffic sources of revenue due to political compulsions. The price of diesel and petrol has been increased year after year. But the fare collected has not been increased with the similar speed. Fare structure and any hike in the fare is solely decided by the Central and State government, which does not match the price of input cost. So naturally there is an imbalance between the cost incurred and the revenue generated which further leads to financial crunch in the Corporation.

- **FIXED ROUTES AND CAPACITY-**

Ignoring the need of buses operating in each route, uniform capacity buses are available. Even the buses for long distance route and short distance are same. No special arrangements are made for tourist areas. Luxury buses covers a very few number of routes. Another major drawback is that the same capacity buses are given even if the numbers of passengers travelling on the route are few. Moreover, being a social welfare public undertaking, it is concentrated more on providing passenger bus transport services to the rural, interior and backward areas, while the private operators concentrate mainly on high density profitability routes. These particular circumstances lead to unnecessary losses on account of UPSRTC. The situation can be modified with an effective strategic management and top level management support.

- **GOAL CONFLICT-**

Being a state owned undertaking, the UPSRTC has to work as a welfare undertaking. According to the UPSRTC mission, the Corporation has the provision for adequate, efficient, well co-ordinated, comfortable and economical services to the passengers, while earning enough for self-sustenance and growth. The Corporation was formed with an objective of supporting social and economic development by offering cheaper travel linking all rural and urban parts of the state to all categories of passengers with better amenities and well managed services. Most of such objectives, lead to a negative impact on the financial health of the Corporation. This leads to the goal conflict between the social responsibility and earning profits by the organization.

- **POOR MANAGEMENT-**

Any functioning organisation is the combination of top, middle and lower level management. Top level management is usually assigning the task of planning and policy formulation. One of the major problems for chief executives is to allocate the necessary time for strategic management process.

- **FINANCIAL CRUNCH-**

After separation from Uttarakhand, UPSRTC facing huge amount financial instability. In first five years of its working (From 2004-05 to 2008-09), the Corporation were able to earn profits. Afterward, it

incurred losses continuously. It incurred Rs. 8260.02 lakhs as losses in the year 2012-13. However, if the overall picture of the Corporation is analysed closely, it can be seen that UPSRTC spend Rs.2116.29 lakhs as the compensation for road accidents for the same year. Being a social services sector, it has to facilitate the society at best possible way. It pays Rs.1889.75 lakhs as fare concessions to students, senior citizen, person with physical disabilities, journalists etc. however, no recorded were found under the head subsidy or reimbursement throughout the period of the study.

## OBJECTIVES

The Present study has been undertaken to examine and evaluate the Working and Performance of state Road Transport Corporation of UTTAR PRADESH” precisely the whole study aims at the Following Objectives:

- To study the structural framework and significance of UPSRTC and to test developmental issues in different five years plans.
- To discuss the infrastructure service provided by the UPSRTC in Meerut.
- To evaluate working performance of UPSRTC in the last decade i.e. 2006-20016
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## HYPOTHESIS:

Keeping in view the objectives of the study the following hypothesis has been developed for the verification and confirmation.

1. Uttar Pradesh State Road Transport Corporation (UPSRTC) Meerut zone plays a prominent role in course of Road Transport management.
2. In spite of increasing expenditure the financial performance is negative.
3. The working and performance and liquidity position of UPSRTC has a disparity in comparison to two cities Luck now and Meerut zone.

## RESEARCH METHODOLOGY

A study of working and performance of UPSRTC since 2006-2016 has been completed with the help of existing published literature and statistical information. Relevant information and necessary data have been collected from the primary as well as secondary sources, an analytical examination of the data with the help of relevant and detailed information of the collected data, an attempt has been made to arrive at certain conclusion with regard to the working and performance of state road transport system in Uttar Pradesh.

## CONCLUSION AND SUGGESTIONS

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.

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.

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.

## REFERENCES

1. Christopher J TOLLEY et al "The implementation and operation of a road asset management system for Fiji" Proceedings of the Eastern Asia Society for Transportation Studies, Vol.3, No'1, October, (2001).
2. Jagadish Gandhi P. (1998) : State Transport Undertakings – Structure, Growth, Performance, Deep and Deep Publication, New Delhi, 1998.
3. Bandgar P. K. (1999) "Role of BEST in Passenger Transport in Mumbai" Surface Transport in India (Changing Scenario), Printwell Publishers Distributors, Jaipur.

4. S. K. Singh (2000) : “Technical Characteristics and Efficiency of the Indian State Road Transport Undertakings,” Indian Journal of Transport and Management, 24(8), Pp533-543.
5. M. K. Thomas (2000) : Public Sector Bus Transport in India in the New Millennium – A Historical Perspectives, Ebenezer Publications, Pune.
6. Patil S. D. (2003): “A study of Maharashtra State Road Transport Corporation (MSRTC) Employees in Sangli District.” Unpublished Ph. D thesis submitted to Shivaji University, Kolhapur.
7. Ravichandran, M. V. N. Surya Prasad (2005) : “Reviving Gujarat State Road Transport Corporation: An Agenda For Action” W. P. No 2007-03-05, IIM-A.
8. Affecting Competition (2007) : “Passenger Road Transportation Sector”, Study Commissioned by The Competition Commission of India, March 14, 2007.
9. Mane K. H. (2010) : “Commuters Satisfaction with Reference to Service Provide by MSRTC”, International Referred Research Journal, Vol. II, Issue 18, July, 2010.
10. Bishnoi N. K. Sujarat (2010), “An Analysis of Profitability and Productivity of Haryana State Road Transport Undertaking (HSRTU)”, ENVISION – Apeejay’s Commerce and Management Journal, Pp. 32-41.
11. Jadav Chandra and Amar (2010), “Towards Sustainable Competitions”, Indian Economic Review (Special Number) Vol.18.
12. V. Vijay and Durga Prasad (2011) : “Passenger Amenities of Andhra Pradesh State Road Transport Corporation (APSRTC)” Asian Journal of Business Management Studies 2(2), Pp76-83.
13. Kaushik K.R, Bansal Kapil, ”Foreign direct investment in Indian retail sector pros and cons” International journal of emerging research in management & technology, Vol- 2, Issue-2, PP 7-15, 2012
14. Kadam B. S. (2012) : “Work Life Balance : Dilemma of Modern Society- A Special Reference to Women Bus Conductors in MSRTC”, Zenith International Journal of Business Economics & Management Research, Vol.2, Issue 2, Feb. 2012.
15. Gawali S.N. and Waghare Y.M.(2013) : “Life Line of Maharashtra – Maharashtra State Road Transport Corporation (MSRTC)” Online International Interdisciplinary Research Journal, (Bi- Monthly), ISSN2249-9598, Volume-III,Issue-II, Mar-Apr 2013.
16. Singh, Baidyanath Prasad, (2004) “Indian Economy Today: Changing Contours” Deep and Deep Publications, New Delhi.
17. [www.upsrtc.com](http://www.upsrtc.com)
18. State Road Transport Undertakings- Profile and Performance, 2012-13, CIRT, Pune.
19. Dr. Srinivasulu, Yarlagadda (2006) “Marketing of Passenger Transport Services” A.P.H. Publishing Corporation, New Delhi.