

# Study of Long Distance Passenger Transport Service with Reference to Selected State Transport Undertakings in India

<sup>1</sup>Mr. Raju Laxman Giri, <sup>2</sup>Dr. Shyamkant. V. Shrigiriwar

<sup>1</sup>Research Scholar, <sup>2</sup>Research Guide Department of Business Management, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur. Maharashtra. India.

<sup>1</sup>giri\_rajul@yahoo.com, <sup>2</sup>sv.shrigiriwar@gmail.com

**Abstract:** During the last two decades, there has been an exponential growth in the number of automobiles in India. In passenger transport segment State Transport Undertakings (STU) are trying to upgrade their services by using modern vehicles. The private operators are using better quality buses to attract the passengers of STUs towards them. So it is important to study the kind of buses the STUs are using and some statistics about the STUs. This paper is highlighting the importance of STU in passenger transport service specifically in long distance segment. This is an effort to know the previous status of the STUs about the fleet strength and the total strength of the staff providing the services to the passengers.

Main motive of this paper is to know the different types of buses used for the long distance passenger service. The researcher also wants to know the type of buses operated by selected STUs like Kadamba Transport Corporation Ltd. (Kadamba TCL), Maharashtra State Road Transport Corporation (MSRTC), Karnataka state Road Transport Corporation (KSRTC) and Andhra Pradesh State Road Transport Corporation (APSRTC) on long distance routes.

**Keywords:** *comfort, intercity, passengers, private operators, service quality, STU*

## I. INTRODUCTION

Since many decades in different states of India, State Transport service is providing the economical transportation service to all type of passengers. As the population is going on increasing there is more demand for the passenger transport services and the different kind of vehicles they are using for providing services to passengers. After entry of private operators in passenger transport service some of the passengers are attracted towards the services provided by private operators. For this segment of passengers, comfort and the amenities provided by the private operators are having more importance. So it is necessary to study the both type of operators viz STUs and private operators with respect to the type of vehicles they are offering for passenger transport.

## II. OBJECTIVES OF THE STUDY

- 1) To study the fleet and staff strength of MSRTC and other selected STUs
- 2) To study number of passenger using STU services
- 3) To study about the intercity passenger transport service with reference to type of buses used for long distance travels by different STUs.

## III. RESEARCH METHODOLOGY

This study is based on the secondary data. The secondary data was collected from the published research papers and reports. Websites of different agencies as well as state

transport undertakings and private transporters have been used for collecting the data. Statistical information published on government websites is the major source of data for this study.

### *Long Distance Passenger Transport:*

The long distance passenger transport has been defined differently by different authorities. According to the report of Planning and Statistical Department of KSRTC the long distance route ranges from 150 km and more. As per the research conducted in Italy "long distance transports covers passenger and freight over the distance of 80km and more for rail and road, in excess of 250 km for air travel and seaborne transport." (Monica Giannini 2012). Study conducted in Poland about the quality of the bus fleet shows that the condition of bus fleet is of great importance to the quality of bus service provide by the bus company (Przemyslaw Misiurski 2015). So there is need to study the policy of using buses and the requirement of different types of routes as well as the customer expectations.

### *Role of Major Agencies Related to Passenger Transport:*

**State Transport Undertakings (STU):** To provide better passenger transport service every state in India has established their own state transport undertaking. The major responsibility of different STUs is to provide passengers transport facility on defined route in a particular area that is state. Now a days the major cities in India are connected with the passenger bus transport facility. Road ways is the most popular and convenient for all type of passenger. The STUs and private operators are now focusing more on

intercity passenger transport service. The private operators are leading in the segment of long distance passenger transport service.

**Association of State Road Transport Undertakings (ASRTU):**

For bringing all the STUs on a common platform Association of State Road Transport Undertakings was established on 13<sup>th</sup> Aug. 1965 under the aegis of Ministry of Road Transport & Highways Govt. of India. One of the aim of ASRTU is pooling the resources and knowhow for dealing with various problems faced by STUs and help them to improve their performance in providing services to passengers. There are 56 member STUs are associated with ASRTU in addition to this 6 associate members are also the part of ASRTU. Total 62 members of ASRTU collectively operates 1,50,000 buses daily and provide their services to about 70 million passengers in a day.

ASRTU provides forum for exchange of ideas on best practices in passenger transport and dealing with various issues relating to STU members and help them to improve their performance. ASRTU motto is to promote public transport at par with the international standard. ASRTU helps the different STU members in following ways

- It facilitates testing of components to ensure quality assurance and training personnel, formulate specifications of various bus spares, besides other general items used for maintenance of bus fleet in STUs, a common procurement service through ASRTU.
- Provides exposure to top management of SRTUs by means of National and International best practices through participation in Conferences/Study tours/workshops.
- ASRTU undertake advocacy for public transport issues in general and SRTUs in particular.
- Liaising with various Ministries and other concerned key departments of Government of India and abroad.

**Role of Central Institute of Road Transport (CIRT):**

With the joint initiative of the Ministry of Shipping & Transport & the Association of State Road Transport Undertakings in year 1967 established the Central Institute of Road Transport (CIRT). The Central Institute of Road Transport is committed to improving the efficiency & productivity of the transport sector, with particular emphasis on the State Transport Undertaking.

This institute offers technical training, consultancy and automobile component testing services to the STU fraternity. CIRT also offers management Development programs for practicing managers in STUs, to other organizations operating transport services besides road transport officials in field of general management, transport operations and maintenance engineering. The CIRT also undertake consultancy and research assignments. CIRT has a sophisticated automobile component testing laboratory which is recognized by the Bureau of Indian Standards for testing a wide range of automobile components. ASRTU relies on the test reports of CIRT while awarding rate contracts to automobile component manufacturers. The ASRTU and CIRT jointly take efforts for monitoring the quality of auto parts and it has become an indispensable input for upgrading quality and ensuring cost-effectiveness.

**Share of STUs and Private Operators in Public Transport:**

Though the each state is having their own state transport undertaking, the private transport operators also provides services to the passengers in addition to STUs. STUs are playing major role in short as well as medium distance passenger service. For many years the long distance passenger service has been neglected by many STUs. These private transport operators specifically dominant on long distance travel service. As the private operators are more profit oriented they apply a strategy of increasing the fare rates in peak season like holiday and festivals. Private operators are having more flexibility in fare rates while providing the services to passengers. In contrast to this state transport undertaking are having fix fare rates and they do not change their fare rates route wise or season wise.

Following table shows the share of selected STUs and private operators in public transport.

**Table : 1: Statement indicating percentage share of STUs and private operators in Public Transport**

Name of STU	2004 - 05		2005 - 06		2006 - 07		2007 - 08		2008 - 09	
	STU Share	Share of Private operator	STU Share	Share of Private operator	STU Share	Share of Private operator	STU Share	Share of Private operator	STU Share	Share of Private operator
Kadamba TCL	8.22	91.8	7.28	92.7	6.71	93.3	5.97	94	5.12	94.88
KSRTC*	54.3	45.7	55.4	44.6	61.2	38.8	63.7	36.3	64.3	35.7
MSRTC	55.52	--	52.38	--	50.58	--	51.25	--	52.76	--
APSRTC	84.36	15.64	91.71	8.29	82.99	17.01	80.34	19.66	N/A	N/A

\*This include consolidated/ overall figures of three STUs in Karnataka viz., NEKRTC, NWKRTC and KSRTC.

From the above table it is evident that the share of private operators have shown increasing trend in these four states in year 2004 to 2009. The share of private operators is about 35 to 45 percent in Maharashtra and Karnataka. The role of private players is more dominant in Goa state as Kadamba TCL could not provide the service on all the

routes. In Andhra Pradesh, STU is having more share but the share of private operators is also showing considerably growing trend.

So it is important to know the type of buses and the kind of service private operators are providing to the passengers.

There is a vast difference in the type of bus operated by STUs and Private operators. Now a day due to the difference in the service quality of both the competitors passengers have shown more inclination towards the private operators. There may be various other reasons why passengers are opting for the services provided by private operators.

Following are the tables shows information related to the selected STUs for the period of 2011 to 2016

**Table 2: Average Fleet Held (Number) by STU**

Name of STU	Average Fleet Held (Number)				
	2011-12	2012-13	2013-14	2014-15	2015-16
Kadamba TCL	412	425	547	540	569
KSRTC	7621	7831	8243	8321	8172
MSRTC	16801	17497	18055.13	17957	18514
APSRTC	22170	22477	11857	12079	12012

**Table 3: Staff strength (Number) of STU**

Name of STU	Staff Strength (Number)				
	2011-12	2012-13	2013-14	2014-15	2015-16
Kadamba TLC	1889	1861	2013	2054	2003
KSRTC	36448	36249	38776	37326	37129

**Table 5: Passengers carried by STU**

Name of STU	Passengers Carried (Lakhs)				
	2011-12	2012-13	2013-14	2014-15	2015-16
Kadamba TLC	306.28	301.12	317.33	344.33	356.18
KSRTC	8866.71	9390.93	9662.09	10349.06	10103.63
MSRTC	26003.92	26064	25630.26	24557	24561
APSRTC	50014	51673.05	16359.3	23192.1	22977.48

The number of passenger carried per year can be a measure of popularity and efficiency of the STU. Considering the table no. 5, the passenger carried per year is decreasing except the KSRTC. Even though the staff number and average fleet held increased for this period the majority of STUs have failed to attract the passengers towards their services. The KSRTC service has shown increasing number of passengers. So it is important to know the kind of buses & facilities they are proving to the passengers.

**Table 6: Average age (Avg. Age) of fleet and over aged vehicles percentage**

Parameters	Year	Kadamba TCL	KSR TC	MSR TC	APSR TC
Avg. Age of Fleet (Years)	2014 - 15	4.96	4.23	4.58	5.68
Avg. Age of Fleet (Years)	2015 - 16	5.49	4.94	4.83	6.16
Over aged	2014 -	14.21	4.2	5.43	16.5

MSRTC	104566	100052	107709	107500	105679
APSRTC	123615	122287	63141	61806	57902

The table no. 2 & table no. 3 shows that the fleets held by the selected four STUs are growing in numbers except the APSRTU. The staff number is also growing but the rate of increase in staff number is less than the increase in average fleet held during this period.

Following table depicts the number of staff per bus in 2004 to 2009 and 2014 to 2016.

**Table 4: Staff/Bus ratio of STU**

Year	Kadamba TCL	KSRTC	MSRTC	APSRTC
2004 - 05	4.97	* 5.59	6.31	6.14
2005 - 06	4.8	* 4.96	6.65	5.99
2006 - 07	4.62	* 4.86	6.63	6.01
2007 - 08	4.77	* 4.55	6.35	5.8
2008 - 09	4.84	* 4.89	5.91	5.59
2014 - 15	3.8	4.49	5.99	5.12
2015 - 16	3.52	4.54	5.71	4.82

\*This include consolidated/ overall figures of three STUs in Karnataka viz., NEKRTC, NWKRTC and KSRTC.

Above table show that except MSRTC all the three STUs that is Kadamba, KSRTC and APSRTC are having decreasing staff/bus ratio. The major factor in providing the better service to the passenger is sufficient number of staff as the fleet size grows the need of more operating staff is also there. In the year 2014 -15 the MSRTC is having more staff/bus ratio as compared to before 2009.

vehicles (%)	15				
Over aged vehicles (%)	2015 - 16	13.96	15.9	1.67	18.8

The KSRTC is having low average age of fleet in the year from 2014 to 2016. The APSRTC is having high average age of fleet in the year from 2014 to 2016. APSRTC is also having the more number of over aged vehicles in their fleet. The minimum number of overaged vehicles is in MSRTC fleet that average is 3.55 for 2014 to 2016. Reliability of bus service mostly depends upon age and health of the bus. Therefore, it is imperative for STUs to workout suitable ways and means for timely replacement of over aged buses.

**Type of Services Provided by STUs**

The major strength of private operators is the use of modern kind of vehicles in their fleet and take advantage over the

state transport undertakings, as majority of STUs are incurring losses they can't increase the modern vehicles in their fleet. However the efforts of introducing new vehicles which can provide the comfort & efficient service to the passengers have been taken by many STUs.

**MSRTC:** The Maharashtra State Road Transport Corporation is established by State Government of Maharashtra as per the provision in Section 3 of RTC Act 1950. The MSRTC is operating its services by the approved scheme of Road Transport Published vide Notification MVA 3173/30303-XIIA dated 29.11.1973 in the official gazette.

MSRTC have started their Semi luxury bus service named ASIAD in 1982 presently it is renamed as Hirkani. From 28<sup>th</sup> December 2002 Volvo AC buses have started specifically on Pune Mumbai route and then extended on various other routes also. To face the competition from private operators on long route and to add more comfort to the passengers MSRTC has launched Multi Axle Scania bus service in their fleet. Presently this service is available only on Mumbai Pune route. For intercity travels MSRTC have launched AC bus which is having fare rates more than Semi luxury - Hirkani bus but less than the AC Volvo bus - Shivneri, the name of newly launched bus service is 'Shivshahi'.

**Table 7: Name and type of services provided by MSRTC**

Sr. No.	Type/Name of Bus
1	Nim Aaram seva/Asiad (Semi luxury Bus Service) - HIRKANI
2	AC - Shivneri
3	AC Multi Axle Scania -Ashwamedh
4	AC - Shivshahi

**KSRTC :** Karnataka State Road Transport Corporation has emerged as the best organization in meeting aspirations of people of Karnataka and the neighbouring states of Karnataka. To increase operational efficiency, to provide quality transport service to the passengers and to have an effective supervision on the operations of the Corporation, the Government of Karnataka has ordered for bifurcation of KSRTC into 4 separate Corporations vide its order No.HTD 127 TRA 96 dated 22-02-1997. These four corporations are

- Bangalore Metropolitan Transport Corporation (BMTC)- Corporate office at Bangalore ,
- North West Karnataka Road Transport Corporation (NWKRTC)- Corporate office at Hubli
- North East Karnataka Road Transport Corporation(NEKRTC)- Corporate office at Gulbarga
- Karnataka State Road Transport Corporation (KSRTC) has its Corporate office at Bangalore.

KSRTC presently, covers seventeen Districts in the State under its operational jurisdiction. KSRTC is holding a fleet of more than 8000 vehicles. It includes Volvo 198, Volvo Multi Axle 141, Volvo City 50, Mercedes Benz 10, Mercedes Benz Multi Axle 20, Corona Sleeper 74, Corona Seater 6, Scania 35, Tata 4711, Leyland 2864, Eicher 236

and Swaraj Mazda 3 vehicles. This STU stands 5th amongst STUs in the Nation by size.

**Table 8: KSRTC Key Statistics (As on 31-12-2016)**

1	Vehicles	8680
2	Schedules	8106
3	Effective Kilometers per day	28.52 Lakh
4	Average traffic revenue per day	Rs. 809.43 Lakh
5	Average passenger travelled per day	28.80 Lakh
6	Staff	38189
7	Staff ratio per schedule	4.71

**Table 9: Name and type of services provided by KSRTC**

Sr. No.	Name/Type of Bus
1	Flybus - Luxury Travel
2	Airavat Bliss
3	AiravatSuperia
4	Airavat Club Class
5	Airavat

KSRTC is aggressively operating their long distance passenger service and some customer oriented features have been added in the major bus services. Some of these features are

- In-Bus Entertainment facility.
- Facility of good quality air-conditioner with excellent cooling effect to make the journey comfortable & cool.
- Buses are provided with multi axle which enhances the comfort level for long distance travel.
- Full air suspension, to offer a high degree of comfort
- Ergonomically designed executive, comfortable, reclining luxurious passenger seats.
- Chemical toilet facility
- Auto flush facility for toilet
- Hand wash system with '10 seconds' water saving operation.
- Easy to operate system to help clean out waste.
- The window glasses are toughened and provide clear vision to the passengers.
- 10 Cu mtr luggage space is provided under passenger seating area.

**APSRTC:** Andhra Pradesh State Transport Corporation is committed to provide consistently high quality of services and to continuously improve the services through a process of teamwork for the utmost satisfaction of the passengers and to attain a position of pre-eminence in the Bus Transport sector. APSRTC provides the connectivity to, Mumbai, Pune, Shirdi, Nagpur, Bengaluru, Chennai, Vellore and other major cities.

**Table 10: Name and type of services provided by APSRTC**

Sr.No.	Name/Type of the f bus
1	Vennela (AC Sleeper)
2	Garuda Plus (AC Semi-Sleeper Multi Axle)

3	Garuda (AC Semi-Sleeper Volvo / Benz / Isuzu)
4	Indra (2 + 2 AC Semi-Sleeper)
5	Super Luxury (2 + 2 Non-AC Pushback)
6	Deluxe (2 + 2 Non-AC)
7	Express (3 + 2 Non-AC)
8	Metro Luxury AC
9	Ultra Deluxe

**KADAMBA TCL:** With the objective of providing safe, reliable, time saving, efficient, comfortable and affordable services to the traveling public, Kadamba Transport Corporation Limited (Kadamba TCL) was set up by the Government of Goa as a company in the year 1980. The Corporation since its inception has been facing the competition from the private operators and this STU is unable to meet the entire demand of public transport but it presently has a fleet strength of 432 vehicles. The liberalization policy, the amendment in the Motor Vehicle Act 1988 and the increasing input cost in terms of material and labor have had a direct impact on the cost of operation.

Presently the Kadamba TCL is providing the services on many interstate routes like Goa to Pune, Bangalore, Shirdi, Solapur

**Table 11: Type of services provided by KADAMBA TCL**

Sr. No.	Type of bus
1	Non AC Seater Executive Luxury (2x2)
2	Volvo AC Seater (2X2)
3	AC Sleeper (2X1)

**Private Operators:** Private operators in passenger transport segment are trying to connect the majority of the cities where demand for luxury buses is more in number. Private operators are providing a choice among the several types of buses viz. AC / Non A/c Sleeper coach, AC / Non A/c Semi Sleeper / Seater etc. Most of the leading private operators are providing services by using high-end vehicles like Volvo and MercedesBenz. For long distance travels private operators are providing better quality sleeper coach facility to attract the maximum number of passengers towards them. Majority of the private operators are having sleeper coach buses in their fleet. STUs are discontinuing some of its long distance bus services as passengers are not showing much interest in that due to high fare rates this creates more demand for private operator services.

#### IV. FINDINGS

- 1) All the four STUs are increasing the number of vehicles in their fleet.
- 2) The total staff strength of STUs is also showing the increasing trend but the staff /bus ratio is going on decreasing.
- 3) The number of passenger carried in a year is increasing in case of all the STU but the share of private operators is also showing increasing trend.
- 4) The number of over aged vehicle is considerably high and all STUs are now introducing the new types of vehicles

which are providing more comfort & additional features in long distance passenger transport segment.

#### V. CONCLUSION

Study of the above four STUs and the type of fleet these STUs are using for passenger transport service shows that all the four STUs are adding the buses like semi luxury, Volvo, Multi Axle, in their fleets which provide more comfort to the passengers. STUs are trying to utilize these vehicles for long distance travels. The category like AC sleeper service for intercity long distance travels is neglected by the STUs. AC Semi sleeper category is more highlighted by almost all the above STUs. For facing competition from the private operators changes in the types of buses is the major factor which can contribute towards success in long distance passenger transport.

#### REFERENCES

- [1] ASRTU. (n.d.). about -asrtu. Retrieved February 2, 2018, from [www.asrtu.org](http://www.asrtu.org): <http://www.asrtu.org>.
- [2] CAG. (2018). Annexure- 1 : List of State Transport Undertakings. Retrieved February 2, 2018, from [www.cag.gov.in](http://www.cag.gov.in): [https://www.cag.gov.in/sites/default/files/cag\\_pdf/annexures\\_stu.pdf](https://www.cag.gov.in/sites/default/files/cag_pdf/annexures_stu.pdf)
- [3] CIRT. (2016). about us. Retrieved February 1, 2018, from [www.cirtindia.com](http://www.cirtindia.com): <http://www.cirtindia.com>
- [4] Giannini, M. (2012). ITS for Long Distance Bus Passenger Transport. *Procedia Social and Behavioral Science*, 3153-3158.
- [5] Jairaj, K. (2002). Karnataka State Road Transport Corporation : The Changing Scene. *Indian Journal of Transport Management*, 26 (1), 35-42.
- [6] Mekoth, N. (1997, June). Quality of Service in Passenger Road Transport : A Comparison Between Public & Private Sectors with Reference to Goa. *Indian Journal of Transport Management*, 367-374.
- [7] Misiurski, P. (2015). The impact of the quality of the bus fleet in the implementation of strategy of sustainable development of a region. *Management of the Environmental Quality : An International Journal*, 26 (4), 471-485.
- [8] Open Government Data. (2018). Retrieved February 4, 2018, from [www.data.gov.in](http://www.data.gov.in): <https://data.gov.in/node/4239121/download>
- [9] Planning & Staistical Department, K. R. (2010-11). Annual Administration Report 2010-11. Bangalore: Managing Director, Karnataka State Road Transport Corporation.
- [10] Rajkumar, K. P. (2011). A Study on Passengers' Satisfaction Provided by Bus Operators in Tamil Nadu. *Vidyasagar University Journal of Commerce*, 16, 88-99.
- [11] Report on Performance of STUs for the Quarter Ending December 2005- *Indian Journal of Transport Management* Volume 30 Number 1, January –March 2006, 109-139