



Passenger Flows at Tirumala Brahmastavam - Role of APSRTC

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ABSTRACT

Bus transport has a great significance in transportation of passengers. The bus transport becomes the prime requirement for people's mobility, as also for carrying of good and a large portion of passengers mainly depend on bus services. About 50,000 devotees visit the Tirumala temple daily. At the time of annual festival Brahmastavam which is celebrated on a grand scale, for about one lakh pilgrims visit Lord Sri Venkateswara from all over the country. Bus transport is the only mode available for the pilgrims to the Tirumala. The evaluation of the efficiency of bus services is essential to meet the existing as well as future demands of the pilgrims and passengers. The objective of this research paper is to determine the status and coverage of APSRTC bus transport in Tirupati, Alipiri and Tirumala and to estimate the passenger flow at Tirumala brahmastvam. For the purpose of evaluation, this research paper is divided into two parts. In the first part, the importance of bus passenger transport, status and coverage of APSRTC Depots have been discussed. In the second part, the passenger flow was analyzed with findings and suggestions. Based on the secondary data which is collected from the APSRTC Head office and RTC website this work was analyzed.

Keywords : Tirumala, Passenger Flow, APSRTC

1. Introduction

Transport is an essential ingredient of infrastructure that plays a pivotal role in upgrading the quality of human life. Bus transport has a great significance in transportation of passengers. The bus transport becomes the prime requirement for people's mobility, as also for carrying of good and a large portion of passengers mainly depend on bus services.

Among different modes of existing transportations in many developing countries road transport predominates. It is suitable for men and material across short and medium distances. Other advantages associated with it are flexibility, reliability, speed and door to door service. The importance of public as well as the private transport is being recognized by the developed countries. Being a developing country India cannot neglect public transport. Thus, road transport forms an indispensable integral element of the national transportation system and contributes to the country's overall development

2. Role of APSRTC in Tirumala & Tirupati

About 50,000 devotees visit the Tirumala temple daily. At the time of annual festival Brahmastavam which is celebrated on a grand scale, for about one lakh pilgrims visit Lord Sri Venkateswara from all over the country. Every year more than 5 lakh pilgrims are visiting the temple and the number of visitors are increasing rapidly. In the year 1994, 130 lakh pilgrims & in 1995, 135 lakhs pilgrims visited Lord Sri Venkateswara. In the year 1998 it has reached up to 175 lakhs approximately. In this connection availability of efficient bus transport becomes necessity in Tirumala & Tirupati to visit Lord Venkateswara. To increase the efficiency of the bus services, to reduce the problems of the passengers and to provide good facilities to the pilgrims, become doubly essential.

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There are two well-laid, all-weather, asphalt ghat roads between Tirupati and Tirumala. The old ghat road was laid in 1944, and is used for vehicles returning from Tirumala. It is 19 km in length. The new ghat road, which was opened in 1974, is for vehicles proceeding towards Tirumala.

The Andhra Pradesh State Road Transport Corporation (APSRTC) runs a regular bus service between Tirupati and Tirumala, from 03.00 hrs to 24.00 hrs, with a frequency of a bus at every two minutes. During Brahmotsavam and on all important occasions like New Year's Day, buses ply round the clock with a frequency of one bus at every minute.

The Tirumala depot and Alipiri depots are operating buses only from Tirupati to Tirumala and the Tirupati depot operating buses for all the directions and places with in the state ; it is running some buses from Tirupati to Chennai for the convenience of the pilgrims. Tirupati town was connected by all the major town of A.P by running buses from various depots.

There are three bus depots, Tirupati, Alipiri and Tirumala. Tirupati is connected with nearly one hundred places in Andhra Pradesh and fifty places in Tamil Nadu and with twenty places in Karnataka and Pondicherry and a few in Kerala State.

3. Objectives & Methodology

The objective of this research paper is to determine the status and coverage of APSRTC bus transport in Tirupati, Alipiri and Tirumala and to estimate the passenger flow at Tirumala brahmastvam. For the purpose of evaluation, this research paper is divided into two parts. In the first part, the importance of bus passenger transport, status and coverage of APSRTC Depots have been discussed. In the second part, the passenger flow was analyzed with findings and suggestions. Based on the secondary data which is collected from the APSRTC Head office and RTC website this work was analyzed.

4. Status and Coverage of Bus Transport at Tirupati, Alipiri and Tirumala

Tirupati depot was the biggest depot in Tirupati division. It has been functioning ever since 1964 initially as satellite depot

under the successive administrative control of Hyderabad, Ongole and Kurnool divisional managers. It became a full-fledged depot with effect from August 1973 under the administrative control of Ongole division. Central bus station situated in Tirupati town was constructed in 1977 in an area of 13.86 acres at an estimated cost of Rs.17 lakhs. At present there are about 1,668 departures including 508 Tirumala departures from this place, per day.

Initially the fleet strength was 7 buses with 27 employees. Now the strength is 116 buses with 875 employees. The depot was constructed in the area of 26,500 sq ft, 45 platforms, rest rooms and booking centres. This depot is operating 40 buses in inter-state routes, 58 buses in inter-and intra-district routes and 10 buses as town services and 8 buses as mofusil services.

Table 1 explains product wise analysis in Tirupati depot up to March 2010. Among 154 buses the Pallevelugu buses are

Table 1: Product wise Analysis in Tirupati Depot (Up to March 2010)

| Service Type | Buses | Trips | Earning | Optd.kms | EPK | OR | VU | EPB |
|-----------------------|-------|-------|---------|----------|-------|----|-----|-------|
| Garuda | 6 | 8 | 332.00 | 10.52 | 31.56 | 67 | 523 | 16505 |
| Super Luxury | 20 | 34 | 561.50 | 35.10 | 16.00 | 76 | 511 | 8175 |
| Express | 15 | 82 | 372.21 | 22.31 | 16.68 | 80 | 449 | 7490 |
| Tirumala Services | 8 | 34 | 210.46 | 11.42 | 18.44 | 72 | 392 | 7227 |
| One man Services | 23 | 276 | 702.54 | 25.64 | 27.40 | 67 | 328 | 8986 |
| Pallevelugu | 48 | 502 | 737.70 | 52.76 | 13.98 | 69 | 326 | 4558 |
| Metro Expenses JNNURM | 4 | 56 | 1.42 | 0.14 | 10.48 | 38 | 338 | 3543 |
| Town Services | 30 | 430 | 403.10 | 28.71 | 14.04 | 67 | 299 | 4198 |

The Alipiri depot had come into existing on 10-1-1975 with a fleet of 118 buses take-over of transport wing from Tirumala Tirupati Devasthanam. This depot used to run services between Alipiri to Tirumala only. After some years its operations were extended, covering inter-depot, inter-division and inter-state services. Now the depot is full-fledged with the strength of 521 employees and 104 buses.

Table 2 provides about product wise analysis in Alipiri depot up to March 2010. The Alipiri depot was operating all types of

Table 2: Product wise Analysis in Alipiri Depot (Up to March 2010)

| Service Type | Buses | Trips | Earning | Optd.kms | EPK | OR | VU | EPB |
|------------------------|-------|-------|---------|----------|-------|----|-----|-------|
| Super luxury | 12 | 24 | 374.09 | 24.80 | 15.09 | 60 | 506 | 7634 |
| Deluxe | 2 | 6 | 18.87 | 1.28 | 14.72 | 63 | 494 | 7274 |
| Express | 4 | 12 | 85.24 | 5.24 | 16.26 | 77 | 460 | 0 |
| Tirumala Services | 22 | 132 | 960.43 | 54.79 | 17.53 | 69 | 610 | 10692 |
| One man Services | 35 | 420 | 1161.04 | 40.43 | 28.72 | 71 | 313 | 8989 |
| Pallevelugu | 18 | 472 | 250.08 | 15.06 | 16.61 | 86 | 260 | 4319 |
| Metro Expresses JNNURM | 6 | 80 | 2.58 | 0.19 | 13.72 | 50 | 374 | 5131 |

Previously Tirumala depot was under the control of TTD and later became a satellite depot of Tirupati Depot-II. To provide better facilities to devotees Tirumala Depot was made full-fledged depot under the jurisdiction of Tirupati division in 1978. The buses of the depot run between Tirupati town and Tirumala hill in the ghat section. At present the depot has 98 buses and 500 employees. The depot is located in the area of 1,46,821 sq.mts, with 22 plot forms, canteen and restrooms.

Table 3 assess product wise analysis of Tirumala depot up to March 2010. The Tirumala depot was operating 56 Tirumala

Table 3: Product wise Analysis in Tirumala Depot (Up to March 2010)

| Service Type | Buses | Trips | Earning | Optd.kms | EPK | OR | VU | EPB |
|------------------------|-------|-------|---------|----------|-------|----|-----|-------|
| Saptagiri Super luxury | 8 | 28 | 167.04 | 8.86 | 18.85 | 89 | 457 | 8615 |
| Express | 9 | 234 | 230.79 | 8.09 | 28.54 | 79 | 277 | 7906 |
| Tirumala Services | 56 | 266 | 2017.74 | 88.27 | 22.86 | 92 | 488 | 11155 |
| One man Services | 19 | 228 | 800.47 | 23.22 | 34.48 | 85 | 323 | 11137 |

5. Tirumala Touching Bus Services

Table 4 shows the details of Tirumala touching services of Tirupati and other region depots. Tirumala is a famous religious place. There is need of connectivity to the pilgrims. Every day lakhs of people visit the Lord Sri Venkateswara. Every day 583 buses and 1,599 trips were operated by different depots.

48 and town services are 30. Regarding the earnings, Pallevelugu buses earned Rs.737.70 lakhs, super luxury services Rs.561.50 lakhs and town services earn Rs.403.10 lakhs up to march 2010.

The earning per km is higher with 31.56 was by Garuda services, 27.40 by one man service, 18.44 by Tirumala services in 2010. Regarding occupation ratio the express service having higher occupation ratio of 80 % and the lowest is found in metro in 2010. The occupation ratio was reduced in 2010 in all the services.

Earning per bus was found highest in garuda with Rs.16,505, one man service 8,986 and lowest was Rs.3,543 found in metro in 2010. The financial performance of Tirupati depot was not satisfactory. Even though the depot is earning profits there must be a check and issues should be modified in financial aspects.

buses except garuda. It was operating super luxury buses 12, deluxe buses 2, express buses 4, Tirumala services (express) buses 22, one man service buses to Tirumala 35, Pallevelugu buses 18 and metro buses 6 up to March 2010.

The Alipiri depot super luxury bus OR was 60% in 2010, Tirumala services OR was 69% in 2010. One man services OR was 71% in 2010. Pallevelugu OR was 86% in 2010. The OR was increasing in some services and decreasing in other services.

services, 19 one man services, 9 express and 8 saptagiri super luxury buses.

The occupation ratio was 92% in Tirumala services, 89% in saptagiri sup luxury, 85% in one man services and 79% in express.

EPB was higher with Rs. 11,155 through Tirumala services type, Rs. 11,137 through one man services and Rs.8,615 through Saptagiri super luxury up to march 2010.

261 buses with 979 trips were operated by Tirupati division, 115 buses with 276 trips were operated by Chittoor division, 45 buses with 65 trips were operated by out region depots, 34 buses with 58 trips operated by Tirumala to Karnataka operations and 128 buses with 221 trips were operated by Tirumala to Tamilnadu operation.

Table 4: Details of Tirumala Touching Services of Tirupati & Other Region Depot

| Depots | Buses | Trips |
|-------------------------|-------|-------|
| Tirupati Division | 261 | 979 |
| Chittoor Division | 115 | 276 |
| Chittoor Region | 376 | 1255 |
| Nellore Region | 33 | 53 |
| Kadapa Region | 10 | 10 |
| Nandyal | 1 | 1 |
| Kadiri | 1 | 1 |
| Karnataka State Depots | 34 | 58 |
| Tamil Nadu State Depots | 128 | 221 |
| Grand Total | 583 | 1599 |

6. Passenger Flow at Tirumala Brahmastavam

Table 5 explains the details of trips and passengers transported during Brahmastavam from 2004-2010. This table is the best example to show the increase of pilgrims to Tirumala Tirupati Devasthanam and emphasizes the need for improvement of RTC performance to fulfill the passenger needs.

The table shows passenger flow at the time of Brahmastavam (9 days). The table shows the information of 10 Brahmastavams from 2004-2010.

Table 5: Details of Trips and Passenger Transported During Tirumala Brahmastavam

| year | Up Passenger | Down Passenger | Total Passenger | Pilgrims Had Darshan | Total Trips | Market Share |
|----------|--------------|----------------|-----------------|----------------------|-------------|--------------|
| 2004 (1) | 2,02,140 | 2,57,264 | 4,59,484 | 3,57,884 | 16,438 | 71.88 |
| 2004 (2) | 2,16,315 | 2,80,739 | 4,97,054 | 3,64,260 | 17,818 | 77.07 |
| 2005 | 3,51,822 | 4,00,654 | 7,52,476 | 4,00,010 | 21,650 | 100.16 |
| 2006 | 3,91,988 | 4,58,477 | 8,50,465 | 4,81,675 | 24,998 | 95.18 |
| 2007(1) | 3,58,465 | 3,87,624 | 7,46,089 | 4,47,111 | 23,785 | 86.70 |
| 2007(2) | 3,94,399 | 4,35,463 | 8,29,862 | 5,26,081 | 24,935 | 82.77 |
| 2008 | 5,31,234 | 6,20,288 | 11,51,522 | 8,18,722 | 31,816 | 75.76 |
| 2009 | 4,63,965 | 5,55,519 | 10,19,484 | 7,13,278 | 29,629 | 77.88 |
| 2010(1) | 3,95,071 | 4,90,908 | 8,85,979 | --- | 27,542 | 73.00 |
| 2010(2) | 3,94,399 | 4,35,463 | 8,29,862 | --- | 24,935 | 76.00 |

7. Findings and Suggestions

It is found that the three depots were providing good services to the passengers mostly pilgrims of TTD. So the TTD must provide some financial help in purchasing buses to the depots of Tirupati. The study strongly recommends that the Alipiri depot and Tirumala depots must increase their fleet strength at least 150 buses and also to identify the old buses and should be replaced with new buses.

The OR influences the profits of the organization directly. The RTC should take care to improve the OR. It should concentrate to attract passengers. It is suggested to find out the bus wise, route wise low OR and remodel the routes. The Tirupati and Alipiri depots should improve OR in all the services particularly metro bus routes.

It is found that the metro services, town services and Pallevelugu services of Tirupati depot earning per bus was very low.

The average flow of passenger per day in general is 50,000 to 60,000. Whereas at the time of Brahmastavam the average passenger flow per day was in 2004(1) 51053 and 2004 (2) it was 55,228. In this year 2005 the passenger flow increased to 83,608 in 2006 it increased to 94,496. In 2007 the passenger flow was 82,898 and in the same year during second Brahmastavam time it was 92,206. In 2008 it was 1,27,946, in 2009 it was 1,13,276. In 2010 first Brahmastavams of the year the passenger flows was 98,447 and second time was 92,206.

When compared, every year the passenger flow are increasing rapidly.

In future the passenger flow will be more. The APSRTC covered market share 100.16 in 2005 and the least was recorded as 71.88% in 2004.

The highest passenger flow per day in 2004 it was 80,824. In 2005 it was 1,42,893 passengers, in 2006 it was 1,47,454, in 2007 it was 1,11,318, in 2008 it was 1,80,715. In 2009, 1,50,247 passengers has traveled per day, in 2010 it was 1,21,529.

It is found that the Pallevelugu services, metro services of Alipiri depot earning per bus was very low. It is found that the express services of Tirumala depot earning per bus was less. It is suggested that the three depots should take necessary steps to improve earning per bus through changing of routes.

It is found that the total passenger flow was growing up every year, so Tirumala RTC depots have to improve sufficient transport facilities to pilgrims.

It is found that the market share of the depots is showing ups and downs. It is suggested that the RTC depots must take care in increasing market share.

The study assures that these suggestions not only improve the standards of the bus services but also increase the coverage and frequency of bus services in the Tirupati city, particularly to Tirumala.

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