A STUDY ON BUS PASSENGER PERCEPTION AND LEVEL OF SATISFACTION - WITH SPECIAL REFERENCE TO BUS TRANSPORT INDUSTRIES IN TAMIL NADU

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Abstract

No transport business can survive without satisfying the needs of the passengers. In general, compared with other modes of transport, bus transport and its services are more indispensable, convenient and very easy to access. In certain situations, bus transport may suit with the needs of the passengers and facilitate more in all aspects. It carries the people from one place to another place to enable the people to carry out their day to day activity, business etc., Therefore bus transport and its quality service is too important and plays a vital role in a man’s day to day life of the general public. Bus transport industrial services are as similar to central nerves system of a human body. Bus transport connects different levels of people and it aid the people to have, build their business contact, celebrating festivals and in many ways. That is why this topic is taken to appraise and assess different kinds of bus passengers with different attitudes towards the bus transport services. These study is a part of an ongoing passenger satisfaction research towards the present service quality in bus transport industries in Tamil Nadu especially CMBT. The main aim of this study is to appraise the level of changes in bus passenger satisfaction. This research article will provide a clear view about the different attitudes of bus passengers, quality of service assured by State Express Transport Corporation (SETC), Tamil Nadu State Transport Corporation (TNSTC) and Private Omni buses transport industries in Tamil Nadu with special reference to Chennai.
PASSENGER PERCEPTION

Perception or sensitivity varies from person to person. Different people make out different things at a similar situation. A passenger is a term broadly used to describe any person who travels in a vehicle, but bears little or no responsibility for the tasks required for that vehicle to arrive at its destination.

Passenger perceptions are developed over time through a variety of sources, including:
- Passenger’s Past experience
- Interactions with SETC, TNSTC or Private Omni Bus Transport employees
- Recommendations from friends and colleagues
- Reviews by trustworthy sources.

ABOUT CHENNAI MOFUSSIL BUS TERMINAL (CMBT)

CMBT - ISO CERTIFICATION

As per the news came in the newspaper “The Hindu” on 28.12.2005, The Chennai Mofussil Bus Terminal (CMBT) which is situated at Koyambedu got ISO certification. CMBT, the biggest bus terminus in Asia got ISO 9001:2000 certifications for quality management and maintenance. “It is the only bus terminus to achieve this distinction in the country,” according to official sources. The certificate given by the Geneva–based International Organization for Standardization was handed over to Chief Minister at the Secretariat on Tuesday. When the Government of Tamilnadu officials told that as all facilities required for ‘special class bus stand’ were provided in CMBT and with international standards, it decided to apply for the Quality Management System Certification of ISO 9001:2000. After an intensive survey, keeping all aspects in mind about the traffic density by 2015, the CMDA constructed the “terminus, which was exceptional in many ways, more particularly the ultra-modern facilities provided for the operation of buses.” It was built at an estimated cost of Rs.103 crores, including the cost of 37 acres of land. Though the efforts were made by the CMDA to get the ISO 9001:2000 certification during June, “Initially it was a difficult one because so far no bus terminus was taken up for such kind of international certification.” However, the CMDA struggled on to get the global recognition by setting out quality objectives such as:

- Achieving users / passenger’s satisfaction at all levels and ever,
- Maintaining zero defect at facilities level
- Continuously improvement in quality service to the passengers
- Innovating services to satisfy the desires / needs of passengers / travelers.

The final assessment was made on August 1 at the highest level from the certifying body, which certified the CMBT on September 9 to become eligible for ISO 9001: 2000. Surely the ISO certification will help the Chennai Mofussil Bus Terminus to improve its quality standards such as getting global acceptance, effective documentation of its records, avoiding errors, self – motivated and corrective system to increase its confidence, passenger or customer satisfaction, efficiency in its performance and operations, intensive employee motivation and competitiveness and to have better management system, optimal utilization of its resources and applying cost control and reduction. The CMBT built at a cost of Rs 103
crore, the terminus has a capacity to handle over 2,000 buses and two lakh passengers per day. The existing State transport services, express bus services, private (Omni bus) services and other State transport services which are operating out of the Parys Corner terminus was shifted Koyambedu, at the junction of the Jawaharlal Nehru Salai (Inner Ring Road) at Koyambedu, (100 feet road) and the Poonamallee High Road to reduce the congestion in former place Parry's Corner and Broadway areas.

SPECIAL FEATURES OF CMBT

CMBT is functioning since 18-11-2002. It is spread over 36.5 acres with the total built up area 17840 sq ft. Which includes main terminal hall, bus fingers, large office space, shops, maintenance shed, crew rest rooms and other incidental structures. The terminus has space for 270 buses, three hotels and three smaller eateries, an 18,000 sq ft waiting facility for passengers, 25,000 square feet parking space for auto rickshaws, cabs and private cars, and 16,000 square feet parking space for two-wheelers. Three locker rooms and 10 travel agency offices have also been provided, according to an official press release.

UNDERGROUND PARKING AT CMBT

Deputy Chief Minister MK Stalin on Dec 27, 2010, inaugurated a two-level underground parking facility for two-wheelers at the Chennai Mofussil Bus Terminus in Koyambedu. As per the news came in The Times of India on Jan 19, 2010, The CMBT at Koyambedu will have a two-level underground parking facility by March 2010 at a project cost of Rs 12-crore which was commenced in January 2009 is scheduled to be completed in May 2010. However, officials from the Chennai Metropolitan Development Authority (CMDA), who are maintaining the terminus and executing the project, said construction would be completed in a couple of months. The new facility with new technology which was built in the vacant space at CMBT next to Inner Ring Road, which is having a capacity to accommodate 3,000 two-wheelers. Now 12,000 two-wheelers are parked in the terminus in each and every day. The existing two-wheeler parking area was allotted for cars parking.

CHILD HELP CENTRE AT KOYAMBEDU BUS TERMINUS

City police opened a ‘child friendly centre’ at the Chennai Mofussil Bus Terminus in Koyambedu that will serve as a help booth for lost and wandering children and victims of child abuse. This centre works towards prevention and healing of children subjected to physical abuse or other kinds of torture. Toys and other play materials have been made available at the centre to make the children feel comfortable,

METRO RAIL STATIONS IN CMBT

Access to the Chennai Mofussil Bus Terminus (CMBT) in Koyambedu is going to be stress-free for metro rail travelers. The passengers are able to walk right up to their buses from the elevated station that the Chennai Metro Rail will build inside the bus terminus. City-based Consolidated Construction Consortium Limited (CCCL) has won contracts to build 10 elevated stations of Chennai Metro Rail including the one at the CMBT. These stations will be located on the Koyambedu-Alandur stretch of Corridor 2 and the Little Mount-Officers' Training Academy (OTA) stretch of Corridor 1.
EXISTING PLANS TO BUILD TWO SATELLITE MOFUSSIL BUS TERMINUSES

There was a proposal to establish Satellite mofussil bus terminuses in Velachery and Madhavaram to ease traffic congestion in the city. The proposal of the Chennai Metropolitan Development Authority (CMDA) is to reduce the load on Chennai Mofussil Bus Terminus in Koyambedu. These satellite mofussil bus terminuses will have the facilities that are similar to that of CMBT. A terminal hall, bus bays, large office space, shops, crew rest rooms and other incidental structures would be constructed.

BUS TRANSPORT SERVICES IN TAMIL NADU

- STATE EXPRESS TRANSPORT CORPORATION (SETC)

The formation of a separate corporation exclusively for operating long distance express services connecting all the district headquarters in the State of Tamil Nadu with Chennai was thought by the Government of Tamil Nadu during the year 1975. Hence the long distance express services that were operated by previous Tamil Nadu State Transport Department were transferred as the Express wing of Pallavan Transport Corporation with effect from 15th Sep 1975. The express wing of Pallavan Transport Corporation was registered on 14 January 1980 and named as Thiruvalluvar Transport Corporation (TTC). Thiruvalluvar Transport Corporation started with 276 buses at the beginning and now renamed as State Express Transport Corporation Ltd., SETC’s objective is to achieve efficiency in its day-to-day activities and fulfill the needs of the long distance passengers. At present SETC provides one of the most affordable public transport services to 2 Lakh passengers per day. At present State Express Transport Corporation Tamil Nadu Limited provides one of the most affordable public transports to 2 Lakh passengers per day. For more Comfort and Luxury to the traveling public, SETC introduced 310 Ultra Deluxe Buses with 36 seating capacity with air Suspension and pollution free system to Inter & Intra State routes. SETC operates long distance buses exceeding 250 Kms and above throughout the state of Tamil nadu linking all important capital cities, historical places, religious places and commercial places etc, and adjoining state like Andhra pradesh, Kerala, Karnataka and Union Territory of Pondicherry.

It has a tradition of being a pioneer in several measures like introduction of online booking, payment of credit cards, 10% discount on return journey, 10% discount for the senior citizens, 10% discount for group booking, Zero waiting time, Reservation of seats for ladies, 10% discount on the reservation tickets against purchasing of one year valid Rs.500/- card, introduction of one week valid Rs.500/- card to travel any bus in SETC and if passenger travels five times for a particular destination the 6th time travel will be permitted at free of cost. There are 21 Computerized Reservation Centers and 27 Manual Reservation Centers exist in this Corporation. It is the only corporation to win the appreciation and great compliment of the traveling public in Southern India because of the efficiency, punctuality, safety and reliability of its services.

CUSTOMER RELATIONSHIP MANAGEMENT IN SETC

The crew of SETC was suitably trained to behave politely with passengers. Since beginning this Corporation has always maintained Cordial relations with passengers. In order
to ensure comfortable travel, the vehicles are being halted at proper places for refreshment. The stoppage of buses at these motels gives sufficient break in monotony during journey and it helps to ease the strain of passengers. SETC permits Cancer and TB patients to travel on concessional fares from their native place to the nearest Government Hospital for taking treatment. Public information counters have been functioning in the main bus stands of this Corporation throughout TamilNadu. Set up of public grievance cell exclusively to monitor and implement the suggestions made by the public. All the public grievances have been computerized effectively.

- **TAMIL NADU STATE TRANSPORT CORPORATION ( TNSTC )**

  Cheran Transport Corporation Limited was incorporated as a Company in 1972 and it commenced its services from 1972 with 110 buses. The Tamil Nadu State Transport Corporation (Coimbatore Division III) Ltd. has been merged with Tamil Nadu State Transport Corporation (Coimbatore Division I) Ltd., with effect from 2000. At present, the principal area of operation is Coimbatore and The Nilgiris Districts. As on 31.03.2003, it had a fleet strength of 1533.

- **PRIVATE OMNI BUS TRANSPORT INDUSTRIES**

  In Chennai some more private Omni buses are also operated to facilitate passengers and to fulfill their needs. Even though we have more public sector bus transport industries, private Omni buses are also running more number of buses to different destinations or different parts of inner state and outer states. Some times, some of the passengers prefer private buses even the fare is too expensive than public sector transport industries like SETC and TNSTC, the passenger’s are not bother about the high fare for their travel. Now the passengers are ready to expend more to get good quality service from the bus transport industries. That is the main cause of the survival of the private Omni bus transport industries and makes them to compete with public sector bus transport industries too.

**METHODOLOGY**

This research / study were conducted only at Chennai with special reference to Bus transport industries. Chennai is the Capital of Tamil Nadu has the population is 46.28 Millions. It is located on the Coromandel Coast of the Bay of Bengal. It is an Industrial Centre with numerous Educational, Industrial and Cultural institutions. This study mainly depends on primary data and to some extent; the study is also needs secondary data too.

**3.1 METHOD OF DATA COLLECTION**

While the researcher decides about the method of data collection to be applied for the study, the researchers keeps two methods of data collection.

- **PRIMARY DATA** – The data which are collected afresh and for the first time, and thus happened to be original in character.
- **SECONDARY DATA** – The data which have already been collected by someone else and which have already been passed through the statistical process.

The Primary data was collected from 75 passengers through the structured survey questionnaire to test level of satisfaction of the passenger and their perception, attitude etc.
Total time taken for data collection was 1.5 months. The researcher not only collects the data’s from the different web sites but also from reference books, news papers and existing research articles, collection of data by way of questionnaire and face to face conversation with the passengers and also by observation method at CMBT and private Omni bus terminus. The type of data collection adopted for this research is both Primary and secondary source of data. For the purpose of analyzing the results, the primary data is collected from passengers at CMBT Private Omni bus stand.

3.2 SAMPLE SIZE

A sample size of 75 numbers of passengers is considered to study the perception as well as the level of satisfaction of the respondents/passenger.

3.3 STATISTICAL TOOLS USED FOR THE STUDY

i. PERCENTAGE ANALYSIS

Percentage method helps to find out the most preferred choice of attributes by having 100 as the percentage value. It is the simplest form of calculation that can be used for comparison of various attributes.

\[
\text{Percentage} = \frac{\text{Number of respondents}}{\text{Total no of respondents}} \times 100
\]

ii. TABLES AND CHARTS

The tables and charts are used mainly for the multiple-choice questions. These tables and charts are used to find certain facts and conclusions. Graphical method is used to represent the factors by various graphical methods such as pie chart, column chart, tubes, cone and cylinder etc.

iii. INTERVAL ESTIMATION

An estimation of a population parameter given by two numbers between which the parameter may be considered to lie is called as interval estimation of the parameter.

Where, \( p \) is the sample proportion of success, \( q \) is the sample proportion of failure, \( n \) is the sample size & \( z \) is the standard variants for a given confidence level.

\[
p \pm z \frac{pq}{\sqrt{n}}
\]

iv. CHI-SQUARE

Chi-square is a test statistic used to test the significant relationship between the observed frequencies and the expected frequencies. Chi-square is a non-parametric test developed by Karl Pearson. Goodness of fit implies perfect tallying of the observed and estimated values. In Chi-square, if the observe data and the estimated data do not have significant difference, that is, the calculated value of \( \chi^2 \) is less than the table value of \( \chi^2 \) at a given degree of freedom), then the estimate is said to be a good fit. If the calculated value of \( \chi^2 \) is greater than the table value of \( \chi^2 \) at a given degree of freedom, then the estimate is not considered a good fit.

In this method, we have to test if two attributes considered are dependent or not.

Null Hypothesis - \( H_0 \) : Attributes are independent
Alternative Hypothesis - H₁: Attributes are not independent

Degrees of Freedom (V): (Number of Rows –1) (Number of Columns – 1)

\[ \chi^2 = \sum_{i=1}^{n} \left( \frac{(O_i - E_i)^2}{E_i} \right) \]

Where, \( O_i = \) Observed Frequency and \( E_i = \) Expected Frequency

OBJECTIVES OF THE STUDY

- To identify attitude, belief and traits of the people in Chennai
- To find out the level of passenger satisfaction.
- To know the adequacy level of buses
- To understand the passengers perceived value in terms of quality of service
- To measure the comforts level of passengers in bus transport

STATEMENT OF THE PROBLEM

Day by day there is a rapid increase in the population size and movement of the passengers from one place to another. All transport industries are trying to give good quality of service to the different level of people to satisfy the needs of passengers. But still it’s not possible for them to satisfy all the passengers because there is a huge gap between the population growth, passenger expectation and the services quality which is offered by the transport industries and which is expected by the general public from the service providers. Year by year bus transport industries introducing more number of buses with highly advanced features to fulfill the needs of the passengers. But still these public and private sector buses are not enough to satisfy the higher level of expectations, desire, tastes and preferences of all heterogeneous groups. That is the main problem and that will leads to dissatisfaction among the passengers. So it is necessary to check the services offered by the bus transport industries and it service quality.

DATA ANALYSIS AND INTERPRETATION

TABLE - 1.1

<table>
<thead>
<tr>
<th>S.No</th>
<th>Affordable Bus Fare</th>
<th>No of Respondents</th>
<th>Percentage of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
<td>54</td>
<td>72</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
<td>21</td>
<td>28</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>75</td>
<td>100</td>
</tr>
</tbody>
</table>
INTERVAL ESTIMATION

\begin{itemize}
  \item N = Sample Size = 75 numbers
  \item P = Number of Yes / Sample Size = 54 / 75 = 0.72
  \item q = 1 - P = 1 - 0.72 = 0.28
  \item Table value at 95% confidence level is 1.96
  \item Standard error = \sqrt{\frac{pq}{n}} = \sqrt{\frac{(0.72)(0.28)}{75}} = 0.052
\end{itemize}

Interval Estimation = \left[ P \pm Z_{\alpha} \left( \text{StdError} \right) \right] = 0.72 \pm 1.96 * 0.052 = [0.62, 0.82]

INFERENCES

From the above table it is found that 72% of the Passengers felt that the bus charges are affordable. And rest of the 28% of Passengers felt that the bus charges are not affordable. Hence, it is found that the acceptability level for the bus fare charges lies between 62% and 82%. Thus majority of passengers accept for the fare charged in the Public transport.

**Affordability of the fare charged by Bus transport industries**

![Affordability Chart]

**TABLE - 1.2**

<table>
<thead>
<tr>
<th>S.No</th>
<th>Level of attraction towards different buses</th>
<th>No of Respondents</th>
<th>Percentage of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Agree</td>
<td>41</td>
<td>55</td>
</tr>
<tr>
<td>2</td>
<td>Neutral</td>
<td>24</td>
<td>32</td>
</tr>
<tr>
<td>3</td>
<td>Disagree</td>
<td>10</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>75</td>
<td>100</td>
</tr>
</tbody>
</table>

FINDINGS

The above table 1.3 shows that the 55% of the passengers agree that they are attracted to the different types of buses. And 32% of the passengers are neutral that they are attracted to the different types of buses. Finally the balance 13% of the passengers disagree that they are attracted to the different types of buses.

**TESTING CHI – SQUARE**
The following calculations are showing level of attraction of different kinds of buses.

**NULL HYPOTHESIS -** $H_0$

The attraction level of passengers towards the availability of different types of buses is uniformly distributed.

**ALTERNATE HYPOTHESIS -** $H_1$

The attraction level of passengers towards the availability of different types of buses is not uniformly distributed.

**TABLE 1.2.1**

**CALCULATION OF TABLE VALUE BY CHI SQUARE TEST**

<table>
<thead>
<tr>
<th>$O_i$</th>
<th>$E$</th>
<th>$(O – E)^2$</th>
<th>$(O – E)^2/E$</th>
</tr>
</thead>
<tbody>
<tr>
<td>41</td>
<td>25</td>
<td>256</td>
<td>10.24</td>
</tr>
<tr>
<td>24</td>
<td>25</td>
<td>1</td>
<td>0.04</td>
</tr>
<tr>
<td>10</td>
<td>25</td>
<td>225</td>
<td>9</td>
</tr>
</tbody>
</table>

$\chi^2_{cal} = 19.28$

**CHART - 1.2.1**

**CHART SHOWING THE PERCENTAGE OF LEVEL OF ATTRACTION TOWARDS DIFFERENT DIMENSIONS OF BUSES**

**INFERENCE**

From the above table and chart, it is concluded that the level of attraction passengers towards the different types of buses is not uniformly distributed.

**TABLE 1.3**
TABLE SHOWING THE FREQUENCY OF BUS BREAKDOWNS

<table>
<thead>
<tr>
<th>S.No</th>
<th>Frequency of Bus Breakdowns</th>
<th>No of Respondents</th>
<th>Percentage of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Often</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>2</td>
<td>Sometimes</td>
<td>53</td>
<td>71</td>
</tr>
<tr>
<td>3</td>
<td>Never</td>
<td>17</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>75</td>
<td>100</td>
</tr>
</tbody>
</table>

**INFERENCES**

From the above table it was derived that 7% of the passengers find that buses getting breakdown often and 71% of the passengers find that buses getting breakdown sometimes and balance 28% of the passengers find that buses getting breakdown never. It is inferred that majority of the passengers find the buses getting breakdown sometimes, thus advised that preventive maintenance method should be adopted to avoid breakdowns.

**TABLE 1.4**

TABLE SHOWING LEVEL OF ACCEPTANCE TOWARDS THE AVAILABILITY OF ADEQUATE NUMBER OF BUSES IN TAMILNADU

<table>
<thead>
<tr>
<th>S.No</th>
<th>Level of Acceptance towards adequate Number of Buses</th>
<th>No of Respondents</th>
<th>Percentage of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
<td>34</td>
<td>45</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
<td>41</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>75</td>
<td>100</td>
</tr>
</tbody>
</table>

**INFERENCES**

The above table clearly shows that 45% of the passengers feel that there are sufficient buses in the city. And the rest of 55% of the passengers feel that there are sufficient buses in the city. It is inferred that majority of the passengers feel that there are sufficient buses in the city.
TABLE 1.5
TABLE SHOWING THE OPINION OF PASSENGERS TOWARDS REACHING THEIR DESTINATIONS WITHOUT DELAY

<table>
<thead>
<tr>
<th>S.No</th>
<th>Reaching Destination without delay</th>
<th>No of Respondents</th>
<th>Percentage of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
<td>27</td>
<td>36</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
<td>48</td>
<td>64</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>75</td>
<td>100</td>
</tr>
</tbody>
</table>

INFERENCE
From the above schedule, it was found that the 36% of the passengers feel that they reach the destination on time without delay. And the balance 64% of the passengers feels that they are not reaching the destination on time without delay. It is inferred that majority of the passengers are not able to reach the destination on time without delay. Thus the strict timings need to be followed to reach the place without delay.

TABLE – 1.6
TABLE SHOWING THE PASSENGERS OPINION ABOUT THE AVAILABILITY OF THEIR SHELTER PROTECTION

<table>
<thead>
<tr>
<th>S.No</th>
<th>Opinion towards the availability of Shelter protection</th>
<th>No of Respondents</th>
<th>Percentage of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
<td>12</td>
<td>16</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
<td>63</td>
<td>84</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>75</td>
<td>100</td>
</tr>
</tbody>
</table>

INFERENCE
It was found that 16% of the passengers feel that the shelters protect them from sun, rain, etc. In addition to this, the balance 84% of the passengers feels that the shelters don’t protect them from sun, rain, etc. Therefore, It is inferred that the shelters are not maintained properly and advisable to construct required shelter to protect the passengers from Sun, Rain etc.

Personal Observation of the researcher at CMBT is given in the following table
F – Facilities, SP - Service Provider, NA - Not Available, G - Good, S - Satisfactory, P - Poor

<table>
<thead>
<tr>
<th>S.No</th>
<th>FACILITIES</th>
<th>SERVICE PROVIDER</th>
<th>SETC/TNSTC</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>NA</td>
<td>G</td>
</tr>
<tr>
<td>1</td>
<td>Driving path in the bus terminus</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Bath room &amp;Toilet facility</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Spittoons</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Drinking Water facility</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Cloak room</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Two and four wheeler Parking facility</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### RECOMMENDATIONS

With the help of the study, the following suggestions are given to the Public transport system to improve its efficiency,

- Provision of more number of buses to cover interior places and village areas. This also should be done during peak hours of travel to avoid over crowd and accidents due to that.
- There should be uniformity in the frequency of buses.
- Adherence to strict timings is required to maintain service quality.
- The conductors need to bring more “coins /change” to return to the passengers then and there instead of using abusive words.
- Proper maintenance of buses and bus stands should be required to retain the existing and attracting the new passengers for the survival of transport industries in the long run.
- Rash driving should be avoided and introduction of electronic ticketing in long distance buses like SETC, TNSTC should be appreciated.
- Bus drivers should stop the bus close to the bus stop & not in the middle of the road causing hindrance to public.
- All buses can have radio/ music system or provision for video to be played. So that the passengers don’t feel the stress & strain while traveling...
- Intelligent Transport/Traffic System has to be designed so as to make more people to use the Public Transport more efficiently.
- Reduction in ticket fare in A/c buses should be implemented to attract the new passengers and to suit all economic classes.
- Conductors and drivers need to given proper trainings as to how to deal with the passengers and take the job service oriented.

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>Leisure room for drivers</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Information Boards</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Speaker and mikes for announcement</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Enquiry counters</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Leisure room for passengers</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Connectivity with Local bus services</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Shelter at bus terminus</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Path for Auto and Call Taxis</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Display Screens</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Safety equipments</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Medical doctors to give first aid treatment</td>
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<td>18</td>
<td>Medical shops</td>
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<td>19</td>
<td>Restaurants</td>
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<td>20</td>
<td>Petty shops</td>
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<td>21</td>
<td>Telephone Booth</td>
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<td>22</td>
<td>ATM Centres</td>
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<td>23</td>
<td>Post office and Courier service</td>
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<td>24</td>
<td>Water Coolers</td>
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</table>
FINDINGS

- Bus passengers of both private and public are thought that the private Omni buses giving more services and satisfaction them, but the fare charged by them are little bit high in normal season and too much at festival season.
- Most of the middle class and lower middle class people are using SETC and TNSTC, because the passenger feels that the fare charged by these transport authorities is reasonable.
- More people are satisfied with the local bus services in Chennai and its connectivity with the CMBT bus terminus.
- Passenger felt there should be some sort of improvement should be made at two wheeler parking. They thought the maintenance at it is ok but not up to the mark, because the flooring is too bad and the hire charges collected by the respective parking authorities are on the basis of hours. Government should take necessary steps to rectify these kinds of grievances of the passengers otherwise it will leads to dissatisfaction.
- Most of the passengers felt that the driving path and bus parking area maintenance are very bad. Especially Private Omni bus boarding points must be improved and most of the passengers are feel that the boarding points for SETC, TNSTC and Private Omni buses are Sub standard and inferior.
- It is the fact that the drivers are sleeping in front of the bus parking and corridors. Adequate facilities should be made to them. Immediate measures to be needed overcome these problems.
- Usage pattern of the passengers are different while choosing their service providers, because selection of the same is based on the purpose of usage like business, Official and personal etc.,
- In a day, a majority of the respondents travel for 6 to 10 hours in a day.
- Passengers feel that there is a need for a maintenance of toilet facilities i.e. urinals and latrines to improve service quality at bus terminus.
- Almost all the respondents have found the road signs, especially the reflectors to be very useful and helpful.
- Passengers are more aware of the medical relief and trauma care facilities available on the NH than on the other roads. On the NH, they are aware of the availability of ambulance and emergency services in case of any accident.
- Majority of the Passengers felt safe while traveling in public and private sector bus transports in Tamil nadu. However, passengers traveling on the NH do feel unsafe to some extent.
- The main factors which make travelers feel unsafe on the NH is the high speed of the traffic, overtaking and poor aggressive driving. Poor road geometrics and bad roads absence of road signs are the main reasons that make travelers feel unsafe.
- Most of the Passengers were most satisfied with the aspect of safety, surface smoothness, and traffic flow highway services.
- Poor road conditions and bad driving has been considered as the major reasons for road accidents on the NH.
- Bad driving had been considered as the main reason for accidents on the NH, while poor road condition had been considered as the main reason for accidents.

CONCLUSION

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It is a personal opinion of the researcher about the service, service quality of the transport industries and to the passengers it is not possible for bus transport industries to satisfy all the needs and expectation of the people. But there should be some constructive and healthy competition between Public and Private sector transport industries. Both the sectors are trying to give good quality services to the public but more number of times they fail in their activity. But their activity should be forward looking and future oriented, and they should have, maintain some ethics in their activity to achieve their goals. In the researchers point of view most of the middle and lower middle class people prefer Government owned bus transport services because of its safety, time guarantee to reach to desire destinations. Upper middle class people mostly prefer Private Omni buses even though it’s too expensive because they thought it gives more quality service. Irrespective of the service quality both the transport service sector should work with ethics and social responsibility to give better service to the general public and the nation.

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