CHAPTER -I

INTRODUCTION

It is a fact that no bus transport business can exist without passengers. In every bus transport service related businesses, there is a need to develop relationship with the passengers and with the service providers to satisfy passengers’ day-to-day service quality requirements. The owners of the different bus transport industries compete with each other to offer maximum satisfaction to passengers. Thus passengers’ satisfaction, a business term is a measure of how services are supplied by an industry to meet passengers’ expectation.

Passengers’ satisfaction is an indefinite and conceptual term, the meaning of which will vary from person to person and services to services. Measurement of passengers’ satisfaction is too difficult since it is related to the psychological state of mind. An attempt is made in this study to have better understanding of passenger attitude and the level of passengers’ satisfaction towards services provided by both public and private sector bus transport industries. In addition to this, a brief report is made about the existing services, delivery of services, how far the passengers avail those services and the reasons if any for their preference of particular industrial services.

Further, it focuses on the measures taken by the bus transport industries to improve the level of satisfaction of passengers and to avert their problems to retain the loyalty of the passengers. The main aim of this study is to compare the services provided by public and private sector bus transport industries and to evaluate their efficiency to satisfy the needs of the passengers in an effective way. Also this study attempts to elicit the opinion of the passengers about the quality and types of services provided and grievances if any.
1.1 PUBLIC BUS TRANSPORT IN CHENNAI DISTRICT

The public bus transport is much more needed in metropolitan cities and it also connects different categories of people from different places. So it is very important for any city to have an effective public transportation system and the same has to be managed to face upcoming, future challenges and to ensure effectiveness in their operations, service quality to satisfy the unpredictable expectations of the passengers from different segments. Now, the major city like Chennai is heavily stressed to keep pace with the demand for Bus Transportation system to go with economic growth and infrastructural development. With a rise in demand for adequate public bus transportation system and increase in population size, it may create and insist on the transport sectors to have higher and good quality of transport service. But it also creates overcrowding at the bus terminus and it will be the main cause of many service-related problems. The possibilities to increase better service quality over night is also not possible for the bus transport service either it belongs to public sector or private bus transport sectors.

The public bus transportation system in Chennai district includes both public and private sector transport industries which carry the public from Chennai to various destinations. That are, State Transport Units (STU) such as Metropolitan Transport Corporation (MTC), State Express Transport Corporation (SETC) and Tamil Nadu State Transport Corporation (TNSTC) and Private Omni Buses. Both service providers always try to put their efforts to give maximum possible service to their clients day by day to attain their sector-wise objectives i.e. increasing the regularity of the passengers to avail services of particular service provider, attracting total numbers in existing and new passengers for their continuous and future survival as well as to increase their market share in the public bus transport sector. But the complexity in handling passengers, failure to satisfy the needs of huge population, lack of service quality, too much increase in bus fare, lack of safety measures and installations tools in the buses, delay in reaching the destinations, lack of effective time management system are the major causes to create passenger dissatisfaction. These factors also contribute enormously to service setbacks and loss of varied passengers from different segments. The ultimate result is the service providers will lose their profit, regular passengers
leading to high passenger turnover, and change in their travel behavior to switch over from one service provider to another service provider which will weaken the survival of service providers. Unfortunately, research on public Sector and private Sector public bus transport industries of Chennai is seriously lacking and absent. That is why, this research is undertaken to identify and to find the level of passengers’ satisfaction and their attitude towards the usage of services of different service providers of bus transport sectors.

In general, an efficient and effective service provider of bus transport sector will increase passengers’ satisfaction and the same will also promote the bus transport business. It will also provide adequate access and mobility. The effective public bus transportation system is also an important factor for the economic growth of a particular state or country. Therefore, the improvements in public bus transport services offered by both public and private sectors transport industries will create satisfaction among passengers of different age and income group to some possible extent. The deficiencies and inadequacies of the public bus transportation sector may lead to obstruction to the socio-economic development of the state or country. In fact, Chennai has a major role to play in regional and sub-regional development, which should be facilitated by an effective and efficient transportation system. So, it is very important for the Chennai district to make general public to travel frequently in comfort and also with more satisfaction.

To induce more people to avail the services of public bus transportation system, it is very important for the service providers to identify the levels of expectations, taste and preferences of the passengers at different levels. The major research objectives of this study are to highlight the needs, attitude , socio-economic factors, psychological factors which will influence the users of bus transport in Chennai district and to trace various techniques, methods adopted by both bus transport sectors operating from Chennai to attract new passengers and retain the existing ones.

It is more important for everyone to know the meaning of the words ‘Passenger’ and ‘Service quality’. The following paragraph explains the exact meaning of these words:
1.2 MEANING OF PASSENGER

A person traveling in a car, bus, plane, ship, or other conveyance, but not driving or helping to operate it.

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.

1.3 STATEMENT OF PROBLEM

In the modern period, public bus transport services, being the most indispensable, help the people for mobility. Every human being or a passenger wants to avail better and comfortable travel. It is generally believed that services of the private sector transport agencies are better than the public sector. Hence, a comparative study is attempted to ascertain the performance of the public and private bus transport service industries in Tamil Nadu to test the belief of the people and to find out the factors responsible for such kind of opinion.

1.4 NEED AND IMPORTANCE OF THE STUDY

Movement of the people from one place to another place and the increase in population resulted in heavy demand for quick, efficient transport services. Under these circumstances, there is every possibility for deterioration of the quality of services provided by transport industries because of healthy competition. Yet, the private sector transport industries have to provide better services because it is a question of survival for them. The importance of the study is to find out answer for the question, how far the private sector transport industries are able to withstand the competition extended by their powerful counterpart (public sector).

1.5 SERVICE PROVIDERS SELECTED FOR THE STUDY

The service providers selected for the study are State Express Transport Corporation (SETC) and Tamil Nadu State Express Transport Corporation and Private Omni Bus Transport industries which are operated in and from Chennai District. The study is conducted to analyze the travel behavior of passengers and their level of satisfaction towards the service providers from different perspectives.
1.6 OBJECTIVES OF THE STUDY

The main aim of this study is to throw light on the preferences of the passengers towards public or private sector transport service providers and also to study the ways and techniques followed by bus transport service industries to retain existing passengers and also to attract new passengers. The objectives of this research are given below:

- To identify, analyze and interpret the socio–economic factors of the passengers.
- To highlight the needs and attitude of the passengers towards the use of the transport services.
- To identify and interpret the psychological factors which influence the passengers to use particular bus transport services.
- To study the pre-travel expectation and post-travel opinion of the passengers of both sectors of bus transport service industries to attract and retain new passengers.

1.7 HYPOTHESIS

- There is no significant difference in passengers’ attitude between the public and private sector bus transport services.
- There is no significant difference in the psychological behavior of the passengers between public and private sector bus transport service industries.
- There is no significant difference in pre-travel expectations of the passengers between public and private sector bus transport industries.
- There is no significant difference in the post-travel opinion of the passengers between public and private sector bus transport service industries.

1.8 RESEARCH METHODOLOGY

The data required for this study are collected from primary and secondary sources. The primary data are collected by way of distributing questionnaires to the passengers (only those who are able to understand and give responses towards the questions in the questionnaire) who commence their travel from CMBT and Private Omni bus terminus situated at Koyambedu, Chennai, and at different boarding points located at Chennai. The primary data are collected from heterogeneous group of
passengers of both public and private bus transport services according to the willingness and co-operation of the respondents. Questionnaire includes four divisions viz socio-economic factors, general attitude of the passengers, psychological factors and the techniques adopted by bus transport service industries. The last and forth division of the questionnaire is sub divided into two segments namely, pre-Travel Expectations and post-travel opinion of the passengers. Questionnaire includes both dependent and independent variables. 5 point Likert’s scale is used which ranges from strongly agree to strongly disagree and the same 5 point Likert’s scale is used in all sections of the questionnaire.

The researcher hopes that it is his first attempt of him in Chennai District to carry out the research in bus transport sectors. Passengers were interviewed by the researcher himself or by his trained interviewers during their leisure time at the waiting halls of the CMBT bus terminus, Private Omni bus terminus at Koyambedu and other major boarding points. The researcher wishes to furnish the following details also for more clarity and better understanding of the research methodology.

1.8.1 Sources of data

The data collected from the passengers’ survey constitute primary, and information gathered through books, journals, magazines, reports, dailies consist of secondary data. The data collected from both the sources are scrutinized, edited and tabulated. The details of the collected questionnaires are given as follows:

<table>
<thead>
<tr>
<th>Service Providers</th>
<th>Issued / distributed questionnaires</th>
<th>Received questionnaires</th>
<th>Defective questionnaires</th>
<th>Total Number of Questionnaires</th>
</tr>
</thead>
<tbody>
<tr>
<td>SETC</td>
<td>110</td>
<td>110</td>
<td>1</td>
<td>109</td>
</tr>
<tr>
<td>TNSTC</td>
<td>220</td>
<td>220</td>
<td>4</td>
<td>216</td>
</tr>
<tr>
<td>Omni Buses</td>
<td>180</td>
<td>180</td>
<td>5</td>
<td>175</td>
</tr>
<tr>
<td>Total</td>
<td>510</td>
<td>510</td>
<td>10</td>
<td>500</td>
</tr>
</tbody>
</table>

Source : Primary Data
The data are analyzed by using SPSS (Statistical Package for Social Sciences) computer packages. Factor analysis is applied to find out the influencing factors of passengers’ attitude, psychological behavior, pre-travel expectation and post-travel opinion of the passengers of both private or public sectors bus transport service industries in Chennai district.

1.8.2 Sample size

Samples selected for the study covers only the Chennai district. Totally, 500 passengers of State Express Transport Corporations (SETC), Tamil Nadu State Transport Corporations (TNSTC) and Private Omni bus transport services are selected on simple random sampling method.

Out of the total samples of 500, 109 samples are from SETC, 216 samples from TNSTC comprising a total of 325 samples of public sector bus transport service industries. The balance of 175 samples from the passengers of private sector Omni buses is chosen.

1.8.3 Pilot study

The researcher collected 55 responses from the passengers of SETC, TNSTC and private Omni buses for the purpose of pilot study. From the pilot study it is revealed, the researcher should concentrate more on service provider segmentation (SETC, TNSTC and private Omni buses) and manner of distribution over the population parameters. i.e. the volume-wise segmentation of service provider is more important to decide the passengers’ perception. Then, it is also decided to obtain the statistics pertaining to number of passengers travelling in government buses and private Omni buses. The reliability and validity of the questionnaire on the basis of passenger perception were decided through cronbatch alpha criterion for attitudes, types of services, and pre-travel expectation and post-travel opinion of the passengers. The application of reliability statistics through cronbatch alpha value method clearly determined the values mentioned below:

Attitude - 0.869 , Types of Services – 0.798 , Influencing factors : SETC/TNSTC – 0.917 Private Omni Buses – 0.985 , Post-travel Opinion - SETC/TNSTC - 0.948 , Private Omni Buses – 0.986.
From the cronbach alpha values, it is found that the attitude, types of services exhibit 86.9% to 79.8% variation in the perception of the passengers. Since the variations are found in the available limits of cronbach alpha, it is suggested that the researcher need not change the statements regarding influencing factors - pre and Post-travel Opinion and level of satisfaction of the passengers. The split alpha value for government sector buses and private sector Omni buses is diminished whereas independent cronbach alpha value for government sector buses (SETC and TNSTC) and private Omni buses established very high values. Therefore, it is suggested that there is a need to identify the passengers who are travelling in both government sector buses and Omni buses to complete the normal distribution of sample collection and also to prove the sample selection for the true representation of the population parameters.

1.9 TOOLS FOR ANALYSIS

The processing, classification, tabulation, analysis and interpretation of data are done with the help of SPSS software package. The following statistical tools and mathematical techniques have been applied depending on the nature of data collected from the respondents.

- **Factor analysis by principle component method** is applied to analyse the various factors of general attitude, psychological behavior, pre-travel expectation and post-travel opinion of the passengers in respect of bus transport service sectors in Chennai district.

- **K means Cluster analysis** is applied to classify the respondents into various groups based on the mean scores of various elements of passengers’ behavior towards the service providers operated from Chennai district.

- **Non-parametric Chi square test** is employed to find the association between clusters of passengers and various demographical characteristics of the passengers of both bus transport service industries.
- **Analysis of Variance (ANOVA)** is used to identify significant differences among the various elements of passenger behavior with regard to public and private sector bus transport service industries.

- **Paired sample t-test** is used to find the mean values of various elements of passenger behavior towards the service providers SETC, TNSTC and private Omni buses in respect of level of satisfaction of the passengers.

- **Multiple Regression Analysis**: The researcher to identify the cumulative influence of independent variables such as Age, Sex, Marital Status, Passenger Segmentation, Income, Period of usage, Ticket purchase behavior on the dependent factors are established through a multiple regression analysis performed independently for SETC, TNSTC and Private Omni buses.

- To strengthen the theoretical background of the study, secondary data are collected from the existing records, books, articles, magazines, published journals etc.

### 1.10 BUS PASSENGER SATISFACTION SURVEY

Bus Passenger Satisfaction Survey has been carried out to monitor bus passengers perceptions of State Transport Units (Excluding Metropolitan Transport Corporation) were taken which includes only long distance buses such as State Express Transport Corporation (SETC), Tamil Nadu State Express Transport Corporation (TNSTC) and Omni Buses operated from Chennai district at different intervals of the period from June 2011 to April 2012. The data are also collected from different categories of passengers’ at different levels, those who are capable of understanding and able to give answers to the given questionnaire. This is a public survey carried out to monitor and record passenger satisfaction with regard to public and private Sector transport units operated from Chennai district to other districts which covers 200 and more than 200 Kilometers.
1.11 LIMITATIONS OF THE STUDY

- This study is restricted to 500 samples questionnaire. Samples are taken only from the respondents of Chennai district due to time and financial constraints.

- The total fleet of buses operated from government side in Chennai i.e. public sector bus transport services is 15030 and the total number of buses operated from the private sector is 466. Out of the total fleet of buses, the researcher selected the sample size in the ratio of 65:35 from public and private sector bus transport service industries.

- The present study includes only the long distance buses that are SETC, TNSTC and private Omni buses only. It excludes MTC (Metropolitan Transport Corporation) and other short distance buses from both government and private sector bus transport service providers operated in Chennai district.

- This research focuses on public sector, public bus transport corporations such as State Express Transport Corporation (SETC) & Tamil Nadu State Transport Corporation and Private (Omni buses only) bus transport service sectors which are offering their services from Chennai district (either from CMBT Bus Terminus or Private Omni Bus Terminus at Koyambedu, Chennai).

- The researcher focuses and collects the data only from the respondents who are able to understand and to give their answers for the questions asked for this research work.

- The researcher has not taken short distance buses from Chennai district for his study because only a few private buses are operated in Chennai district. So it is not possible to compare the unequal’s (few private buses with larger number of government buses). Moreover, all these short distance buses are operated in and around and suburban areas of Chennai district only and not from Chennai to other districts of Tamil Nadu.
1.12 CHAPTER LAYOUT

The different processes regarding the study have been discussed in six chapters. The contents of each chapter are given below:

Chapter I : Introduction

The first chapter is introductory part of the study. It includes the definition of the passenger, Statement of the problem, Objectives, Limitations, Research Methodology adopted for the study, hypotheses, Sampling method and Statistical tools used and all other relevant data.

Chapter II : Review of Literature

Review of Literature sketches a detailed review of the literature relevant to the present study. Previous studies and their research findings on passenger behavior, level of satisfaction, service quality of the service providers, travel-related decisions, and post-travel evaluation are included in this chapter.

Chapter III: Evolution of Public Bus Transportation System In India

Third chapter deals with Evolution of Transport, Various modes of transport other than bus transport, Operational efficiency of various Service providers like SETC, TNSTC and Private Omni Buses operated in Chennai District of the recent period.

Chapter IV: Analysis of Socio-economic profile and Factors influencing Attitude of the passengers

The fourth chapter highlights the application of Factor and Cluster Analysis on the Socio-economic factors which are affecting the general attitude of passengers’, checking association between independent variables and dependent factors and application of t- test in respect of service providers of both SETC, TNSTC and Omni Buses.
Chapter V: Analysis of Psychological behavior, Pre-travel expectations and Post-Travel Opinion of the passengers

The fifth chapter deals with psychological behavior, the evaluation techniques to identify and to assess pre-travel expectation and post-travel opinion of the passengers’ of both bus transport service sectors.

Chapter VI: Summary of findings, suggestions and conclusion

The sixth chapter deals with Summary of finding, Suggestions and Conclusion.

1.13 EXPECTED CONTRIBUTION FROM THE STUDY

1.13.1 For Transport Sectors

The study on travel behavior of the passengers’ towards the bus transport services is important to understand the level of satisfaction and to suggest better strategic decisions to bus transport service providers of both private and public sector. If the bus transport service providers understand the travelling behavior of the travelers or passengers’, then they are able to predict how passengers’ are likely to react towards various circumstances during their travel and how they can shape up their travelling schedules and travel and service quality strategies accordingly. Further, the study also helps in identifying measures to be taken to improve the standard of existing practices of both bus transport industries. Study on passenger satisfaction, attitude, travel-related expectations of the passengers’ and post-travel opinion may help in the formulation of policies with regard to passengers’ satisfaction, creating new ideas in fare fixation, giving quality service to the passengers’ as well as developing promotional strategies.

1.13.2 For the Government

The study also helps the Government in providing good quality services to the passengers’ as well as to the other related bus transport sectors and to enable it to understand what could be the expectations of the passengers’ like frequency in operating buses, fare fixation, service quality, increasing passenger satisfaction, providing basic facilities in bus terminus and boarding point to enhance the service providers.