RESEARCH DESIGN

The present study is carried out only on the selected Tamil Nadu State Transport Corporations. This is precisely an analytical study of macro in nature. It deals with the road transport system and history of road and transport in India, Financial and Physical performance, pricing policy and cost structure behaviour. The work connected with this study has been carried out in the following stages:

a) The first stage consists of collection of data pertaining to mode of operations, maintenance of accounts, Human Resource Management, etc., from the government departments, corporations and other authorities for the study period, through personal visits and interview.

b) The second stage includes, the collection of data from the published works including reports published by the concerned sample corporations and other government agencies.

c) The third and last stage of the entire work is to digest the voluminous data to compile, scrutinise and analyse them to explore the physical and financial performance of each corporation and inter-relations among all the sample corporations. A separate analytical framework is also being given in the concerned chapters.

The way in which the corporations have invested the money and the reasons for their poor operating and financial results have been analysed with the help of the available data for suggesting the appropriate policies. Wherever adequate information is available, an attempt is made to trace the trend and the cause for an unsatisfactory progress. This study also seeks to
discover the facts, which may help to broaden the understanding and knowledge of various aspects and facts of the problem. It may be likely to shed light on the rough edges, which come in the way of successful implementation. The present study is therefore, an empirical study of a macro nature.

**SAMPLE DESIGN**

In order to eliminate bias and obtain reliable outcome (results), the sampling of bus transport undertakings in Tamil Nadu is done based on the rule of homogeneity. At present in India, 67 State Transport undertakings are operating bus services in different states. Till 1997, in Tamil Nadu, 21 State Transport Corporations Ltd. were functioning in different names. Due to communal and political influences then the government of Tamil Nadu has changed different names and brought all the corporations under the name of TNSTCs with regional divisions. Even though the names have been changed, the operational area, management and other resources have not been altered.

For the present study, the researcher has selected a sample of 10 State Transport Corporations based on judgement sampling technique. The selected corporations are 1) ATC, 2) CRC, 3) CTC, 4) DCTC, 5) JTC, 6) KTC, 7) MPTC, 8)PATC, 9) PRC and 10) TPTC. These corporations were selected as sample corporations based on the following criteria.

- (a) The fleet strength of a corporation should be more than 600 fleets during the year 1989-90.
- (b) The corporations should have been established and incorporated before 1989-90.
The remaining 11 corporations were not considered for the study since they form a heterogeneous group with the other corporations. The following are the main reasons for which they are left out for sampling.

(a) Pallavan Transport Corporation and Ambethkar Transport Corporation are operating only city services (in Chennai alone).

(b) The Thiruvalluvar Transport Corporation and Rajiv Gandhi Transport Corporation are operating only long distance express services by connecting major cities and inter states.

**SOURCES OF DATA**

The database is created for the study by collecting data from both primary and secondary sources. However, secondary source has been a major source from which much of the required data are collected. The researcher has collected the primary data by interacting with top and middle level authorities in different sample corporations.

The data regarding the physical and financial features of the sample corporations for the study period 1989-90 to 2000-01 have been collected through the Administration Reports, Annual Reports, Action Plans, etc. The data also taken from the Performance Statistics and other reports published by CIRT, Pune; IRT, Chennai, IRT, Erode; and Department of Transport, Government of Tamil Nadu. The sources of data collected are mentioned below the concerned table and also listed in the bibliography.

**STATISTICAL AND OTHER TOOLS APPLIED**

As discussed in the previous section, the selection of the sample is judgement based, the tools of analysis employed are also with reference to their suitability to the analysis and the quantum of data available. For the
purpose of analysing the performance of each corporation many controllable and non-controllable variables are identified and considered. Some of them are fleet utilisation, staff bus ratio, passenger carried per bus, kilometre per litre of diesel, revenue per bus, total cost per bus, number of accidents per bus, dead kilometres, cancelled kilometres due to accidents and want of crew, passenger revenue and cost per kilometre etc. For analysing and evaluating the data and to establish the meaningful interrelationship among variables, several mathematical, statistical and economic tools have been used. In order to examine the various objects of the study, various statistical null hypotheses have been framed and tested using Student’s t-test and Snedecor’s F-test. To explore the performance and compare the corporations, percentage analysis, index numbers, growth rates, break-even points, arithmetic means, coefficient of variations, correlations analysis, multiple regression analysis, analysis of variance are used in this study. For quick understanding of the reality, graphs and charts are also used in the appropriate situations.