Chapter 1

INTRODUCTION
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The word "transport" has been derived from the Latin word *Transportare*. 'Trans' means across and 'Portare' means to carry. From this, it is obvious that the word transport refers to the carrying of goods or persons from one place to another. Provisions for a continuous and uninterrupted mobility of persons and materials are a basic necessity of the society. It is a well-established truth that development of a country is largely conditioned by the adequacy, efficiency, regularity, safety, and punctuality of the transport system. Transport plays a crucial role in the economic development of a nation and the social and cultural life of its people.

History to a large extent has belittled the role of transport in the development of modern society and the transport has played a key role in the advancement of civilization. And also transport virtually constitutes the nervous system, not only of an economy but also mobilization and migration of public. It is held that immobility perpetuates poverty while mobility is an essential ingredient of progress. In the complex process of modern economic development, transportation plays a special role in achieving various national goals, such as getting land into production, marketing of agricultural commodities, making forests and natural wealth accessible for developing industry, expanding trade, planning and executing health and education programs and above all exchanging ideas.
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The Keskar Committee\(^1\) on Road Transport Taxation observed, “In large areas of the world, lack of transport is a primary obstacle to economic and social development. Poor transport is a major factor in world hunger”. It further states: “There is a definite relation between mobility and poverty”.

Economic and commercial importance of the greatest magnitude is, now-a-days, attached to the development of Transport. “The transport industries which undertake nothing more than the mere movement of persons and things from one place to another, have constituted one of the most important activities of men in stage of advanced civilisation”\(^2\).

It can never but be emphasized that the base, the bedrock and backbone of a country’s development lies in its efficient transport organization. The greater the emphasis on solving the transport problems and there by bridging distance and people the greater are the benefits that accrue.

In the words of an economist, Jeremy Bentham\(^3\): “Roads are the veins and arteries of a country through which channels every improvement circulates.” It is interesting to quote here the observation made by a famous author regarding the general significance of roads in the modern world, “The road is one of the great fundamental institutions of mankind. Its history dates back to the dawn of recorded history and beyond. It develops with man’s advance; it retrogrades with the breakdowns of a social order. A people without roads would be a people without intercourse with outside world, without

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the attributes of civilization. Man – the road builder, thus, cannot be separated from man - the builder of civilization”.

Road transport is the basic and fundamental necessity of mankind. It can function in an unexceptionally flexible and diversified manner in relation to other means of transport. It plays an important role in the passenger transportation of the country and is particularly suitable for all short and long distance travels”.

Road transport plays an important role in the economy of the country and is particularly suitable for short and medium distances. It also offers a number of other advantages such as flexibility, reliability, speed and door-to-door service. Road transport thus forms an indispensable element of the national transport system. The share of road transport in recent years to overall traffic has been continuously increasing.

**NATURE AND SCOPE OF THE STUDY**

No system can be said to have 100 per cent perfection in all respect. It is practically impossible to offer such a system or organization, and every system has got its own merits and demerits. If a System or Organization is not properly managed, inefficiency creeps, which leads to heavy losses. The loss doesn’t mean financial loss or personal loss of the individual, but in a larger sense a loss to the society.

Development is a progress of dynamic changes. In a progressive social and economic system, nothing remains constant. No progressive Government will like to ignore the fact that policy formulation is a continuous process and that an organisation, which is too static and rigid in this regard, can hardly hope to figure in the list of successful enterprise.
India has registered an astonishing progress in the area coverage of bus transport owing to State Transport Undertakings (STUs). It is fair to note that the STUs had extended their services to every region having metal or pukka roads, to the maximum extent. The social benefit that the STUs have produced in this regard, is of high order and it cannot be disputed that this factor needs to be looked into with due weight age when studying the performance of STUs. However, the maxim of social benefit cannot gain support forever for the STUs, which are deplorably poor in performance taking profitability as the index of efficiency. There is a big hue and cry for privatisation of public undertakings all over the world on the plea that they are wasted scare resources due to operational efficiency.

In spite of the progress achieved, nationalised passenger road transport in the country has been facing number of problems such as high cost of operations, improper fare policy, social obligations, and paucity of funds etc. It is observed in the recent years, there has been a declining trend in the efficiency in the working of the STUs, when viewed in terms of the financial performance.

The present study is about the performance of the STUs in Tamil Nadu, which has attempted to test their performance with reference to physical and financial parameters. The physical parameters such as fleet utilisation, staff bus ratio, accident rate, regularity of service etc, are selected through multivariate analysis. For financial parameters, the researcher has taken the cost per effective kilometre, cost per passenger kilometre, revenue generated per passenger kilometre, revenue generated per bus and profit and loss index etc. This study examined only those explanatory factors, which determined the physical and financial performance of the corporation. The
study also attempts to investigate the management of men and materials, and maintenance of fleets leading to poor performance of the corporations.

This study investigates the performance of individual sample corporation and comparative analysis based on the performance with respect of different category of parameters helps to find out the best and worst corporations during the study period.

**IMPORTANCE OF THE STUDY**

The economic development of a country and the advancement of civilisation depend, inter alia, on the road transport system. The importance of the road transport system came to be realised only in the recent years. In India for this purpose the Central Government passed the Road Transport Corporation Act in 1948, empowering State Government to undertake the Organisation of Road Transport Services. This act was subsequently replaced by revised act of 1950.

The nationalisation of road transport in Tamil Nadu was introduced in the year 1967. The total number of buses then in Tamil Nadu was 9,656, of these 4,918 buses belonged to public sector. These buses were owned by 7 Government owned Transport Corporations formed on the regional basis.

Even in modern times in India many rural areas are not yet connected with road transport system. Now in the recent years the concerned State Government transport corporations are taking initiative steps to operate their own fleets in the rural areas for the enlistment and betterment of general public.

The bulk passenger as well as freight traffic in India is carried only by rail and road transport. As the road transport, buses form the main and cheap
sources have the public movement and mobilisation, the researcher came forward to make an attempt to know the exact performance of Tamil Nadu State Transport Corporations (TNSTCs).

Secondly in Tamil Nadu, the State Government is operating the bus transport mainly for the public convenience. The corporation operates its fleets to almost all parts of Tamil Nadu providing 24-hour service i.e., round the clock service.

Finally, being a public service area the overall performance of the corporations if totally increased, the total cost of operations can considerably reduced, so that it can run profitably and provide better service at a cheaper price to the general public.

**STUDY UNITS**

In Tamil Nadu the road transport is operated by both private and Government owned transport corporations/Companies. At present there are 21 corporations operating their bus services in different parts of Tamil Nadu. Among them, ten corporations have been selected for the study based on judgement sampling.

In the year 1997, the Government of Tamil Nadu has changed the names of all the Corporations as below. But the management, all types resources and area of operations remain unchanged. The below-mentioned old names are used throughout this report.
The selected corporations are listed in the following table with the old names and changed names.

**Table No 1.1 : Names of the Sample State Transport Corporations**

<table>
<thead>
<tr>
<th>SI No</th>
<th>Year of Incorporation</th>
<th>Old Names of the Sample Corporations</th>
<th>Changed Names (From 1997 onwards)</th>
<th>Registered Office</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>15 02 1973</td>
<td>Anna Transport Corporation Ltd (ATC)</td>
<td>TNSTC, Salem Division - I</td>
<td>Salem</td>
</tr>
<tr>
<td>2</td>
<td>01 03 1972</td>
<td>Cholan Roadways Corporation Ltd (CRC)</td>
<td>TNSTC, Kumbakonam Division - I</td>
<td>Kumbakonam</td>
</tr>
<tr>
<td>3</td>
<td>01 03 1972</td>
<td>Cheran Transport Corporation Ltd (CTC)</td>
<td>TNSTC, Coimbatore Division - I</td>
<td>Coimbatore</td>
</tr>
<tr>
<td>4</td>
<td>01 04 1985</td>
<td>Dheeran Chinnamalai Transport Corporation Ltd (DCTC)</td>
<td>TNSTC, Kumbakonam Division - II</td>
<td>Tiruchirapalli</td>
</tr>
<tr>
<td>5</td>
<td>01 04 1983</td>
<td>Jeeva Transport Corporation Ltd (JTC)</td>
<td>TNSTC, Coimbatore Division - II</td>
<td>Erode</td>
</tr>
<tr>
<td>6</td>
<td>01 01 1974</td>
<td>Kattabomman Transport Corporation Ltd (KTC)</td>
<td>TNSTC, Madurai Division - II</td>
<td>Tirunelveli</td>
</tr>
<tr>
<td>7</td>
<td>01 04 1983</td>
<td>Maruthu Pandiar Transport Corporation Ltd (MPTC)</td>
<td>TNSTC, Kumbakonam Division - III</td>
<td>Karaikudi</td>
</tr>
<tr>
<td>8</td>
<td>01 12 1982</td>
<td>Pattukottai Azhagiri Transport Corporation Ltd (PATC)</td>
<td>TNSTC, Villupuram Division - II</td>
<td>Vellore</td>
</tr>
<tr>
<td>9</td>
<td>17 01 1972</td>
<td>Pandian Roadways Corporation Ltd (PRC)</td>
<td>TNSTC, Madurai Division - I</td>
<td>Madurai</td>
</tr>
<tr>
<td>10</td>
<td>16 01 1975</td>
<td>Thanthai Periyar Transport Corporation Ltd (TPTC)</td>
<td>TNSTC, Villupuram Division - I</td>
<td>Villupuram</td>
</tr>
</tbody>
</table>

**OBJECTIVES OF THE STUDY**

Keeping the above aspects in mind, the following objectives are framed.

i) To document and review the various studies in the field of bus transport in Indian scenario.

ii) To study the history, growth of Roads and Bus Transport System in India. And also different forms of bus transport operating in different parts of the country.
iii) To evaluate the physical performance and efficiency of the Tamil Nadu State Transport Corporations.

iv) To study the financial performance of these corporations.

v) To analyse the structure and behaviour of costs of the sample corporations during the entire study period.

vi) To design a fare structure model to make pricing policy decision on the bus fare by the authorities of the Transport Corporations.

vii) To make certain suggestions in the light of findings as to how the corporations can improve their efficiency, performance, and profitability.

HYPOTHESES

For analysing and evaluating the data and to establish the meaningful inter-relationship among various variables having cause and effect relationships, several hypotheses are framed. However for the sake of technical aspects, they are classified as general hypotheses and statistical hypotheses. The statistical hypotheses are converted into Statistical Null Hypotheses in the concerned chapters wherever required for the purpose of applying Statistical Tests.

General Hypotheses

a) Inefficiency in the transport corporation management of labour, material and other items has increased the operational cost and lower the revenues.

b) Improper pricing policy by the authorities has also lowered the revenue.
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Statistical Hypotheses

a). The gross profit is linearly related with effective kilometres.

b). The Effective Kilometre is linearly related with seven physical predictors.

c). The Total Revenue depends linearly with eight other predictors.

d). The Physical parameters are linearly correlated with each other.

e). The Financial parameters are correlated linearly with each other.

f). The Break Even Points (BEPs) of the sample corporations are not same.

g). The increased cost of operations (effect) linearly depends on the price hikes (cause).

PERIOD COVERED UNDER THE STUDY

The present study covers a period of 12 years from 1989-90 – 2000-2001. There is no significance in selecting the period of the study; the period is restricted on the basis of the availability of the data.

LIMITATIONS OF THE STUDY

This study pertains to a period of 12 years (1989-90 to 2000-2001) only.

Some of the technical data like engine make and power, life of bus, road conditions, seasonal factors, schedule timings, etc, were not available for this study.

The samples STUs are not maintaining separate data for rural and mofussil bus service.
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It may be the thought that some of the sensitive facts and figures could be hidden in the annual reports.

Since the researcher has to complete the study by year 2003, it is impossible to furnish the data for the latest financial year 2001-2002.

CHAPTER SCHEME

The first chapter deals with the introduction, importance of the study, nature of the study, objective of the study, statistical tools used for data analysis, hypothesis, and limitation of the study.

The second chapter is devoted the research design of this study. In this chapter, the methodology, sampling technique used and statistical tools applied are discussed.

The third chapter organizes the review of literature on the various aspects like cost and profitability, physical and financial parameters, productivity etc., of transport corporations.

Fourth chapter highlights on the history and growth of road and transport system and also different forms of bus transport operating in India and in Tamil Nadu.

The fifth chapter focuses on the physical parameters that affect the performance of the State Transport Corporations in Tamil Nadu. For analysing the physical parameters, various tables are constructed and enclosed in the respective places. The figures given in those tables are computed from the original data by applying necessary tools.
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The sixth chapter analyses the financial performance of the sample corporations in Tamil Nadu. It also deals with the pricing model, which should be adopted by the policy makers and the behaviour of cost structure. For analysing the financial parameters by using suitable tools, many tables are worked out and presented in the respective places.

The last chapter gives the summary of findings and conclusions of this study about the STUs in Tamil Nadu. Suggestions based on the findings are also listed to improve the performance of sample corporations.