Chapter 1

Introduction
CHAPTER I

DETERMINANTS OF CAPITAL STRUCTURE – AN EMPIRICAL STUDY ON INDIAN INDUSTRIES

1.1 INTRODUCTION

The financial success of a firm depends mainly on its capital structure. Firms with unplanned capital structure can prosper in short run but face difficulties in mobilising additional funds and increasing the value of the business in the long run. The choice of debt and equity in the capital structure of corporate firms is an important financial decision, in that, it influences both the return and risk of shareholders. The excessive use of debt may endanger the survival of the corporate firm. At the same time, non – use of debt prevents the firm from an opportunity to enhance the rate of return to its equity holders.

"Capital structure refers to the proportionate relationship between different components of financing mix or long term sources of funds such as debentures, long term debt, preference capital and equity share capital including reserves and surplus".¹ Capital structure is dependent on the financing decisions of a firm. "A firm may decide to finance its investment requirements either through equity only or through debt only or a mixture of both. Normally firms follow the third option".² Capital structure differs from firm to firm, as no two firms, though similar in their nature, operations etc., can
have a single capital structure and even a single capital structure cannot suit the
same firm throughout.

A number of theories have been developed in recent years to explain
various factors, which have a bearing on the design of corporate capital
structure. “Firms select debt or equity depending upon the characteristics that
determine the various costs and benefits associated with debt and equity
financing”.3 The capital structure puzzle is yet to be solved. Researchers in the
area of finance are still endeavouring to develop a universally acceptable model
that would help firms in designing their ideal capital structure.

“Neither theory nor research has been able to provide a satisfactory agreemen
t as to what factors affect the capital structure decision”.4 “Empirical
work in this area has lagged behind the theoretical work, as the relevant firm
characteristics are expressed in fairly abstract concepts and are rarely directly
observable”.5 In spite of the fact that each management makes its own
decisions regarding its capital structure, there may be certain common factors,
which will influence the capital structure of an enterprise. “In general,
companies needing funds issue shares if they are above their target debt level
and debt instruments if they are below. A company’s choice of financing
instruments will depend on difference between its current and target debt
equity ratio. Since targets are unobservable, we need to concern ourselves with
their likely determinants”.6
1.2 STATEMENT OF THE PROBLEM

Equity and debt are the two principal sources of finance for a company. While raising funds, the companies have to make a choice between debt and equity capital. What should be the proportion between debt and equity in the capital structure of a firm? How much financial leverage should a firm employ? To answer these questions, the relationship between the capital structure (Debt Equity Ratio) and the various determinants should be properly studied.

1.3 OBJECTIVES

The main objective of the study is to analyse the influence of various factors determining the capital structure of industries in India. The other objectives are

1. To examine the components of capital structure of selected companies in India.
2. To make a comparative analysis of the components of capital structure among selected industries in India.
3. To make a comparative study of the capital structure of companies in private sector and public sector in India.
4. To analyse the factors determining the capital structure of companies in private sector and public sector in India.
1.4 SCOPE OF THE STUDY

This study aims at investigating the relationship between the corporate capital structure (Debt Equity Ratio) and its Asset structure, Trading on Equity, Liquid assets, Profitability, Corporate size, Business risk, Growth rate, Debt service capacity, Corporate taxes and Collateral value of assets. The study restricts its scope to financial variables of the firm. The study covers a period of ten years from 1990-1991 to 1999-2000. The study analyses the capital structure of three hundred companies drawn from twelve manufacturing industries.

1.5 SAMPLING

To carry out the study, a sample of three hundred companies belonging to twelve major manufacturing industries in India was taken up. The sample was selected in such a way that twenty five companies represent each industry. The companies for which the data was not available for one and more than one year in between or at the beginning or at the end of the study period have been ignored.

The database of Centre for Monitoring Indian Economy has made compilation for various companies of which only three hundred-companies have financial data for a continuous period of ten years from 1990-1991 to 1999-2000. Such companies have been selected as sample companies. The sample consists of two hundred and eighty one companies in private sector and nineteen companies in public sector.
The twelve manufacturing industries considered for the study are,

1. Aluminium
2. Automobile
3. Cement
4. Chemical
5. Electronics
6. Engineering
7. Information Technology
8. Leather
9. Paper
10. Pharmaceuticals
11. Steel
12. Sugar

1.6 METHODOLOGY

1.6.1 SOURCES OF DATA:

The present study is based on secondary data collected from the Corporate Database (PROWESS) of the Centre for Monitoring Indian Economy (CMIE).

PROWESS Database of CMIE is the most reliable and empowered corporate database. It contains a highly normalised database built on a sound understanding of disclosures in India of around 8000 companies. The coverage includes public, private, co-operative and joint sector companies, listed and
otherwise. The database provides financial statements, ratio analysis, funds flow, product profiles, returns and risks on the stock markets. It is the most up-to-date corporate database in India.

1.6.2 PERIOD OF STUDY


1.6.3 FRAMEWORK OF ANALYSIS

The components of capital structure of the companies in each industry are analysed and capital structure of all industries is also studied. The relationship of capital structure with selected variables is analysed. The following statistical tools are used to analyse the data collected.

a. Summary statistics
b. Correlation analysis
c. Multiple regression analysis
d. “t” and “F” tests•
e. Analysis of variance

i) Summary Statistics

Summary Statistics includes many preliminary statistical tools, used to determine the measure of location and variations. In this study, the summary statistics namely mean, standard deviation and coefficient of variation were used to determine the average value of the different parameters and their variations based on ten years data.
ii) Correlation matrix and Correlation Analysis

Correlation matrix is an array of correlation coefficient values arranged in a tabular form where row and column variables show the correlation of each variable with the other variables in the array. The correlation analysis was carried out between the variables for the three size groups of companies separately, mainly to determine the degree of inter relationship and its significance.

iii) Multiple Regression Analysis

Regression is the functional relationship between the variables. The multiple regression-step reduction through $R^2$ (coefficient of determination) is used mainly to determine the level of influence of independent variables over the dependent variable. The dependent variable considered in the study is Debt equity ratio (Y). The other variables are considered as independent variables.

iv) Analysis of Variance

It is a technique of analysing the variance explained by the dependent variable based on selected independent variables. The independent variables are termed as group variables or factors. The technique of Analysis of Variance is used to ascertain the existence of significant difference in the mean Debt Equity Ratios of the three categories of the companies.
1.7 IMPORTANCE OF THE STUDY

In the changing techno-economic scenario, economic factors like worldwide intense competition, increasing pace of industrialisation, rapid population growth, inflationary trend, government regulation and fiscal and monetary policy have significant influence on the development of a modern company. In a developing economy, like India, it is more important to procure funds economically and allocate them effectively for the optimal growth of a company.

The components of capital structure should be properly studied to find out the relationship between debt and equity capital in the corporate capital structure. It is important to make a comparison between capital structure among various industries in India to know whether the type of industry has any influence on the capital structure. The relationship between capital structure and its determinants to be studied to have a proper combination of debt and equity. It is also important to identify the common factors determining the capital structure of industries in India. This will enable the management to have proper selection of debt and equity.

Many international business researchers are of the opinion that increased globalisation of markets and increasing international competition imply that firms in all nations will face similar, if not identical, competitive environments. In India due to liberalisation of economy, the companies are facing acute competition in the international markets. In advanced countries, funds are
procured at low cost and they enable the firms to meet the competitive market in an effective way. Hence, an attempt is made in this study to ascertain the impact of various determinants so that an appropriate capital structure could be designed by the companies in order to make themselves competitive and cost effective.

1.8 CHAPTER SCHEME

The present study is organised into seven chapters.

Chapter I covers objectives, scope of the study, statement of the problem, methodology and importance of the study.

Chapter II contains theoretical background of capital structure, its determinants and review of literature on related research.

Chapter III deals with Research Methodology and measurement of variables.

Chapter IV presents the components of capital structure of companies in India and comparative analysis of capital structure among Indian industries.

Chapter V provides analysis of variables and their impact on capital structure of Indian industries.

Chapter VI covers the comparative study of the capital structure and its determinants in private sector and public sector companies in India.

Chapter VII contains findings and conclusion of the study.
REFERENCES


