INTRODUCTION

The development of the theory of Portfolio Selection by Harry Markowitz and subsequently, the Capital Asset Pricing Models by W.F. Sharpe, J. Lintner, Mossin and others have attracted a large number of researchers in the field of economics and finance during the last few decades. Most of these researchers have engaged themselves in determining the security risk and its determinants and consequently, a link between the various branches of finance has been established.

It has long been felt that the traditional techniques of classifying investments as defensive, conservative or growth oriented and speculative are not sufficient for the evaluation of the investment proposals. On the contrary, a scientific approach for the quantitative assessment of the investments or the estimation of their future expected returns under conditions of uncertainty can serve the increasing interests of the investors in the common stock investments.

The classic text - entitled 'Security Analysis' by Benjamin Graham and David L. Dodd was the first major work in the field of security analysis.¹ Though the basic tenets of Graham and Dodd's work are excellent and are still used by

many security analysts, the investors had to wait till the development of the 'Portfolio Theory' and the Capital Market Theories for the theoretical analysis of the risk-return relationship and for the appropriate techniques for the quantitative assessment of the investments.

The portfolio theory provides the theoretical analysis of the optimal portfolio selection by the investors who are, generally, assumed to be risk-averse. On the other hand, the capital market theory provides the risk-return equilibrium relationship. They provide an excellent framework for measuring risk associated with the investment and finally offer a more scientific method of measuring portfolio performance on the basis of the theoretically derived risk-return relationship.

In the Webster's, 'risk' has been defined as - "a hazard; a paril; exposure to loss or injury". Thus, the term refers to a chance of some unfavourable events that may come up during the future course of action.

To the investors, the term refers to the probability of low or negative future returns - the higher the probability of low or negative returns - the greater the risk associated

2 Both of these theories will be discussed in greater detail in the 1st chapter.
with the investment. The standard deviation or variance of returns are the two most commonly used measures of risk. For a single asset, the standard deviation or variance of returns are appropriate, while the measurement of risk of the individual asset belonging to portfolio is somewhat difficult.

According to the Modern Portfolio Theory and the Capital Asset Pricing model, which is a widely acknowledged formal construct of the capital market theory, the relevant risk of an asset is its marginal contribution to the portfolio risk. According to these theories, the total risk of an asset can be decomposed into two distinct parts - systematic or undiversifiable risk (beta) and the unsystematic risk or diversifiable risk.

Investment has been defined as "the current commitment of funds for a period of time in order to derive a future flow of funds that will compensate the investing unit for the time the funds are committed, for the expected rate of inflation, and also for the uncertainty involved in the future flow of funds. This encompasses all types of investments, whether they be corporate investments in machinery, plant and equipment - government investments in flood control, or investments by individuals in stocks, bonds, commodities or real estate." - Frank K. Reilly, Investment Analysis and Portfolio Management, The Dryden Press, 1979, p.5.
These theories advocate that the covariability of an assets' return with that of the market portfolio is the most important aspect for measuring an assets' contribution to the portfolio risk and a judicious contribution of a number of securities can reduce or diversify away a portion of an assets' total risk. The portion of the total risk that can never be eliminated is called the systematic risk or beta. According to these theories, as the number of assets in a portfolio increases, the residual variance becomes irrelevant for the portfolio risk.

Some researchers opine that the investment decisions by the firms should be made in the light of the marginal impact of the project on the total risk of the firm. Such a method of evaluating investment proposals advocates for the decision making in a total firm risk. Context on the basis of an assumption that the management should not evaluate a project in terms of its impact on the investors' portfolio. They should only be concerned with the portfolio of assets of the firm.

According to them, a high degree of correlation between the total risk and the systematic risk is present and, therefore, the evaluation of investment projects should be made on the

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basis of the total-firm risk context.  

Another point of Criticism of the Modern Portfolio Theory and the Capital Asset Pricing Model is that they rest on some restrictive and unrealistic assumptions. And, thus, in the event of their inapplicability, the residual risk may be a factor for determining the value of the firm. Fortunately, however, theoretical justification as well as the empirical evidences are present in the literature to reject the above Criticism. In practice, however, the managers especially in case of large firms, are seen to make decisions with an eye to maximise the stock prices i.e., the maximisation of the shareholders' wealth. On the balance, the systematic risk, commonly known as Beta, is the appropriate measure of risk and will be used in the present study to measure to corporate risk profile.

The MPT and CAPM have greatly influenced the finance literature. A link between the apparently separate branches of finance has been theoretically established. Moreover, the

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recent studies, both theoretical and the empirical works imply that the new informations have considerable influence on the stock prices. The informations relating to the corporate financial position and its performance during a particular period which are disclosed in the firms' books of accounts play a very important role in determining the corporate risk complexion.

If the periodic performance and the overall financial position of the firm can be regarded as the barometer for the efficiency on the part of the management in making policy decisions, and if the stock prices are influenced by these new informations relating to the firm, a relationship between the risk and the managerial decisions is expected. The theoretically derived relationship between risk (beta) and the operating leverage, or the decisions relating to the financing of the firm etc. are some nice examples of the extension of the CAPM in the area of finance. Unfortunately, the finance literature is still in the need of sufficient theoretical justification in this context.

The MPT and the capital market theories of which CAPM is a subset, have been widely accepted by the academicians, as well as by the investment analysts. The empirical validity of these theories and their practical implications have been tested extensively by the researchers. These studies are conducted mostly on the context of the U.S. economy and some
other developed countries. But the same for the Indian context are too few to provide a complete view of the Indian capital market in terms of the CAPM context.\(^7\)

The present study covers a brief review of the theory of Portfolio Selection by Harry Markowitz and the CAPM by W.F. Sharpe along with the review of some of the major contributions in this field. The extension of the CAPM in the areas of financial management will also be analysed on the basis of the contributions made by several authors.\(^8\)

An attempt will be made to examine whether the accounting income numbers can be used to predict the corporate risk profile and to what extent they can determine the corporate risk complexion in the light of the CAPM approach.

And finally, an effort will be made to explore the influence of the major financial management decisions, if any, taken by the firm on the market determined risk measure (beta).

\(^7\) Of late, however, some of the academicians are showing interest in this field of research. A review of the available published research works in the Indian context will be presented in the 1st chapter of this study.

\(^8\) Special emphasis will be given on the contributions made by Ball and Brown, Hamada, Rubinstein and Lev. These will be discussed in the 3rd chapter of this study.
The present study has been divided into five chapters. In the first chapter, the main contributions of the capital market theories will be presented along with the pioneering work of H. Markowitz and W.F. Sharpe. The second chapter has been devoted to present the beta estimates in the Indian context. The third chapter deals with the major extension works of the CAPM in the areas of financial management.

The empirical evidence on the relationship between the beta and the selected accounting variables, across the firms, will be presented in chapter four. This chapter will also provide the relationship of the major financial management decisions with the beta estimated in chapter two. And the effect of four accounting variables used as surrogates for the three major decisions relating to the corporate finance functions will also be examined in this section.

And finally, the conclusions will be drawn on the basis of the empirical evidences presented in the chapter two and chapter four along with a suggestion for future research in the context of the Indian capital market on the subject.