CHAPTER I

INTRODUCTION AND DESIGN OF THE STUDY

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'TO BUY AN EQUITY SHARE IS TO BUY A SLICE OF THE COMPANY ITSELF - ITS TANGIBLE AND INTANGIBLE ASSETS AND LIABILITIES AND ALL THAT GOES TO MAKE THE COMPANY INTO WHAT IT IS AND WHAT IT IS LIKELY TO BE'

S S GREWAL

1.1 INTRODUCTION

In the modern money oriented economy, finance is one of the basic foundations of all economic activities. It is the masterkey which provides access to all the sources being employed in manufacturing and merchandising activities. It has rightly been said that business needs money. However, it is also true that money begets more money when it is properly managed. Thus, efficient management of every business enterprise is closely linked with efficient management of its finance. This necessitates the financial decisions to be made in the overall operating and the financial environment of any enterprise.

1 Maheswari S N Management Accounting and financial control New Delhi Sultan Chand & Sons 1984 P D-1
Management of finance involves decisions as to investment (or asset mix), financing (or capital mix) and dividend (or profit allocation). These financial decisions directly concern the firm's decisions to acquire or dispose off assets and require the commitment or recommitment of funds on a continuous basis, thus influencing production, marketing and other functions of the enterprise. This in turn will affect the size, growth, profitability and risk of the enterprise and ultimately the value of it.

Various factors influence the financial decisions of an enterprise both internal and environmental. Of the various environmental considerations like the form of organisation, types of securities through which the firm raises its capital, market for corporate securities and capital structure, role of securities is of important emphasis.

There are many reasons for which a company might wish to issue securities, the most obvious one being to raise finance. However, a company may alternatively wish to issue securities in order to enable them to be quoted in the Stock Exchange, to change the capital structure of the company, to increase the marketability of the shares of the company, to merge with or takeover another company or business, to change the pattern of owner's control of the company, etc.
A financial security means a legal document or instrument that represents either an ownership or credit claim on a company. A debt security arises when a company borrows money. An equity represents ownership in a company. The securities to which the study relates are the equity shares of companies which are quoted in both Bombay and Madras Stock Exchanges for not less than ten years from 1976 to 1985.

1.2 STATEMENT OF THE PROBLEM

Many companies wish to list their securities in the Stock Exchanges for various reasons mainly for providing steady market for the securities. This is especially so for private companies which are subject to many restrictions under the Companies Act, 1956. The gaining of the quoted status for the shares of a company will make the shares more marketable thus enabling the shareholders to raise cash by the sale of whole or part of their holdings. This will establish a price for the shares of the company which reduces the area of negotiation of the liability of a shareholder for Capital Gains Tax and Capital Transfer Tax purposes. Once a company becomes a public quoted company, it becomes much more attractive to potential lenders and may be able to borrow more cheaply and with more flexibility than when its status was that of
a private company or an unquoted public company. Thus listing gives easy marketability, liquidity and the benefits of price continuity to a security.

Many factors like political action, economic trends and psychological factors have a bearing upon prices quoted in the Stock Exchanges. Factors which have an overall effect on share prices generally include

i Government policies regulating interest rates or direct and indirect taxes

ii Rising unemployment and fear of trade recession may depress the prices of industrial shares while raising those of gilt-edged. Conversely, encouraging exports may raise prices in expectation of additional activity

iii International factors such as balance of trade, position of foreign exchange reserves, the volume of inward remittances by non-resident Indians, the receipt of a massive loan from IMF, the magnitude of aid/credit received from other international agencies and countries, all have a significant impact upon the investment climate which consequently has an impact on share prices.

As against these general factors, there are factors influencing the prices of equity shares in individual
companies like

i. Amount and trend of dividends paid

ii. Capital gearing of the company

iii. Amount and trend of company's profits

iv. Net assets as per Balance sheet

v. Whether there is reasonably active market for the equity shares and the amount of 'turn' i.e. range of prices quoted over a year and

vi. Probability of issue of bonus shares

The present study is to analyse the behaviour of and the factors influencing the equity prices of selected companies - industrywise and all industries together - following fundamental analysis and technical analysis.

1.3 REVIEW OF RELATED LITERATURE

The two most important and widely used approaches to investment analysis are that of the 'fundamentalists' and that of the 'chartists'. The approach adopted by the former is called 'Fundamental Analysis' and the one adopted by the latter is called 'Technical Analysis'.

1.3.1 FUNDAMENTAL ANALYSIS

This is a method of finding out the future price of a
stock which an investor wishes to buy and is an attempt to compare the current observable market value of a particular security with its intrinsic or theoretical value that is based on variety of factors such as growth trend, earnings stability and dividend history as well as based on subjective estimates of future earnings and capitalisation rates. On the basis of such a study, a reasonable and accurate projection of the company's profits and earnings capacity could be made.

It is also believed that the price of a share tends to move in such a manner as to reduce or in some cases even to eliminate the gap between the intrinsic value and the market value. To them, therefore, the intrinsic value represents the baseline around which a share's market price fluctuates.

Decision rules as to buying and selling individual securities result from the comparison of relative values i.e. intrinsic and market values of securities. The degree of sophistication of these fundamental approaches to investment decisions ranges from the classic, qualitative discussions of investment values to highly refined, technically complex valuation models. Regardless how sophisticated the techniques used, fundamental analysis is the most widely used method of estimating security prices.
But even under the ideal circumstances, it can suggest only a range of prices rather than a specific value.

1.3.2 TECHNICAL ANALYSIS

This covers fairly a wide range of techniques, all based on the concept that past information on prices and trading volume of stocks gives a picture of what lies ahead. It is an attempt to predict the future price of a share on the basis of a study of its price movements in the past. It ignores all fundamental data such as sales, earnings, profit margins, etc. It is believed that such factors are already reflected in the present market price of the share which reflects the collective wisdom and knowledge of the market. The market price of a share at any time is thus based on the most up-to-date information about the company.

It is also believed that the behaviour patterns of earlier price movements tend to repeat themselves. This makes it possible to predict future patterns of price behaviour by studying past price movements. Thus technicians seldom form their own value judgements. Rather, what is of importance to them is how others in the market view a scrip.

1.3.3 THE DOW THEORY

The Dow Theory proposed by Charles Dow is one of the
oldest technical methods still widely used. Though there are many versions of this theory, essentially it consists of three types of market movements viz.

i. Major market trend which can often last a year or more called 'Bulls' and 'Bears' market

ii. Secondary intermediate trend which can move against the primary trend for one to several months known as 'Corrections' and

iii. Minor movements lasting only for hours to a few days called 'Random Wiggles'

Among these, importance is given to the determination of the major market trend by the Dow believer.

Although Charles Dow believed in fundamental analysis, the Dow Theory has evolved primarily into a technical approach to the stock market. Accordingly, it asserts that stock prices demonstrate patterns over four to five years which are reflected by indices of stock prices. The Dow Theory employs two of the Dow Jones averages\(^2\) - the industrial average and the transportation

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\(^2\) These are the weighted averages (formerly unweighted) of stock prices in New York Stock Exchange of specified group of stocks used as market indicators.
The utility average is generally ignored.

The Dow Theory\(^3\) is built upon the assertion that measures of stock prices tend to move together. If the Dow Jones industrial average is rising, then, the transportation average should also be rising. Such simultaneous price movements suggest a strong bull market. Conversely, a decline in both the industrial and transportation averages suggest a strong bear market. However, if the averages are moving in opposite direction, the market is uncertain as to the direction of the stock prices.

Greiner and Whitcomb assert that "the Dow Theory provides a time tested method of reading the stock market barometer."\(^4\) But still, the accuracy of the Dow Theory and its predictive power have been the subject of much criticism due to several problems associated with the theory.

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3 Bhalla V K Investment Management Security Analysis and Portfolio Management New Delhi S Chand & Co Ltd 1983 P 314

4 Ibid P 316
1.3.4 COOTNER'S PRICE-VALUE INTERACTION MODEL

In order to explain how share prices would fluctuate in a market where price-value comparisons were continuously made, Paul Cootner suggested that security prices can be viewed as 'a series of constrained random fluctuations around their true intrinsic value'. He hypothesises the existence of two groups of investors - 'naive investors' who, having access only to the public news media for their information, select stocks by throwing unaimed darts at a list of stocks and 'professional investors' who, having the resources to discover news and develop clearcut estimates of intrinsic value, erect 'reflecting barriers' around the true intrinsic value. Prices will fluctuate freely within the upper and lower reflecting barriers. But when prices reach these barriers, the professional's action will cause prices to move toward the intrinsic value.


1.3.5 RANDOM WALK THEORY

According to this theory, a security's market price should fluctuate randomly around its intrinsic value because

i The new information arrives at random intervals throughout everyday

ii This new information causes security analysts to re-estimate the values of the securities affected by the new information and

iii Market trading based on the buy-sell rules causes security prices to fluctuate randomly as they pursue constantly changing intrinsic values.

This theory is like Paul Cootner's model but without the reflecting barriers. The security prices in a random walk market might fluctuate in 'continuous equilibrium' i.e. the intrinsic value of the security vibrates randomly and the market price equals the fluctuating intrinsic value at every instant time if

investors were constantly informed and were in uniform agreement about the intrinsic values.

A Study conducted by Benjamin F King examined the relationship between market returns, industry returns and returns on industrial stocks. The object of the study was to determine how much of the total price movement for a given stock over a period of time was due to overall market factors, how much was due to industry influences and how much was attributable to a stock's unique component. For this, King examined the price behaviour of 63 securities listed on the New York Stock Exchange over a period of 403 months from June 1927 to December 1960 and over 4 sub-periods within this framework. He examined monthly percentages of changes in price as the variable.

King employed factor analysis which breaks down the variability of each security's price change into that part attributable to common factors and that part due to a stock's unique factor. He found out that, on an average, 31% of the variation in a stock price could be attributed to changes in the level of the whole stock market; 12% to

8 Frank K Reilly Investment Analysis and Portfolio Management U S A CBS College Publishing 1985 P 269
changes peculiar to each firm which were assumed to come from within the firm. The results confirm the importance of market analysis even with decline in explanatory power over time. They also confirm the importance of industry analysis but indicate that the importance of the industry component varies across industries. A study by Livingston confirms the overall importance of industry analysis but likewise suggests that the relative importance varies across industries.

Julis Shiskin analyzed the stock market movements in detail using the technique employed by the National Bureau of Economic Research to breakdown the stock price series into components - seasonal, irregular and trend cycle.

For short run intervals, the irregular component was dominant. As the interval was increased to three months or

10 Frank K Reilly Investment Analysis and Portfolio Management USA CBS College Publishing 1985 P 269
11 Ibid P 268
longer, the cyclical component became dominant. As the time span of comparison was extended to 9 to 12 months, a clear cyclical pattern emerged and the diffusion indices definitely led the stock prices. Shiskin examined finally the relationship between the stock prices and a number of other economic series - employment, income and production. The results indicated that stock prices constantly conform to economic expansion and contraction but they clearly led the economy.

1.4 OBJECTIVES

The objective of the study in general is to analyse the behaviour of equity prices of selected companies and the factors influencing the equity prices. Thus, the study aims to

i. analyse the trend of equity prices in Indian industries in general

ii. study the relationship between the various factors affecting the market price of an equity share - Earnings per share, Dividends per share, Networth per share, Reserves and surplus per share, Debt Equity Ratio, Price Earnings Ratio and Dividend Yield - and on the basis of their significance, build up industrywise regression equation and
iii fit a line of trend for equity price indices so as to forecast future equity prices and to measure the seasonal variations in equity prices.

1.5 DEFINITION OF THE CONCEPTS

1.5.1 MARKET PRICE PER SHARE: Three different market prices on per share basis are considered for the study.
   i Highest market price per share - Average of the highest market prices in Bombay and Madras Stock Exchanges over a period of one year.
   ii Lowest Market price per share - Average of the lowest market prices in Bombay and Madras Stock Exchanges over a period of one year.
   iii Average Market price per share - Average of the highest and the lowest market prices in Bombay and Madras Stock Exchanges over a period of one year.

1.5.2 EARNINGS PER SHARE: The after tax earnings of a company available for distribution to equity shareholders less preference dividend divided by the total number of equity shares outstanding have been taken as Earnings per share.

1.5.3 DIVIDEND PER SHARE: Final dividend declared and paid per equity share.
1.5.4 RESERVES AND SURPLUS: These relate only to those belonging to equity shareholders exclusively including premium on shares, Development Rebate Reserve and Development Allowance Reserve. Other reserves like Bad and Doubtful Debts Reserve, Reserve for contingency, Reserve for taxation, Deferred taxation and Staff Funds are not treated as equity shareholders reserves.

1.5.5 NET WORTH/BOOK VALUE: It is the net tangible assets available to equity shareholders after meeting the claims of the preference shareholders.

1.5.6 PRICE-EARNINGS RATIO: This is the ratio between the market price of an equity share and the earnings per share. It indicates the extent to which earnings of each equity share are covered by its price.

1.5.7 DIVIDEND YIELD: It is the return which an investor gets on his investment in terms of the current market price of the equity shares invested by him.

1.6 METHODOLOGY

This is an ex post facto study based on the published data in the form of consolidated financial information contained in the Official Directory of Bombay and Madras
Stock Exchanges. Equity price indices are obtained from RBI Bulletin. The study covers a period of 10 years from 1976 to 1985.

1.7 SAMPLING

The study covers 60 companies classified under six groups of industries. The companies are selected based on the following criteria:

i) Companies whose equity shares are being traded in both Bombay and Madras Stock Exchanges for not less than 10 years from 1976 to 1985.

ii) Companies which have earned profits as well as declared dividends during all the ten years from 1976 to 1985.

Of the companies satisfying these conditions, 60 companies are selected on simple random basis.

1.8 FRAMEWORK OF ANALYSIS

With reference to the objectives of the study, the relevant variables - Earnings per share, Dividends per share, Reserves and Surplus per share, Net worth per share, Debt-Equity Ratio, Price-Earnings Ratio and Dividend yield - are calculated using ratio analysis the
Fundamental Analysis - Using correlation technique, Karl Pearson's Correlation coefficients are calculated for the market price of equity shares and each individual independent variable. As the selected independent variables are multicollinear, their inter correlation coefficients are also calculated. Partial correlation coefficients are computed to determine the net influence of each variable on market price when all other variables are kept constant. In order to select the variables to be considered for framing regression equation, Students' 't' test is applied. This is done separately for each industry and all the industries together.

Technical Analysis - for the purpose of technical analysis, RBI Indices for equity prices are used. Time series analysis is made to fit a line of trend and to measure seasonal variations.

1.9 LIMITATIONS

The study covers only those companies whose equity shares are listed on both Bombay and Madras Stock Exchanges. One of the main reasons for limiting the study
to listed companies is that practically getting an accurate figure of market price per equity share in case of non-listed companies is very difficult.

Not all the factors influencing the equity share prices are considered for the study. Factors such as psychological factors which are not quantifiable and amenable to statistical treatment have not been considered for the study.

1.10 CHAPTERISATION

First chapter deals with the introduction and design of the study.

An industrywise analysis of the behaviour of equity prices in Indian industries is presented in the Second Chapter.

The Simple, Partial and Multiple correlation analysis and Regression analysis as well as the industrywise Regression equations are dealt with in the Third Chapter.

The Secular trend and seasonal variations in equity prices are analysed in the Fourth Chapter.
Fifth Chapter summarises the findings and conclusions of the study with recommendations.