ABSTRACT

1- INTRODUCTION

Dividend in the normal use of word refers to that portion of the net earnings which is distributed by the company among its shareholders. The shareholders, as investors, are interested in maximizing their returns at a given level of risk or minimizing their risk at a given level of returns, and together wants to maximize returns with minimizing risk and thereby to maximize their wealth. This is the essence of desirability of dividends from the investor’s point of view.

On the other hand, a company needs to provide funds to finance its long-term growth. If a company pays out most of the profit it earns, then for business requirements and further expansions, it will have to depend upon outside sources such as issues of debts or new equity shares. So, dividends in a firm are paid according to the policies and decisions of the management regarding the retrained earning of the firm.

Among all the corporate financial decisions few are as strategically important as dividend decisions. Corporate dividend policy plays an important role and affects the capital structure as well future dividends. From the micro concept, as long as there are investment projects with returns exceeding those that are required (in general, mostly, Weighted Average Cost of Capital) it will use retained earnings and the amount of senior serenities will support to finance these projects. If the firm has retained earnings left over after financing all acceptable investment opportunities these earnings then will be distributed to the shareholders in the form of cash dividends. If otherwise there won’t be any dividends. The treatment of dividend policy as a passive residual determined solely by the availability of acceptable investment proposals implies that the
dividends are immaterial and irrelevant; the investors are rather indifferent between dividends and retention by the firm.

From the macro standpoint, dividend decisions have implications not only at the level of individual firms, but at the macro economic level as well. At the individual firm level, dividend is the first, if not the only indicator of the firm’s performance. Indeed, the objective of modern joint Stock Company is to generate a steady stream of dividends to its shareholders. Higher and regular dividend payment are sure to enhance the market vale of the firm and the reputation of its management.

On the other hand, such a policy may mean less availability of internal funds and more dependence on external sources for reinvestment and expansion purposes. Thus while determining dividend payments, a prudent management strikes a balance between shareholders preference and the firm’s long-term interest, safeguarding the firms control.

Again from the macro economic point of view, dividend policies of individual firms when combined together play a significant role in determining overall rates of saving and investment as well as patterns of flow of funds in the economy. Further, dividend policies also level other social economic implications. If shareholders are concentrated only in a few economic brackets, these changes in the dividend income will affect the overall income distribution as well as factor shares. Exceptionally high dividend payments or abnormally low dividend payments under such conditions might lead to less efficient resource allocation in the economy as a result of changed consumption patterns.

Recognizing the importance of dividend policies of corporations and their bearing on resource allocation and income distribution in the economy, this
project attempts to explore the possible factors that determine the dividend behavior in the Indian corporate sector.

**BASIC THEORETICAL PREMISE**

Basically both theoretical and empirical researchers in dividends are struggling to answer this so called "dividend puzzle" expressed in the study carried out by Black (1976) asking questions like "why do corporates pay dividends?" and "why do investors pay attention to dividends?" this investigation is based on certain general and specific theoretical premises and considerations as summarized hereunder:

A. Theories

1) Dividend Irrelevance Theory

Inertia Theory

The 'Bird In Hand' Theory

The Market Value Maximization Theory

Theory Of Signaling Or Information Content Effect

Theory of Information Asymmetry

Agency Cost Theory

Management Agency Objective Theory

Theory of Behavioural Finance

Theory of Investment Imperatives and Free Cash Flow

Theory of Transparency Versus Manipulations

Theory of Contractual Constraints

B) Considerations

Consideration Of Transaction Cost

Consideration of Differential Taxes
Consideration of Diversification of Investment Portfolio

Consideration of Operational and Structural Compulsions

II- RESEARCH METHODOLOGY

OBJECTIVES OF THE STUDY

This research study has these three principal objectives:

i) To study the trend in dividend payout in the various sectors of the engineering industry over a time period.

ii) To analyze the influence of sector specific characteristics on dividend payment pattern.

iii) a) To study the motivation of the Indian engineering industry for formulating their respective dividend policies.

(b) To study the perception and attitude of the investing community regarding and towards the dividend policies & practices adopted by the management.

3.4 METHODOLOGY

Data and statistical tools identification:

I. To fulfill these three objectives enumerated above the study relied both on primary and secondary data. Analysis, and interpretation of objectives (i) & (ii) were based on secondary data collected from CAPITALINE & CMIE databases.

Renowned economic and business journals like Capital Market, Dalal Street, Economic Times, ET 500, ICFAI'S, TOP 500 were consulted and top 500 performing companies were identified. Out of these top 500 companies, only the engineering concerns in the following sectors and numbers were chosen.

a) Automotives: 15 nos.

b) Auto components / Ancillaries: 31 nos.
c) Engineering Industry / Machine building: 42 nos.
d) Chemical / Petro chemical / paints: 35 nos.
e) Consumer Durables / White goods: 10 nos.
f) Steel / Ferro alloys: 30 nos.
g) Non ferrous metals / alloys: 10 nos.
h) Electronic / Telecom / IT Hardware: 10 nos.

**TOTAL** 183 nos.

For the first objective, dividend payment history of these industries over a time horizon of 12 years (1994-2006) were collected from CMIE & CAPITALINE data bases and trend analysis has been done. The performing industries were categorized into different dividend payment slabs in the ascending order and presented in a tabular form with an accompanying bar chart.

Moreover, linear and logarithmic time series regression has been done to evolve a theoretical pattern of the trend in dividend payments in different sectors over these 12 years. For each and every “time series regression”, goodness of fit by conducting “chi square test” has been checked and its appropriateness of the linear or logarithmic fit has been established.

For the second objective, correlation analysis and linear and non linear regression models have been developed involving seven identified factors and the dividend payout. Using extended Ms Excel Software under windows 2000 for each regression model the corresponding goodness of fit has been tested. Using “chi square” variate, and for each correlation co-efficient, the significance has been tested using ‘t’ statistic.

The sector specific factors identified as having potential influence on dividend payout are summarized as follows:
i. Internal wealth creation in terms of net worth.

ii. External wealth creation in terms of market capitalization.

iii. Fixed cost and depreciation in terms of book values of plant and machinery.

iv. Determining internal control in terms of promoter's equity.

v. Determining dominance and dictates of financial institutions in terms of institutional holdings.

vi. Liquidity, internally, in terms of net cash inflow.

vii. Liquidity externally, in terms of interest paid.

Apart from the computation of the correlation co-efficient with its significance, with respective regression equations, a multi variate regression equations involving five of the above seven factors as independent variables and the dividend payment as a single dependent variable has been developed and its goodness of fit established.

The entire regression computation and their "chi square test" for each independent variable have been presented in tabular form. The line graphs for each regression equation including the multi variate one has been plotted.

For the third objective, which is based on primary data collected from the corporate finance managers and the investors as respondents, statistical analysis in terms of tables and pie charts / bar charts have been done for those questions which pertains to the background of the respondents.

The rest of the questions were considered for hypotheses testing. The hypotheses were designed to address the objective.
II. TOOLS AND TECHNIQUES OF DATA COLLECTION

Specific Information

a) Instrument Development

Two sets of questions were designed, one for the corporate finance decision makers and other one for the investors.

b) Pilot Study

Pilot studies were conducted to check the reliability, validity and consistency of the questionnaire in addressing the objectives. For the first questionnaire concerning corporate financial decision makers, twelve corporate executives and two academicians were respondents by personal approach in Bangalore. For the second questionnaire, fifteen equity investors and two academicians were respondents by personal approach in Bangalore.

Reliability measurement was conducted in terms of ‘Chronbach Alpha’. and for further confidence in the validity and reliability of the instruments, Alpha value was computed after collecting the actual data. The two Alpha values, so evolved an almost identical.

c) Sample Selection

There are two sets of respondents one is Corporate Manager and the other is investors. For that purpose, the sample frame is also two sets.

I. Sample Frame: Economic Times (ET) 500 for corporate sectors equity investors who are the customers of investment bankers all over India.

II. Sample Unit: Engineering industry comprising of eight sectors and individual investors of three categories i.e. salaried, professionals and businessmen. They are the sample elements also.

III. Sampling Element: Corporate firm’s Managers/Executives.
IV. Sample Size: 183 companies in engineering industry under ET 500 and 1000 investors all over India.

V. Types of Samples: Non-Probability (a) Judgmental for corporate respondents, multi-stage for investors. The stages are as follows:

i. At the first stage a list of investment bankers was made which includes the following:
   1. Bajaj Capital
   2. Karvy Consultants
   3. Way to Wealth
   4. ICICI Director

These investment bankers have got their client base all over India.

ii. The client bases of the above listed investment bankers were consulted and only the equity investors were chosen as respondents.

iii. Equity investors belong into either of the three categories i.e. (a) Salaried, (b) Professionals, and (c) Businessmen were chosen proportionally in numbers from all over India in the same proportion as in the client base.

As has been explained in the previous sections secondary data have been collected from company specific literature, industry survey reports, financial press and CMIE & CAPITALINE DATA from the library of Indian Institute of Management, Bangalore; Indian Institute of Science, Bangalore: and other institutes in and around Bangalore.

For primary data collection, a questionnaire for the Higher Level corporate finance executives was designed, locally administered to get responses to test
reliability and consistency and then, after it was found reasonably reliable and consistent it was administered all over India. The questionnaire contains twenty-eight close ended and one open ended question. For the close-ended question the respondents were given five alternatives i.e.

Strongly agree: S/A
Moderately agree: M/A
Neither Agree nor Disagree: NA-ND

Moderately Disagree: MD
Strongly Disagree: SD

The questionnaire was administered personally, through courier or post. Totally eighty three (83) questionnaires which came back were found suitable for analysis. Similarly, a questionnaire having twenty-five close-ended questions were designed and one thousand in numbers were administered to the investors all over India. These investors were accessed through the client base of renowned Investment Bankers' whose offices are in Bangalore and other branch offices all over India. Out of one thousand circulated only 477 were found fit for analysis.

PLAN OF ANALYSIS

As for plan of analysis, as has been explained already, data are analysed by tables, pie charts/graphs, bar charts and myriad statistical tests, viz. 'Kolmogorov-Smirnov one sample test', 'Chi-Square test', 't' test for statistical inferences.

Reliability and Validity of Questionnaire by 'Chronbach Alpha Test'

A sincere attempt has been made to establish the reliability and validity of the two questionnaires by 'chronbach alpha test.'

As both the questionnaires have been designed in groups to address various hypotheses, the reliability and consistency also have been tested by dividing the questionnaire in homogeneous groups and the alpha value has been
computed by using 'SPSS' software for each group. An average “alpha value” has been computed for each of the two individual questionnaires.

**Formation & Testing of Hypotheses**

For fulfillment of the third objectives which is based only on primary data collected from the finance managers and investors, totally sixteen hypotheses, nine for objective 3(a) and seven for objective 3(b) are formed as follows:

**Hypotheses Development**

**H₀A-1:** Dividend policy is an active residual policy reflecting the competence and dexterity of the finance manager in managing profitability and liquidity together.

**H₁A-1:** Dividend policy is not an active residual policy and do not reflect the competence and dexterity of the finance manager in managing profitability and liquidity together.

**H₀A-2:** For dividend, stability, continuity and growth are more important than the absolute value of the payout.

**H₁A-2:** For dividend, absolute value of the payout is more important than its stability, continuity and growth.

**H₀A-3:** The cost structure, capital structure and share holding pattern of a company significantly influence its corporate dividend policy.

**H₁A-3:** The cost structure, capital structure and share holding pattern of a company do not significantly influence its corporate dividend policy.

**H₀A-4:** Dividend decision of a company concerns only its equity share holders.

**H₁A-4:** Dividend decision of a company dose not concern only its equity share holders.
**H₀A-5:** The quantum of dividend payout of a company significantly and positively influences the liquidity of its share in the market.

**H₁A-5:** The quantum of dividend payout of a company dose not influence the liquidity of its share in the market significantly.

**H₀A-6:** The quantum of dividend payout of a company significantly and positively influences its market capitalization.

**H₁A-6:** The quantum of dividend payout of a company dose not significantly and positively influence its market capitalization.

**H₀A-7:** The products made and the services rendered by a company significantly influence its dividend policy.

**H₁A-7:** The products made and the services rendered by a company do not significantly influence its dividend policy.

**H₀A-8:** Within the framework of engineering industry, sector specificity of a company significantly influences its dividend policy.

**H₁A-8:** Within the framework of engineering industry, sector specificity of a company dose not significantly influence its dividend policy.

**H₀A-9:** Market performance of a company’s share in terms of risk and returned is more of a technical issue and hence dividend payout dose not significantly influence it.

**H₁A-9:** Market performance of a company’s share in terms of risk and returned is more of a fundamental issue and hence dividend payout dose significantly influence it.

**Hypotheses for Objective**

**H₀B-1:** A company’s fundamentals rather than market technicalities and more influence the investors' decision significantly.
\(H_1B-1\): Market technicalities and more rather than a company’s fundamentals influence the investors’ decision significantly.

\(H_0B-2\): A company’s constancy of dividend payout in terms of its EPS & DPS records influences investors’ decisions significantly.

\(H_1B-2\): A company’s constancy of dividend payout in terms of its EPS & DPS records dose not influence investors’ decisions significantly.

\(H_0B-3\): A company having dividend payout, stable and consistently increasing over time is significantly favoured by investors inspite of the dividend being moderate.

\(H_1B-3\): A company having dividend payout, stable and consistently increasing over time is not favoured by investors if the dividend payout is moderate.

\(H_0B-4\): Investors significantly prefer high dividend payout to its consistency.

\(H_1B-4\): Investors significantly prefer consistency to high dividend payout.

\(H_0B-5\): Investors significantly disfavour a consistent but moderate dividend payout.

\(H_1B-5\): Investors significantly favour a consistent albeit moderate dividend payout.

\(H_0B-6\): Investors significantly disfavour dividend payout as the right yard stick for judging performance of a company in engineering industry while taking investment decisions.

\(H_1B-6\): Investors significantly favour dividend payout as the right yard stick for judging performance of a company in engineering industry while taking investment decisions.

\(H_0B-7\): For investing in engineering industry, investors significantly prefer other fundamentals to dividend.
H1B-7: For investing in engineering industry, investors significantly prefer dividend to other fundamentals.

From the coded and quantized primary responses, ‘Kolmogorov-Smirnov one sample test’ and ‘chi square test’ have been conducted to test the validity of the respective ‘null hypotheses’.

For each null hypotheses respective suitable alternate hypotheses has been formulated before testing.

**SCOPE OF THE STUDY**

The study covers eight identified sectors of Indian engineering industry spread all over India for a time horizon of twelve years i.e. 1994-2006. As is evident the sample size of 183 companies is heavily dominated by pure engineering industries lie BHEL, L&T etc.

**LIMITATIONS OF THE STUDY**

This study suffers from certain limitations, which can be summarized as follows:

i) The study does not cover the companies, which did not pay dividends during the 12 year period under study, although, in terms of market capitalization and sales they are very much with in the top 500 performing company’s i.e. the study does not cover exploring the reasons for non payment.

ii) The study, by design, covers only engineering industry. The norms, traditions, practices and compulsions are different in other industries.

iii) The study covers 183 companies only in engineering industry out of 500 top most performing in all areas of business put together. The
smaller size companies in engineering industries have not been covered.

iv) Sector wise 8 sectors of the engineering industries have been covered because they fall within the top 500 performing companies. There are a few other sector which falls under the engineering industries, but none of the companies are within the top 500 in sales and market capitalization and hence have not been considered.

v) Out of 183 respondent companies in the chosen category only 83 corporate responses could be analysed because a good number of questionnaires sent were not returned and a good number was partially filled.

vi) As far as the responses from the investors are concerned, although the coverage has been throughout India, less than half i.e. 477 out of 1000 questionnaires sent could only be analysed, because that number only came back within a reasonable time.

III-CONCLUSIONS

From the foregoing discussion on the summarized findings and keeping in view the objectives of the research study, we can arrive at and consolidate our conclusions as follows:

Modigliani and Miller (M-M) hypothesis concerning dividend irrelevance is applicable to the Indian capital market as much as it is in its western counterpart and a company can be, otherwise, an excellent performer without paying dividend and hence dividend payment does not constitute an important dimension of excellence, and more so in engineering industry where there are myriad other dimensions to constitute yardsticks of excellence.
As far as dividend performance and trend in the engineering industry is concerned, post liberalization, dividend payment in engineering industry in India has been consistently growing fairly linearly with time albeit at a moderate pace. Notwithstanding, a few commonalities that can be evolved, every constituent sector of the engineering industry has its own reasons and peculiarities i.e. singularities for its dividend payment. Commonalities, whatsoever, that can be identified, do not seem to influence their dividend payment in a significant manner.

As far as the perceptions, view points and outlook of the corporate managers are concerned they seem to be under the impression that higher dividend add higher value to the company in terms of trading volume, liquidity, share value and hence market capitalization, but market behaviour does not seem to subscribe to this view. In this sense investors’ perceptions are more in tune with the market.

Otherwise, there is not much of a discrepancy, between what the market data throw up and what the corporate managers think and feel. In other words, by and large, the corporate managers understanding and outlook towards dividends are in tune with the market.

As far as dividend payments are concerned, managers in otherwise brilliantly performing companies are rendered passive functionaries comparatively and a new incumbent finance manager has to get accustomed with the dividend payment culture of his company and then try to innovate.

Sound dividend decisions really demand agility, dexterity and ability to manage liquidity and profitability together as the compulsion of maintaining liquidity in the face of huge expansion / capital expenditure plans do affect dividend respectively as much as the abilities to sustain and grow.
When promoters stake is high in a closely held company, dividend payout seems to be limited disregarding the interest of the minority stake holders and it is also limited some times governed by statutory provisions and restrictive covenants of the financial institutions when they have a significant stake.

As far as the investors’ perceptions and preferences are concerned in a monopolistic competitive market in which the Indian engineering industry functions, dividend decision is not a strategic weapon to beat the competition and dividend payment is not the right yard stick to judge the performance and dimensions of excellence for engineering industry. There are myriad more potent yard sticks like product differentiation, market leadership, product and services quality, reliability, brand equity, growth and diversification record, innovation, supportive culture, excellent human resources management etc.

Investors also derive positive signals from consistency and growth rather than the absolute amount of dividends and they do track the company’s EPS & DPS records along with the myriad other dimensions of excellence before putting their hard earned money into a company's equity.

IV- SUGGESTIONS

As far as this section of this chapter is concerned, it is addressed to corporate finance managers and the investor community at large, to whomsoever, out of these, it may concern.

Keeping in view the ultimate fact that the aim of corporate finance is to create value and hence, wealth for all the stake holders in the society e.g. the corporate with its employee base at any level, customers, investors and the regulators i.e. government, any misunderstanding in the stakes involved, on the part of the stake holders will only hamper the process of wealth and value
creation. Dividend decisions are no exception to this dictum. The following suggestions are humbly offered:

i. Many of the companies in engineering industry in India are more than thirty years old and during this period, have built-up an established traditions and trend in dividend payments. So, it is suggested that any drastic change in dividend payment under exigencies of circumstances should be avoided.

ii. Corporate manager should use dividend as a strategic weapon to win over the competitor only after all other strategic avenues are tested and exhausted. We have found in this research study that, in the almost perfect and highly developed Indian capital market, fundamental strengths like innovation, product differentiation, brand equity, product range expansion and diversification, excellent human relations management track record are far more impressive in creating value than dividend. So, value creation should be attempted in any of the areas where a company has core competence rather than dividend payment.

iii. When the mobility of the company’s share is suddenly sluggish due to unforeseen shifts in market mood, declaration of interim dividend may bring about a higher mobility.

iv. Despite having high and some times out of tune profits, it is more advisable to declare a lower dividend only to maintain continuity in growth even when this out of tune profit disappears.

v. To extract the maximum benefit of signaling effect the management should publicize fundamental strengths and highlight how the dividend
declared supplement and compliment rather than substitute the fundamental parameters.

vi. For closely held companies the majority may have their way, but nevertheless the minority must have their say, hence their interest should not be overlooked while declaring dividend. Hence, by adopting dividend policy minority share holders should be protected.

vii. If a particular company's shares enjoy a higher price-earning ratio in the market, for a company under engineering industry perennially suffering from liquidity and cash flow problem, can, as well declare scrip dividends / bonus shares as a viable alternative rather than skipping dividend.

viii. Finance managers in a particular sector of the engineering industry should identify the market leader in that segment and establish a benchmark dividend practice in keeping with that of the leader.

ix. To give credence to the 'bird in the hand theory' despite there being a huge capital expenditure forthcoming, best efforts should be made to maintain dividend payments, however meager and thorough publicity should be given to the importance and necessity of the capital expenditure.

x. Maintenance of liquidity and capital investment plans do affect dividend restrictively. As capital investment is needed for growth and liquidity is needed for day to day running a balance between the two should be maintained to continue dividend payment as far established tradition.
xi. For dividend payout consistency is important rather than the absolute amount for signaling effect. For dividend payment, consistency should be given priority over absolute amount for signaling effect.

V- SCOPE FOR FURTHER RESEARCH

After objective analysis of the work done so far in the research project, there are many more areas related with dividend payment that can be undertaken. In the following few areas have been identified for further research.

1. This study is engineering sector specific. There are a number of other sectors for which the study may be extended further namely, construction, refractory, and service sector.

2. This study is mainly concerned with large engineering organizations. There is a further scope to study small and medium size companies.

3. Non dividend paying companies have not been studied. A similar study can be conducted to probe into the motivation of the management as to why they do not declare dividend and also the attitude and perception of investors towards these categories of companies under engineering and other industries.

4. The companies dividend and inter-relationship with the β-value of its share can be studied. A regression relation can be evolved between the β-value of the company's share in the market and its dividend payment.