Chapter VI

A Summary of Findings, Conclusion and Suggestions
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6.1 INTRODUCTION

The dividend policy is one of the most debated topics in the finance literature. One of the different lines of research on this issue is based on the information content of dividends, which has motivated a significant amount of theoretical and empirical research. The researchers Fama and French\(^1\), in their study on dividend behaviour, have found out that a large decline in the proportion of publicly traded dividend paying firms over the period. Another researchers, DeAngelo, et al\(^2\) have identified that the real value of aggregate dividend payment has increased despite the fall in percentage of dividend payer to total number of publicly traded firms over time. In this scenario, it is felt necessary to study the time series trends of aggregate payouts in Indian companies. The time series trends of aggregate payouts are likely to be varying from one industry to another industry as well as it may differ by size of the companies. Hence, in the present study trend in dividend payouts in Indian companies are analyzed by industry-wize and size-wise. The analysis of dividend payout policies are carried out in two ways: first profit dividend relationships and the dividend payout ratios of sample companies are examined and secondly by frequency distribution of companies according to percentage of dividend paid relative to equity capital (Equity dividend %) in each year. Apart from evaluating the trend in dividend payout and its relationship with net earnings, an attempt has been made to identify the factors determining the dividend policy decision of the Indian companies across industry and size classes using multiple regression technique. The Lintner’s model, a well

\(^1\) Fama, Eugene and Kenneth French, \textit{op.cit.}

\(^2\) DeAngelo, Harry, Linda DeAngelo, and Doug Skinner, \textit{op.cit.}
known dividend model is used for determining the dividend policy. In addition to this basic dividend model, Brittain’s Cash Flow Model, Brittain’s Explicit Depreciation Model and Darling’s Model, which are the extended and modified version of basic Lintner’s model, are also used.

Generally, firms with a greater ability to self-finance are most likely to fund projects internally with better capacity that reduces stockholder wealth. This results to reduction in a regular stream of dividend payments. So, it is certain that the probability of dividend decrease or increase is related to cash position and owned capital in capital structure. To empirically examine the above, a logistic regression analysis is used with binary coded “dividend reduction / omission” (0 for increase / initiation and 1 for reduction / omission).

6.2 OBJECTIVES OF THE STUDY

The present study is undertaken with the following specific objectives:

1. To study the trend and growth in actual dividend payment and dividend payout ratio of Indian companies by industry wise and size wise.

2. To evaluate the applicability of Lintner model, a basic dividend model as well as the applicability of extended version of Lintner model in explaining the dividend policy of companies in India across industries.

3. To identify the firm specific factors determining the dividend policy.

4. To elicit the relationship between firms specific factors and dividend reduction / omission for Indian companies across industries.

5. To summarize the findings, give conclusion and necessary suggestions.

6.3 HYPOTHESES OF THE STUDY

In the course of analysis the following hypotheses have been tested with the help of the sample data. They are:
1. The trend and growth in dividend payment of the Indian companies is not linear.

2. There is no impact of profitability on dividend policy of Indian companies.

3. The current year dividend policy is independent of the dividend policy of the companies in the past in India.

4. There is no significant influence of depreciation on equity dividend payment of companies in India.

5. There is no significant relationship between dividend payout and tangibility in Indian companies.

6. There is no significant relationship between reduction / omission in dividend payout and decline in profitability of Indian companies.

7. The probability of reducing / omitting the dividend payout is significantly higher with increase in debt fund in capital.

8. The likelihood of reducing / omitting the dividend payout is significantly higher with increase in capital investment.

6.4 SAMPLING DESIGN AND METHODOLOGY

Sampling Design

The study is explorative in nature and based on secondary data. The data for the study consist various financial statements of selected companies listed in the Bombay Stock Exchange (BSE) under Group A and B. The companies have been selected using stratified sampling technique. In total, 119 companies are finally selected across banking, cement, chemical & fertilizer, information technology, oil & gas, paper, pharmaceutical, shipping, steel, sugar and textile industries. The period of study is for 10 years from 1997-98 to 2006-07. The data has been collected from the Stock Exchange Directories and Capitaline data base.
Tools Used

To analyze the trend in Dividend Payout and Earnings over the period under study, the Linear Growth Rate (LGR) has been calculated using time series simple regression technique with time as independent variable for each selected industry. Basic Lintner model, extended version of Lintner model such as Brittain’s Cash Flow Model, Brittain’s Explicit Depreciation Model and Darling’s Model are used for measuring the determinants of corporate dividend policy.

To test, whether there are any factors other than last year dividend and current year net profit associated with fundamentals of the companies play significant role on dividend policy decision or not, a regression model with selected fundamental variables like Volume of Sales, liquidity position, Debt, Tangibility, Dividend tax rate, Tax liability of the companies in the current year and Interest expenses, have been used as explanatory variable and Dividend Payout Ratio (DPO) as explained variable (dependent variables) based on the earlier literatures. Finally, the non-linear estimation statistical technique called logistic regression has been applied for the model with dichotomous dependent variable and ordinal as well as continuous independent variables in order to evaluate the factors associated with dividend reductions / omissions in Indian companies.

6.5 MAIN FINDINGS AND CONCLUSION

From the results of the analysis of trend in dividend payout, determinants of dividends and factors associated with dividend reduction / omission, the following findings are made:

Dividend Payout and Earnings of Indian Companies: A Trend Analysis

1) Companies under banking industry have adopted consistent dividend policy during the study period.

2) It is found that 50 per cent of the banks have distributed more than 36 per cent of their earnings as dividend to their shareholders from 2003-04 to 2005-06.
3) There is no consistent dividend policy among cement companies but they shared more than 50 per cent of the earnings with their shareholders during the study period.

4) It is found that payout of cement companies have been oscillating somewhere in between 0 to 36 per cent and there are no major shift in pay out ratio from that level during the study period.

5) The chemical & fertilizer companies have kept increasing the dividend payout despite showing inconsistency in dividend policy during the period.

6) It is found that chemical & fertilizer companies have paid lower dividend over the time.

7) There is direct relationship between net earnings and dividend in respect of IT companies and IT companies have adopted consistent dividend policy during the study period.

8) During the period, on the average, 37.5 per cent of the IT companies have paid out dividend in the range of 37-60 per cent while another 37.5 per cent have paid more than 60 per cent of the earnings as dividend to their shareholders.

9) It is found that the dividend policy of the oil and gas industry is consistent and payout to the shareholders has grown significantly during the study period.

10) Oil and gas companies have adopted consistent dividend policy and significantly increased the payout ratio during the study period.

11) There is no remarkable improvement in dividend policy of the paper industry and the companies under this industry have maintained stable dividend policy despite there has been fluctuating trend in net earnings during the period of study.
12) The paper manufacturing companies have consolidated their internal financing by keeping their dividend payout at minimum level.

13) There is a positive relationship between net earning and dividend of sample companies under pharmaceutical industry.

14) The pharmaceutical companies have maintained stable dividend policy and remarkably increased the percentage of payout every year.

15) It is found that pharmaceutical companies have adopted liberal dividend policy during the study period.

16) It is found that companies under shipping industry have exhibited unstable dividend policy during study period.

17) It is further found that some of the shipping companies have skipped dividend payment to consolidate their internal financing while some others have maintained stable dividend policy but they are not tempted to pay higher dividend even when there has been abnormal increase in net profit.

18) The steel companies have paid out the dividend from their reserve fund when they have faced loss in their business in order to show their investors that fundamental are good.

19) Though payout is low, steel companies have maintained stable dividend policy even on the face of loss on the average during study period.

20) It is found that sugar companies have kept increasing the dividend payout with fluctuations during the study period.

21) It is also found that sugar companies have adopted unstable dividend policy with low percentage of dividend payout and considerable number of companies have even skipped paying dividend in order to consolidate their internal financing position during the study period.
22) The companies under textile industry have followed unstable and irregular dividend policy and significantly reduced paying dividend to their shareholders over the period of time.

23) It is found that sample companies under textile industry have maintained inconsistent dividend policy and significantly reduced paying out the portion of profit to the shareholders and rather highly concentrated on consolidating their internal financial position during the period of study.

24) The companies with small investments (small size by total assets) have followed inconsistent dividend policy and the most of their net earnings are retained for future investment.

25) It is found that the medium investment companies have maintained stable dividend policy in addition to consolidating their internal financial position.

26) The payout ratio has not been consistent for companies with medium size assets during the study period.

27) There is positive relationship between net profit and dividend of large investment companies.

28) It is found that the large investment companies have exhibited homogeneity in their dividend policy and there has not been any significant change in dividend payout over the period of time.

29) There is no consistency in the annual payout ratio of companies with large investments during the study period.

30) It is found that the Indian companies across selected industries have consistently maintained more or less stable dividend policy irrespective of the fluctuations in the net profit over the period of time.
Analysis of Determinants of Dividend Policy in Indian Industries

1) It is identified that last year dividend followed by current year depreciation and current year profit after tax play positive role in dividend policy decision of banks.

2) It is found that last year dividend is the major factor followed by current year depreciation and current year profit after tax influencing the dividend policy decision of the companies under cement industry.

3) It is found that last year dividend is highly important factor for dividend policy decision of the Chemical and Fertilizer companies.

4) It is concluded that the dividend payout is positively influenced by the current year profit after tax in the presence of marginal increase in current year depreciation level. It is further concluded that the dividend payout tends to decline when the last year dividend has been higher for IT companies.

5) It is found that the dividend policy is positively influenced by current year profit after tax and past dividend whereas it is negatively affected by the current year depreciation for Oil and Gas companies.

6) It is found that dividend paid in the past followed by current year profit after tax and current year depreciation are the predictors of the dividend policy decision for companies under paper industry.

7) The current year free cash flow and dividend in the past are the determinants of dividend payout of pharmaceutical companies.

8) It is found that increase in current year profit after tax and increase in the current year depreciation tend to have positive influence even when there has been decline in growth of sales for three years on dividend policy of shipping companies.
9) The dividend policy of steel companies is positively influenced by the current year profit after tax, last year profit after tax and current year depreciation but it is negatively influenced by the growth in sales.

10) The current year profit after tax, current year free cash flow and last year dividend are the determinants of dividend policy decision of sugar companies.

11) It is found that last year dividend followed by current year profit after tax is the best predictor of dividend policy of textile companies.

12) It is identified that last year dividend with remarkable increase in either current year profit after tax or current year free cash flow tend to influence dividend policy decision of companies with small investments (small size by total assets).

13) It is found that last year dividend tend to have positive influence on dividend policy when there has been an increase in current year depreciation and current year profit after tax for companies with medium investments.

14) It is elicited that dividend policy is positively determined by last year dividend and current year profit after tax and negatively determined by current year depreciation for companies with large scale investments.

15) It is found that paying dividend to shareholders in Indian companies is positively determined by last year dividend, current year profit after tax and negatively by current year depreciation.

16) The dividend policy of banking industry is influenced positively by ROI followed by last year DPO and volume of sales when there has been negligible decline in debt irrespective of trivial increase in dividend tax rate.

17) It is found that there is positive significant relationship between tax liability and dividend payout of companies under cement industry.
18) Despite reduction in ROI, decline in borrowing and decline in tangibility tend to influence paying dividend among chemical and fertilizer companies.

19) The IT companies tend to pay dividend when there has been decline in debt ratio and interest expenses regardless of decline in current ratio level and return on investments.

20) The dividend payout is decided based upon the dividend payout in the past when there has been a decline in use of debt fund in capital structure despite negligible increase in the interest expenses in the case of oil and gas companies.

21) The dividend payout of paper companies is significantly and negatively influenced by debt ratio despite there has been a mentionable increase in current year tax liability.

22) It is found that policy on paying dividend among pharmaceutical companies is determined by dividend payout in the past when there has been decline in DTR at mentionable level.

23) It is found that dividend payout of shipping companies is determined based on the last year dividend payout when there has been decline in Interest liability and dividend tax rate irrespective of increase in debt ratio.

24) It is found that shipping companies have decided in favour of dividend payout when there has been an increase in tangibility, decline in dividend tax and increase in current year tax liability during the period.

25) The sugar manufacturing companies tend to pay dividend when there has been remarkable decline in interest expenses as well as in current year tax liability.

26) The dividend payout of the textile companies is positively influenced by dividend payout in the past, ROI and negatively by current year tax liability when has been substantial increase in debt relative to total assets.
27) It is found that small size companies (companies with small investments) tend to pay dividend when there has been remarkable decline in current year interest on borrowings and tax liability in the presence of substantial decline in dividend tax and tangibility during the study period.

28) It is found that companies with medium investments take decision for paying dividend based on the dividend payout in the past with significant decline in interest expenses as well as in debt fund even if there has been decline in ROI and increase in tax liability at mentionable level.

29) It is elicited that dividend payout is determined positively by past dividend payout and current year tax liability, negatively by debt in capital structure and dividend tax rate in the case of large size companies.

**Determinants of Dividend Reductions / Omission in Indian Industries: A Logistic Regression Approach**

1) It is found that Indian companies determine to pay dividend based on the dividend payout in the past when there has been remarkable decline in the interest expenses, dividend tax and tangibility (decline in tangibility reveals the decline in additional investments) over the period of time.

2) The reduction / omission in dividend payout in banks is more likely if there has been remarkable decline in share of owners equity, return on assets and significant increase in current ratio level.

3) It is identified that reduction / omission in dividend payout in cement companies is more likely when there has been decline in current ratio level deprecation level and significant increase in interest expenses level.

4) The likelihood of reducing / omitting dividend payout by chemical and fertilizer companies is higher with reduction in Return on Asset (ROA) and decline in growth in sales over the past three years.
5) It is found that IT companies are more likely to reduce / omit paying dividends if there is a decline in cash position, increase in depreciation and decline in interest expenses.

6) It is likely for oil and gas companies to reduce / omit paying dividends if there has been decline in ROA in the past and present even if there is a marginal increase in their cash position.

7) The reduction / omission of paying dividend among paper manufacturing companies is highly possible when there has been significant decline in current year ROA even if there has been an increase in the previous year ROA at mentionable level.

8) The probability of reducing / omitting dividend payout is higher when there is decline in current year ROA and growth in sales over the past three years irrespective of the significant increase in owner equity and previous year ROA of pharmaceutical companies.

9) The likelihood of reducing / omitting paying dividend by shipping companies is more if there is an increase in share holders’ equity, interest expenses and decrease in ROA and depreciation even if there is an increase in cash position over the period of time.

10) The steel companies are more likely to reduce /omit the dividend if there is a decline in shareholders’ fund and increase in interest expenses.

11) The odds of reducing / omitting dividend increases with significant increase in cash position and marginal decrease in depreciation even if there is remarkable decline in shareholders’ equity and current year ROA for sugar manufacturing companies in India.

12) It is more likely for Textile companies to reduce / omit paying dividend if there is a significant decline in current year ROA, marginal decline in Cash position, increase in liquidity position (Current ratio) and increase in interest
expenses despite there has been a significant increase in growth in sales over three years and ROA in the previous year.

13) The Indian companies with small investments are more likely to reduce / omit the dividend if there is a remarkable decline in current year ROA and substantial increase in interest expenses.

14) It is highly probable for the Indian companies with medium investments to reduce / omit the dividend if there is a significant decrease in current year ROA.

15) The probability of reducing / omitting the dividend payout among Indian companies with large scale investments is higher with significant decline in current year ROA and marginal increase in shareholders' equity.

16) It is found that the Indian companies are more likely to reduce / omit paying dividend if decline in ROA and increases in shareholders' equity, depreciation and interest expenses are at mentionable level.

Based on the findings from the empirical analysis of the financial data of selected companies by industry-wise and size-wise in respect of dividend payout and dividend policy decision, the following conclusions are made. The interpretation of the results of the trend analysis, the homogeneity (consistency) in dividend payment across all industries is seen. Further, industry-wise and size-wise results of LGR values as well as from LGR values for all industries in respect of net earnings and equity dividend payment are significant with positive sign. The positive significant LGR values for dividend payout with consistency in the trend lead to the conclusion that the trend and growth in dividend payment is positive and linear over the period under study, which is against the first null hypothesis i.e., the trend and growth in dividend payment of the Indian companies is not linear. Overall it is concluded that companies across all industries though having adopted stringent
dividend policy (except IT companies) to consolidate their financial position, kept increase in paying dividend over the period of time in order to create goodwill among the investors.

Regarding the determinants of dividend policy towards paying dividends, it is concluded that Lintner’s model and extension of Lintner’s model with inclusion of depreciation (Brittain’s explicit depreciation) best describe the dividend policy of the companies across most of the industries. It is further concluded from the application of basic and extended dividend model that current year profit after tax and dividend paid in the past in addition to current year depreciation are found to be the basic determinants of the dividend policy of Indian companies. This leads to the conclusion that paying dividend to the shareholders is decided based on the status of profitability and depreciation in the current year as well as the dividend policy in the past. The above inferences disproved the null hypotheses which read as follows: i) there is no impact of profitability on dividend policy of Indian companies, ii) the current year dividend policy is independent of the dividend policy of the companies in the past in India and iii) there is no significant influence of depreciation on equity dividend payment of companies in India of the present study. Regarding other determinants, based on the application of regression model with other fundamental variables, it is identified that dividend paid in the past has unique positive influence whereas interest expense, dividend taxation and tangibility have unique negative influence on dividend policy of Indian companies at a significant level. It seems that there is a remarkable increase in paying dividend if dividend was paid in the past, but it tends to decline with increase in debt level (increase in interest expense) and with increase in capital investments (increase in tangibility). As there is significant unique (negative) relationship between tangibility and dividend payout policy, the null hypothesis i.e., there is no significant relationship between dividend payout and tangibility in Indian companies becomes invalid.
With regard to factors associated with reduction / omission in dividend payout among Indian companies, it is identified that Cash position, shareholders' equity, Return on Assets (ROA), depreciation and interest expenses are important factors associated with odds of reduction / omission in dividend payout of companies across industries. But, based on the size of investments, it is concluded that ROA is the primary factor to predict the dividend reduction / omission. Hence, the likelihood of reducing / omitting the dividend payout to equity shareholders is significantly higher with decline in profitability, increase in interest expenses as well as increase in tangibility. The above conclusions lead to the rejection of null hypotheses which read as follows: i) there is no significant relationship between reduction / omission in dividend payout and decline in profitability of Indian companies, ii) the probability of reducing / omitting the dividend payout is significantly higher with increase in debt fund in capital and iii) the likelihood of reducing / omitting the dividend payout is significantly higher with increase in capital investment. On the whole, it is concluded that the depreciation and the interest expenses in addition to ROA are the important factors predicting the odds of reducing / omitting the dividend payout of companies in India.

6.6 SUGGESTIONS

The following suggestions are made based on the inferences of the entire study

- It is observed that almost all companies across industries in India have been paying dividend to their Equity share holders consistently. Hence it is suggested that the risk-averse investors who prefer cash dividend may make investments in equities of Indian companies than other mode of investments like government bonds, real estate, etc., on long-term basis.
• It is found that majority of the companies have been paying varying rates of dividend. Hence, it is suggested that instead of paying dividend at varying rates from year to year, they may consider paying fixed portion of their net earnings as dividend and re-invest the remaining net earnings for business expansion. By doing this, the companies may avoid too much dependence on debt capital and this will improve Shareholders' Value also.

• It is found that paying dividend to shareholders in Indian companies is positively determined by the previous year dividend and current year profit after tax, negatively by current year depreciation and interest expense. Hence the companies are suggested to consider the status of profitability, interest on debt and depreciation in the current year as well as the dividend policy in the past before taking dividend decision.

• It is found that the Indian companies are more likely to increase / initiate paying dividend if increase in ROA and decline in depreciation and interest expenses are at significant level. Hence the companies are suggested to consider the level of depreciation and interest payment before initiating / increasing the dividend based on the Growth in Sales.

• The long term capital gains on Equity Shares are not taxed when they are traded in recognised stock exchanges in India and this may motivate only the institutional investors, who expect more capital appreciation than regular income, to invest in the Shares of Joint Stock companies but not the general public. Hence, it is suggested that in order to attract the general public for making investments in equities in large numbers, the Government may make the dividend payment a compulsory one and may withdraw Dividend Tax to avoid double taxation.
6.7 AREAS OF FURTHER RESEARCH

In this study the determinants of dividend policy in Indian industries is studied by taking 119 companies from 11 industries as sample. Further studies can be made in depth regarding dividend policy of Indian industries on the following areas:

1) Companies Dividend policy and its successfulness in creating shareholders wealth.

2) Relationship between the firm dividend policy and its impact on market value (Market Capitalisation).

3) Determination of specific dividend model that would fit better in respect of companies that have consistently been grouped under BSE 30 and BSE 100 for a number of years by Bombay Stock Exchange.