

Dividend behavior of selected companies in India

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Abstract: Dividend decision refers to the quantum of profits to be distributed as dividend among the shareholders. It involves the decision to pay out earnings to the shareholders or to retain them for reinvestment in the firm. There is a reciprocal relationship between retained earnings and cash dividends i.e. larger retentions mean lesser dividends whereas smaller retentions imply larger dividends. Thus, the alternative uses of net earnings- dividends and retained earnings- are competitive and conflicting. Consequently the firm has to balance between the growth of the company and the distribution to the shareholders. The amount of dividend payable to the shareholders depends upon the kind of dividend policy being pursued by the company. Dividend Policy is one of the most important financial policies, not only from the view point of the company but also from that of shareholders, the consumers, the workers, and the government. Value of the corporate securities depends to a great extent on dividend. It was literally said on Wall Street, “the purpose of a company is to pay dividends”. Today, the investor’s view is a bit more refined; it could be stated, instead, as, “the purpose of a company is to increase my wealth.” This paper will examine the relationship between a firm’s dividend policy and its earnings with the help of Lintner’s Model. The study shall be mainly based upon secondary data which shall be collected from annual reports of companies, related websites and PROWESS. The study shall cover the period from 2006-2010. The collected data will be tabulated and analyzed with suitable statistical tools.

Keywords: Companies, Divided Policies, share, Lintner’s Model

INTRODUCTION

Dividends are payments by a corporation to shareholders and represent a return on the capital directly or indirectly contributed by the shareholders. Sound dividend decision making is important for any company as it influences its share prices in the market, maximizes its shareholders’ welfare and enhances its reputation in the market. So, company has to be very cautious in dividend decision. Dividend decision refers to the quantum of profits to be distributed as dividend among the shareholders. It involves the decision to pay out earnings to the shareholders or to retain them for reinvestment in the firm. There is a reciprocal relationship between retained earnings and cash dividends i.e. larger retentions mean lesser dividends whereas smaller retentions imply larger dividends. Retained earnings help the firm to concentrate on the growth, expansion and modernization of the firm. Thus, the alternative uses of net earnings- dividends and retained earnings- are competitive and conflicting. Consequently the firm has to balance between the growth of the company and the distribution to the shareholders. The amount of dividend payable to the shareholders depends upon the kind of dividend policy being pursued by the company.

During the first part of the twentieth century, dividends were the primary reason for which investors purchased stock. It was literally said on Wall Street, “the purpose of a company is to pay dividends”. Today, the investor’s view is a bit more refined. As per this view, “the purpose of a company is to increase shareholders’ wealth.” Indeed, today’s investor looks to dividends and capital gains as a source of increase in his wealth. The board of directors holds a fiduciary position both with regard to the company as well as shareholders. The board of directors must make inter-alia the three decisions pertaining to investment, financing and dividends simultaneously as these three decisions are interrelated. The investment decision refers to the selection of assets (fixed as well as current) which determine the amount of funds required for this purpose. The concern of financial decision is with the financing mix or capital structure of a firm. It involves decision regarding the mix of different sources of finance i.e. debt and equity to raise the requisite amount of funds. On the other hand, the dividend decision relate to the amount and timing of any cash payments made to the company’s stockholders. Dividend policy decision influences the financing decision of the firm through retained earnings. After the need for funds for investment has been determined, the question to be

answered is to identify the sources to raise the requisite funds. Thus, given the amount of retained earnings, financing decision would relate to the amount of funds to be raised from external sources as the investment needs of a firm can be fulfilled by a combination of retained earnings and external financing. Therefore, higher the amount of retained earnings, given the investment needs, lower will be the need for external finance and vice-versa.

Depending upon the requirement of funds, the companies may follow stable dividend policies or flexible dividend policies. A stable dividend policy refers to consistency in the stream of dividends. The stability of dividends can take any of the two forms (i) constant dividends per share: according to this form, a company pays a certain fixed amount per share as dividend year after year, irrespective of the level of earnings, (ii) constant payout ratio: according to this form a company pays a constant percentage of net earnings as dividend to the shareholders. With this policy, the amount of dividend will fluctuate in direct proportion to earnings. On the other hand, by establishing flexible dividend policy, the firm can flexibly handle a period of temporarily high earnings by declaring an extra dividend in addition to regular payments. This allows a larger distribution of earnings without raising the expectations of investors.

There are two theories on dividend policy (i) The Dividend Irrelevance Theory view that the value of a firm depends solely on its earnings power and is not influenced by the manner in which earnings are split between dividends and retained earnings. So, dividends do not really matter, because they do not affect firm value. (ii) The Dividend Relevance Theory, on the other hand, expostulates that the value of the firm is affected by its dividend policy. The optimal dividend policy helps in increasing the value of the firm to the maximum.

REVIEW OF LITERATURE

A lot of studies have been conducted on dividends till today. The studies conducted by the researchers both in developed as well as in developing countries has thrown light on different aspects of a dividend decision. Linter [1] conducted a classic study on how U.S. managers make dividend decisions. According to him the dividend payment pattern of a firm is influenced by the current year earnings and previous year dividends. Baker, Farrelly and Edelman[2] surveyed 318 New York stock exchange firms and concluded that the major determinants of dividend payments are anticipated level of future earnings and pattern of past dividends. Pruitt and Gitman [3] then asked financial managers of the 1000 largest U.S. and reported that, current and past year' profits are important factors influencing dividend payments. Mahapatra and Sahu [4] found that cash

flow is a major determinant of dividend followed by net earnings. Bhat and Pandey [5] found that managers perceive current earnings as the most significant factor, whereas Anuar MM *et.al* [6] reveal that dividend payments depend more on cash flows, which reflect the company's ability to pay dividends, than on current earnings, which are less heavily influenced by accounting practices and Baker and Powell [7] concluded from their survey of NYSE-listed firms that dividend determinants are industry specific and anticipated level of future earnings is the major determinant.

Miller and Modigliani [8] in their most celebrated articles, "Dividend Policy Growth and the Valuation of Shares," advanced the view that the value of a firm depended solely on its earnings' power and is not influenced by the manner in which its earnings were split between dividends and retained earnings. Survey of 562 New York Stock Exchange (NYSE) firms with "normal" kinds of dividend policies in 1983 by Baker, Farrelly, and Edelman [2]) found that the major determinants of dividend payments were the anticipated level of future earnings and the pattern of past dividends. Karak [9] examined "the policy decision regarding divisible profit and dividend decision" and concluded that corporate management in India, as a rule, had recently followed conservative policies with regard to dividends. The study conducted by Chihwa and Chunchi [10] indicate that dividends reflect past, current and future earnings information. Garrett and Priestley [11] suggest that managers retain a large proportion of unexpected permanent earnings and also, the dividends convey information regarding higher current permanent earnings.

In Malaysia, Annuar and Shamsher[6] found that the dividend decisions of the firms partially depended on their current earnings and past dividends, and firms have long-term target dividend which is conditioned upon their earnings ability. DeAngelo et al. [12] posited that the high/increasing dividend concentration may be the result of high/increasing earnings concentration. There was also strong link between losses and the failure to pay dividends. Their findings suggest that earnings do have some impact on dividend payment. Goergen et al. [13] analysed the decision to change the dividend for 221 German firms over 1984–1993. Their results showed that net earnings were the key determinants of dividend changes.

All the above studies are concentrating on dividend payout affected by current as well as earnings and past year dividends. Studies concentrating on other factors of dividends are also reviewed for the present study. Gillepie[14] studied the difference between firms which increased their dividend payments and firms which maintained the same payment and concluded that firms which increased their dividend payment showed a

smaller change in earnings in the period after the dividend increase than firms which maintained the same payment. Jayadev [15] attempted to study “the dividend determinants- earnings, cash flows, investment demand, debt, interest payment and liquidity” and found that earnings, cash flows, flow of debt and liquidity had direct and positive affects on dividends whereas investment demand and interest payment were expected to have negative association with dividends. Reddy [16] concluded that firms appear to prefer the pecking order of funds in building their larger asset base. Kanwal and Kapoor [17] concluded that there is significant correlation between two variables- dividend payout ratio and cash from operations while weak correlation between other variables. Moreover, liquidity is an important determinant of dividend payout ratio thereby indicating that a good liquidity position increases firms’ ability to pay dividend. Gill *et al.* [18] seeks to find out whether several factors as per available literature influence the dividend payout ratio of American service and manufacturing firms or not. Results found a positive relationship between profitability and payout in the entire sample, between cash flow and dividend payout ratios, between tax and dividend payout ratio, but a significantly negative relationship between historical sales growth and dividend payout and other factors. As different results were found for the two different industries, study concludes that dividend determinants are industry specific.

Dobrovolsky[19] analyzed the factors influencing retained earning by using regression analysis and reported that the amount of retained income of large Manufacturing Corporations depended to a large extent, on current profitability, continuity of dividend policies and rate of operating asset expansion. Linter [1] tested the dividend pattern of 28 companies for the period of 1947 – 1953 with the help of regression analysis. He concluded that a major portion of dividend of a firm would be expressed in terms of firm’s desired dividend payment and target payout ratio. Darling PG [20] undertook a study on dividend behavior with the help of multiple regression analysis and reported that the dividends tended to vary directly with current profit, lagged profits, the rate of amortization recoveries and shift in anticipation of future earnings; and inversely with persistent changes in level of sales.

Fama and French [21] found that payers and non-payers differ in terms of profitability, investment opportunities, and size. Their evidence suggests that three fundamentals profitability, investment opportunities, and size – are factors in the decision to pay dividends. The salient characteristics of former dividend payers are low earnings and few investments. Mitton [22] wrote that size and growth, in addition to profitability has been proven to be positively correlated with dividend payouts. Li and Lie [23] reported that

firms are more likely to raise their dividends if they are large and profitable and the past dividend yield, debt ratio, cash ratio, and market-to-book ratio are low. Firms are more likely to cut their dividends if they have poor operating income, low cash balances, and a low market-to-book ratio. Liu and Hu [24] in his study of Chinese listed firms found that cash dividend payment was higher than the accounting profit. Agency theory has also been a popular view in the discussion of dividends relevancy, as been advanced by Jensen and Meckling [25] and later extended by Rozeff [26].

Literature available reveals that there have been a lot of studies across the world to determine the factors affecting dividend behaviour of firms but studies where dividend payout ratio is associated with current earnings and past dividends have not been conducted from last few years. Moreover, studies on these determinants are performed industry-wise, not in overall economy. It is with this consideration in mind that the present study "Dividend Behaviour of selected companies in India" has been conducted.

OBJECTIVE OF THE STUDY

The present study is undertaken with an objective 'To examine the relevance of Lintner’s Model in the Indian context'. Lintner’s model is explained with the help of formulation as follows:

$$D_t = a + b_1 * D_{t-1} + b_2 * E_t + e_t$$

Where,

- D_t = Dividend per share at time t
- D_{t-1} = Dividend per share at time t-1
- E_t = Earnings per share at time t
- e_t = Error term
- a, b_1 , b_2 = Regression parameters

In the above model, D_t is dependent variable whereas D_{t-1} and E_t are explanatory variables.

RESEARCH METHODOLOGY

Scope of the Study

The scope of the study is limited to examine the relevance of Lintner’s model in the Indian context by taking all the companies listed on BSE (Bombay Stock Exchange) 500 as on March, 2011 as the sample of the study.

Sample for the Study

The sample of the present study constitutes all 500 companies listed on BSE (Bombay Stock Exchange) 500 as on March, 2011. The study covers the period of two year i.e. FY-2010 to FY-2011.

Sample Size

The size of the sample shall be all 500 companies comprising BSE (Bombay Stock Exchange) 500 as on March, 2011. This sample constitutes the companies from all the sectors in India.

Data Collection for the Study

The data for the study has been collected through secondary sources. It has been gathered from PROWESS – a database of Center for Monitoring Indian Economy. Other sources include related published and unpublished reports. After collecting the required data, data has been analyzed by using regression analysis through SPSS, an analytical tool.

FINDINGS OF THE STUDY

To investigate the relationship between dividend and explanatory variables, multiple regression analysis was used. It was observed that dividend could be modeled using a multiple regression analysis that links dividend to previous year dividend and current year earnings. In order to facilitate the analysis, a stepwise regression was performed. A stepwise regression is a useful tool when dealing with many explanatory variables. It is an attempt to find the best regression model without testing all possible regressions. In such regression, variables are either added to or deleted from the regression model at each step in the model development process. The regression ends with the selection of the best fitting model where no variable can be added or deleted from the last fitted model. It was recognized that the use of all explanatory variables to predict dividend might give rise to some redundant variables and multicollinearity problems. A

stepwise regression was, therefore, employed to remove a previously entered variable that became redundant.

Relationship analysis for year 2010 taking dividend of current year as dependent variable and earnings of current year and dividend of previous year as independent variables:

To examine the fit of the regression model and to identify the best predictors of dividend, stepwise regression was used with the explanatory variables as the predictors. Preliminary analysis revealed no violation of the assumption regarding sample size, multicollinearity and outliers.

The model summary table-1 reports the strength of the relationship between the model and the dependent variable. The table displays R, R square (R^2) and adjusted R^2 , and the standard error of the estimate. R, the multiple correlation coefficients, which is defined as the linear correlation between the observed and model-predicted values of the dependent variable, has a large value. Its large value indicates a strong relationship between the two constructs. R Square, the coefficient of determination which is the squared value of the multiple correlation coefficients is also illustrated in table-1. It can be seen that the regression model explained 71.8% of the variance in the dividend construct.

Table- 1: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.848 ^a	.718	.717	181.68109

a Predictors: (Constant), current_earnings, dividend_previous

Table-2 summarizes the results of an analysis of variance. The objective of ANOVA table is to test the acceptability of the model from a statistical perspective. The sum of squares, degrees of freedom and Mean Square are displayed for two sources of variation, regression and residual. The regression row displays information about the variation accounted for by the model. The residual row displays information

about the variation that is not accounted for by the model i.e. error term. It was found the regression sum of squares is higher than the model explained residual sum of squares, which indicate that most of the variation in dividend is explained by the above variables. The significance value of the F statistic is less than 0.05, which means that the variation explained by the model is not due to chance.

Table- 2: ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	41533393.160	2	20766696.580	629.141	.000 ^a
	Residual	16272952.937	493	33008.018		
	Total	57806346.097	495			

a Predictors: (Constant), current_earnings, dividend_previous

b Dependent Variable: dividend_curret

It can be seen that the dividend model fits the data very well (adjusted $R^2=0.717$). All the explanatory variables were found to be significant which suggests

that, in selected companies, dividend is driven by number of dimensions taken. A closer scrutiny of the results in table 4 show that the both the explanatory

variables in the dividend, namely, dividend of previous year and earnings of current year are significant predictors of dividend of current year in Indian companies. Therefore, it can be concluded that previous year dividend and earnings of current year are significant predictors of dividend of current year. Moreover, it was also found that significance level of

previous year dividend and current year earning for dividend of current year is very high.

$$\text{Dividend} = -1.186 + 0.743 * \text{previous year dividend} + 0.093 * \text{current year earnings}$$

This equation shows that previous year's dividend and current year's earning are positively associated with dividend of current year.

Table- 3: Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta	B	Std. Error
1	(Constant)	-1.186	8.751		-.136	.892
	dividend_previous	.743	.058	.474	12.814	.000
	current_earnings	.093	.008	.429	11.586	.000

a Dependent Variable: dividend_curret

At each stage of a regression analysis SPSS provides a summary of any variables that have not yet been entered into the model. The summary gives an estimate of each predictor's b value if it was entered into the equation at this point and calculates a t-test for this value. SPSS enters the predictor with the highest t-statistic and will continue entering predictors until there are none left with t-statistics that have significance values less than 0.05. Therefore, the final model might not include all of the variables you asked SPSS to enter. But there are no excluded variables found during the analysis.

CONCLUSION AND SUGGESTIONS

Study concludes that dividend of current year is positively associated with the dividends distributed in the previous year as well as with earnings of current year (i.e. earnings available in current year to be distributed as dividends as well as to reinvest for the growth of the company), which states that Lintner's model is relevant in Indian context.

The scope of the study is limited to examine the relevance of Lintner's model in the Indian context; a study can be conducted worldwide and a study considering other models than the one examined in this study can also be conducted. The sample of the present study constitutes a small sample; a similar study for a large sample size can also be conducted. The study covers the period of two years; study for a larger time period can also be conducted. Moreover, other determinants affecting the dividend decision of a firm can also be studied.

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