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Does Dividend Policy Affect the Value of Firm?

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Abstract: Dividend policy has been an extensively researched zone but still rests as a mystery as to its effect on value of the firm. The indecisiveness of the theories on effect of dividend payment on value of the firm has made it more debatable and thus more of empirical studies are required for its investigation. This study identifies whether dividend policy affects performance of BSE-500 companies. The study has been conducted on the secondary data. The data used in this research was obtained Prowess Database of CMIE for twelve year period from 2003 to 2014. The data has been by employing descriptive statistics, correlation and multiple regression models. The result concluded that the future growth rate was found having no significant correlation with the dividend payout ratio**.** It was also found that return on equity growth and earnings per share have significant impact on the value of the firm whereas dividend payout and retention don't have a significant impact on the same.

Key Words: Dividend, Growth Rate, Correlation, Multiple Regression

INTRODUCTION

Dividend Policy is one of the tormenting puzzles in finance. The current earnings, past earnings as well as the dividend payment pattern have always been an indicator of dividend policy of any companies (Lintner 1956). Dividend policy of a firm has repercussion for mangers, lenders and investors and other stakeholders (more precisely the claimholders). For investors, dividends – either announced today or collected and provided at a later date are not only a way of steady revenue, but an imperative input too in valuation of a firm. Likewise, managers' suppleness to finance in projects is too reliant on the amount of dividend that they can bargain to shareholders as greater the dividends may mean lesser funds available for investment. Lenders might also have curiosity in the amount of dividend a firm declares, as higher the dividend paid fewer would be the amount available for servicing and refurbishment of their claims. The payment of dividend show an instance of the classic agency condition as its effect is tolerated by numerous claimholders. Consequently, dividend policy can be utilized as a apparatus to lessen agency costs. The dividend payment

diminishes the unrestricted funds available to managers for privilege consumption and investment opportunities and necessitates the managers to seek financing in capital markets. This observation by the external capital markets may inspire the mangers to be more controlled and act in owners' best interest.

The primary element of corporate policy is the firm's dividend policy decisions. Dividend is determined by the various elements in an organization and these elements include financing restrictions, investment opportunities, firm dimension, regulatory regimes, profitability, cash flow and many others. Though, the payment of dividend by the organization is not only the basis of cash flow to the shareholders however it also gives evidence relating to company's existing and upcoming performance. A substantial amount of research, including Bhattacharya (1979; 1980), Linter (1956), Miller & Rock (1985) recommend that dividend policies of companies are intended to disclose the retributions visions to investors. Dividend policy might affect the value of the firm due to two reasons. First, capital gain tax is different from dividend tax. If the firm could condense the tax by transmuting the dividends into capital gains, shareholders might value the firm at a corresponding higher level. Secondly, payment of dividends could provide the important information about the viability of new investment opportunities that it desires to convey to shareholders.

Dividend policy has constantly deliberated as one of the maximum noteworthy financial policies from all the aspects of company, shareholders, consumers, employees, regulatory bodies and the Government. For an organization, it is an essential policy around which other financial policies gyrate (Alii, K.L., Khan, A.Q. & Ramirez, G.G, 1993). Payment of Dividend or allocation of profit is one of the most important decisions of the financial management. Dividend distribution decisions are imperative as they regulate about the funds to be given to the investors' funds to be reserved by the firm for future investment (Ross, S.A., Westerfield, and R.W. & Jaffe, J., 2002). Payment of dividend gives a signal for the firm's performance. Investment decisions of the companies govern prospect earnings and future impending dividends, and impact the cost of capital (Foong, S.S., Zakaria, N.B. & Tan, H.B. (2007). Thus, Dividend policy decisions are considered to be one of the most crucial financial decisions that corporate managers make. (Baker and Powell, 1999). This decision has potential repercussions for share prices and returns to investors, the financing of inner progress and the equity base through retentions together with its gearing and leverage (Omran & Pointon, 2004).

Researchers have diverse understandings about whether dividend payout essentially moves the long term share prices. The research conducted by Dhanani, (2005) apprehended the managerial sights and attitudes of corporate managers concerning dividend policy and established that dividend policy helps to augment corporate market value. However, Farsio, F., Geary, A., & Moser, J., 2004 contends that empirical studies that determine a causative relationship exists between earnings and dividends are built on short periods of time and thus disingenuous to potential investors. Therefore, dividends have no clarifying influence to envisage future earnings. This research therefore tries to establish whether a relationship exists between the dividend payout and firm performance.

LITERATURE REVIEW

Views about dividend policy have changed dramatically over the years. As Weigand and Baker (2009) note, two distinctly different approach branches of thought emanate from the early literature on corporate distribution policy. One common stream of thought before the 1960s asserts that dividends are an important determinant of firm's value. Specifically the belief was that higher dividend payouts lead to higher stock valuations. William (1938) was among the first economists to view the stock prices as determined by

"intrinsic value" and to articulate the theory of dividend based valuation. Graham and Dodd (1951), Lintner (1956) and Gordon (1959) provide early argument that an increase in the dividend payout increases a firm's stock price and lower its cost of equity.

In contrast to this prevailing opinion, Miller and Modigliani (1961; hereafter MM), in a pioneer work, rebelled against the popular sentiments of the time. The purpose of MM was to point out what conditions would need to exist for dividends to be irrelevant. Based on a simplifying set of assumptions involving perfect and frictionless capital markets, MM argued that given a firm's optimal investment policy, its choice of dividend policy is irrelevant for the firm's value.

Many studies have been conducted to enlighten the relevance of dividend policy and its effect on firm's value, but there is no universal explanation for the same (Stulz, 2000; Pandey, 2003; DeAngelo *et al.*, 2006). Amidu (2007) discovered that dividend policy influences company's performance as measured by its profitability. The outcomes demonstrated a positive and noteworthy association between return on assets, return on equity, growth in sales and dividend policy. Howatt *et al.* (2009) also established that positive changes in dividends are linked with positive future changes in earnings per share.

The major objective of the firm is to maximize the shareholder's wealth (Pandey, 2005). The main factors affecting the shareholders' wealth are sales growth, profit growth, capital budgeting decisions and capital structure decisions (Azhagaiah & Priya, 2008). The dividend policy of any firm may mark the value of the firm and thus improves shareholders' wealth (Baker *et al.*, 2001). It has also been argued that if the firm cannot identify the profitable investment then it must pay the dividends to shareholders. Frankfurtet & McGoun (2000) established that the dividend puzzle, both as a share value-enhancing feature and as a matter of policy is one of the most perplexing topics of modern financial economics. Mizuno (2007) approves to the fact that a firm need to pay dividends to shareholders if it cannot classify suitable investments opportunities that would bring higher returns than those expected by the shareholders.

Amidu (2007) concluded that dividend payment decisions impact the performance of the firm principally the profitability as measured by return on assets. The outcomes disclosed a positive and noteworthy relationship between return on assets, return on equity, growth in sales and dividend policy. This indicates that the firm's profitability is affected when a firm has a policy to pay dividends. The results also showed a statistically noteworthy relationship between profitability and dividend payout ratio. A study by Howatt *et al.* (2009) also resolved that positive changes in dividends are concomitant with positive imminent changes in mean real earnings per share.

RESEARCH METHODOLOGY

The present study used the secondary data for the analysis purpose. Effect of Dividend Yield, Retention Ratio, Profit after Tax, Earnings per Share and Return on Equity Growth are seen on the Market Price per Share of the companies under consideration.

Research Objectives

The main aim of the research is to create the affiliation between dividend payout and firm performance among companies listed on BSE 500. The research was also channeled by the following specific research objectives:

1. To form the relationship between dividend payout and performance of companies among listed companies in BSE 500.
2. To ascertain the relationship between current dividend payout and future earnings & share prices.
3. To study the impact of dividend payout on the firm performance.

Research Variables

For our study, final dividend is taken as a representation for the dividend yield of the firms and closing price is taken as a representation of the market price of the firms. Profit after tax and earnings per share are taken as it is as available from the data base. On the other hand, retention ratio and return on equity growth are calculated from other variables.

Research Techniques

Panel Data Regression analysis is therefore carried out to fulfill the objectives. The regression equation that is thus addressed is as follows:

$$MPPS = \alpha + \beta_1 D + \beta_2 RR + \beta_3 PAT + \beta_4 EPS + \beta_5 ROE + \varepsilon \quad (1)$$

Where MPPS = Market Price per Share

D = Final Dividend Paid

RR = Retention Ratio

PAT = Profit after Tax

EPS = Earnings per Share

ROE = Return on Equity Growth

β_1, β_2, β_3, β_4, β_5 = Coefficients

Another method that has been used is the one deployed by Mirzabekov (2010) and Zhou & Ruland (2006) in their respective studies. The method was employed so as to find the relationship between current dividend payout and future earnings& share prices. Two year future growth rate was found for the latter two variables and then compared with current dividend payout.

For example, 1 year future growth rate for any particular year can be calculated as:

$$GR_i = \frac{FE_{i+1} - FE_i}{FE_i} \quad (2)$$

For calculating two year future growth rate, arithmetic mean is taken of 2 growth rates, current year and consecutive next year according to the following equation:

$$GR_{2i} = \frac{GR_i + GR_{i+1}}{2} \quad (3)$$

Correlation was applied to each year data between GR_{2i} and DPR_i which gave insights on the relationship that exists between dividend payout and the other two variables.

The data used in this research was obtained PROWESS DATABASE of CMIE for twelve year period that is, from 2003 to 2014. The population for the study consisted of the companies listed on BSE-500.

ANALYSIS AND DISCUSSION

The dividend paid by a company is known to impact the earnings of a company. The panel data regression analysis was conducted to see the impact of retention ratio, earnings per share, profit after tax, return on equity growth and final dividend paid on the market price of the share. The detailed results for the objective are presented in Appendix C at the end of the report.

Pooled OLS Regression

The results of Pooled Ordinary Least Square (OLS) Regression method give results as given in Table 1. The regression coefficient for this model was found to be $R^2 = 0.428606$, $p = 0.00$.

Table 1
Pooled OLS Regression results for Panel Data

	Estimate	*Std. Error*	*t value*	*p value*
(Intercept)	161.2842	16.87872	9.555478	0.0000***
Earnings per Share	9.136300	0.195025	46.84681	0.0000***
Retention Ratio	-0.826239	11.54928	0.071540	0.9430
Return on Equity Growth	6.840937	1.444172	4.736925	0.0000***
Profit after Tax	-0.001306	0.001180	1.106879	0.2684
Final Dividend	0.011465	0.006165	1.859626	0.0630

Signif. codes: 0.05 '***'

Earnings per share (99.9%), return on equity growth (99.9%) and final dividend (90%) were found having significant positive impact on the closing price which represents the market price of the firms.

Fixed Effects Model

The results for Fixed Effects Models are shown in Table 2. The regression coefficient for this model was found to be $R^2 = 0.598525$, $p = 0.00$.

Table 2
Fixed Effects Model results for Panel Data

	Estimate	*Std. Error*	*t-value*	*p value*
(Intercept)	171.0630	16.42479	10.41493	0.0000***
Earnings per share	9.667087	0.224101	43.13726	0.0000***
Return on Equity Growth	2.334859	1.523910	1.532150	0.1256
Retention Ratio	1.875737	10.18334	0.184197	0.8539
Profit after Tax	0.000409	0.001649	0.248243	0.8040
Final Dividend	-0.002882	0.006906	-0.417293	0.6765

Signif.codes: 0.05'***'

'Earnings per share' was found to be the only significant variable in this model that has an effect on the market price of the firms.

Fixed versus OLS

When F-test was applied to know as to which test is better out of Pooled OLS Regression Method and Fixed Effects Method, the results furnished $F = 5.0278$, $df1 = 453$, $df2 = 3858$, $p<0.05$. This implies the acceptance of alternate hypothesis i.e. Fixed Effects Method is better than Pooled OLS method.

Random Effects Model

The results for Random Effects Models are shown in Table 3. The regression coefficient for this model was found to be $R^2 = 0.382198$, $p = 0.00$.

Table 3
Random Effects Model results for Panel Data

	Estimate	*Std. Error*	*t-value*	*p value*
(Intercept)	168.3982	26.75792	6.293398	0.0000***
Return on Equity Growth	3.523626	1.438261	2.449921	0.0143***
Retention Ratio	1.208609	10.09152	0.119765	0.9047
Final Dividend	0.001424	0.006460	0.220437	0.8255
Profit After Tax	-0.000099	0.001386	-0.071166	0.9433
Earnings per Share	9.517595	0.208140	45.72696	0.0000***

Signif.codes: 0.05 '***'

The results show that Earnings per share and return on equity growth have significant positive impact on the market price represented by the closing price of the firms.

Hausman Test

When Hausman Test was conducted to know which method is better out of Fixed effects and random effects model, the following results were furnished, $chisq = 10.981213$, $df = 5$, $p = 0.0518$.

It was thus found that out of all the regression methods, random effects worked the best for the model discussed under this objective. The results that were found pointed out the two variables that came out to be significant in the random effects model i.e. the return on equity growth and the earnings per share.

The correlation was calculated between the dividend payout ratio of a company and its two-year future growth rate. The DPR might take some time to show its effect on the growth rate of the company. This is the reason that the growth rate was considered for two years in future. The correlation coefficient between DPR in a year and two-year future growth rate was found to be $R = .027$, $p=0.096$ i.e. no significant correlation between the two variables. It can be therefore concluded that the dividend payout ratio is not related to the growth rate of the company and has no capacity to affect it in the future. Although two-year future growth rate was considered but the effect of DPR was still not found.

Table 4.4
Correlation Analysis between DPR and 2-year future GR

		Dividend Payout Ratio	*Two-year Future Growth Rate*
Dividend Payout Ratio	Pearson Correlation	1	.027
	Sig. (2-tailed)		.096
	N	6949	3827
Two-year Future Growth Rate	Pearson Correlation	.027	1
	Sig. (2-tailed)	.096	
	N	3827	3829

CONCLUSION

The main aim of the study was to scrutinize corporate dividend policies of BSE-500 for a period of 2003-2014. The analyses were performed using data from Prowess Database of CMIE. The OLS, Fixed effect and Random effect model were deployed to estimate the regression equation. Using the method of correlation coefficient it was concluded that the future growth rate, considered as a representation of the future earnings was found having no significant correlation with the dividend payout ratio. Therefore, combining the two it could be implied that the paying out of dividend doesn't affect the future earnings in any manner. The impact of dividend policy was also seen on the share prices of the concerned firms. This objective was addressed using the panel data regression technique. Along with dividend policy (or dividend payout) other factors like retention ratio, profit after tax, earnings per share and return on equity growth had also been seen on the market share prices of these firms. The results have shown that for the firms that have been considered in this paper, it was return on equity growth and earnings per share that had significant impact on the market price per share. Dividend paid and retention didn't have a significant impact on the same.

LIMITATION AND SCOPE FOR FUTURE RESEARCH

This study is conducted on the secondary data where the variables value were highly fluctuating and missing. Though missing data has been abolished to see the impact but this study proves to be only indicative and not conclusive. The data of some more variable like revenue, total assets value may help to improve the visibility and decision making power of this study.

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