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DIVIDEND PAYOUT AND FIRM VALUE: EVIDENCE FROM INDIAN COMPANIES

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Abstract
The debate surrounding the relevance of dividend policy towards value of the firm fails to reach a consensus till today and remains a puzzle amid the financial economists. The present paper attempts to empirically examine the relationship between dividend policy and value of the firms in India using panel data over seven year period from 2009 to 2015. The sample for the study consists of 63 non-financial and non-government companies listed on NSE CNX 100. ROE and MBVR are used as a proxy to measure value of the firm whereas dividend payout is measured through percentage of DPS to EPS. The study controls for other variables which are expected to affect firm value such as size of the firm, leverage ratio, growth in assets and capital expenditure on fixed assets. Using Pooled OLS regression technique over a balanced panel data set for the study period, the results show a significant positive effect of dividend payout on value of the firm for both ROE and MBVR. Besides, size of the firm and leverage ratio of the firm are also found to significantly negatively influence value of the firm, both ROE and MBVR. The results provide evidence in support of relevance theories of dividend policy in enhancing value of the firm.

Keywords: Dividend Policy, Firm Value, Returns On Equity, Market To Book Value.

1. Introduction

Maximizing shareholders' wealth or shareholder value has been identified to be the ultimate goal of any business organization. Various policy and investment decisions taken by the management play a major role to pursue this objective. Management, as a representative of shareholders is liable and should be responsible to take such decisions and follow such strategies that enhances corporates' image and subsequently increases its firm value. This increase or decrease in the value of the firm is depicted in the share prices of the company. Various financing decisions that could have an impact on corporate value includes raising of funds, minimizing the cost of capital, and allocating funds in long term and short term investments which ultimately includes capital budgeting decisions. Besides these, dividend policy decisions might also have an impact on value of the firm. Pandey (2005) stated firmly that dividend policy is a decision taken by the finance manager whether the firm should distribute all profit or retain them or to distribute a portion and retain the balance.

The debate surrounding dividend puzzle finds its beginning with the irrelevance theory of dividends proposed by Modigliani & Miller (1961). They asserted that, under conditions of perfect market dividend policy of the firm is irrelevant in determining value of the firm and that any change in dividend policy shall indicate a change in managements' view of future earnings. They pointed out that shareholders; wealth is not affected by dividend decision as such, and that investors shall naturally be indifferent to the choice between dividends and capital gains. According to them "value of the firm is determined by its investment and financing decision with an optimal capital structure and not by its dividend decision" (Barman 2012, p.17). However, Modigliani and Miller's assumptions of the ideal world do not really exist. Moreover, bird in hand theory postulates that there exists a relationship between dividend payout and value of the firm. It states that since dividends are more certain, they are less risky than capital gains and therefore the investors would prefer dividends over capital gains (Linter, 1956; Gordon, 1959). Baker et al (2002) conducted a study to survey of Linter's model and shoed that majority of managers believed that the market places greater value on stable dividends than stable payout ratios. They also showed that managers agree to maintain uninterrupted record of dividend payment in that firm should avoid increasing its regular dividend if it expects to reverse the dividend decision in a year or so. Further, the signaling theory proposes that dividend policy can be used as a signaling device to communicate to investors, information about a firm's future prospects (Fairchild, 2010). The information conveyed through firm's dividend announcements can affect the investors' expectations with regard to firm's future earnings as investors use cash flow to equity as a way of valuing a firm. Moreover agency theory says that agency costs that arising from the separation of ownership and control is a major determinant of dividend policy. Since the incentives of self-centered managers differ from that of the shareholders, they may not always choose a dividend policy that maximizes shareholders' value but would adopt a dividend policy that enhances their own private benefits. Making dividend payout which reduces free cash flow available to the managers would thus ensure that managers maximize shareholders' wealth instead of utilizing funds for their private benefits (DeAngelo et al., 2006). According to Easterbook (1984) dividend payment by firms may force the managers to remain in the capital market and the principal value of keeping firms constantly in the market for capital is that the contributors of capital are very good monitors of managers which reduces the agency problem. According to Barman (2008, p.38) "the tax induced clientele argument is based on shareholders' different tax statues, which cause shareholders to have a preference in respect of return on investment". As cited in Firer et al (2002) "if

investors are rational, they should prefer lower taxes to higher taxes on the cash flows they receive from their investments, and this should lead to a preference for capital gains over dividends."

According to Barman (2008, p4) "if dividends are the key indicators of share price and share price is the key indicator of firm value, it should be that in order to maximize shareholders' wealth, shareholder should be awarded the highest combination of dividend and increase in share price". A considerable amount of studies and researches have been conducted to examine the relationship between dividend and value of the firm. However, dividend policy till today remains a puzzle amid the financial economists. Researches on the topic fail to reach a consensus and exhibit conflicting trends in dividend payments and firm value; from Miller & Modigliani (1961) to Gordon and Linter to Fama& French (2002). The economic theory discussing the role of dividend payout policy for enhancing value of the firm posits two arguments. The first part explains that dividend policy doesn't matter or is irrelevant for the market or firm valuation. Nonetheless, the other part argues that it does matter as information content to the public in the form of reaction mechanisms of the market to the dividend policy announcements. The present paper attempts to study the relationship between dividend policy and value of firms for a panel data of companies in India. It empirically tests the relevance of dividend policy decisions on value of the firm. The upcoming sections are organized as follows: section 2 discusses review of literature, section 3 and 4 presents the objective and hypotheses of the study respectively, research methodology is discussed in section 5 followed by results and discussion in section 6. Last but not the least section conclusion is given in section 7.

2. Review of Literature

Erasmus (2012)studied the influence of dividend yield and stability on share returns for a sample of 291 South African Companies listed on Johannesburg Securities Exchange (JSE) from 1990-2010. Four portfolios were created according to the level of dividend yield and each sample was allocated a portfolio based on whether a firm has high, medium, low or no dividend yields. Further the firms were ranked on the basis of their dividend stability within each portfolio. Using Capital Asset Pricing Model (CAPM), the study found that dividend yield influences share returns.

Murekefu&Ouma (2012) examined the relationship between dividend payout and firm performance for 41 selected companies in Kenya listed on Nairobi Stock Exchange from 2002 to 2010. Using regression analysis they found a strong and significant impact of dividend payout on profitability of the firms and concluded that dividend payout was a major factor affecting firm's profitability. They also found evidence in support of dividend payout and future earnings growth.

Uwuigbe, Jafaru and Ajayi (2012) investigated the relationship between financial performance and dividend payout among listed firms in Nigeria. Besides, it also looked at the relationship between ownership structure, size and dividend payouts. The data was collected for a sample of 50 firms for the period from 2006 to 2010. Using regression technique for analyzing the data, they found a significant positive association between the performance of firms and dividend payout. They also found that ownership structure and firm's size have a significant impact on dividend payout of firms.

Kandpal and Kavidayal (2015) analyzed the effect of dividend policy on shareholders' wealth of 30 selected Indian Banks listed and actively trading on Bombay stock Exchange (BSE). The sample data was collected for a 10 years period from 2003-2004 to 2012-2013. Share price was used as a proxy of shareholders' wealth. Using multiple regression analysis technique, the results revealed that there is a significant effect of dividend policy on share price of sample banks.

Amidu (2007) tested the impact of dividend policy on firm performance in Ghana. The sample for the study constituted 25 companies listed on Ghana Stock Exchange (GSE) for a period of eight years from 1997-2004. Return on Assets (ROA) and Return on Equity (ROE) were used as a proxy for firm performance whereas dividend payout ratio was used to measure dividend policy. Size was used as a control variable. Using ordinary least square (OLS) model to analyze the data, the study found a significant and positive relationship between return on assets and dividend policy. He reported that firm's dividend policy influences its profitability.

Azhagaiah and Priya (2008) analyzed the effect of dividend policy on shareholders' wealth in organic and chemical companies in India. Market price per share (MPS) was used as the dependent variable and dividend per share (DPS), Retained earnings per share (RE), Lagged price Earnings Ratio (Pe) and Lagged Market price (LMP) were used as independent variables. Using multiple regression models and stepwise regression models they found that dividend payments by organic and chemical companies have significant and positive impact on their shareholders' wealth. They also indicated that investors prefer current dividend over future incomes. They also noted that higher dividends increase the market value of shares.

Kania and Bacon (2005) attempted to identify the relationship between firm's profitability and dividend payout for a total sample of 542 firms from Multex Investor Database. Using Ordinary Least Square (OLS) regression technique they found

that profitability has a significant negative (at 1% level) effect on dividend payout ratio. The results indicated that higher profits pay lower dividends.

De Angelo et al (1994) empirically studied the signaling theory of dividend for a sample of 145 firms listed on New York Stock Exchange (NYSE). They studied the signaling content of dividend made by managers of firms who experienced decline in annual earnings after growth in nine or more consecutive years. They failed to find any evidence that sample managers' dividend decision is useful in indicating future earnings prospects. Their study did not offer any support for the signaling hypothesis.

Benartzi et al (1997) further investigated the implications of dividend signaling by testing whether changes in dividend have information content about future earnings using a sample 1025 firms listed on NYSE and AMEX. Their results showed a strong lagged and contemporaneous relation between changes in dividend payouts and earnings. They, however, failed to find much evidence of a positive relationship between changes in dividend and future earnings.
Tsuji (2010) examined and explored the determinants of the dividend policy of firms in the Japanese Electrical appliance Industry. The data used in the study was from QUICK Corporation over a period from 1986 to 2006. Their empirical investigation revealed that, in this industry, corporate managers do not cater to investors' demands in both their dividend initiation and continuation decision. The study found a relationship between corporate earnings and dividend payout of firms in general. However, they found a negative effect of dividend payment on corporate earnings of sample firms on an aggregate time series basis. The results of the study rejected the traditional signaling theory.

3. Objectives of the Study

Grounded upon the theoretical background and differing results of previous literature on the relationship between dividend payout and firm performance, the present study aims to empirically analyze the impact of dividend payout policy of companies in India on value of the firms.

4. Hypothesis

Null hypotheses for studying the relationship between dividend payout and firm value of companies in India are as follows:

- H_01: There is no significant effect of dividend payout ratio on return on equity (ROE).
- H_02: There is no significant effect of dividend payout ratio on market to book value ratio (MBVR).

5. Methodology

The sample for the present study constitutes top 100 companies listed on National Stock Exchange (NSE) on NSE CNX 100 as on 31st March 2015. Nifty CNX 100 index is a diversified 100 stock index accounting for 28 sectors of the economy. Nifty 100 represents top 100 companies based on full market capitalization from Nifty 500. Nifty 100 index represents about 77% of the free float market capitalization of all the stocks as on 31st March 2015. All government and financial companies are excluded from the sample subject to different legislative and regulatory systems. Moreover, those companies with missing data do not come under the purview of final sample. The final sample consists of 63 firms and the data is collected for a seven year period from 2009 to 2015. The data is collected from annual reports and websites of respective companies. The study uses panel data regression techniques to examine the impact of dividend policy of companies on their shareholders' wealth. The data is analyzed using pooled OLS regression method over a balanced panel data set consisting of 441 observations.

Variables

- **Dependent Variables:** There is a lot of variation among previous studies in measuring firm value. For the purpose of present study, value of the firm is measured through Return on Equity (ROE) and Market to Book Value Ratio (MBVR). Return on Equity (ROE) measures the profitability of a business in relation to the book value of shareholders' equity. It is expressed as the amount of net income (before dividend paid to equity stock holders but after dividend to preferred stock) returned as a percentage of shareholders' equity. Market to book value ratio (MBVR) measures the present worth of a company to its shareholders in comparison to the amount of capital invested by shareholders (both past and current) into it. It is expressed as ratio of market price (current price) of a share to book value per share.
- **Independent Variables**: Dividend policy of a company determines how much money is returned to shareholders out of net income versus how much money is kept or retained by the company for reinvestment. For the purpose of present study dividend payout is expressed as a percentage of dividends per share (DPS) to earnings per share (EPS).
- **Control Variables:** For studying the relationship impact of dividend payout policy of the company on its shareholders' wealth, we control for a few factors which are expected to have an effect on shareholders' value

measured through ROE and MBVR but are uncorrelated with the dividend payout ratio of the firm such as size, leverage, growth in total assets and capital expenditure. Size of the firm is measured through log of total sales. Capital structure can have both positive and negative effect on ROE and MBVR. Book value of total debt to book value of equity is used as a proxy for leverage ratio. Growth is expressed as percentage increase in total assets of the company with respect to previous year. Capital expenditure on fixed assets helps evaluate financial strength of the company, helps in planning capital budget and investment plans over a longer period of time. Ratio of cash outflow on fixed assets to total sales is used as a proxy to measure capital expenditure.

Model Specification

The following models are used to examine the association between firm value and dividend policy of listed firms in India.

$$ROE_{it} = \alpha_0 + \alpha_1 DIVPAY_{it} + \alpha_2 SIZE_{it} + \alpha_3 LEV_{it} + \alpha_4 GROWTH_{it} + \alpha_5 CAPEX_{it} + u_{it}$$

…….equation 1

$$MBVR_{it} = \beta_0 + \beta_1 DIVPAY_{it} + \beta_2 SIZE_{it} + \beta_3 LEV_{it} + \beta_4 GROWTH_{it} + \beta_5 CAPEX_{it} + v_{it}$$

…….equation 2

Where,

ROE	Return on Equity
MBVR	Market to Book Value Ratio
DIVPAY	Dividend Payout ratio
SIZE	Size of the firm
LEV	Leverage ratio or debt equity ratio
GROWTH	Growth in total assets
CAPEX	Capital outflow on fixed assets
u_{it}, v_{it}	Error terms
α, β	Parameters

6. Results and Discussion

Descriptive statistics for a total of 441 observations with respect to various variables during the period of study is given in table 1.

Table 1: Descriptive Statistics

	Mean	Median	Maximum	Minimum	Std. Dev.	Observations
ROE	21.15238	17.68	142.01	-133.77	21.91759	441
MBVR	7.158059	4.18	84.73	0.34	10.29936	441
DIVPAY	29.55456	25.15	100	0	22.64193	441
SIZE	4.017911	3.9786	5.5996	2.7458	0.523607	441
LEV	0.294444	0.15	2.64	0	0.356633	441
GROWTH	0.18605	0.1383	3.5654	-0.6186	0.325993	441
CAPEX	0.092149	0.0551	1.4888	0	0.141084	441

Table 1 show that the average returns on equity for the period of study is 21.52 percent with a maximum return of 142.01 percent and minimum of -133.77 percent. The mean Market to Book value ratio is 7.16 with a minimum and maximum of 0.34 and 84.73 respectively. The maximum percent of dividend paid throughout the study period is 100 percent with a minimum of zero percent. The companies on an average paid around 29.55 percent of earnings as dividend. The data shows the maximum debt-equity ratio among firms is 2.64 with a minimum of zeros. Average capital outflow on fixed assets is 0.09 with a maximum of 1.48 and minimum of zero.

Table 2 presents pooled OLS regression results to study the impact of dividend policy of firms on value of the firm. The results of pooled OLS regression analysis show that dividend payout has a significant positive effect on both ROE and MBVR. The relationship is significant at 1% level of significance in both the cases. This depicts a strong association between dividend payout and shareholders' wealth meaning that as dividend paid by the firm increases, shareholder wealth measured

through ROE and MBVR also increases. This provides evidence in support of relevance of firms' dividend policy in enhancing firm value and thereby shareholders' wealth. Moreover, the results also show a significant negative effect of size of the firm measured through log of total assets on both ROE and MBVR. This indicates that as the size of the firm increases, shareholders' wealth decreases. The reason underlying this could be that the larger firms are more bureaucratic and face more trouble in adapting to the frequent changes in political and economic environment. Leverage of the firm was also found to exert a negative influence on both ROE and MBVR; the relationship is statistically significant in both the cases. This means that as the debt employed by the firm increases, both ROE and MBVR decreases. This could be for the reason that bankruptcy cost is associated with higher use of debt which increases the financial risk of companies and thereby affects value of the firm. The results however do not show any significant relationship in case of growth of firms and capital expenditure with that of shareholders' (ROE and MBVR). Both null hypotheses Ho1 and Ho2 stands rejected showing that dividend policy of the firm has a significant positive impact on firm value measured through ROE and MBVR.

Table 2: Results of Pooled OLS Regression with firm value as dependent variable

Independent Variables	Dependent Variables	
	ROE	**MBVR**
CONSTANT	44.79431*** (6.039932)	28.76958*** (7.661741)
DIVPAY	0.281153*** (6.894420)	0.084496*** (4.092394)
SIZE	-6.522855*** (-3.647793)	-5.725516*** (-6.324000)
LEV	-19.20396*** (-7.445986)	-2.701783** (-2.069030)
GROWTH	3.397362 (1.258299)	0.674080 (0.493104)
CAPEX	-7.820086 (-1.216704)	-4.710200 (-1.447430)
R SQUARE	0.304410	0.192488
ADJUSTED R SQUARE	0.296415	0.183206
F-STATISTICS	38.07372***	20.73829***
P-VALUE	(0.000000)	(0.000000)

T-statistics is presented in parentheses
***** denotes significance at 1% level**
**** denotes significance at 5% level**

7. Conclusion

The present study analyses the impact of dividend policy on value of the firm for selected companies in India. the sample for the present study is collected from companies listed on NSE CNX 100 as on 31st March 2015. All financial and government companies as well as firms with missing data during any of the years under study have been excluded from the list of final sample. The final sample consists of 63 companies the data for which has been collected for a seven year period from 2009 to 2015. Firm value is measured through return on equity (ROE) and market to book value of share (MBVR). Percentage of dividend per share to earnings per share is used to measure dividend payout of firms. Besides, we control for some variables such as firm size, leverage, growth in assets and capital expenditure on fixed assets. Using pooled OLS regression technique the study found significant, strong and positive effect of dividend payout on return on equity (ROE) as well as market to book value ratio (MBVR). The results provide evidence in support of relevance of firm's dividend policy in enhancing firm value and thereby shareholders' wealth. Size of the firm and leverage ratio of the firm was also found to exert a significant negative impact of value of the firm (both ROE and MBVR). The results however did not find any significant effect of growth in assets and capital expenditure on fixed assets on firm value. The results of the analysis are in favor of the argument that dividend policy of the firm is relevant in enhancing value of the firm. Null hypotheses Ho1 and Ho2 stands rejected.

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