What Factors Drive the Dividend Policy of Indian Companies?

Ritu Wadhwa[1]

Abstract

Dividend policy of companies is one of the most provocative issues of theoretical finance. The aim of this paper was to scrutinize the firm-level dynamics persuading the dividend decisions of companies in a developing economy. Twelve-year panel data from 2006–2018 of BSE-500 index were used for this study. Results revealed that most of the variables lying in the categories of profitability, risk, size, ownership, and financial leverage were found to be significant determinants of dividend policies of firms. However, sales growth and liquidity were not found to have a significant effect on dividend decision of the companies. The decision regarding the dividend policy is very crucial for the firms as it outlines the method, type, and frequency of dividend distribution. This present study adds to the prevailing literature by assessing the impact of 21 variables together on dividend policy of the firms. It provides a comprehensive framework that can be useful to companies, investors, and regulators of companies in India.

Keywords : **dividend decision, payout policy, regression analysis, profitability, leverage, Indian companies**

JEL Classification : G3, G30, G35

Paper Submission Date : August 1, 2019 ; Paper sent back for Revision : August 25, 2019 ; Paper Acceptance Date : September 1, 2019

The dividend decisions of firms are principally anxious about the decisions with respect to dividend payout policy. Lease, John, Kalay, Loewenstein, and Sarig (2000) termed it as the exercise espoused by managers in making dividend payout decisions. Despite of voluminous studies, the available literature still has to entirely comprehend the determinants that stimulus dividend policy and the mode in which they relate. Three decades ago, Black (1976) noted that "The harder we look at the dividend picture, the more it seems like a puzzle, with pieces that just don't fit together." The condition is still unchanged today. In one of the appraisals of dividend policy, Allen and Michaely (1995) accomplished that much more empirical and theoretical research on the subject of dividends is required before a consensus can be reached ; while Brealey and Myers (2003) graded dividends as one of the 10 important unsolved problems in finance. The questions - Why do corporations pay dividends ? and Why do investors pay attention to dividends ? - have perplexed both academicians and corporate managers for several years. Researchers and economists in corporate finance have justified the principal of wealth management for taking decisions on dividend payments.

Dividend - paying stocks have certain exceptional benefits in the view of their corporate finance. Dividends are a strong signal of the financial health of a firm. Higher earnings imply a higher ability of the firms to make the investors feel a part of the profit of the firm. This improves their image in the investor market and hence makes them more popular. Total return is also higher for the stocks that pay dividend as the dividend and volatility are also found to be low. Moreover, it has been seen historically that the dividend payments remain unaffected by the interest rate movements. Dividend paying stocks also provide other benefits to the investors in the form of shield

[1] *Assistant Professor,* Amity Business School, F - 3 Block, Amity University Campus, Sector - 125, Noida - 201 313, Gautam Budh Nagar, Uttar Pradesh. (E-mail : rwadhwa1@amity.edu)

DOI : 10.17010/ijrcm/2019/v6/i3/148882

against turbulent market cycles. This in turn is also beneficial for the firms who are able to maintain their market prices.

A dividend - paying firm also implies a more disciplined management. A firm that has more than what it can spend within and on its organization usually has the option to indulge in hoarding of money, pay it out as dividends, or acquire some other firms. Dividend payout will thus imply that the firm in question believes in satisfying its investors and excelling in one field rather than trying its luck on everything and excelling in nothing.

Dividend policy is related to the payment of dividend and its retention. Dividend policy basically marks out the criterion for retention and distribution of profits that becomes the base for dividend decisions (Nuredin, 2012). Dividend policy is always a topic of concern in financial literature from the time the joint stock companies came into existence. Dividend decision or policy can be defined as deciding the ratio of retained earnings to distributed earnings. The regulatory idea of dividend payment decision is certainly to accept a strategy that capitalizes the shareholders' wealth. Thus, as per the aspect of financial management, the aim is to figure out the dividend policy that will augment the value of the firm.

Literature Review

There are many theories that explain the reason behind why an organization pays dividends. These comprise agency cost theory, clientele inclination for dividend income, and signaling theory. A lot of empirical and conjectural work has been done by researchers to provide a deep insight into the dividend puzzle. The first pioneer in dividend policy arena was Lintner (1956) who studied the corporate dividend behavior of 28 well - established industrial companies for the period of 1947–1953. He used the technique of regression analysis and intensive interviews with managers who were accountable for the dividend decisions.

On the other extreme, Miller and Modigliani (1961) scrutinized the dividends and declared them as irrelevant. They were of the view that in the given perfect capital market, the value of the firm was not affected by the dividend payments, and thus, it was irrelevant to pay or not to pay the dividends. Yarram (2002) did another study on Indian companies – those listed on the BSE (Bombay Stock Exchange) and the NSE (National Stock Exchange). Three major factors were evaluated in this study, that is, dividend paid by a number of firms, average payout, and dividend per share. This study was carried out during the period of 1990–2001 and indicated that the companies that stayed in smaller markets were inclined towards paying out more dividends than those listed in huge markets.

Denis and Osobov (2008) carried out a study on many countries to collect evidence regarding the determinants of dividend policy. Data were collected from US, UK, Canada, France, Japan, and Germany regarding the propensity of the firms to pay dividends and the factors that influenced the same. They had tested the impacts of certain variables, including profitability, growth opportunities, earned/contributed equity mix, and firm size. Gupta and Banga (2010) also carried out a study on the BSE-500 companies. It was done in the time period of January 2001 to December 2007. The study first carried out factor analysis (principal component analysis) to deduce the major factors that determined corporate dividend decision and then checked the significant relationships. Out of the 15 factors on which this study was executed, five were found to be prominent ones. These five factors were leverage, liquidity, profitability, ownership structure, and growth. Regression was carried out on these five factors related to the dependent variable : dividend decision to find their relation.

Bhayani (2008) carried out a study over a time period of 11 years from 1997–2008 on 1428 listed manufacturing firms of India. This study too checked the dividend stability of the firms. Data were taken from secondary sources (CMIE PROWESS Database) for all manufacturing (excluding public sector companies). These companies were divided as payer and non-payer under which further classifications were done ; whereas, payers were categorized as regular, initiator, and current payer, the non-payers were categorized as never payer, former paid, and current payer.

Nuredin (2012) also researched to gather the determinants of dividend policy of the firms. The firms that were considered in the study were Ethiopian insurance firms that spanned over a time period of 2003–2011. Nine insurance companies were taken under consideration. The study used random effects technique to find out the relations of independent and dependent variables and the significance of these relations. Profitability, growth, liquidity, size of the firm, and leverage of the firm were tested for their prominence in affecting dividend policy.

Velmurugan (2015) conducted a study on Indian fertilizer industry and found that dividend declaration in this industry was related to the previous year dividend, current year depreciation, current year profit after tax, current year sales, and previous year cash flows. Labhane and Das (2015) analyzed the trend and determinants of the dividend payout ratio of companies in the National Stock Exchange. The empirical results suggested that companies with high free cash flow, more profitable and mature, paid more dividends while riskier, more leveraged, and firms with high investment opportunities tended to pay lower dividends. The dividend distribution tax rate imposed by the government affects the dividend payout ratio positively. The market-to-book ratio, debt-to-equity ratio, free cash flow, business risk, age, size, profitability, and dividend distribution tax variables were significant for the entire period of the study.

Pandey (2017) analyzed the signaling effect of stand-alone dividend decisions on the market prices of listed companies in the emerging Indian economy. The findings are indicative of the absence of signaling effect amidst inefficiency of the market for all levels of changes in stand-alone dividend announcements. Nadig (2017) examined the stock market reaction to interim dividend announcements by Indian public sector banks. The results indicated that there were significant positive abnormal returns in some banking stocks prior to such announcements, signifying that the investors were expecting such news and, therefore, there was upward movement of stock prices.

Dang, Ha, and Binh (2018) explored the factors affecting the Vietnamese enterprises and concluded that return on total assets and firm size had a positive impact on dividend payment ratio ; whereas, there was a negative impact of company's revenue growth on the dividend payout ratio. Brahmaiah, Srinivasan, and Sangeetha (2018) examined the determinants of companies listed on the National Stock Exchange. The findings deduced from empirical evidence revealed that profitability, liquidity, size of the firm, and inflation had a significant negative impact on dividend policy of the selected NSE firms covered by the study.

Thus, this paper scrutinizes the dynamics persuading dividends of listed firms in the BSE-500 stock exchange in India. The analysis is based on a panel data set of all the companies under the set. From the Indian context, though the study numbers are lesser, but yet the results show major of factors taken under the current study like profitability, liquidity, risk, growth, tax, ownership, and leverage have an impact on the dividend decisions of the companies.

Research Methodology

(1) Research Framework : The current study is based on data collected from the years 2006–2018, and hence, will be more relevant to today's era and could incorporate the effect of even the 2008–09 economic crisis. The same is reflected in Figure 1.

Studies have identified various factors that are antecedents of dividend policies of firms. General factors related to firms like profitability, leverage, liquidity, growth, etc. have been identified. Moreover, specific firm related factors like ownership, firm size, etc. have also been recognized. Therefore, this study will test these factors and their prominence in affecting dividend policy decisions (Figure 2).

The research framework, as shown in Figure 2, is a representation of the structure that will be followed in this study. The effects of general features of the firm, namely, profitability, leverage, liquidity, growth, tax regimes, and risk management will be tested on the dividend policy decision. The difference that characteristic features of a firm, namely, ownership status and firm size make to this relation will also be tested. Dividend policy does

Figure 1. Determinants of Dividend Policy

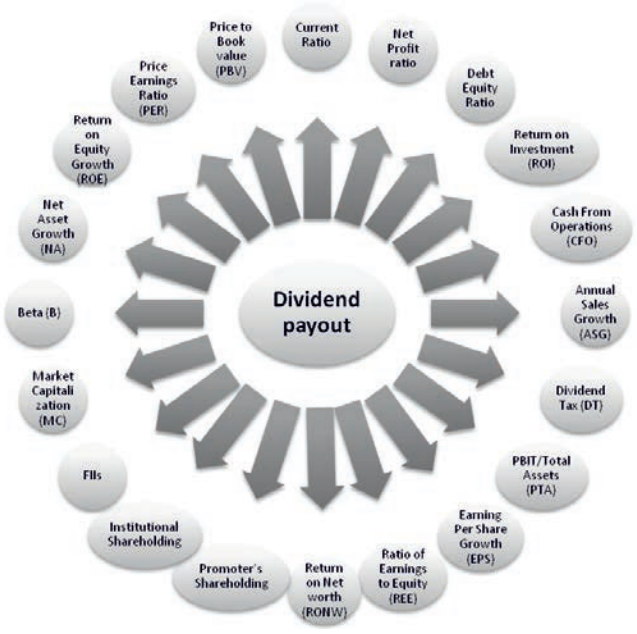
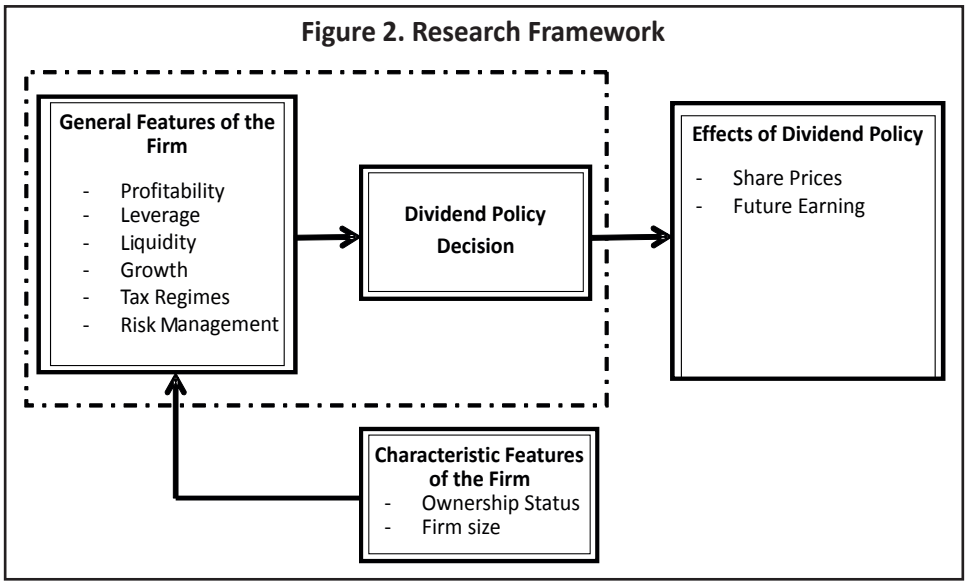


Figure 2. Research Framework



impact the market price of the shares as well as the earnings of the firms. But this is another dimension of dividend policy and the same has not been studied in this current paper. This aspect of dividend policy where dividend payout is an independent variable is one of the areas to be studied in detail.

(2) Variables Defined : The variables undertaken in the study are exhaustive and give a fair picture of the factors influencing the dividend decisions of the firms. For better understanding and clarity, the variables have been framed in Table 1.

Table 1. Description of Variables as per Literature Review Which are Used in Framework Development

S.No.	Factors	Key Variables	Description	Sources
1	**Dividend Payment**	Dividend payout ratio (DPR)	Computed as a percentage of dividend given by the company in a year out of its earnings.	Gupta & Banga (2010) ; Kania & Bacon (2005) ; Lintner (1956)
2	**Growth**	Annual sales growth (ASG)	Computed as the ratio of change in total sales.	Denis & Osobov (2008) ; Gupta & Banga (2010) ; Kania & Bacon (2005)
3	**Liquidity**	Current ratio (CR)	Computed as current assets divided by current liabilities.	Gupta & Banga (2010) ; Kania & Bacon (2005) ; Nuredin (2012)
		Cash from operations (CFO)	Computed as net profit before tax and extraordinary income adjusted to non-cash charges and receipts.	Gupta & Banga (2010)
4	**Financial Leverage**	Debt - equity ratio (DER)	Computed as total debt of the company divided by its total equity.	Gupta & Banga (2010)
5	**Tax**	Dividend tax (DT)	Computed as the tax paid on the dividends by the corporates.	Narasimhan & Asha (1997)
6	**Profitability**	PAT as % of capital employed (PCE)	Computed as ratio of profit before interest, tax, and dividend by capital employed of the firm.	Gupta & Banga (2010)
		PAT as % of total income (PTI)	Computed as net profit (amount left at the end of the accounting year for appropriations) divided by net sales (total income).	Gupta & Banga (2010) ; Lintner (1956)
		PBIT/total assets (Profit to total assets) (PTA)	Computed as profits before interest, tax, and dividend divided by total assets of the company for an accounting year.	Denis & Osobov (2008) ; Gupta & Banga (2010)
		Earnings per share growth (EPS)	Computed as the change in earnings per share (EPS) in an accounting period of the company.	Denis & Osobov (2008) ; Gupta & Banga (2010) ; Kania & Bacon (2005)
		Retained earnings as % of earnings (REE)	Computed retained earnings per share to earnings per share.	Denis & Osobov (2008) ; Gupta & Banga (2010)
		Return on net worth (RONW)	Computed as change in net worth of a company over an accounting period.	Gupta & Banga (2010)
		Return on equity growth (ROE)	Computed as a percentage of shareholders' equity, that is, how much profit a company generates with the invested money.	Kania & Bacon (2005)
7	**Ownership**	Promoter's shareholding (PS)	Computed as percentage of holdings of Indian promoters, foreign promoters, and persons acting in concert in a company.	Gupta & Banga (2010) ; Myers & Bacon (2004) ; Narasimhan & Vijayalakshmi (2002)
		Institutional shareholding (IS)	Computed as percentage of holdings of financial institutions, banks, mutual funds,	Gupta & Banga (2010) ; Kania & Bacon (2005) ; Myers

			and other institutions in a company.	& Bacon (2004)
		FIIs' shareholding (FII)	Computed as percentage of holdings of foreign institutional investors (FIIs) in a company.	Gupta & Banga (2010) ; Myers & Bacon (2004)
8	**Size**	Market capitalization (MC)	Computed as the product of the closing price on December 31st every year and the number of outstanding equity shares.	Denis & Osobov (2008) ; Gupta & Banga (2010)
		Net asset growth (NA)	Computed as change in net assets over last year's net asset amount.	Myers & Bacon (2004)
		Price earnings ratio (PER)	Computed as ratio of market price per share to earnings per share.	Myers & Bacon (2004)
		Price to book value (PBV)	Computed as current closing price of the stock divided by the latest quarter's book value per share.	Denis & Osobov (2008)
9	**Risk**	Beta *(B)*	Computed as a measure of the volatility or systematic risk of a security or a portfolio in comparison to the market as a whole.	Kania & Bacon (2005)

(3) Hypotheses : On the basis of the above literature, the following hypotheses have been developed :

- **H1 :** Profitability has an impact on dividend decisions of companies.
- **H2 :** Financial leverage has an impact on dividend decisions of companies.
- **H3 :** Liquidity has an impact on dividend decisions of companies.
- **H4 :** Growth has an impact on dividend decisions of companies.
- **H5 :** Tax regimes have an impact on dividend decisions of companies.
- **H6 :** Risk has an impact on dividend decisions of companies.
- **H7 :** Ownership has an impact on dividend decisions of companies.
- **H8 :** Size has an impact on dividend decisions of companies.

(4) Construction of Dataset and Variable Scaling : The dividend payment patterns of all the companies in India that are listed on the Bombay Stock Exchange (BSE)–500 during the period from 2006–2018 have been employed for the purpose of analysis. The data has been sourced from Prowess database of the Centre for Monitoring Indian Economy (CMIE). The data collected has three major dimensions, the firms, the variables, and the years over which this data is available. The presence of three dimensions makes it a panel data.

For scaling of the variables, all the percentage variables have been converted into ratio variables. Moreover, natural log had been taken for high digit numbers to get them in synchronization with the other variables. The variables of annual sales growth, EPS growth, and net asset growth are obtained by taking year-on-year increase in the three variables of sales, EPS, and assets.

(5) Techniques Used : For the purpose of this study, three dimensional data is used. Data were available for a number of variables for firms listed on BSE over the time-period from 2006–2018. For applying regression analysis on panel data, there are certain methods that can be employed, namely, pooled OLS regression method, fixed panel data regression method, and random panel data regression method.

(i) Pooled OLS Regression : Pooled regression method is an extension of OLS regression method. In this method, the observations for all the firms over the entire time period considered are pooled and the regression is then applied.

(ii) Fixed Effects Model : For the fixed effects model, regression is applied in the same way as for the pooled OLS regression method. The only difference that occurs is in the observations that are considered for applying regression.

(iii) Random Effects Model : Under the random effects model, instead of de-meaning the observation and removing the fixed effects, the disturbance term for each individual term is considered individually.

(iv) Housman Test : Both the fixed effects method and the random effects method have their own way of dealing with anomalies, and hence, both are good to go. However, there is always a method that is better in every situation. The Hausman test is a way of judging if or not random effect method is as good as the fixed effect method. The null hypothesis as assumed by this test is that there is no difference between the fixed effects model estimator and the random effects model estimator.

Data Analysis and Results

(1) Pooled OLS Regression : The results of pooled ordinary least square (OLS) regression method give results as given in the Table 2. The regression coefficient for this model is found to be $R^2 = 0.8086$, $p < 0.05$.

Table 2. Pooled OLS Regression Results for Panel Data

	Estimate	Std. Error	*t* - value	Pr(>|*t*|)	Sig.
(Intercept)	4440.000	97.400	45.551	0.000	***
Current ratio	-12.000	7.480	-1.604	0.109	
PAT as percent of total income	152.000	78.400	1.945	0.052	.
Debt-equity ratio	-55.800	8.820	-6.330	0.000	***
PAT as percent of capital employed	-414.000	91.300	-4.535	0.000	***
Ln (Net cash flow from operating activities)	-73.200	7.760	-9.425	0.000	***
Annual sales growth	-2.330	8.290	-0.281	0.778	
LN (Dividend tax)	212.000	10.700	19.756	0.000	***
PBIT by total assets	-173.000	139.000	-1.244	0.214	
Earnings per share growth	-0.004	0.006	-0.638	0.523	
Retained profits as percent of PAT	3010.000	44.100	-8.263	0.000	***
PAT as percent of net worth	69.900	50.100	1.396	0.163	
Indian promoters' shareholders	280.000	70.400	3.973	0.000	***
Foreign promoters' shareholders	159.000	73.300	2.163	0.031	***
Non-promoters' shareholders	268.000	72.200	3.716	0.000	***
LN (Market capitalization)	-115.000	10.600	-10.889	0.000	***
Net asset growth	-50.500	25.600	-1.977	0.048	***
Return on equity	-0.096	0.021	-4.454	0.000	***
P/E ratio	-0.274	0.168	-1.625	0.104	
P/B ratio	14.100	2.360	5.989	0.000	***
Beta	-167.000	22.000	-7.577	0.000	***

Note. Significance codes: 0.05 '***'.

Debt to equity ratio, PAT as percent of capital employed, net cash flow from operating activities, retained profits as percent of PAT, market capitalization, net asset growth, return on equity, and beta are found to have a significant positive impact on dividend payout ratio ; whereas, dividend tax, Indian promoters' shareholdings, foreign promoters' shareholdings, non - promoters' shareholdings, and P/B ratio are found to have a significant negative impact.

(2) Fixed Effects Model : The results for fixed effects model are shown in Table 3. The regression coefficient for this model is found to be $R^2 = 0.58129$, $p < 0.05$.

The impact of debt-equity ratio, net cash flow from operating activities, PBIT by total assets, retained profits as percent of PAT, market capitalization, return on equity, and beta on dividend payout ratio is found to be significantly negative ; whereas, that of PAT as percent of total income, dividend tax, Indian promoters' shareholdings, foreign promoters' shareholdings, non-promoters' shareholdings, and P/B ratio is found to be significantly positive.

↳ **Fixed versus OLS :** When *F*-test is applied to know as to which test is better out of Pooled OLS regression method and fixed effects method, the results furnished are : [$F = 3.8864$, $df1 = 379$, $df2 = 2606$, $p < 0.05$]. This implies the acceptance of the alternate hypothesis, that is, fixed effects method is better than the pooled OLS method.

Table 3. Fixed Effects Model Results for Panel Data

	Estimate	Std. Error	*t*-value	Pr(>|*t*|)	Sig
(Intercept)					
Current ratio	5.220	9.720	0.537	0.591	
PAT as percent of total income	611.000	140.000	4.368	0.000	***
Debt-equity ratio	-46.000	13.300	-3.454	0.001	***
PAT as percent of capital employed	-132.000	99.100	-1.334	0.182	
Ln (Net cash flow from operating activities)	-44.600	8.530	-5.225	0.000	***
Annual sales growth	-4.880	7.470	-0.653	0.514	
LN (Dividend tax)	120.000	12.800	9.597	0.000	***
PBIT by total assets	-807.000	180.000	-4.487	0.000	***
Earnings per share growth	-0.003	0.005	-0.602	0.547	
Retained profits as percent of PAT	-2710.000	51.200	-52.924	0.000	***
PAT as percent of net worth	-27.700	51.700	-0.535	0.593	
Indian promoters' shareholders	210.000	82.900	2.530	0.011	***
Foreign promoters' shareholders	200.000	96.900	2.062	0.039	***
Non-promoters' shareholders	267.000	85.200	3.131	0.002	***
LN (Market capitalization)	-91.000	12.500	-7.299	0.000	***
Net asset growth	-40.200	25.300	-1.591	0.112	
Return on equity	-0.119	0.025	-4.725	0.000	***
P/E ratio	-0.145	0.157	-0.925	0.355	
P/B ratio	14.000	2.550	5.476	0.000	***
Beta	-60.900	30.500	-1.997	0.046	***

Note. Significance codes: 0.05 '***'.

Table 4. Random Effects Model Results for Panel Data

	Estimate	Std. Error	*t*-value	Pr(>|*t*|)	Sig.
(Intercept)	4190	101.00	41.588	0.000	***
Current ratio	1.730	8.360	-0.207	0.836	
PAT as percent of total income	315.0	96.50	3.264	0.001	***
Debt-equity ratio	-45.7000	9.680	-4.718	0.000	***
PAT as percent of capital employed	-192.0000	93.50	-2.055	0.040	***
Ln (Net cash flow from operating activities)	-53.7000	7.800	-6.882	0.000	***
Annual sales growth	-4.3300	7.540	-0.574	0.566	
LN (Dividend tax)	170.0000	11.100	15.316	0.000	***
PBIT by total assets	-448.0000	156.000	-2.874	0.004	***
Earnings per share growth	-0.0040	0.005	-0.793	0.428	
Retained profits as percent of PAT	-2870.0000	45.400	-63.287	0.000	***
PAT as percent of net worth	7.4300	48.300	0.154	0.878	
Indian promoters' shareholders	257.0000	67.800	3.790	0.000	***
Foreign promoters' shareholders	170.0000	73.900	2.308	0.021	***
Non-promoters' shareholders	273.0000	70.800	3.859	0.000	***
LN (Market capitalization)	-102.0000	11.100	-9.143	0.000	***
Net asset growth	-50.4000	24.200	-2.083	0.037	***
Return on equity	-0.1130	0.023	-4.977	0.000	***
P/E ratio	-0.2280	0.156	-1.458	0.145	
P/B ratio	13.7000	2.320	5.906	0.000	***
Beta	-134.0000	25.100	-5.342	0.000	***

Note. Significance codes: 0.05 '***'.

(3) Random Effects Model : The results for the random effects model is shown in Table 4. The regression coefficient for this model is found to be $R^2 = 0.73042, p < 0.05$.

The results of random effects model reveal that the variables of PAT as percent of total income, dividend tax, Indian promoters' shareholdings, foreign promoters' shareholdings, non - promoters' shareholdings, and P/B ratio have a significant but positive impact on the dividend payout ratios. On the other hand, the variables of debt - equity ratio, PAT as percent of capital employed, net cash flow from operating activities, PBIT by total assets, retained profits as percent of PAT, market capitalization, net asset growth, return on equity, and beta are seen having a significant, but negative impact on the dividend payout ratios.

(4) Hausman Test : When Hausman test was conducted to know which method is better out of fixed effects and random effects model, the following results are furnished : chi - sq = 217.8164, $df = 20, p < 0.05$.

It is thus found that out of all the regression methods, fixed effects method works the best for the model discussed in this study. The results that are observed point out the significance of quite a few variables in affecting the dividend payout ratio. It can also be seen from the results that some variables have a positive impact on the DPR ; whereas, others have a negative impact. The results are depicted in Table 4. The beta estimates, standard errors, *t* - value, and *p* - value have been reported.

PAT as a percent of total income ($\beta = 611.0, p = 0.000$), dividend tax ($\beta = 120.0, p = 0.001$), Indian promoters' shareholders ($\beta = 210.0, p = 0.011$), foreign promoters' shareholders ($\beta = 200.0, p = 0.039$), non - promoters'

shareholders (β = 267.0, p = 0.002), and P/B ratio (β = 14.0, p = 0.000) are found to be positively related. However, negative impact is found of the variables : debt to equity ratio (β = –46.0, p = 0.000), net cash flow from operating activities (β = – 44.6, p = 0.000), PBIT as a percent of total assets (β = – 807.0, p = 0.000), retained profits as a percent of PAT (β = – 2710.0, p = 0.001), market capitalization (β = – 91.0, p = 0.000), return on equity (β = –0.119, p = 0.000), and Beta (β = – 60.9, p = 0.046).

Discussion

It can be seen that most of the results that have been attained as results of this study are in agreement with the literature. Return on equity, which represents profitability, is found to have a negative relationship with DPR. The significance level of the relation is, however, found to be very high. Similar results are found for the variable 'beta' representing risk of a firm. However, significance level for this result is found to be low.

Debt to equity ratio is also found to have a negative impact on the dividend payout ratio of the firms. This is in compliance with what was found in the earlier studies. Therefore, it is found that more the financial leverage of a firm, as represented by debt to equity ratio, the lesser is its dividend payout. The profits that are retained after taxes are deducted also affect the dividend payout. If the companies have more retained profits, lesser are the dividends they would be paying out. This is what was found by both earlier studies as well as this study. The profit that is earned before interest and taxes are deducted from it, when increase as a percent of total assets, the dividend paid decreases.

A positive impact is seen of the price to book ratio and dividend tax on the dividend payout patterns of the firms. The impact is also found to be highly significant and in compliance with the hypothesized relationship. Despite all the above - mentioned variables in which the obtained results are same as those hypothesized, there are certain other variables that give out results that are in disagreement with the hypothesized ones. Earlier studies found the impact of net cash flow from operating activities to be negative ; whereas, in this study, it has been found to be positive on the dependent variable of dividend payout ratio. Similar is found to be the case with market capitalization.

Therefore, it can be concluded that profitability, risk, growth, market capitalization, ownership, and financial leverage are all found to be significant determinants of dividend policies of firms. Most of the variables lying in these categories are found to be significant. However, sales growth, liquidity, and EPS growth are not found to have a significant effect.

It can thus be concluded that the hypothesis for profitability (H1) is supported through the results except for the two variables, that is, PAT as % capital employed and PAT as % of net worth. The hypotheses for financial leverage (H2), risk (H6), and tax (H5) are also supported through analysis. On the other hand, variable of size (H8) finds partial support (i.e significant for market capitalization and P/B ratio). The hypotheses for the variables of growth (H4) and liquidity (cash from operation was significant) (H3) are found to be insignificant. Also, ownership variables are found to be significant (H7).

Research Implications

For companies, managers can use the information of prominent determinants to decide on their dividend policies. A company can, in specific, focus on the profitability of the company, the risk that the company takes, leverage of the company, firm size, growth, and profitability growth while formulating its dividend policies. This will assist them in taking effective decisions that will, in turn, help them in taking full advantage of dividend giveaway.

The understanding of the determinants of dividend policy also helps the investors in making their investment decisions. It is not always easy for the investors to search through all the options and then make a decision. The individual investors cannot really rely on the searching options provided by the market nor can they be expected

to be cost-friendly. Moreover, the investors also like to switch their investing options on a regular basis ; hence, knowledge of the determinants of dividend policy can be of great help in this case.

Limitations of the Study

The study is limited to few constraints. The study focused only on those organizations who have paid dividends. The comparison for paying firm and non-paying firm could not be done. Thus, omitting the firms not paying dividends may have bias results. The qualitative variables like behavior of the management and foreign collaboration have also not been studied, and thus, the same can be taken for future research.

Scope for Future Research

This study is an important step in the study of the BSE 500 companies and their policies regarding dividend payments. The factors that were concluded upon can be used by both the companies and the investors in maximizing their profits. The companies can see the factors that affect the dividend policy of the firms and measure their situations accordingly. Further research can be carried on with respect to individual variables and their importance can be deciphered. Moreover, the viewpoint of investors and the companies can also be seen in order to identify the factors that they consider important for the companies while making their dividend payment decisions. Furthermore, non-financial factors should also be considered that can affect the dividend policy of a firm. In the case of firms, the behavior of the management people, their choices and preferences, foreign associations, etc. are some of the factors that can affect the DPR along with the financial factors. Another aspect that could be tried out in future studies is to replace the dependent variable. The variable of 'dividend yield' can be used instead of 'dividend payout ratio.'

References

Allen, F., & Michaely, R. (1995).Dividend Policy. In, Handbook in OR&MS. *Elsevier Science, 9,* 793–836.

Bhayani, S. J. (2008). Dividend policy behaviour in Indian capital market: A study of BSE – 30 companies. *DIAS Technology Review, 4* (1) , 30–39.

Black, F. (1976). The dividend puzzle. *Journal of Portfolio Management, 2* (2), 5–8.

Brahmaiah, B., Srinivasan, P., & Sangeetha, R. (2018). Determinants of corporate dividend policy in India: A dynamic panel data analysis. *Academy of Accounting & Financial Studies Journal, 22* (2), 1–13.

Brealey, R.A., & Myers, S.C. (2003). *Principles of corporate finance* (7th ed.). New York : McGraw - Hill.

Dang, H. N., Ha, N. V., & Binh, D. T. (2018). Factors influencing the dividend policy of Vietnamese enterprises. *Asian Journal of Finance & Accounting, 10* (2), 16–29. DOI : https://doi.org/10.5296/ajfa.v10i2.13651

Denis, D. J., & Osobov, I. (2008). Why do firms pay dividends ? International evidence on the determinants of divided policy. *Journal of Financial Economics, 89* (1), 62–82.

Gupta, A., & Banga, C. (2010). The determinants of corporate dividend policy. *Decision, 37*(8), 63–77.

Kania, S. L., & Bacon, F.W. (2005). What factors motivate the corporate dividend decision ? *ASBBSE E - Journal, 1* (1), 97–107.

Labhane, N. B., & Das, R. C. (2015). Determinants of dividend payout ratio: Evidence from Indian companies. *Business and Economic Research, 5*(2), 217–241. doi:10.5296/ber. v5i2.8154

Lease, R. C., John, K., Kalay, A., Loewenstein, U., & Sarig, O. H. (2000). *Dividend policy: Its impact on firm value.* Boston, MA : Harvard Business School Press.

Lintner, J. (1956). Distribution of incomes of corporations among dividends, retained earnings and taxes. *The American Economic Review, 46*(2), 97–113.

Miller, M. H., & Modigliani, F. (1961). Dividend policy, growth and the valuation of shares. *The Journal of Business, 34*(4), 411–433.

Myers, M., & Bacon, F. (2004). The determinants of corporate dividend policy. *Academy of Accounting and Financial Studies Journal, 8*(3), 1–12.

Nadig, A. (2017). Impact of interim dividend announcements on banking stock prices in India. *Indian Journal of Finance, 11* (7), 50–64. DOI: 10.17010/ijf/2017/v11i7/116567

Narasimhan, M.S., & Asha, C. (1997). Implications of dividend tax on corporate financial policies. *The ICFAI Journal of Applied Finance, 3*(2), 1–28.

Narasimhan, M.S., & Vijayalakshmi, S. (2002). Impact of agency cost on leverage and dividend policy. *The ICFAI Journal of Applied Finance, 8*(2), 16–25.

Nuredin, M. (2012). *Determinants of dividend policy of insurance companies in Ethiopia* (Doctoral Dissertation). Addis Ababa University, Ethiopia.

Pandey, V. S. (2017). Do dividend changes have informational content to signal the market? Evidence from the Indian Stock Market. *Indian Journal of Research in Capital Markets, 4*(1), 42–60. DOI: 10.17010/ijrcm/2017/v4/i1/112886

Velmurugan, R. (2015). Determinants of dividend in Indian fertilizer industry. *Journal of Progressive Research in Social Sciences, 1*(1), 1–4.

Yarram, S. R. (2002). *Dividend policy of Indian corporate firms: An analysis of trends and determinants.* DOI : https://dx.doi.org/10.2139/ssrn.377180

About the Author

Dr. Ritu Wadhwa is an Assistant Professor with Amity University and has 16 years of teaching experience. She has done her PhD in corporate finance from Gautam Buddha University and MBA in Finance from GGSIP University. She has published 20–25 papers in national and international journals. She has participated in various national and international conferences. Her research interests are dividend policy and international financial reporting standards.