Dividend Policy in India: Evidence from Financial Statements

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Abstract

The study aims to examine the various factors of financial statements of the dividend paying Indian companies listed in stock exchange of India (Bombay Stock Exchange [BSE] and National Stock Exchange [NSE]) to examine the factors influencing dividend policy, amount of dividend and the method of dividend. Secondary data has been collected from the websites, six factors of financial statement chosen to check the impact on dividend policy. Fifteen large capital firms of three different sectors and data of fifteen years have been used in this study. Panel Unit Root Test, Fixed and Random Regression Model have been applied with the help of econometrics. Study reveals that all selected factors are also positively correlated and Solvency Ratio, Profitability Ratio and the value of the firm are affecting the dividend policy of the selected companies. The study also suggests that no universal set of data can influence the dividend policy of different companies in different sectors.

Keywords: Dividend Policy, Dividend Pay-Out, Indian Companies, Factors of Dividend Policy, Retention Ratio, BSE, NSE, E-Views.

Introduction

Dividend decisions are dynamic and recurrent nature significant to investment and financing decisions. This is the only reason for researchers around the world have tried to investigate the factors influencing dividend policy of the firm and it remains the topic of ongoing research. Most of the studies were conducted about the USA firm but some studies were conducted outside the USA. Researchers generally adopted the economic approaches to identify the determining factors of dividend policy. We study dividend policy from the perspective of Indian companies listed in BSE and NSE. India is one of the largest economies in Asia. There are many factors which may influence dividend policy like, rate of depreciation, internal rate of return, size of firm, capital structure, profitability, policy of retention and investment opportunities. Factors may also differ in developing country like India and developed country like USA.

Dividend decision is a major decision which may have impact over investment and financial behaviour of the firm. Dividend payment at higher rate can decrease the cash flows and thereby can reduce the investment in new projects and investment opportunities available to the company. Investors always expect two kinds of earnings from the

investment, first in the form of capital gain which can be received when market price of the share increases and second in the form of dividend which is a part of profit and company distributes among the shareholders. It is very conflicting task of finance manager that what percentage should be retained and distributed.

Dividend is a major issue for the investors, major investors' want reinvestment while minority shareholder prefers dividend (La Porta et al. 2000; Mitton 2004). Payment of dividend or positive dividend policy has advantage in usage of fund and can reduce inappropriate use of fund by manager (Jensen, 1986; Lang & Litzenberger, 1989). Various problems can also be reduced regarding cash flow by distributing dividend to the shareholders (Fairchild, 2010). Few researchers suggested that the shareholders prefer dividend because of probability of fraudulent activities committed by insiders (Easterbrook, 1984; Jensen, 1986; Myers, 2000). Dividend distribution also depends upon the time-varying likings of shareholders (Baker & Wurgler, 2004) while (Modigliani & Miller, 1961) argued for the irrelevance concept. The mix of debt and equity also influences the dividend policy of the firm. Large amount of debt in capital structure is responsible for low rate of dividend because company using debt fund need adequate cash to fulfil the obligation.

This study investigates the following questions:

What are the factors determining dividend policy of the companies?

Do all the factors determine dividend policies are applicable to companies of different sector?

Variables

Dividend Policy: Study defines the dividend policy as the amount paid to the shareholders out of the profit. Data regarding the amount of dividend paid has been collected from the money control. Dividend decision is major outcome from the information gathered from the financial statements of the companies (Grossman & Hart, 1980; Li & Zhao, 2008).

Firm's Size: Review of prior literature shows the positive relationship between dividend policy and size of firm (Eriotis, 2005; Jiraporn et al., 2006; Leal, et al., 2007; Ijaz et al., 2017). Size of firm has been defined as the value of total assets. We selected large capital firms listed in BSE and NSE. Large firms pay high dividend because they have less opportunities to invest their earnings.

Capital Structure: It is defined as the combination of debt-equity. Firms using more debt in their capital structure have lesser funds to pay dividend to shareholders and vice-versa.

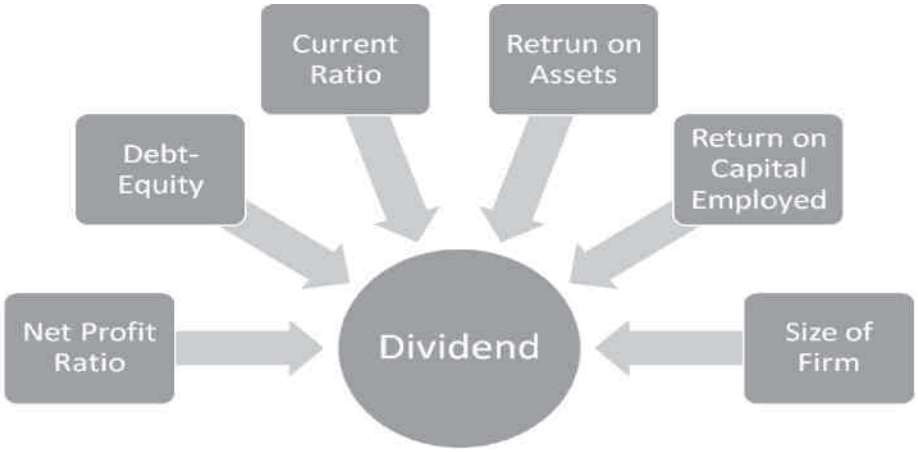
Profitability: It can be checked through net profit ratio and earning per share. Higher ratio shows the higher profitability and profitable firms are in position to pay the dividend than non-profitable firm (Kumar & Sujit, 2018).

Availability of Cash: It is the ratio, which explains the relationship of current assets to current liabilities and it also shows the capability of firm to pay their liabilities. Companies having adequate amount of cash may provide high rate of dividend than companies having inadequate cash or equivalent (Labhane & Mahakud, 2016).

Return on Assets: It may be defined as the earning capacity of the company by using its assets. It displayed as percentage of earning to total assets. High rate of dividend is dependent on high rate earnings. ROA also used by the analyst to check the efficiency of the company.

Return on Capital Employed: (Chen & Dhiensiri, 2009; Kumar & Sujit, 2018) argues that growth potential also determines the dividend policy of the company. ROCE is used to measure the operational efficiency of the firm and thereby the future growth potential.

Theoretical Framework



Literature Review

Dividend can be defined as the portion of profit which is distributed among the shareholder with the aim of wealth maximization and is a reward of investment. The practice that management follows in making dividend payout decisions or, in other words, the size and pattern of cash distributions over time to shareholders (Lease et al., 2000, p. 29). The study conducted by (Lintner, 1956) on American companies revealed that present earnings and previous dividend determines the dividend policy and the model developed also known as Lintner model.

(Omet, 2004; Brav et al., 2005) argued that stable future earning is the major determinant of dividend policy but has weak relationship between earnings and dividend. Dividend policy is also influenced by stable earnings, past dividend rate and expected growth in future earnings (Baker et al., 2010). Dividend policy is irrelevant and has no impact on the value of firm or the cost of capital (Miller & Modigliani's, 1961).

(Miller & Rock's, 1985) concluded that cash flow is an important determinant of dividend policy of the company. Firms having higher liquidity and profitability have stock of adequate cash or equivalent positively influences the dividend policy. Dividend policy also has relationship with insider ownership (Rozeff, 1982; Schooley & Barney, 1994). Companies in developing countries like, Malaysia pays high rate of dividend based on earnings and pays low rate of dividend or no dividend in case of loss (Pandey, 2001). (Glen et al., 1995) concluded that dividend policy of developed and developing countries are different.

(Gugler, 2003) concluded through his research conducted on Australian companies that dividend policy is affected by corporate governance. He found that government companies provide high rate of dividend while family based companies follow low rate of dividend policy. According to (Eriotis, 2005; Jiraporn et al, 2006; Leal, et al, 2007; Ijaz et al, 2017) dividend policy is determined by the size of firm.

(Jensen & Meckling, 1976; Fama, 1980 and Grossman & Hart, 1982) argued that companies are risk averse and prefer low debt to protect themselves from insolvency in case of low profitability or loss and provide high rate of dividend. (Al-Malkawi, 2007) concluded that debt financing has negative impact over dividend policy.

Based on the review of literature (Lintner, 1956; Jensen & Meckling, 1976; Rozeff, 1982; Grossman & Hart, 1980; Schooley & Barney, 1994; Lease et al., 2000; Eriotis, 2005; Jiraporn et al, 2006; Leal, et al, 2007; Li and Zhao, 2008; Chen & Dhiensiri, 2009; Labhane & Mahakud 2016; Ijaz et al, 2017; Kumar & Sujit, 2018) following hypothesis are developed to examine the factors influencing the dividend policy in India:

Ho1: There is no significant impact of NPR on dividend policy of companies.

Ho2: There is no significant impact of CR on dividend policy of companies.

Ho3: There is no significant impact of DE on dividend policy of companies.

Ho4: There is no significant impact of ROA on dividend policy of companies.

Ho5: There is no significant impact of ROCE on dividend policy of companies.

Ho6: There is no significant impact of Size of Firm on dividend policy of companies.

Research Methodology

Selection of Sample: Fifteen companies from three different sectors namely, Petroleum, Automobile, IT have been selected for the purpose of study. Five Large capital companies from each sector, IOCL, BPCL, ONGC, HPCL, GAIL, Maruti, Tata Motors, Mahindra, Swaraj and Hero Motors, TCS, Infosys, Wipro, HCL and Mphasis selected to examine the factors influencing the dividend policy.

Collection of Data: Secondary data from 2004 to 2018 has been collected from the website of Money control. Various ratios namely, NPR, DE, CR, ROA, ROCE and the size of firm selected as independent variable while DPS has been taken as dependent variable.

Data Analysis: E-views 9.0 version has been used to analyse the data. Specifically, Panel Regression analysis with fixed and random effect carried out (Oyedeko & Adeneye 2017; Elmagrhi et al. 2017). To check the relationship correlation applied. Preliminarily, descriptive statistics and unit root test also used with help of E-views.

The model used for study is as follow:

$$D_{it} = \alpha + \beta_1 NPRit + \beta_2 CRit + \beta_3 DEit + \beta_4 ROAit + \beta_5 ROCEit + \beta_6 SIZEit\mu_{it}$$

Where,

NPR	=	Net Profit Ratio
CR	=	Current Ratio
DE	=	Debt-equity Ratio
ROCE	=	Return on Capital Employed
ROA	=	Return on Assets

SIZE = Size of the firm

D = Dividend

α, is intercept and β1, β2, β3, β4,β5 and β6, are the coefficient of regression model.

Descriptive Statistics: it is very useful to describe, summarize and interpret the data in meaningful way. Helps to understand the frequency distribution and Mean, Median, SD are calculated.

Table 1: Descriptive Statistics of variable influencing dividend policy in India-

	DP	NPR	CR	DE	ROA	ROCE	SIZE
Mean	368.8484	11.88326	1.643549	0.357242	13.29204	19.84222	84934.86
Median	140.0000	10.22000	1.220000	0.170000	12.03000	17.69000	52613.47
Maximum	5500.000	36.99000	7.970000	2.390000	38.53000	60.45000	540949.3
Minimum	5.000000	-13.05000	0.000000	0.000000	-9.480000	-16.02000	0.000000
Std. Dev.	681.9997	9.732386	1.229574	0.478970	8.515328	11.78375	92738.92
Skewness	3.725297	0.439178	1.745483	1.935602	0.447210	0.457758	2.119664
Kurtosis	20.53960	2.363797	6.904605	6.850366	2.807403	3.370509	8.881452
Jarque-Bera	3404.521	11.02749	257.1823	279.4832	7.847633	9.144828	492.7816
Probability	0.000000	0.004031	0.000000	0.000000	0.019766	0.010333	0.000000

(Source: Computed Data)

In the above table the probability of DP, DE, NPR, CR, ROA, Size and ROCE is less than .05 (at 5% significance level) which shows that the data is normally distributed. The Average value of NPR, CR, DE, ROA and ROCE is 11.88, 1.64, 0.35, 13.29 and 19.84.

Unit Root Test

Table 2: Panel unit root test: Common unit root process by Levin, Lin & Chu t-

Method	Statistic	Prob.	Cross- sections
DP	-2.91473	0.0018*	15
DE	-4.57784	0.0000*	15
NPR	-4.86345	0.0000*	15
CR	-4.02397	0.0000*	15
ROA	-3.19739	0.0007*	15
CE	-6.42318	0.0000*	15
SIZE	-7.71167	0.0000*	15

(Source: Computed data)

**** Significant level at 5%***

Table 2 shows that all the variables have been checked for stationarity with the help of panel common unit root test by Levin, Lin & Chu t. In the above table the null hypothesis assumed that the data have unit root and found probability value >0.05 means data is stationary. Null hypothesis has been rejected in this case.

Table 3: Panel unit root test: Individual unit root process by Im, Pesaran and Shin W -stat-

Method	Statistic	Prob.	Cross- sections
DP	-5.31733	0.0000*	15
DE	-4.23191	0.0000*	15
NPR	-6.37221	0.0000*	15
CR	-5.67046	0.0000*	15
ROA	-5.56967	0.0000*	15
CE	-6.87336	0.0000*	15
SIZE	-5.26524	0.0000*	15

(Source: Computed data)
**** Significant level at 5%***

Table 3 shows that all the variables have been checked for stationarity with the help of panel Individual unit root process by Im, Pesaran and Shin W-stat. In the above table the null hypothesis assumed that the data have unit root and found probability value >0.05 means data is stationary. Null hypothesis has been rejected in this case.

Table 4: Panel unit root test: Individual unit root process by ADF - Fisher Chi-square-

Method	Statistic	Prob.	Cross- sections
DP	96.4519	0.0000*	15
DE	63.1411	0.0001*	15
NPR	97.6910	0.0000*	15
CR	86.9936	0.0000*	15
ROA	85.5326	0.0000*	15
CE	102.880	0.0000*	15
SIZE	89.3183	0.0000*	15

(Source: Computed data)
**** Significant level at 5%***

Table 4 shows that all the variables have been checked for stationarity with the help of panel Individual unit root process by ADF - Fisher Chi-square. In the above table the null hypothesis assumed that the data have unit root and found probability value >0.05 means data is stationary. Null hypothesis has been rejected in this case.

Table 5: Panel unit root test: Individual unit root process by PP - Fisher Chi-square-

Method	Statistic	Prob.	Cross- sections
DP	228.981	0.0000*	15
DE	155.222	0.0000*	15
NPR	210.040	0.0000*	15
CR	170.591	0.0000*	15
ROA	208.027	0.0000*	15
CE	185.952	0.0000*	15
SIZE	174.235	0.0000*	15

(Source: Computed data)

*** Significant level at 5%***

Table 5 shows that all the variables have been checked for stationarity with the help of panel Individual unit root process by PP - Fisher Chi-square. In the above table the null hypothesis assumed that the data have unit root and found probability value > 0.05 means data is stationary. Null hypothesis has been rejected in this case.

Correlation Analysis - It is very useful statistical tool which define the relationship of two variables.

Table 6: Showing the results of correlation analysis-

	LDP	NPR	CR	DE	ROA	ROCE	SIZE
DP	1.000000						
NPR	0.358521*	1.000000					
CR	0.220696*	0.591404	1.000000				
DE	-0.196664**	-0.453890	-0.520382	1.000000			
ROA	0.611103*	0.744522	0.431788	-0.338619	1.000000		
ROCE	0.642313*	0.623250	0.247338	-0.312888	0.927859	1.000000	
SIZE	0.139065*	0.056236	-0.035108	0.151417	-0.001102	-0.031162	1.000000

(Source: Computed data)

Positively Correlated

****Negatively Correlated***

Above table reports shows correlation among the various variable. Among the above variable ROA, ROCE and NPR of the companies have highly positive correlation with DP by 61%, 64% and 36%respectively. DE has negative correlation with DP by -0.19%.

Regression Analysis

It is a technique to find the impact of one or more variable on the other variable. Regression also used to measure the changes in dependent variable due to or based upon changes in independent variable. Based on above review literature (Friend et al., 1988; Kim et al., 1996; Rozeff, 1982; Schooley et al., 1994) Ordinary least square regression model, Fixed and Random effect model have been used to check the impact of Net Profit Ratio (NPR), Current Ratio (CR), Return on Assets (ROA), Return on Capital Employed (ROCE), Debt Equity Composition (DE) and Firm Size on Dividend Policy (DP) of the fifteen companies selected.

Table 7: Results of Regression Analysis (OLS, Fixed and Random Effect)-

	OLS			Fixed Effect			Random Effect		
Variable	**Coefficient**	**t-Statistic**	**Prob.**	**Coefficient**	**t-Statistic**	**Prob.**	**Coefficient**	**t-Statistic**	**Prob.**
C	1.949001	4.194715	0.0000*	1.951542	2.228010	0.0270*	2.162759	3.383301	0.0008*
NPR	-0.032097	-2.776813	0.0060*	-0.010052	-0.709898	0.4786	-0.012368	-1.005686	0.3157
CR	0.164647	1.969852	0.0501	0.070293	0.828791	0.4082	0.130344	1.650562	0.1003
DE	-0.034674	-0.202852	0.8394	-0.211463	-1.261456	0.2086	-0.201075	-1.258544	0.2095
ROA	0.021821	0.796244	0.4268	-0.037327	-1.334178	0.1836	0.003277	0.129696	0.8969
ROCE	0.069364	3.998471	0.0001*	0.039457	2.428244	0.0160*	0.042828	2.754223	0.0064*
SIZE	0.141474	3.507124	0.0006*	0.267228	3.265192	0.0013	0.183219	3.219152	0.0015*
R^2	0.46			0.67			0.19		
Ad. R^2	0.45			0.64			0.16		
F-stat (Prob.)	31.07 (0.0000)			20.94 (0.0000)			8.24 (0.0000)		
DWS	0.78			1.08			0.94		

(Source: Computed data)

** **Significant level at 5%***

The above table shows the reports results of regression analysis of ordinary least square, fixed and random effect model. Result indicates that the fixed effect model is most suitable method to check the determinants of dividend policy of Indian companies. Among all three method of regression R2 value is 0.67 (67%) and adjusted R2 value is 0.64 (64%) which mean that all six factors are affecting dividend policy by almost 70%. Among all the variable ROCE and Size of firm has significant effect over dividend policy at 5% significance level (>0.05). NPR, CR, DE and ROA have no significant effect over dividend policy of the companies at 5% significance level (<0.05). Hence, Ho5 (ROCE) and Ho6 (Size) have been rejected while Ho1 (NPR), Ho2 (CR), Ho3 (DE), and Ho4 (ROA) have supported.

High potential for growth in operating efficiency supports high rate of dividend distribution to shareholders. Results are also supported by previous findings of (Chen & Dhiensiri, 2009; Kumar & Sujit, 2018; Kowalewski et al. 2007; Juma'h & Pacheco, 2008). Above results also shows that larger firms pay high rate of dividend to shareholders due to expectation of increase in earnings of the company based upon size of firm (Ali et al,2017; Eriotis, 2005; Jiraporn et al, 2006; Leal, et al, 2007; Huda & Farah (2011).

Conclusion

Study examined various factor deciding the dividend policy of the companies listed in BSE and NSE. Using of fifteen larger companies of three different sector of India, ROCE and size of firm significantly influence the dividend policy. Company of higher potential earnings and of larger size tends to pay higher rate of dividend to shareholders may enjoy the benefits of large amount of equity holders than debt holder, have less obligation of pay cash as dividend.

Study is also useful to top management in formulate and revise the dividend policy by considering the results. High rate of dividend may attract the shareholder for the investment.

Present study can have some limitation. In this study financial data of 15 listed companies have been collect which can be increase, main focus is on Indian Listed Companies in NSE and BSE, it can also be done from other

countries or stock exchanges of other countries.

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