

DOES EXECUTIVE REMUNERATION AND FIRM LIFE CYCLE ENSURE REGULAR DIVIDEND PAYMENTS: A PANEL DATA ANALYSIS IN INDIA

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ABSTRACT

Dividend Policy is one of the most re-searchable topics in the area of Corporate Finance. Numerous Hypotheses and empirical researches have been done to explain the dividend policy of firms. The most popular is Lintner model, which suggests on previous year dividend and Earnings per share as significant determinants of dividend policy. The pertinent question arises is why some firms pay regular dividends when dividends can be sacrificed for growth and financial stability. The Agency theory highlights the conflict between promoters and managers for dividends over surplus utilization. The Life cycle theory suggests that mature firms tend to ensure regular dividend pay-out compared to younger firms. Under this context the present paper investigates the Managers Remuneration to ensure dividend stability while maintaining Investment and Financing decisions. The results show that mean of past dividend, managerial remuneration, firm size, return on net worth, firm maturity and debt to equity are the significant variables that influence the regular dividend paying behaviour of the Indian firms. However the firm growth, quick ratio, promoter holding and cash earnings per share are not found to be significant determinants of regular dividend of Indian firms. This paper contributes to the literature on dividend policy for Indian firms who are maintaining stable dividend policy.

Keywords: Agency Theory, Dividend Policy, Lifecycle Theory, Panel Data and Regular Dividends.

INTRODUCTION

Dividend pay-out is theoretical assumption of wealth maximization strategy for shareholders due to their investment in economic resources of the company. A conflict is evident between dividend policy and retention objective, while dividend signifies an increase in Shareholders wealth, retention promises use of economic resources for future growth of firm. The need for current income or future opportunities creates ambiguity for shareholders and managers of the firm. These findings make dividend decisions a complicated domain in Finance. Dividend decisions still remain a mystery in corporate finance (Black, 1976). The debate on determinants of dividend policy can be sourced to Lintner (1956). He proposed a model predicting dividend per share as a function of Earnings per Share, Past Dividend and Target pay-out ratio. The Lintner's Model became very popular and was in agreement by many researchers. (Fama & Babiak, 1968). However a research by Guerard, Bean & Andreas (1987) argued about significant interplay between R&D, New borrowings and Investment strategies as drivers for dividend decisions. Their studies found evidence from 140 manufacturing firms for the period from 1978-1982. Their platform was also shared in the Chinese Context by applying structural

equation modelling and discovers debt financing and investment avenues creating an impact on dividend policy.

The pertinent question arises here is about the regularity of dividends for certain firms. The dividend distribution satisfies Shareholders need for current income can be well argued but why do firm pay dividends even though the surplus cash can be utilized for growth avenues. The other question arises is does managers play a significant role in dividend stability decisions. Under the above background, the objective of this research is to explore the determinants of regular dividend policy of Indian non-financial firms. The study uses a sample of firms from BSE listed companies who have been paying dividends regularly over the period from 2007-2016 to gain a different perspective on the topic. This research will employ Panel Data Regression to identify the significant factors of regular dividend policy. The experimental variables selected in the study are motivated from the prior empirical literature on the topic. The rest of the paper is structured as follows:

Section 2 discusses the prior literature related to Dividend Policy Determinants. Section 3 explains the data-set used in the Study, the dependent and independent variables, its measurement and methodology applied. Section 4 enumerates the main results of the research. Finally, Section 5 includes the Study summary and conclusion.

LITERATURE REVIEW

Dividend stability refers to annual dividend payments on a regular basis. The purpose of this section is to review the dividend policy literature from regular dividend policy viewpoint. The existing literature discusses about significant empirical and theoretical contribution on regular dividend payments by firms. The Lintner Partial adjustment model (1956) was considered a pioneering research in Dividend Policy for dividend smoothing. Current Income and previous dividend history were the determinants of future dividend decisions. His study finds evidence from 28 public firms in US Manufacturing Sector. The model proposes that firms follow stable dividend policy irrespective of income volatility. Thus dividends are dependent on income, but are following a regular pattern.

In 2015, Lintner's Model was introspected using panel regression for German Firms from 1988-2008. Their findings reveal that lagged dividend has no statistical significance for firms paying regular dividends. The current earnings only were found to influence dividend payments. However the Lintner model was considered a best fit for describing stable dividend pattern (Fama & Babiak, 1968; Leary & Michaely, 2011; Chemmanur et al., 2010). Several studies emphasized on investment and borrowings to ensure regular dividend pay-out for companies. In 2012, a pay-out theory from Lintner dividend model was developed for mature public companies that can pay dividends regularly by incorporating the Investment and Financing activities in their model. The model asserts that dividends are not skipped to finance projects.

Gurerad, Bean & Andrews (1987) conducted their research on 140 firms during 1978-1982 to study regular dividend policy and the role of Research and Development (R&D) Expenditures. Their study finds evidence of negative interdependence between R&D Expenses and Dividend Policy. Their Findings support the Market Myopia hypothesis of Shareholder need for current income. Contrasting results were found in the work of Indian Researchers. Their findings not only contradicted Market Myopia but also Modigliani Miller Hypothesis. Lahiri & Chakraborty (2014) explained the dividend gap between R&D and Non R&D Indian Companies. Their research discovered that Leverage, Profitability, Firm Size and Age significantly influence dividend stability.

The Agency theory highlights the conflicts between stakeholders and managers for dividend stability (La, Porta et al., 2000; Hanlon, Myers & Shevlin, 2000). Jensen (1986) discusses about free cash flow hypothesis where he reveals about shareholders preference for dividends to discourage cash utilization in absence of investment opportunities by firm. Desai, Foley & Hines (2007) have examined the dividend policy determinants of US Multinational firms. The authors discover that firms with investment opportunities can maintain dividend stability by their financing activities. They also found a positive association between debt and pay-out ratios. The authors argue that parent company financing needs are met by pay-out from their affiliates. The Agency theory was also predominant in many researches on Indian Companies. The Influence of ownership on Dividend decision in manufacturing sector was discovered. Kapoor, Mishra & Anil (2010) conducted a Factorial Analysis for dividend policy determinants of Indian FMCG sector. The study identified negative interdependence between Liquidity, Dividend Pay-out Ratio and Promoter Holding.

The Lifecycle theory is a recent contribution to Dividend Policy Theory. The theory finds older firms to have greater propensity to pay dividends (De Angelo, De Angelo & Stulz, 2006). Some researchers contribute to lifecycle theory by their empirical evidence of mature firms paying regular dividends due to lesser growth options. Their findings support the hypothesis of Fama & French (2001). Some support the lifecycle theory in their studies. They find that retained earnings/equity positively impact dividends with young firms (having low retained earnings on invested capital) paying low dividends than older firms. Buchanan et al. (2017) investigated the dividend policies of US Firms from 2009-2012. The firm specific variables Size (Logarithm of assets), Cash/Assets, Market Capitalization/assets, Net Income/Assets, Capital Expenditure and Ownership were found to be statistically significant for initiating regular dividend payments. The Individual Ownership, Cash/Asset, Market Capitalization/Asset, Net Income/Asset signify a positive association whereas Capital expenditures and Size has a negative association with Dividend Payment. Some researchers argued that economy of a country plays a role in regular dividend policy. Chemmanur et al. (2010) emphasized in their research about US firms following a regular dividend policy compared to Asian Firms. In the similar lines of research, certain researchers discovered US Firms to be more regular than Japanese Firms. Contrary to this, another researcher in their research explored that Malaysian Firms practice dividend stability by following Lintner Model determinants. Denga, Lib & Liao (2017) conducted research on dividend stability for Chinese firms. The test sample consists of listed non-financial firms from 1999 to 2014. Size (Logarithm of Assets), Return on Assets, Promoter Holding, Age bear a positive impact on earnings persistence for dividend payments whereas Inverse relationship exists between Leverage and Earnings persistence.

The present paper has judiciously selected the explanatory variables based on prior research. The study attempts to contribute dividend policy literature from two aspects. First the study focuses on financial incentives for managers and regular dividend decisions of firms during investment and financing decisions. Second, the studies prioritize the determinants of regular dividend policy in the Indian context considering the panel data series of Indian firms.

DATA AND METHODOLOGY

Data was downloaded from Prowess database of CMIE for India. All the Indian firms, which were listed in the Bombay Stock Exchange (BSE), were included for the study. The financial companies are excluded from the study due to their different financial reporting structure.

In our sample of non-financial firms we have excluded all those firms who have not paid dividends on regular basis from 2007-2016. Some of the data were found to be missing for the explanatory variables from the database. Those data were omitted for our study purpose. The final sample consists of all non-financial firms with 3291 observations. Since the paper is pertinent to the area of dividend policy, the annual equity dividend as a percentage of Net Profit (DIV) is taken as the dependent Variable for the sample firms for the period between 2007 and 2016. The following are the other explanatory variables undertaken in the study as derived from the available literature.

Growth (GRT)

The investment decisions for future growth may affect the firm dividend policy. The paper has considered percentage change in assets as growth of firm in line with various researches.

Past Dividend (PDIV)

This is estimated as the arithmetic mean of past three year dividends. Since dividend stability is a continuous process it is believed by us that on an average past dividend trend may influence future dividends. The average method has been followed.

Quick Ratio (QU)

This variable is considered as proxy for Liquidity position of a company. A firm having sufficient liquidity can maintain dividend payments. This variable is emphasized in researches of Kapoor, Mishra & Anil (2010). The Quick ratio is denoted by ratio of liquid current assets to current liabilities. Liquid current assets represent cash, marketable securities and receivables.

Return on Net worth (RW)

Return on Net worth (also referred as Return on Equity) is a proxy for profitability. This variable is considered to determine the firm's earning capacity relative to shareholders investment. This variable can be found in the researches of many foreign and Indian authors.

Promoter Holding Percentage (PR)

This variable will empirically examine the agency theory, which describes the influence of controlling shareholders appetite for dividend payment. The use of this variable has been seen in many Indian and Foreign researches on Dividend Policy. The variable is estimated as the percentage of promoter holding to total number of shares held on the year of dividend payment.

Managerial Remuneration (MR)

Section 198 of companies act explains the estimation process of Managerial remuneration. The remuneration is fixed at a certain percentage of net profit of the firm.

Debt-Equity Ratio (DE)

This is a proxy for leverage ratio to interpret long-term solvency of firm. This variable is an indicator for dividend stability in relation to firm solvency. This variable has been used by Kapoor, Mishra & Anil (2010) and Desai, Foley & Hines (2007).

Size (SI)

The proxy for size is denoted by Logarithm of Total Assets. Our paper also investigates whether larger companies maintain stable dividend policy. The variable has been used by researchers, such as Kapoor, Mishra & Anil (2010); Deng, Lib & Liao (2017) and Buchanan et al (2017).

Maturity (MA)

The age of the firm can influence dividend policy in accordance with Lifecycle theory. The age is denoted as Maturity calculated by number of years since the firm was established. The empirical validity of life cycle theory is found in the researches of De Angelo & De Angelo (2006).

Cash Earnings per share (CPS)

Contrary to Lintner Model (1956), which takes Earnings per share we use Cash Earnings per, share so as to know the Cash generation capacity per share. This will give a clearer picture of earnings of the company instead of book profit, which may be prone to manipulation. This is estimated by ratio of Operating cash flow to number of shares outstanding.

Model Specification

Due to panel nature of data we employ panel data regression technique. To examine the impact of these variables on dividend pay-out, we structure the following model for regression analysis:

$$DIV_{it} = \beta_0 + \beta_1 (PDIV_{it}) + \beta_2 (GRT_{it}) + \beta_3 (MR_{it}) + \beta_4 (QU_{it}) + \beta_5 (RW_{it}) + \beta_6 (SI_{it}) + \beta_7 (PR_{it}) + \beta_8 (MA_{it}) + \beta_9 (CPS_{it}) + \beta_{10} (D/E_{it}) + \epsilon_{it}$$

Where β_0 is the constant of the equation, $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6, \beta_7, \beta_8$ are coefficients of variables, respectively. ' i ' denotes Company whereas, ' t ' denotes the current time period. ϵ Is the error term.

ANALYSIS AND EMPIRICAL RESULTS

Table 1 displays the output of descriptive statistics for the variables in research. The statistics show that there is a huge dispersion in dividend, cash earnings per share, past three years dividend respectively. Dispersion is least for managerial remuneration and growth. The figures are supported by the maximum and minimum values of the variables in Table 1.

Variable	Mean	Std. Dev.	Min	Max
DIV	28.55538	70.97519	0	3600
PDIV	28.60785	44.40272	0	1289.31
GRT	0.1760073	0.2997319	-0.75	6.19
MR	0.0502208	0.1340018	-0.29	2.533
QU	1.010492	0.9595734	0.03	17.87
RW	17.6254	13.6075	-93.53	151.85
SI	9.284053	1.62733	3.3	15.34
PR	56.18347	14.84262	14.96	93.56
MA	37.35947	21.22191	2	115
CPS	37.65807	140.9683	-96.57	4861.85
DE	0.6929596	0.7232064	0.01	10.75

To examine the correlation among independent variables a correlation matrix is presented in Table 2. Investigation of correlation coefficients indicates that there is no need to eliminate any of these variables.

	DIV	PDIV	GRT	MR	QU	RW	SI	PR	MA	CPS	DE
DIV	1.00										
PDIV	0.09	1.00									
GRT	-0.05	-0.03	1.00								
MR	0.05	-0.01	-0.05	1.00							
QU	0.00	-0.01	0.02	-0.04	1.00						
RW	-0.07	0.01	0.24	-0.12	-0.01	1.00					
SI	-0.03	-0.06	-0.05	-0.08	-0.08	-0.04	1.00				
PR	0.01	0.00	-0.01	-0.01	0.03	0.11	-0.06	1.00			
MA	0.00	-0.01	-0.09	0.00	-0.05	-0.07	0.23	-0.05	1.00		
CPS	-0.03	-0.04	0.01	-0.03	0.00	0.11	0.12	-0.09	0.08	1.00	
DE	0.09	0.13	0.08	0.05	-0.28	-0.04	0.00	0.01	-0.07	-0.03	1.00

Fixed or Random Effects Test			
Test Summary	Chi-Sq. Statistic	Chi-Sq. df	Prob.
Fixed-random	582.04	21.00	0.000
Coefficients			

Panel data regression employs two techniques-Fixed effect and random effect model. In fixed effects model the independent variables are correlated with the firm specific variables. The random effects model assumes that the independent variables are uncorrelated with the firm specific variables. The Hausman test determines the fixed effect or random effect model selection (Table 3). Here the probability determines the fixed effects model for this study. However in Table 4 we have displayed the output from both the models.

Explanatory	Fixed effects			Random fixed effects		
Variable	Coef.	t-stat.	Prob.	Coef.	z-stat.	Prob.
PDIV	-0.4493	-11.59	0.000	0.1132	3.69	0.000
GRT	-2.3729	-0.42	0.672	-11.4740	-2.27	0.023
MR	35.7798	2.73	0.006	18.9454	1.73	0.084
QU	-2.1814	-0.94	0.348	1.8247	1.18	0.238
RW	-0.4813	-3.02	0.003	-0.2628	-2.27	0.023
SI	-20.0712	-2.92	0.004	-1.2261	-1.31	0.191
PR	0.1110	0.31	0.753	0.0372	0.37	0.712
MA	3.3256	3.14	0.002	0.0459	0.64	0.525
CPS	0.0019	0.11	0.915	-0.0073	-0.75	0.454
DE	10.9864	2.88	0.004	8.9717	4.14	0.000
Constant	100.0147	2.31	0.021	31.0427	2.75	0.006
	F-test	16.47		Wald chi(6)	59.14	
	Prob.>F	0.000		Prob.>chi ²	0.000	
	R ²	0.0687		R ²	0.0033	

The coefficient for past dividend is negative and is significant at 1 percent level. The findings contradict Jabbouri (2016) and Adaoglu (2000) who find no significant influence of historical dividend on future pay-out. Although the coefficient is small it implies that for firms following a stable dividend policy the propensity to maximize dividends decreases if a firm has a history of higher mean dividend payments.

The life cycle theory explains that mature firms give precedence to dividend payments and constrain their investments. The results depict that growth coefficient is negative and insignificant whereas coefficient for maturity is positive and significant at 5 percent level. Thus the dividend stability is followed by slow growth or non-growth firms which are at their mature stage. Findings are in agreement with Baker et al (2012). The findings also support Reddy & Rath (2005) where growth had no statistical significance with regular dividend pattern.

Interestingly Quick ratio which is a proxy for Liquidity has no influence on regular dividend payments. The results are in accordance with researcher's Kapoor, Mishra & Anil (2016). The findings contradict Guerard, Bean & Andrews (1987) who find liquidity has significant influence on dividend. Return on Net worth is significant at 5 percent level and bears a inverse relationship with dividend pay-out. Therefore this can be inferred that firm's profitability is reduced while following a regular dividend pattern irrespective of liquidity. The findings contradict the results of Buchanan et al. (2017).

Size (Logarithm of Assets) has a negative relationship with pay-out having significance at 5 percent level. An increase in size finds an evidence of low pay-out. This argument finds support in researches of Buchanan et al. (2017) but contradicts Deng et.al (2013) where the authors find dividend stability increases with size.

Several researches have accounted for Promoter Holding as an Independent variable to study dividend policy in accordance with agency theory. Studies by Demsetz & Lehn (1985) and Chaplinsky & Niehaus (1987) focus on equity ownership of firm. Our findings contradict their results suggesting that for mature firms promoter holding does not play a significant role in dividend stability. Our findings also contradict Deng et al. (2017) on largest shareholder influence on regular dividends in Chinese Markets. Debt-Equity ratio finds a negative significance at 5 percent level. This implies that a higher leverage minimizes chances of higher

dividend pay-out. Various studies confirm this finding (Al-Twajjry, 2007; Crutchley & Hansen, 1989; Papadopoulos & Charalambidis, 2007).

An interesting aspect of our study is the Managerial remuneration has a very high coefficient with dividend payment and is significant at 5 percent level whereas cash earnings per share are insignificant with dividend payment. This implies that mature firms desiring to follow a regular dividend pattern give financial rewards to their directors who do not account the cash generation capacity of the firm for ensuring dividend stability. The findings are in agreement with Iturriaga & Cristomo (2010) who suggest that dividends are discipline technique for managers not to waste the cash resources of firm on low value projects.

SUMMARY AND CONCLUSION

The findings are interesting and intuitive. Based on the findings we analyse that Indian Firms who practice dividend stability reward their managers for not utilizing cash in low growth projects. The results of our model are contribute to the seminal work of Lintner model (1956) by considering past dividend pattern and leverage for stable dividend policy. Our model supports the Life cycle theory by discovering that mature firms tend to rely on dividend payments without considering growth opportunities.

Our research also confirms that Large Size firms who go for higher leverage will minimize their dividend pay-out ratio. The promoter holding with positive coefficient and significance at 1 percent level provides strong empirical evidence of Ownership Influence on regular dividend pay-out. The Executive remuneration has the highest coefficient whereas Size has the lowest coefficient. Thus it can be inferred that Indian Firms with higher incentives to managers and lower asset base can follow a regular dividend pattern in their stage of maturity. This paper contributes to the existing dividends literature by highlighting the role of directors and firm maturity.

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