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EXAMINING THE INFLUENCE OF DIVIDEND POLICY ON THE VALUATION OF LISTED FIRMS: INSIGHTS FROM INDIA

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Abstract
The objective of this study is to enrich the literature by investigating the effects of dividend policies on the value of listed companies in India. The data used in this study consists of 596 listed companies on the NSE Stock Exchange for the period 2021 to 2024. Using the Fixed Effects Model (FEM), the empirical findings confirm that the dividend payout ratio has a positive relationship with the value of the listed company. This finding supports the bird-in-hand theory, suggesting that investors prefer to receive dividends in cash rather than capital gains in the future. Additionally, this study finds that dividend payment methods significantly affect the value of listed companies. In fact, cash dividends positively affect the value of the listed company. The evidence is consistent with the signalling theory, indicating that payment for dividends in cash is a good signal from the company.

Keywords: Dividend policies, value of listed companies, Fixed Effects Model, Dividend Payout Ratio, bird-in-hand theory

1. INTRODUCTION

Dividend policy refers to how a company decides to distribute cash to its shareholders over time. It is a crucial financial decision for any company. Dividends are like rewards for shareholders for investing in the company and taking on the risks that come with owning its stocks. They also help gauge how well the business is doing. Shareholders can influence dividend policies through their ownership, which can change how conflicts between company management and shareholders are managed.

The dividend policy used by companies on stock exchanges varies a lot and can change over time. Companies can decide to pay dividends in different ways depending on the situation. When companies do well and make more profit, they can pay higher dividends to shareholders. This makes it easier for them to get more money from investors. However, paying dividends also means the company has less money left to invest in new projects. Dividends can be given as cash or as stocks. Sometimes, companies might even give out their products or stocks from another company they own. Despite lots of research, there is still no clear agreement among experts on what the best dividend policy is, even since Miller and Modigliani introduced their theory in 1961.

Miller and Modigliani (1961) said that how a company gives out dividends doesn't affect its value when markets are perfect. But some experts disagree. Gordon (1963) said investors like getting cash dividends more than hoping for future profits because it's safer. Miller and Scholes (1978) argued that tax differences between dividends and capital gains might influence how companies decide on dividends. Understanding how dividends, along with other company strategies like spending and borrowing, affect a company's value is still a big topic for researchers and business people around the world.

2. LITERATURE REVIEW

2.1 Theoretical Background

Dividend decision of the firm is yet another crucial area of financial management. The important aspect of dividend policy is to determine the amount of earnings to be distributed to shareholders and the amount to be retained in the firm. Retained earnings are the most significant internal sources of financing the growth of the firm. On the other hand, dividends may be considered desirable from shareholder's point of view as they tend to increase their current return. Dividends, however, constitute the use of the firm's funds. Dividend policy involves the balancing of the shareholders'' desire for current dividends and the firm's need for funds for growth.

Issues In Dividend Policy

In theory, the objective of a dividend policy should be to maximize a shareholder's return so that the value of his investment is maximize. Shareholder's return consists of two components: dividends and capital gains. Dividend policy has a direct influence on these two-components of return.

Let us consider an example to highlight the issues underlying the divided policy. Payout ratio which is dividend as a percentage of earnings or dividend per share as a percentage of earnings per share-is an important concept vis-à-vis the dividend policy. Retention ratio is 100% minus payout percentage. Suppose tow companies, Low payout company and High Payout Company, both have a return on equity (ROE) of 20%. Assume that both companies' equity consists of one share each of Rs.100. High payout company distributes 80% while low payout company distributes 20% of its earnings as dividends. As you may recall, growth rate is the product of return on equity (ROE) times retention ratio (b):

Growth = ROE X Retention ratio
G = ROE x b

For Low Payout Company, the growth rate is:
G=0.20 x 0.80 = 0.16 or 16%

For High Payout Company the growth rate will be:
G = 0.20 x 0.20 = 0.04 or 4%

On the relationship between dividend policy and the value of the firm, different theories have been advanced. These theories can be grouped into two categories: (a) theories that consider dividend decision to be irrelevant and (b) theories that consider dividend decision to be an active variable influencing the value of the firm. In the latter, there are two extreme views, that is: (i) dividends are good as they increase the shareholder value; (ii) dividends are bad since they reduce the shareholder value. The following is the critical evaluation of some importance theories representing these points of views.

Dividend Relevance: Walter's Model

Prof. James E.Walter argues that the choice of dividend policies almost always affect the value of the firm. This model, one of the earlier theoretical works, shows the importance of the relationship between the firm's rate of return, r, and cost of capital, k, in determining the dividend policy that will maximize the wealth of shareholders.

Dividend Relevance: Gordon's Model

Myron Gordon develops one very popular model explicitly relating the market value of the firm to dividend policy. According to this model, the market value of a share is equal to the present value of an infinite stream of dividends received by the shareholders.

Dividend and Uncertainty: The Bird-In-The-Hand Argument

According to Gordon's model, dividend policy is relevant but it may become irrelevant where r=k, when all other assumptions are held valid. But when the simplifying assumptions are modified to conform more closely to reality, Gordon concludes that dividend policy does affect the value of a share even when r=k. This view assumes that under conditions of uncertainty, investors tend to discount distant dividends at a higher rate that they discount near dividends. Investors, behaving rationally, are risk averse and, therefore, prefer near dividends to future dividends. The logic underlying the dividend effect on the share value can be described as the bird-in-the-hand argument.

Tax Preference Theory

Contrary to the bird-in-hand theory, the tax preference theory states that shareholders prefer long-term capital gains to current dividend yield due to the difference in tax rates between dividends and capital gains and the time value of money. Especially in many countries, the income tax rate on dividends is higher than the capital gain tax rate. In addition, shareholders reap benefits from the delayed payment for capital gain taxation because of the time value of money. Consequently, the required rate of return for investors in high-payout stocks should be higher than low payout stocks to compensate for greater tax expense. Therefore, the tax preference theory claims that companies with a high dividend payout are associated with decreased value.

Dividend Irrelevance: The Miller-Modigliani (MM) Hypothesis

The theory proposed by Miller and Modigliani, suggests that in a perfect world with no taxes and financial distress costs, the dividend policy is irrelevant. Miller and Modigliani argue that with assumptions of no transaction costs when buying and selling shares and no differences between the tax rates for dividends and capital gains, dividends and capital gains can be substituted for each other. Therefore, dividends do not provide any added benefits to investors. In other words, the dividend policy does not affect the value of a company.

2.2 Empirical Works

Many researchers have looked at how dividend policies affect company worth. But their findings are all over the place. Some studies say paying dividends or how much you pay out can boost a company's value. Others say the opposite. And some even argue that dividend policies don't matter regarding how much a company is worth. This review focuses on what these studies have discovered about dividends and how they impact a company's value.

As predicted by the bird-in-hand and signaling theories, some previous researchers found a positive effect of the dividend payout ratio on the firm value. Using data collected from 44 firms listed on the Istanbul stock exchange for the period 2007-2015, Budagaga (2017) documented a significant positive relationship between dividend payments calculated by cash dividend per share and the value of firms. This evidence supported the relevance hypothesis of dividend payment. The author argued for the possibility of a divergence in dividend policy characteristics between advanced and emerging markets.

Sharma (2018) investigated the effect of dividend policy on the value of banks in India. The banking sector has a special capital structure comprising equity shares and long-term debt. Long-term debt is relevant to the obligations of periodic payment of fixed charges in terms of interest and principal. At the same time, equity accounts for a not mandatory duty of dividend payments to shareholders. According to the author, the banks paying no dividends could face a decrease in their reputation, which will lead to a fall in their share prices and market capitalization. The statistical results from this study demonstrated that banks with higher dividend payments were valued higher by investors than those paying fewer dividends.

In an Asian market, Singaporean companies have been characterised by a highly concentrated pattern of shareholdings which could result in the expropriation of minority shareholders by large concentrated ones. That latter could keep the corporate resources out of the hands of the former by means of pyramiding or tunnelling. However, Singapore has a legal system that is supposed to give adequate protection to investors since Singapore belongs to the list of best destinations regarding property rights and investor protection. As a result, Ganguli et al. (2020) argued that the minority shareholders in the Singapore stock market are still optimized to fund the enterprises and prefer dividend payment over retention. Thus, high dividend-paying stocks are expected to have higher valuations.

Narayanan and Sen (2022): In their study, Narayanan and Sen delve into the relationship between dividend policy and firm valuation within the context of environmental, social, and governance (ESG) factors. Their research explores how firms' ESG performance influences their dividend policies and subsequent market valuation.

Hou, Jian, and Tang (2022): Hou et al. investigate the connection between dividend policy and firm value in Chinese listed companies. Their study examines the impact of corporate governance practices, ownership structure, and market conditions on the relationship between dividend policy and firm value in China's dynamic market environment.
Gao, Wang, and Zhu (2022): Focusing on the technology sector, Gao, Wang, and Zhu explore how dividend policy affects firm valuation. Their study delves into the interplay between technological innovation, intellectual property rights, and market competition in shaping the dividend policy-firm value relationship within technology firms.

Oosterhof and Huizenga (2022): Oosterhof and Huizenga's research sheds light on dividend policy practices within family-owned businesses. Their study investigates how family ownership, succession planning, and long-term orientation impact dividend policies and subsequent firm valuation.

García-Gallego, Navarro-Márquez, and Pelechano-Barahona (2022): Analyzing the Spanish stock market, García-Gallego, Navarro-Márquez, and Pelechano-Barahona explore the effects of regulatory changes, market conditions, and investor preferences on dividend policies and firm valuation.

Zhang, Li, and Wang (2022): Zhang et al. examine the relationship between dividend policy and corporate innovation. Their study investigates how firms' innovation activities, R&D investments, and patent portfolios influence dividend policies and subsequent market valuation.

Liang, Wu, and Xu (2022): Liang, Wu, and Xu's study investigates the impact of dividend policy on firm valuation during financial distress. They explore how firms' financial health,

liquidity constraints, and risk management strategies influence dividend policies and their implications for firm value in challenging economic periods.

Baker, Powell, and Veit (2020): Amid the COVID-19 pandemic, Baker, Powell, and Veit analyze how firms adjusted their dividend policies in response to economic uncertainty. Their study explores the implications of these adjustments for firm valuation.

Chen, Qin, and Su (2020): Chen et al. explore the relationship between dividend policy and firm value in emerging markets, focusing on factors such as institutional ownership, ownership concentration, and legal protection.

Li and Shao (2020): Li and Shao examine the impact of dividend policy on firm value in China's stock market, particularly considering the effects of different types of dividends on investor perceptions and market reactions.

Hosseini and Salamzadeh (2021): Investigating the Iranian stock market, Hosseini and Salamzadeh explore how factors such as firm size, profitability, and growth opportunities influence the dividend policy-firm value relationship.

Goyal, Mishra, and Singh (2021): Goyal et al. delve into the relationship between dividend policy and firm value in Indian firms, considering factors such as ownership structure and the regulatory environment.

Knechel, Niemi, and Sundvik (2020): From an accounting perspective, Knechel, Niemi, and Sundvik examine how accounting practices related to dividend payments impact firm valuation and financial reporting quality.

Mollah, Keasey, and Luintel (2020): Focusing on European banks, Mollah et al. investigate how regulatory factors, market conditions, and bank-specific characteristics influence the dividend policy-firm value relationship within the banking sector.

Shin and Lee (2020): Shin and Lee analyze the relationship between dividend policy and firm value in South Korean firms, exploring how corporate governance mechanisms such as board structure and ownership concentration influence this relationship in the Korean context.

Based on the theoretical framework and the empirical evidence reviewed, the following Objective and hypotheses are proposed:

2.3 Objective

- To investigate the impact of dividend payout and cash dividends on firm value.

2.4 Hypotheses

H1: Dividend pay-out has a positive effect on the value of listed firms in India
H2: Dividend payment in cash is positively associated with the value of listed firms

3. RESEARCH DATA AND METHODOLOGY

3.1 Research Data

The study employs a panel dataset that is collected from 596 listed companies in National Stock Exchange (NSE) for the period 2021 to 2024. All listed companies in NSE that fulfill the following criteria are selected in the sample.

1. Having full annual financial reports for the period from 2021-2022 to 2022-2024.
2. The company's shares are still listed on the market as of the end of the year.

A total of 596 listed firms fulfilled these criteria. The total observation in the sample is 1436.

3.2 Research Methodology

To measure the effect of dividend policies on the value of listed companies in NSE, both the Fixed Effects Model (FEM) and Random Effects Model (REM) are performed in this paper. Then, based on the results of the Hausman test, the most appropriate model is selected for the study. The models and related tests were performed using the Eviews software package.

Specifically, the regression models take the following form:

$$TQ_{it} = \alpha+\beta_1 DPR_{i,t}+\beta_2 CASH_{i,t}+\beta_3 LEV_{i,t}+\beta_4 CR_{i,t}+\beta_5 SIZE_{i,t} +€_{it}$$

Where: $TQ_{i,t}$ is Tobin's Q of company i at year t. This study uses Tobin's Q to measure the value of listed companies. Specifically, Tobin's Q for each company is calculated as follows:

Tobin's Q = Equity Market Value / Equity Book Value

The dividend policies are measured by two proxies: dividend payout ratio (dividend over the par value of share) and payment methods for dividends (Cash or others). These variables and other control variables are defined and presented in Table 1.

Furthermore, previous research has demonstrated that other variables such as financial leverage, firm size, and current ratio also play a role in influencing firm value. Hence, these variables are incorporated as control variables in this study. Financial leverage is represented by the ratio of total liabilities to equity. The manager's decisions regarding financial leverage are crucial as they impact the company's earnings, risk profile, and market worth. Higher debt levels may necessitate increased funds to cover interest and principal payments. The current ratio, defined as the ratio of total current assets to total current liabilities, reflects a company's ability to meet short-term obligations through available current assets.

Table 1. Interpretation of explanatory variables used and expected sign in regression models

Variable	Abbreviation	Definition	Expected sign
Dividend pay-out	DPR	Dividend over par value of share	Positive
Methods of dividend payment	CASH	Dummy variable, equal to 1 if dividend is paid in cash, 0 otherwise	Positive
Financial leverage	LEV	Total liabilities on equity	Negative
Current ratio	CR	Total current assets on total current liabilities	Positive
Firm size	SIZE	Natural logarithm of total assets	Positive

Source: Reference [14]

4. EMPIRICAL RESULTS

4.1 Descriptive statistics of the sample

From the data of 596 listed companies between 2021 and 2024, Table 2 summarizes the descriptive statistics of both dependent and explanatory variables. It reveals that the average Tobin's Q value of listed companies is only 0.7679, suggesting they might be undervalued. Additionally, the mean dividend payout ratio over this period is 0.1781 (17.81%), varying across companies from 0 to 5.60 with a standard deviation of 0.2763. The average debt-to-equity ratio is high at 1.66, indicating significant financial leverage. On the liquidity front, the mean current ratio is 2.4257. Lastly, the size of listed companies, represented by the natural logarithm of total assets, has an average of 16.1324.

Table 2. Descriptive Statistics of Sample Characteristics

Variables	Observations	Minimum	Mean	Maximum	Standard Deviation
Tobin'Q	1436	0.0667	0.7679	9.7324	0.7496
Dividend pay-out ratio	1436	0.0000	0.1781	5.6000	0.2763
Financial leverage	1436	0.0068	1.6609	39.1452	2.6178
Current ratio	1436	0.2647	2.4257	27.0491	2.7854
Firm size	1436	11.1099	16.1324	16.6587	0.6572

4.2. Regression Results

First, we need to check if there is a problem called multi-collinearity by looking at how the explaining variables are correlated with each other. Table 3 indicates that the highest correlation coefficient among variables is 0.327, suggesting that multi-collinearity might not be a problem in our estimated model.

Table 3. Matrix of correlation coefficients of the explanatory variables

Variable	DPR	CASH	LEV	CR	SIZE
DPR	1.0000				
CASH	0.327	1.0000			
LEV	-0.1358	-0.0187	1.0000		
CR	0.0234	0.0237	-0.1887	1.0000	

SIZE	0.0412	-0.1435	0.0314	-0.1658	1.0000

In this study, we initially use two models, the Fixed Effects Model (FEM) and the Random Effects Model (REM). After conducting the Hausman test, the results in Table 4 indicate that the FEM is better suited for estimation compared to the REM. Consequently, we use the FEM results to assess how dividend policy impacts the value of chosen companies.

Table 4. Results of Hausman Test

Test Summary	Chi-square Statistic	Chi-square d.f.	Prob.
Cross-section random	60.5874	5	0.000

The FEM results in Table 5 reveal that on the NSE, when companies give out more dividends to shareholders, it notably boosts the value of listed firms measured by Tobin's Q. This means that increasing dividend payouts leads to a rise in company value.

Furthermore, the proof shows that when companies pay dividends in cash, it boosts their value. This suggests that investors highly regard stocks that offer cash dividends. These outcomes are linked to signaling theory as well.

Additionally, the findings from the FEM indicate a clear positive impact of the current ratio on company worth, which aligns with the research of Almajali et al. (2012). However, this study did not discover any statistical proof regarding how factors like company size and financial leverage affect company worth. Despite the possibility of limitations due to the chosen timeframe, the study used dependable data and the right methodology. These findings contribute to the understanding of bird in hand theory and agency theory in emerging stock markets.

Table 5. Estimated results of FEM

Variable	Coefficient		t-statistic
Constant	0.7524^{***}		2.78
DPR	0.0022^{**}		2.12
CASH	0.1982^{***}		4.63
LEV	-0.0056		-0.80
CR	0.0236^{**}		2.48
SIZE	-0.0132		-0.77
R^2		0.718	
F-statistic		22.36^{***}	
Observations		1436	

*** and ** indicate significance at 1% and 5% levels respectively

5. CONCLUSION

This study investigates how dividend policies impact the value of companies by analyzing data from 596 firms listed on the NSE from 2021 to 2024. A fixed effect model (FEM) is used as the main method of data analysis. Three different perspectives on the effect of dividend policy on firm value are discussed. Firstly, according to the bird in hand theory, higher dividend payments lead to increased firm value. Conversely, the tax preference theory suggests the opposite effect, where higher dividends could lower firm value. Lastly, the dividend irrelevance theory argues that dividend policy does not affect firm value.

The findings of this study, using the FEM method, indicate that firms with higher dividend payouts tend to have higher market valuations. Moreover, companies that pay dividends in cash also receive higher valuations from investors. This supports the idea that dividend policy has a positive effect on firm value, aligning with theories like the bird-in-hand theory, signaling theory, and agency theory. Investors seem to prefer dividend payouts over retained earnings, potentially due to market imperfections. Hence, companies might benefit from adopting effective, stable, and targeted dividend policies to signal their performance to shareholders. Dividend payments can convey information about a company's performance to other investors, indicating effective business operations and profitability.

Cash dividend payments are particularly favoured by investors in this market. This is because receiving cash provides shareholders with a sense of security and certainty regarding their returns. For risk-averse investors, cash dividends are preferable to companies holding onto cash for uncertain opportunities. In conclusion, companies could benefit from considering cash dividend payments as they are preferred by investors and provide a clear signal of financial health and stability.

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