

IMPACT OF DIVIDEND DECISION ON COMPANY PERFORMANCE: AN EMPIRICAL STUDY OF SELECT FIFTY-50 INDEX COMPANIES

Haritika Chhatwal¹ & Rachna Mahalwala²

ABSTRACT

The dividend decision of a public listed company is vital for its various stakeholders as it is considered a yardstick to judge the financial performance of a company and its earnings generating capacity. However, the existing theoretical framework and previous empirical research relating to the effect of dividend decision on the firm's financial performance do not indicate a straightforward cause and effect relationship between the two. The present study examines the impact of dividend decision on company performance by taking a sample of listed companies on Nifty 50 index for the period 2013-14 to 2020-21. The technique of panel data regression with Pooled Least Square Estimation, Fixed Effects Model and Random Effects Model is adopted to examine the said relationship empirically. The study results find support for relevance theories, specifically bird-in-hand and signalling theory. The results establish a positive impact of dividend payment on company performance. The study results will be helpful for finance managers in determining dividend policy and for investors for making apt investment decisions.

Keywords: Dividend, Return on Assets, Return on Equity, Panel data, Random Effects Model

INTRODUCTION

Financial markets are an essential component of an economy since they act as the principal conduit for interaction between businesses and its accounting information.

¹ Researcher.

² Associate Professor, Bhagini Nivedita College, University of Delhi, India.
Email:rachnamahalwala@gmail.com

Individuals save money and invest it for the advancement of the financial system. Current developments in the economics and financial fields have prompted businesses to seek means and techniques to maintain acceptable financial performance standards. Numerous researchers have examined the financial decisions of corporations aimed at maximizing a corporation's value; dividend decision is one of these financial decisions. Dividend payment is the most critical financial choice having a significant impact on a company's financial success. A dividend decision also indicates a choice between internal and external financing for an existing firm with profitable investment opportunities. However, the connection between dividend decision and corporate financial performance remains a source of contention among academicians and financial experts as the firms' dividend policies are marked by uncertainty and a failure to grasp all of their facets. Therefore, the present study explores the influence of dividend decision on the financial performance of companies in India taking select companies listed on the Nifty 50 index as representative for the Indian corporate sector.

Numerous research has been conducted on this subject, the most notable being Miller & Modigliani's (1961) hypothesis, which demonstrated that dividend distribution does not affect an organization's market value or financial success. Since its inception, researchers have explored the impact of dividend payout on profitability and company value in several diverse situations (Chen & Chen 2011; Liow 2010). The question is whether this conclusion holds in emerging economies such as India. The National Stock Exchange (NSE)'s broad-based index Nifty 50 comprises a varied spectrum of sectors and organizations that value dividend policies highly and thus it provides an opportunity to quantify the effect of dividend decision on corporate performance in India, a developing economy. The following key question encapsulates the research challenge in light of the above discussion: "Does the dividend decision affect the financial success of Indian corporates listed for the period 2013-14 to 2020-21?"

The present study is divided into seven sections including this one. Section II provides theoretical background of corporates dividend policy. Section III gives a brief review of empirical works conducted to establish the linkage between financial performance and dividend policy. Section IV specifies the objective of the study. Section V

describes the data and research methodology adopted. Section VI elaborates the results of empirical analysis. Section VII offers summary and concluding remarks.

THEORETICAL BACKGROUND

IRRELEVANCE THEORY

Dividend irrelevance or dividend relevance hypothesis may be used to discuss the theoretical concepts underpinning dividend policy and its influence on companies. Miller & Modigliani's irrelevance proposition (1961) is the core of the contemporary corporate financial theory. Miller and Modigliani contended that dividend payout had no effect on the cost of capital and firm performance in a tax-free and transaction-fee-free environment. They demonstrated that while investors may generate any income pattern via the sale and purchase of shares, the anticipated return necessary to entice them to maintain the business's shares is impervious to how the company bundles its dividend payments and fresh stocks issuance. Because the company's assets, investment possibilities, estimated future net cash flows, and cost of capital are untouched by its dividend policy decisions, any change in the firm's payment structure has no impact on its valuation. As a result, dividend policy is meaningless, and firms may adopt any distribution pattern without impairing their worth. According to MM theory, dividend payouts will change as a result of the firm's investing and financing choices. This will not follow a predictable trend over time. Miller & Modigliani (1961) contended that the value of a corporation is determined only by its fundamental earning ability and operational risks. Booth & Zhou (2017) proved that in a "perfect market", the "dividend irrelevance" hypothesis remains true, which states that a dividend payment or non-payment has the same effect as changes in a firm's share structure. As a result, the dividend payment is meaningless to the firm's value; what counts is the firm's free cash flow. The market institutional and financial framework is essential in the actual world. According to the researchers, if retention is permitted, dividend policy is unimportant. In contrast, Magni (2010) demonstrated that the dividend irrelevance argument stays true even when the dividend is retained. The crucial assumption was not about retention but the Net Present Value of the additional money, and if the Net Present Value were zero, dividend irrelevance would apply.

RELEVANCE THEORIES

BIRD IN HAND THEORY

The idea behind this hypothesis is that in an unpredictable economic climate, shareholders always prefer present dividends to capital appreciation since capital gains are significantly riskier than current payouts. Consequently, shareholders will be prepared to pay a premium for corporations that pay dividends, maximizing the company's worth (Gordon, 1963). Numerous studies reveal that this theory fails when applied to a “full and perfect market” with investors behaving rationally (Bhattacharya, 1979).

RESIDUAL THEORY

The association between the dividend payout policy and the rate of growth of a firm are dependent upon the following considerations:(1) the willingness of companies to raise additional funds from the market and (2) their attitude toward dividends, i.e., willingness to return extra funds to the equity investors. The companies that are inclined to go for external financing, their growth and expansion dreams rest upon residual earnings after deducting fixed debt obligations and cash dividends. Therefore, their decisions to increase or decrease dividend payout affect the company's value, provided the returns on new investments are less or more from the market rate of return on equity (Walter, 1963). The core of the residual theory is that the companies tend to retain the profits if they have profitable investment opportunities for maximizing the wealth of the shareholders, otherwise distribute.

TAX-RELATED THEORIES

Litzenberger & Ramaswamy (1979) proposed that “investors who benefit from tax advantages may choose shares with little or no dividends”. This is because payouts are taxed more aggressively and promptly than capital appreciation, hence boosting the shareholder's taxable income. As a result, investors favour businesses that preserve earnings rather than release them as dividends. According to Black & Scholes (1974), investors weigh the benefits of substantial dividend payouts against the potential for

capital appreciation, and they prefer businesses with a dividend plan that fulfils their criteria.

AGENCY THEORY

One of the irrelevance theory's premises is that in perfect market conditions, there is no disagreement between corporate insiders and outside stockholders. Nevertheless, this premise is dubious in reality. According to agency theory, unless gains are transferred to external shareholders, they may be diverted by management for personal gain or invested in unsuccessful initiatives that benefit managers personally. Consequently, agency cost indicates that investors regard dividends more than profit, and organizations that pay significant dividends increase their value by reducing the amount of cash accessible to management (La Porta et al., 2000). Jensen and Meckling (1976) also extended the agency hypothesis to describe dividend significance. They demonstrated that agency costs develop when management acts self-interest rather than the stockholders.

SIGNALLING THEORY

According to signalling theory, firms may pay dividends to convey their future, even though capital gains skew investment decisions. The theory is based on the information discrepancy among management (insiders) and shareholders, in which management possess access to sensitive information about the firm's ongoing and prospective prospects that other investors do not. Managers are believed to have an incentive to transmit this knowledge to the market in this scenario. Miller & Rock (1985) claimed that information discrepancy between enterprises and external shareholders might result in dividends serving as a signalling mechanism. They demonstrate that dividend distributions disclose entirely private information. The central tenet of their philosophy is that corporations must make regular payments. Therefore, managers use dividends to provide necessary information to the financial market regarding their firm's current and future profitability and development (John & Williams, 1985). Bhattacharya (1979) believes that dividend distributions may serve as a barometer of firm's performance, with a rise in dividends suggesting that

management anticipate more cash flow in the future. As a result, increased payouts signify a more excellent value.

Accepting dividend relevance theories which indicate that dividend decisions affect financial success of firm and therefore help in maximising shareholders' wealth, the present study tries to find support for relevance theories in general and bird-in-hand theory and signalling theory in specific by checking whether the high dividend payment communicates sound future prospects of the company and thereby attract more investors thus driving up the financial performance reflected in ROA and ROE and consequently gears up the intrinsic value of the firm.

LITERATURE REVIEW

Adopting an appropriate dividend policy is critical when evaluating a company's success. Dividend decision of corporates is among the most contentious subjects in finance research and plays a significant role in developing countries (Hafeez et al., 2018). However, few studies have been conducted to determine the influence of dividend policies on firm's financial success, especially in developing markets. Enekwe et al. (2015) examined the effect of dividend payments on the performance of companies, using variables namely "return on capital employed (ROCE); return on assets (ROA), and return on equity (ROE)" and "dividend payout ratio (DP/O)". The study established a significant association between "dividend payout ratio (DP/O) and variables ROCE, ROA and ROE".

In their study, Hafeez et al. (2018) assessed company performance with ROA and ROE and dividend decisions with EPS and dividend pay-out ratio. They observed that the dividend policy itself is sufficient to account for and assess the company's performance. Farrukh et al. (2017) discovered that dividend policy significantly influences business performance based on a regression finding. Rehman & Hussain (2013) discovered that the dividend payout ratio has a substantial effect on the firm's return on assets. Additionally, Amidu (2007) revealed a positive correlation between ROA and dividend policy, but a negative correlation between ROA and dividend payout ratio when leverage is used.

Chindima et al. (2013), Agarwal & Pasricha (2012) and Anand (2004) establish the presence of the dividend relevance hypothesis in their study. Chelimo & Kiprop (2017) also sought to determine the influence of dividend payout on the stock prices and observed that other macro variables have a role in determining the stock price's worth. Nishat & Irfan (2004) and Anandasayanan & Thirunavukkarasu (2016) discovered that dividend payout, as assessed by dividend yield and payout ratio, had a significant influence on stock market performance and organization's success. Labhane & Mahakud (2016) found a beneficial impact of dividend payout ratio in the situation of limited investment possibilities in their analysis of 781 listed Indian firms.

Investor wealth and value increase as a business achieve more profitability, improving the firm's prospects. Additionally, profitable businesses may garner increased investor confidence, hence increasing the firm's worth. Earlier empirical studies in various sectors (Salvi et al. 2021; Cristea & Cristea, 2017; Manneh & Naser, 2015; Chen & Chen 2011) have shown a favourable relationship between performance and company value. Aderian & Alade (2013) demonstrate that dividend policy positively affects profitability and EPS. Financial success has a measurable beneficial influence on the choice to payout. Al Masum (2014) discovers a negative correlation between dividend yield and market price. In contrast, Waitthaka et al. (2012) discover a positive association between returns and dividend yield. Geng & Liu (2011) discover a favourable association between a dividend policy and enterprise value in examining listed firms. Farrukh et al., 2017; Ehikioya (2015); Rehman & Hussain, 2013; Amidu, 2007 discovered a positive association between firm value and dividend policy. According to Ebire et al. (2018), the payout ratio had a beneficial impact on corporate value. Habumugisha & Mulyungi (2018) and Al-Sa'eed (2018) discovered a significant positive association between pay out and the value of the firm. Contrary to previous research, Handoko, 2017 and Widiyanti et al., 2019 discovered a negative association between profitability and business valuation. Hirdinis (2019) discovered no significant influence on this relationship.

The previous literature review demonstrates a lack of consensus about the influence of dividends on company performance. Numerous study findings support the relevance hypothesis (Enebrand & Magnusson, 2018; Kumaresan, 2014; Aggarwal &

Pasricha, 2012; Geng & Liu, 2011). On the contrary, several research, including those by Litzenberger & Ramaswamy (1979), Ang & Peterson (1985), Koch & Shenoy (1999), and Al Masum (2014), oppose the relevance theory. Yli-Olli (1979) and Suvas (1994) likewise find no influence of dividend policy on market value. Thus, the actual effect of dividends is yet to be determined in the case of an emerging economy like India.

As discussed above, the existing empirical research identified several ideas and models relating to dividend policy and their possible influence on company performance and value. The research indicates that dividend decision is not just a matter of delivering cash to shareholders, rather it has far reaching implications on corporates' success. The argument incorporates both irrelevance and relevance hypotheses, including the bird-in-hand hypothesis, tax preference, signalling theory, and agency cost theory. The focus area in present study is consistent with both the bird-in-hand theory and signalling theory of relevance. These ideas claim a favourable impact of dividend decision on corporate performance and equity shareholders' wealth.

OBJECTIVE

In the backdrop of above literature review, the objective of present study is to examine the impact of dividend decisions (dividend payout) on the financial performance of companies (Returns on assets and Returns of Equity) in India. Through this objective, the study aims to find answer to the following research question: “Is the dividend decision affecting the financial performance of listed Indian companies during the sample period 2013-14 to 2020-21”.

DATA AND METHODOLOGY

1. DATA

For empirical analysis, the present study selected the public companies listed on the National Stock Exchange's broad-based index Nifty-50. The sample period for the study is 2013-14 to 2020-21. The secondary data on various financial variables of interest is retrieved from the Centre for Monitoring Indian Economy (CMIE) - Prowess

financial database. Due to certain missing information in this panel, a final selection of 42 companies is made out of 50 companies forming part Nifty-50 index to create a balanced panel.

2. METHODOLOGY

Variables:

The various financial variables considered for the present study are defined as follows.

Dependent Variables:

The most commonly used performance indicators of companies are Return on assets (ROA) and Return on Equity (ROE). While ROA is used for assessing the operational efficiency of the company in using its total assets to generate income and is considered as a yardstick of overall financial strength of the company, the ROE is used for assessing the income generating capacity of equity financing and is useful for equity investors to know income generating capacity of their investment. Generally, the higher the ROE, the higher the intrinsic value of a company. In this study, the company's financial performance is proxied through two measures: Return on Assets and Return on Equity.

Return on Assets: Return on Assets (ROA) is calculated as operating profits divided by total assets. Operating profit refers to profits earned from continuing core business operations of the company before deducting interest and taxes. ROA is the dependent variable.

Return on Equity: Return on Equity (ROE) is taken as profit after tax divided by shareholders' fund. Shareholders' fund denotes the amount of equity in a company and is computed by deducting the total amount of liabilities on balance sheet of the company from the total amount of assets. ROE is the dependent variable.

Independent Variables:

Although the management of the company is empowered to decide whether to pay the dividend and how much, the dividend decision in itself and consequently the company

performance of the company is based on many other considerations like the size of the company, liquidity position of the company, available investment opportunities, the degree of financial leverage and many others. The large companies normally have greater ability to pay dividend as they can easily raise external finance for their growth projects, however the small companies tend to retain more profits for future growth and investment due to difficult accessibility to external financing. A company with a sound liquidity position normally has a greater ability to pay the dividend in comparison to companies with tight cash situation. The companies having investment opportunities with handsome returns in near future are likely to retain more profits for business growth and pay less dividend. The debt equity combination adopted by a company i.e., the degree of financial leverage also influences its decision to pay the dividend because dividend is declared only if the company has met its fixed financial obligations first and sufficient profits are available to pay dividend to equity shareholders.

In this study, the dividend payment is proxied with the dividend payout ratio, which is taken as an explanatory variable. The size of the company, investment opportunities, leverage ratio and liquidity are taken as control variables.

Dividend Payout ratio: Dividend Pay-out ratio (DP/O) is defined as the dividend per share divided by earnings per share.

Size of the Company: Size is defined as the natural logarithm of the company's total assets.

Investment Opportunities: Investment opportunities are proxied with a percentage change in fixed assets ($\text{Fixed Assets}_t - \text{Fixed Assets}_{t-1} / \text{Fixed Assets}_{t-1} * 100$).

Leverage Ratio: Leverage Ratio is taken as long-term debts divided by shareholders' funds.

Liquidity: Liquidity is measured with the current ratio (current assets/current liabilities).

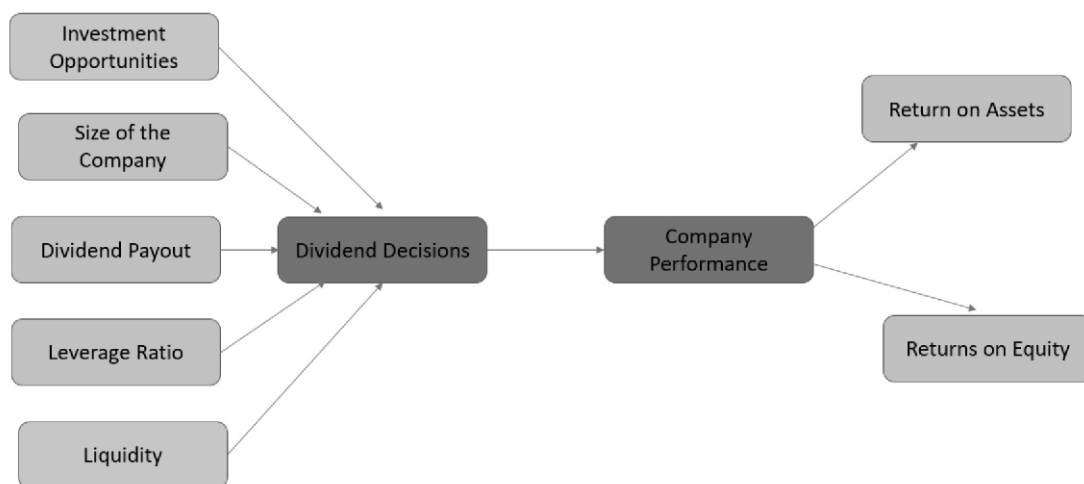


Figure 1: Variables Used in Study

Analysis

Descriptive Statistics: Descriptive statistics help provide some basic information about the data. The empirical analysis will begin with the descriptive statistics of various financial variables used to give the data's first-hand feel.

Correlation Analysis

It states the association between two variables of interest. It demonstrates the direction in which two variables are related and the degree to which they are related. The present study conducts correlation analysis to check the multicollinearity problem among independent variables employed in the study.

Regression Analysis

It is a statistical technique to estimate the strength of the association between a dependent variable and one or more independent variables. In the present study, the panel data regression analysis is used with Pooled Ordinary Least Square (Pooled

OLS), Fixed Effects Model (FEM) and Random Effects Model (FEM) with the following regression equation:

$$\text{Return on Assets}_{it} = \alpha + \beta_1(\text{Dividend Payout})_{it} + \beta_2(\text{Size of Company})_{it} + \beta_3(\text{Investment Opportunities})_{it} + \beta_4(\text{Leverage Ratio})_{it} + \beta_5(\text{Liquidity})_{it} + \mu_i + \varepsilon_{it} \dots\dots\dots (1)$$

$$\text{Return on Equity}_{it} = \alpha + \beta_1(\text{Dividend Payout})_{it} + \beta_2(\text{Size of Company})_{it} + \beta_3(\text{Investment Opportunities})_{it} + \beta_4(\text{Leverage Ratio})_{it} + \beta_5(\text{Liquidity})_{it} + \mu_i + \varepsilon_{it} \dots\dots\dots (2)$$

In equations 1 and 2 above, 'i' is used for cross-section units, 't' for the time-series element, 'α' is a constant term denoting intercept, and 'βs' are the coefficients of independent variables, μ_i denotes unobserved cross-sectional heterogeneity and ε_{it} is the error term.

For the present study, the panel data of various financial variables of 42 companies listed in the Nifty-50 index for the sample period (2013-14 to 2020-21) is taken for conducting the panel data analysis to examine the impact of dividend decisions (DP/O) on company performance (ROA/ROE) along with four control variables, namely, the size of the company, the investment opportunities, the leverage ratio and the liquidity. To check the robustness of results, we are using Pooled Ordinary Least Squares Estimation, Fixed Effects Estimation and Random Effects Estimation. In the first instance, the Pooled Ordinary Least Square (Pooled OLS) model is employed, ignoring the different characteristics of companies belonging to the diverse sectors of the economy and neglecting the time-series nature of data. However, ignoring the heterogeneity of panel sets may lead to biased results. Therefore, the Lagrange Multiplier test of Breusch-Pagan (1979) (BP test) is conducted on the results of Pooled OLS to check existence of random effects and necessity to apply Random Effects Model (REM). When the results of the BP test reject the null hypothesis of “no random

effects”, the Random Effects Model is applied to run panel regression. The Random Effect Model allows for individual cross-section effects and the effects of time-invariant variables in the estimation. The REM accepts that entity’s error term is not correlated with the independent variables included in the regression model which permits for time invariant variables to serve as explanatory variables. However, REM estimation may be biased as it does not control omitted variables. To check the appropriateness of applied REM, the Hausman Test (1978) is applied to verify the null hypothesis "Random Effects model is appropriate". If REM turns out to be inappropriate with Hausman Test, FEM is adopted to run panel regression. Fixed Effects Model does not estimate the effects of those variables whose values are time-invariant. However, it takes away omitted variable bias by measuring changes within cross-section units across time. The results of three models (Pooled OLS, REM, FEM) and BP test and Hausman Test results are presented in Section VI and discussed.

Hypotheses

To determine the impact of dividend decision on company performance, the following null hypotheses will be tested:

H₀ 1: There is no statistically significant impact of dividend payout (DP/O) on Return on Assets (ROA).

H₀ 2: There is no statistically significant impact of dividend payout (DP/O) on Return on Equity (ROE).

EMPIRICAL FINDINGS

1. Descriptive Statistics

The empirical analysis begins with describing the characteristics of data. The descriptive statistics for dependent and independent variables are shown in Table 1. The results indicate that distributions of variables do not match normal bell-shaped distribution as the values of mean and standard deviation are different from 0 and 1, respectively, and data is positively/negatively skewed and is highly leptokurtic.

Furthermore, the probability values of the Jarque-Bera Test are less than 0.05. Hence the null hypothesis of the normal distribution is rejected.

Table 1: Descriptive Statistics with Jarque-Bera Test

	ROA	ROE	DIVIDEND P/O	SIZE	INVESTMENT	LEVERAGE	LIQUIDITY
Mean	0.116061	14.76720	505.5950	12.48979	34.62757	0.166685	1.762244
Median	0.088108	8.636665	225.0000	12.46886	11.51795	0.112120	1.423700
Maximum	0.775753	132.1518	7900.000	15.57107	4893.610	0.650755	16.72511
Minimum	-0.193074	-13.65643	0.000000	8.751300	-100.0000	0.000000	0.000000
Std. Dev.	0.110808	20.12924	869.7208	1.357083	290.2475	0.153382	1.535624
Skewness	2.006820	2.849063	4.350078	-0.144098	15.10745	1.083935	4.380957
Kurtosis	11.25475	12.93812	27.49944	2.627160	247.0682	3.490225	35.42438
Jarque-Bera	1161.951	1809.948	7913.842	3.062666	816510.1	68.13055	15558.54
Probability	0.000000	0.000000	0.000000	0.021624	0.000000	0.000000	0.000000
Sum	38.41615	4887.942	142072.2	4134.120	11219.33	55.17258	583.3027
Sum Sq. Dev.	4.051886	133711.5	2.12E+08	607.7526	27210681	7.763633	778.1868
Observations	336	336	336	336	336	336	336

2. Correlation Analysis

The group statistics relating to correlation among various variables are given in Table 2. The correlation results specify that dependent variables (ROA and ROE) are positively correlated to explanatory variable Dividend Pay-out (D P/O). The correlation between various independent variables reveals a negative association between dividend payout and size, investment and leverage and a positive association with liquidity. The company's size positively relates to investment and leverage and negative association with liquidity. Investment and leverage are positively correlated, but investment and liquidity are negatively correlated. The leverage, i.e., the debt-equity ratio, is negatively associated with liquidity. No two independent variables show a high correlation as the correlation value in all cases is below 0.50. Thus, the correlation matrix reveals that no two independent variables are perfectly correlated, confirming the absence of multicollinearity problems in the model.

Table 2: Correlation Matrix

	ROA	ROE	DIVIDEND P/O	SIZE	INVESTMENT	LEVERAGE	LIQUIDITY
ROA	1.000000						
ROE	0.398351	1.000000					
DIVIDEND P/O	0.378411	0.875884	1.000000				
SIZE	-0.260731	-0.116600	-0.044333	1.000000			
INVESTMENT	-0.027030	-0.022922	-0.020406	0.098964	1.000000		
LEVERAGE	-0.365933	-0.359401	-0.279433	0.450276	0.105692	1.000000	
LIQUIDITY	0.235368	0.122794	0.076366	-0.384588	-0.032767	-0.330384	1.000000

3. Regression Analysis and Hypotheses Testing

The empirical findings of panel data regression run on equations (1) and (2) described under methodology using pooled OLS, fixed effects model and random effects model along with Breusch-Pagan test and Hausman test (if necessary) are given in table 3 and table 4.

The results of panel regression taking Returns on Assets (ROA) as the dependent variable and dividend payout (DP/O) as independent variables with size, investment, leverage and liquidity as control variables are summarised in table 3. Table 3 reveals that with pooled OLS technique, ROA and DP/O are significantly positively associated at a 1% significance level, indicating that company performance increases with dividend payment. On the other hand, the company's leverage ratio is found to be significantly negatively associated with ROA at a 1 % significance level, indicating that company performance decreases as financial leverage increases. Investment opportunities, size of the company and liquidity have no significant influence on company performance. The results of pooled OLS were subjected to the BP test, and results indicated that pooled OLS estimation is not a perfect fit as cross-section random effect exists and thus, we moved for random effects model and fixed effects model. The fixed effect panel regression results depicted no significant impact of DP/O on ROA and no significant impact of control variables (investment opportunities, size of the company, leverage ratio and liquidity position of the company) on ROA. Similarly, the results of the random effects model indicated no impact of DP/O on ROA as well as no impact of control variables (investment opportunities, size of the company, leverage ratio and liquidity) on ROA. Since the results of both random effects model and fixed effect model are insignificant in totality, the Hausman test is not conducted to find favour for one out of the two models: REM and FEM. This means results do

not become better by moving from Pooled OLS to FEM and REM. Disregarding the results of BP test, REM results and FEM results, looking at Pooled OLS results in isolation, we can say that null hypothesis (H_0) is rejected. But, as BP test show the existence of panel effects, we cannot rely thoughtlessly on Pooled OLS estimation results. Thus, no useful information is sought through the whole empirical analysis.

Table 3: Results of Panel Data Regression with ROA as Dependent Variable

Dependent Variable: ROA			
Beta Coefficients with Standard Errors in Parentheses			
Independent Variables	Pooled OLS	Fixed Effect	Random Effect
Dividend Pay-out	0.000017*** (0.000006)	0.000003 (0.000002)	0.000004 (0.000003)
Size of Firm	-0.006651 (0.008220)	0.004607 (0.020375)	-0.006945 (0.011930)
Investment Opportunities	-0.000155 (0.000223)	-0.000053 (0.000080)	-0.000047 (0.000087)
Leverage Ratio	-0.176872*** (0.059448)	0.002000 (0.080197)	-0.055684 (0.069779)
Liquidity	0.007211 (0.011684)	0.000241 (0.002041)	0.001000 (0.001418)
Constant	0.202376** (0.098830)	0.064772 (0.235181)	0.209551 (0.141438)
Observations	336	336	336
Time Dummies	yes	yes	yes
Robust Error	yes	yes	yes
BP-Test LM Statistic (p-Value)	497.47*** (0.0000)		

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.010$

The panel regression results with the company performance proxied with Returns on Equity (ROE) as dependent variable and dividend payment represented with dividend payout (DP/O) ratio as independent variable and size, investment, leverage and liquidity as control variables are summarised in table 4. The results of pooled OLS estimation show a significant positive impact of DP/O on ROE at 5% level of significance, inferring that payment of dividends affects the company performance.

The company's size, investment opportunities and liquidity position of the company were found to have no relationship with the company performance. The leverage ratio is found to have a significant negative impact on the company performance at 5% level of significance. The BP test on the estimated results of pooled OLS revealed presence of cross-section random effect inferring that pooled OLS model does not fit well. The fixed-effects model results show a significant positive impact of DP/O on ROE at 10 % level of significance, meaning that dividend decision is relevant and improves company's financial performance. The control variables investment opportunities, leverage ratio and liquidity showed no significant connection with ROE. However, the firm's size was positively related to the company performance (ROE). The results of the random effects model also reveal a significant positive impact of DP/O on ROE at 5% level of significance. However, all the control variables, the size, investment opportunities the leverage ratio and liquidity position, were found to have no significant impact on ROE. On the random effects model results, the Hausman test was conducted to know its appropriateness with panel data under consideration. The test results rejected the null hypothesis "Random Effect Model is appropriate." Thus, fixed effect panel regression turned out to be the best fit model with ROE as the dependent variable. Based on the results, we can conclude that the payment of dividends affects company performance reflected through ROE and thus, payment of dividends is a relevant factor in determining the company's performance. Thus, the null hypothesis ($H_0 2$) is rejected.

Table 4: Results of Panel Data Regression with ROE as Dependent Variable

Dependent Variable: ROE			
Beta Coefficients with Standard Errors in Parentheses			
Independent Variables	Pooled OLS	Fixed Effect	Random Effect
Dividend Pay-out	0.004725** (0.002148)	0.001798* (0.001028)	0.002199** (0.001114)
Size of Firm	0.843465 (3.052641)	15.387804* (8.189402)	4.802227 (3.834671)
Investment Opportunities	0.008451 (0.025483)	-0.003940 (0.010355)	-0.002315 (0.011964)
Leverage Ratio	-35.126344** (14.980512)	13.630029 (10.239904)	-6.209152 (10.425737)
Liquidity	1.035544 (2.471809)	1.032286 (1.047345)	1.178615 (1.164605)
Constant	-0.166082 (37.710719)	-180.377827* (100.835645)	-49.902277 (45.963578)
Observations	336	336	336
Time Dummies	yes	yes	yes
Robust Error	yes	yes	yes
BP-Test LM Statistic (p-Value)	428.52*** (0.0000)		
Hausman Test Chi-Square Statistic (p-Value)	27.09000 (0.0000)		

* p<0.10, ** p<0.05, *** p<0.010

CONCLUSION

Understanding the impact of dividend decision on performance of the companies is one of the biggest challenges for finance managers and academicians. Since the mid-nineteenth century, numerous explanations for the interrelationship between dividend policy and business success and corporate payment behaviour have been suggested. Still, the topic is unresolved, and the question remains as to which factors influence dividend decision and how dividend decision interact with company performance. The present study is a modest attempt to find out the impact of dividend decision on company performance on a panel of 42 companies for the sample period 2013-14 to 2020-21 by employing panel data regression technique. For the study, ROA and ROE are taken as a measure for company performance and dividend payout ratio as a measure for the company's dividend decision with four control variables, namely, “size of the company, investment opportunities, leverage ratio, and liquidity”. The empirical findings did not give clear results when the impact of dividend decision on company

performance with ROA as dependent variable is studied. However, when company performance is measured with ROE, the results revealed a positive impact of dividend policy (DP/O) on company performance, thereby authenticating the contentions of dividend relevance theories, that is, a high the dividend payout ratio is desirable from the point of equity shareholders and payment of dividend spread signals of sound financial prospects of the company leading to maximising the shareholders' wealth and thus negating the existence of irrelevance hypothesis. The control variables, investment opportunities, leverage ratio and liquidity were found to have no significant impact on company performance. However, the firm's size showed signs of positive impact on company performance indicating that size of the company influences the performance of companies.

Based on empirical findings, the study concludes that dividend policy is relevant, and finance managers need to be extra cautious in designing appropriate dividend policy that helps enhance company performance (ROE) leading to increase in share prices due to positive signalling and ultimately maximize equity investors' value. This study indicates that payment of dividend serves as a barometer for the company's sound financial health and this signals sound future prospects of the company to existing and potential investors. The study also indicates that ROE (Net Income based approach) gives better results while studying company's financial performance in comparison to ROA (Net Operating Income based approach).

This study is expected to provide an insight to stakeholders of companies in comprehending the importance of dividend payout and how it might affect organizational effectiveness. These results are in line with investors' preference for current dividends to retention of money for plausible investment opportunities by corporates for giving opportunities to earn capital gains later. The findings of this study will serve as a valuable resource for future research. Future studies may incorporate existing variables and add more statistical parameters to toughen and strengthen the outcomes, such as board composition, earnings per share, leadership strategies, financial leverage, internally or externally reporting, risk, and firm profitability.

REFERENCES

- Adediran, S. A., & Alade, S. O. (2013). Dividend policy and corporate performance in Nigeria. *American Journal of Social and Management Sciences*, 4(2), 71–77.
- Aggarwal, D., & Pasricha, J. S. (2012). Relationship between dividend policy and value of firm- A study of information technology industry and pharmaceuticals industry in the indian context. www.ccf.org.cn/cicf2012/papers/20120104143625.pdf
- Al Masum, A. (2014). Dividend policy and its impact on stock price – A study on commercial banks listed in Dhaka stock exchange. *Global Disclosure of Economics and Business*, 3(1), 7–16. <https://doi.org/10.18034/gdeb.v3i1.166>
- Al-Saeed, M. (2018). The impact of ownership structure and dividends on firm's performance: Evidence from manufacturing companies listed on the Amman stock exchange. *Australasian Accounting, Business and Finance Journal*, 12(3), 87–106. <https://doi.org/10.14453/aabfj.v12i3.7>
- Amidu, M. (2007). How does dividend policy affect performance of the firm on Ghana stock exchange. *Investment Management and Financial Innovations*, 4(2), 103–112.
- Anand, M. (2004). Factors influencing dividend policy decisions of corporate India. *The ICAI Journal of Applied Finance*, 10(2), 5–16.
- Anandasayanan, S., & Thirunavukkarasu, V. (2016). Dividend policy and corporate profitability econometric analysis of listed manufacturing firms in Sri Lanka. *International Journal of Commerce and Management Research*, 2(1), 53–58.
- Ang, James. S., & Peterson, David. R. (1985). Return, Risk, and Yield: Evidence from Ex Ante Data. *The Journal of Finance*, 40(2), 537–548. <https://doi.org/10.1111/j.1540-6261.1985.tb04971.x>
- Bhattacharya, S. (1979). Imperfect information, dividend policy, and “the bird in the hand” fallacy. *The Bell Journal of Economics*, 10(1), 259. <https://doi.org/10.2307/3003330>
- Black, F., & Scholes, M. (1974). The effects of dividend yield and dividend policy on common stock prices and returns. *Journal of Financial Economics*, 1(1), 1–22. [https://doi.org/10.1016/0304-405x\(74\)90006-3](https://doi.org/10.1016/0304-405x(74)90006-3)

- Booth, L., & Zhou, J. (2017). Dividend policy: A selective review of results from around the world. *Global Finance Journal*, 34, 1–15. <https://doi.org/10.1016/j.gfj.2017.07.002>
- Brennan, M. J. (1970). Taxes, market valuation and corporate financial policy. *National Tax Journal*, 23(4), 417–427. <https://doi.org/10.1086/ntj41792223>
- Chelimo, J. K., & Kiprop, S. K. (2017). Effect of dividend policy on share price performance: a case of listed insurance companies at the Nairobi securities exchange, Kenya. *Journal of Accounting, Finance and Risk Management*, 2(3), 98–106.
- Chen, L. J., & Shun-Yu, C. (2011). The influence of profitability on firm value with capital structure as the mediator and firm size and industry as moderators. *Investment Management and Financial Innovations*, 8, 1231–1239.
- Cristea, C., & Cristea, M. (2017). Determinants of corporate dividend policy: evidence from Romanian listed companies. In *MATEC Web of Conferences* (Vol. 126, P. 04009). EDP Sciences.
- Ebire, K., Mukhtar, S. S., & Onmonya, L. (2018). Effect of dividend policy on the performance of listed oil and gas firms in Nigeria. *International Journal of Scientific and Research Publications*, 8(6), 289–302.
- Ehikioya, B. I. (2015). an empirical investigation of the impact of dividend policy on the performance of firms in developing economies: Evidence from listed firms in Nigeria. *International Journal of Finance and Accounting*, 4(5), 245–252.
- Enebrand, A., & Magnusson, T. (2018). Dividend policy and its impact on firm valuation: A study of the relationship between dividend policy and stock prices on the Swedish market. Jönköping University, Sweden, ISRN: JU-IHH-FÖA-2-2018062.
- Enekwe, C. I., Nweze, A. U., & Agu, C. I. (2015). The effect of dividend payout on performance evaluation: Evidence of quoted cement companies in Nigeria. *European Journal of Accounting, Auditing and Finance Research*, 3(11), 40–59.
- Farrukh, K., Irshad, S., Shams Khakwani, M., Ishaque, S., & Ansari, N. Y. (2017). Impact of dividend policy on shareholders wealth and firm performance in Pakistan. *Cogent Business & Management*, 4(1). <https://doi.org/10.1080/23311975.2017.1408208>

- Geng, C., & Liu, C. (2011). A research about how the dividend policy influences the enterprise value on the condition of consecutive cash payoff. *World Academy of Science, Engineering and Technology*, 5(5), 264–267.
- Gordon, M. J. (1962). The savings investment and valuation of a corporation. *The Review of Economics and Statistics*, 44(1), 37. <https://doi.org/10.2307/1926621>
- Habumugisha, T., & Mulyungi, P. (2018). Effect of corporate dividend policy on performance of stock prices in Rwanda stock exchange. case study of Bank of Kigali as listed on Rwanda stock exchange (2011-2016). *International Journal of Research in Management, Economics and Commerce*, 8(5), 183–193.
- Hafeez, M. M., Shahbaz, S., Iftikhar, I., & Butt, H. A. (2018). Impact of dividend policy on firm performance. *International Journal of Advanced Study and Research Work*, 1(4), 1–5.
- Handoko, P. (2017). The influence of firm's size, growth, and profitability on firm value with capital structure as the mediator: A study on the agricultural firms listed in the Indonesian stock exchange. *International Journal of Economics and Finance*, 9(8), 103–110. <https://doi.org/10.5539/ijef.v9n8p103>
- Hirdinis, M. (2019). Capital structure and firm size on firm value moderated by profitability. *International Journal of Economics and Business Administration*, 7(1), 174–191. <https://doi.org/10.35808/ijeba/204>
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4). <https://doi.org/10.2139/ssrn.94043>
- John, K., & Williams, J. (1985). Dividends, dilution, and taxes: A signalling equilibrium. *The Journal of Finance*, 40(4), 1053–1070. <https://doi.org/10.1111/j.1540-6261.1985.tb02363.x>
- Koch, P. D., & Shenoy, C. (1999). The Information Content of Dividend and Capital Structure Policies. *Financial Management*, 28(4), 16. <https://doi.org/10.2307/3666301>
- Kumaresan, S. (2014). Impact of dividend policy on shareholders' wealth - A study of listed companies in hotel and travel sector of Sri Lanka. *International Journal of Technology Exploration and Learning*, 3(1), 349–352.

- La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. W. (2000). Agency Problems and Dividend Policies around the World. *The Journal of Finance*, 55(1), 1–33. <https://doi.org/10.1111/0022-1082.00199>
- Labhane, N. B., & Mahakud, J. (2016). Determinants of dividend policy of Indian companies: A panel data analysis. *Paradigm*, 20(1), 36–55.
- Liow, K. H. (2010). Firm value, growth, profitability and capital structure of listed real estate companies: An international perspective. *Journal of Property Research*, 27(2), 119–146. <https://doi.org/10.1080/09599916.2010.500459>
- Litzenberger, R. H., & Ramaswamy, K. (1979). The effect of personal taxes and dividends on capital asset prices. *Journal of Financial Economics*, 7(2), 163–195. [https://doi.org/10.1016/0304-405x\(79\)90012-6](https://doi.org/10.1016/0304-405x(79)90012-6)
- Magni, C. A. (2010). Relevance or irrelevance of retention for dividend policy irrelevance. *International Review of Applied Financial Issues and Economics*, 2, 232–247.
- Manneh, M. A., & Naser, K. (2015). Determinants of corporate dividends policy: Evidence from an emerging economy. *International Journal of Economics and Finance*, 7(7). <https://doi.org/10.5539/ijef.v7n7p229>
- Miller, M. H., & Modigliani, F. (1961). Dividend policy, growth, and the valuation of shares. *The Journal of Business*, 34(4), 411. <https://doi.org/10.1086/294442>
- Miller, M., & Rock, K. (1985). Dividend Policy under Asymmetric Information. *The Journal of Finance*, 40(4), 1031–1051. <https://doi.org/10.1111/j.1540-6261.1985.tb02362.x>
- Nishat, M., & Irfan, C. M. (2004). Dividend policy and stock price volatility in Pakistan. Pide-19th Annual General Meeting and Conference, 13–15.
- Okeke, Chidinma, V., Chinelo, A. A., & Ven, Dr. JKJ. O. (2021). Dividend Policy and Shareholders Wealth in Nigeria(2014-2019). *International Journal of Innovative Finance and Economics Research*, 9(1), 81–91.
- Rehman, M. U., & Hussain, A. (2013). Impact of dividend policy on performance of firms having stocks listed in an emerging stock market. *Asian Journal of Empirical Research*, 3(1), 20–29.

- Salvi, A., Vitolla, F., Rubino, M., Giakoumelou, A., & Raimo, N. (2020). Online information on digitalisation processes and its impact on firm value. *Journal of Business Research*. <https://doi.org/10.1016/j.jbusres.2020.10.025>
- Suvas, A. (1994). Essays on valuation of the firm. Universitas Wasaensis. No 39.
- Waithaka, S. M., John, K. N., Jonah, K. A., Julius, K. I., & Patrick, K. (2012). Effects of dividend policy on share prices: A case of companies in Nairobi Securities Exchange. *Prime Journal of Business Administration and Management*, 2(8), 642–648.
- Walter, J. E. (1963). Dividend policy: Its influence on the value of the enterprise. *The Journal of Finance*, 18(2), 280–291. <https://doi.org/10.1111/j.1540-6261.1963.tb00724.x>
- Widiyanti, M., Adam, M., & Isnurhadi, I. (2019). Effect of company performance on earning per share with dividend payout ratio as intervening variable in LQ 45 companies. *Acta Universitatis Danubius. Economica*, 15(4).
- Yli-Olli, P. (1979). Company market value, indebtedness and cost of capital. *Vaasa*.