




“Deciphering the link: An empirical analysis of the interplay between economic value added and dividend payouts in the Indian corporate landscape”

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DECIPHERING THE LINK: AN EMPIRICAL ANALYSIS OF THE INTERPLAY BETWEEN ECONOMIC VALUE ADDED AND DIVIDEND PAYOUTS IN THE INDIAN CORPORATE LANDSCAPE

Abstract

This study delves into the dynamic interplay between economic value added (EVA) and dividend payout among listed firms in India. Leveraging data spanning from 2013 to 2019 for 564 Indian-listed companies, the study employs a fixed effect panel regression model to meticulously examine the intricate relationship between EVA and dividend payout. The findings decisively indicate a significant and positive correlation between the two, underscoring that an augmented EVA is associated with an elevated dividend payout ratio. Notably, a compelling insight emerges, revealing that a 100 percent surge in EVA corresponds to a noteworthy 5 percent upswing in firms' dividend payouts. To fortify the robustness of these findings, the study employs the Generalized Method of Moments (GMM) methodology, corroborating the initial results. In essence, this paper solidifies the notion that heightened economic value added translates to increased dividend payments, providing valuable insights for both practitioners and researchers in the realm of corporate finance.

Keywords

performance, economic profits, shareholders' value,
Bombay Stock Exchange, emerging markets, payout
decision, returns, profitability

JEL Classification

G30, G35

INTRODUCTION

Dividend policy is essential in determining a company's valuation and the prosperity of its shareholders. It is a multifaceted concept that influences shareholder expectations, financing decisions, and overall financial structure. This study delves into the complex interplay of dividend policy, particularly its relationship with economic value added (EVA), in the unique landscape of Indian corporations.

Dividend policy has been a constantly debated subject in financial literature. It summarizes whether firms should disburse profits as dividends or retain them for diverse purposes, such as capital allocation or debt reduction. Regardless of the choice, the fundamental objective remains the maximization of shareholder wealth. This inherent complexity gives rise to what's commonly referred to as the "dividend puzzle," as coined by Black in 1976.

In the pursuit of understanding shareholder wealth dynamics, empirical finance literature lacks a comprehensive metric that efficiently elu-

cidates the transformation of shareholder value over time. Economic Value Added (EVA) emerges as an innovative financial gauge, considering the complete cost of capital and predicting a firm's actual economic profit. It is a pertinent indicator of a company's performance and potential to create long-term shareholder wealth.

Amid the dynamic Indian market, where companies continually navigate the dual goals of shareholder value maximization through dividends and profitable reinvestment of retained earnings, this study pioneers the exploration of the complex association between EVA and Dividend policy. This study aims to contribute indispensable insights to the fields of finance and corporate decision-making within the Indian corporate context.

1. LITERATURE REVIEW

Early studies have documented theoretical explanations of the determinants of dividend payout. However, most studies argue that no single theory or determinant of dividends explains firms' dividend policy. Some of the theories of dividend policy are summarized in Table 1.

Previous studies have identified several determinants of the dividend policy, including earnings, leverages, taxes, cash flow, growth, firm size, maturity of the firm, and others. Earnings are a prerequisite of the firm's dividend policy. Fama and French (2001) identified some attributes of the firm paying dividends, such as being more profitable, having low capital budgeting opportunities, and larger firm size. A significant number of pieces of the literature suggest a direct linkage between the firm's profit and dividend payout (Labhane &

Mahakud, 2016). Alternatively, few studies also highlight a negative relationship between profitability and dividend policy as companies use their earnings in reinvestment for better growth in the future (Kamat, 2016). Nevertheless, there is an inconsistency in the profitability measurement in the studies mentioned above.

In previous studies, academicians have taken return on equity (ROE), return on assets (ROA), return on invested capital (ROIC), net operating income (NOI), gross operating income (GOI), etc., as proxies for profitability for their studies. Hardly any paper has proxied value-based measures, for example, EVA, market value-added, etc.

Economic Value Added can be briefly defined as the disparity between a company's net operating profit after taxes and its cost of capital. EVA's remarkable significance lies in its capacity to encom-

Table 1. Few theories on dividend policy

Dividend Theories	Proponents	Findings and Conclusions
Bird in the Hand Theory	Lintner, 1956; Gordon, 1959	This theory argues that investors prefer current dividends more than future unseen capital gains.
Tax preference theory	Elton and Gruber, 1970	This theory believes that investors prefer higher dividends who are in lower tax brackets and vice-versa.
Signaling theory	Bhattacharya, 1979	According to this theory, dividends are considered a channel to communicate to outsiders about the firm's profitability, as outsider investors have more information asymmetry about the firm's operations.
Agency cost theory	Easterbrook (1984)	This theory suggests that there is a negative association between Dividend policy and agency costs.
Free cash flow theory	Jensen (1986)	This theory believes that the higher the free cash flow with the manager, the higher the dividend payments would be in the absence of positive NPV projects.
Rent extraction hypothesis	Shleifer and Vishny (1997)	This theory argues that institutional investors, promoters, and other large shareholders want to extract the benefits of significant shareholding through dividend payouts.
Pecking order theory of dividends	Myers (1984); Fama and French (2002)	This theory proposes that when firms need cash for capital budgeting, they start with retained earnings and then go for debt or equity. Therefore, if the company has more investment opportunities, it would pay lower dividends.
Life cycle theory of dividends	Mueller (1972); De Angelo et al. (2006)	This theory argues that mature and large corporations pay few dividends because they have large investment opportunities. This reduces dividend income, which significantly impacts the firms' life cycle.

pass the complete cost of capital, distinguishing it from traditional performance metrics that solely consider the value of debt when evaluating a firm's financial performance (Stewart, 1991).

The extant body of literature has argued that EVA surpasses conventional measures in elucidating changes in a company's actual profitability. This assertion is based on the idea that the link between EVA and shifts in a firm's stock prices exhibits greater relevance compared to conventional indicators like Return on Equity (ROE), Return on Assets (ROA), Return on Sales (ROS) (Lehn & Makhija, 1997). Furthermore, EVA outperforms other traditional profitability metrics, especially in the context of strategic decision-making. Their findings underscored the utility of EVA as a more comprehensive yardstick for evaluating performance, particularly when it comes to shaping strategic directions (Lehn & Makhija, 1997). Similarly, EVA possesses the full capacity to clarify variations in residual income, highlighting its prowess in capturing nuances of financial performance that might elude conventional measures (Chen & Dodd, 1997).

Academicians have a mixed view of EVA as a performance indicator. Nevertheless, it is essential to recognize that EVA is a value-based proxy of profitability. EVA is better than traditional measures as it considers the full cost of capital in calculating firm performance; also, in the last two decades, value-based performance indicators have become popular among academicians and practitioners (Sharma & Kumar, 2012; Kumar et al., 2022).

Corporation growth opportunities are associated with dividend policy. Several studies have taken different measures of growth opportunities of the firms, such as Yusof and Ismail (2016), which has taken residual income per total assets. In contrast, Vasantha and Thirumagal (2017) assumed sales growth as a proxy for growth opportunities. At the same time, Anastacia et al. (2014) measured growth opportunities in terms of the market-to-book ratio (MTB). The authors concluded an inverse relationship between MTB and dividend payment, signifying that dividend payout in growth firms is low because of lower agency costs. Conversely, Aivazian et al. (2003) document a direct linkage between dividend payout and MTB.

Prior studies suggested that debt is a less significant factor in the corporate dividend policy (Linter, 1956). In line with this argument, Abor and Bokpin (2010) suggest that financial leverage plays an insignificant role in determining dividend policy. Yusof and Ismail (2016) concluded that there is a negative relationship between financial leverage and dividend policy as firms want to reduce transaction costs due to external financing. Similarly, firms pay a lower dividend which has high debt ratios (Al-Malkawi, 2007). However, some studies, such as Bokpin (2011), argue that debt has a significant role in determining corporate dividend policy. Most of the earlier studies have taken total debt divided by total equity as the proxy for leverage.

Previous studies also discuss the inverse relationship between dividend policy and a firm's size, indicating that larger firms have lower information asymmetry as they are tracked by analysts, institutional investors, and regulatory bodies. Therefore, Al-Malkawi (2007) suggests the size of firms has a substantial impact on corporate dividend policy. Alternatively, Al-Najjar and Belghitar (2011) contradicted Al-Malkawi's (2007) findings and concluded an insignificant relationship between firm size and corporate dividend policy. At the same time, Yusof and Ismail (2016) find a direct association between firm size and dividend policy. Generally, earlier studies have considered the value of total assets in the natural logarithm transformation as the proxy for the firm's size.

Firms with more cash are likely to pay a higher dividend than firms with less cash. Therefore, liquid assets such as cash, bank balance, marketable securities, and the rest reflect the firm's capacity to distribute dividends among shareholders without dependence on external sources, such as debt. Al-Najjar and Belghitar (2011) suggest a direct relationship between cash holding and a firm's dividend policy.

Previous studies such as Huergo and Jaumandreu (2004) have attempted to find the association between a firm's age and dividend payout. Mostly, mature firms have stable incomes, easy access to the capital market, expertise, reputation, sufficient cash reserves, etc. Therefore, these firms have the ability to pay additional and consistent dividends.

Vasantha and Thirumagal (2017) evidenced a direct association between a firm's age and dividend across different industries. However, the association between dividend payouts and age doesn't need to be positive. As Afza and Mirza (2011) mentioned, firms distribute extra cash as dividends in the initial years. When firms are close to 20 years of operations afterward, firms start reducing dividends on average.

Extensive literature evidence exists that provides understanding regarding the relationship between firms' profitability and dividend policy. Yet, research examining the connection between dividend payout and economic value added of Indian firms is scarcely found. India is one of the emerging markets, and firms have to maximize the shareholders by paying dividends or reinvesting the retained earnings in more profitable projects, which adds to shareholders' wealth. Hence, this paper attempts to determine the answer to the research question of whether the economic value-added impacts the dividend payout of the Indian listed firm.

Nevertheless, as per knowledge and literature in hand, there is no previous literature investigating the relationship between economic value added and the dividend payout of the firms. Therefore, to investigate the impact of the economic value added on the dividend payout ratio, this study proposes the hypothesis as follows:

H1: Economic value added significantly affects the dividend payout ratio of a firm in India.

2. METHOD

This study used the CMIE Prowess database (Centre for Monitoring Indian Economy) to obtain data for the sample firms for seven financial years, from 2013 to 2019. The data are gathered with respect to all dependent, independent, and control variables from CMIE Prowess. Further, the Bloomberg database is used to obtain the weighted cost of capital (WACC) data to calculate EVA.

In this study, firms operating under the ambit of more than one law, such as those engaged in finance-related business, were removed. The Indian

Companies Act 2013, governs these companies. At the same time, it is administered by other Indian laws. These firms also pose a comparison problem as they differ in terms of the presentation of financial statements. All firms whose data were either missing or inconsistent throughout the study were removed to make a balanced panel. After considering the above two filters, the final sample consists of 564 companies with consistent data throughout the study. Hence, this study has a total observation of 3,948 firm-years.

This paper's motivation is to investigate the relationship between the firm's economic value-added and dividend payout ratios. This study uses the dividend payout ratio (DPR) as the dependent variable to investigate the above-stated relationship.

$$\text{Dividend Payout Ratio} = \frac{DPS}{EPS} \quad (1)$$

DPS stands for dividend per share, and EPS stands for earnings per share.

Economic Value Added (EVA) is the independent variable in this study. EVA is an absolute measure linked to firm size, indicating that EVA would be more significant for larger firms. Hence, EVA is divided by Net Sales to normalize the value of EVA.

Economic value Added:

$$\frac{(NOPAT - WACC \cdot Invested\ Capital)}{Net\ Sales} \quad (2)$$

This study proposed a hypothesis in the hypothesis development section. In this study, the effect of the following control variables is controlled as shown in Table 2.

Al-Malkawi (2007) studied the determinant of dividends in Jordan, and in their study, they used the logit and probit methodology. When the dependent variable is binary, the logit probit method can be used (Labhane & Mahakud, 2016). Therefore, the logit and probit methodology is valid if the paper examines why some companies distribute their income by paying dividends, and others do not. As mentioned earlier, many studies have also used cross-sectional analysis. Cross-sectional data are obtained at a specific time, which is recurring and repeated for several years (2013–2019). With the help of panel data, the investigation is appropriate to fix the impact of

Table 2. Description of variables

Control variables	Details and Abbreviations	Calculation
Sales Opportunities	Sales Growth (SGR)	$\text{LN}\left(\frac{\text{Current Year Sales}}{\text{Previous Year Sales}}\right)$
Size	Natural Logarithm (total assets)(TA)	LN (total assets)
Leverage	Debt-equity ratio (DE)	$\frac{\text{Total debt}}{\text{Total equity}}$
Cash Holding	Natural Logarithm of cash balance (CASH)	LN (cash balance)
Maturity	Natural Logarithm of age (AGE)	LN (age)

unobservable firm and time-specific variables and other measurable variables on explained variables (Hsiao, 2014). This study considered panel data analysis as it has the advantage over cross-sectional analysis in the context of the research.

According to Baltagi (2008), panel data comprise a set of cross-sectional elements observed over time, as in this study, the data set has 564 firms within seven years. A strongly balanced panel is formed, and analysis is done using EViews. With the help of correlation analysis and the VIF test, preliminary analyses suggest that the data do not have the issue of multicollinearity. Heteroskedasticity is the problem that affects panel data, and hence, researchers used more robust estimations such as the random-effect model and fixed-effect. Thus, this study uses panel data to consider both fixed and random effects.

This work used the dividend payout ratio and economic value added as dependent and independent variables, respectively. The control variables are the natural log of total assets, sales growth, debt-equity ratio, natural log of cash and cash equivalent, and firm age. The empirical research model is as follows.

$$DPR_{it} = \beta_0 + \beta_1 EVA_{it} + \beta_2 TA_{it} + \beta_3 SGR_{it} + \beta_4 DE_{it} + \beta_5 CASH_{it} + \beta_6 AGE_{it} + \varepsilon_{it}, \quad (3)$$

where t is the sample period, and i denotes the number of firms in the sample.

Further, panel regression might give biased and extraneous estimates because of the autocorrelation between the dependent variables. It is observed in the existing literature that the result obtained from panel regression might be inconsistent. The prime reason for inconsistent results

is the presence of lagged dependent variables and fixed effects. Hence, this study employs the dynamic panel data regression model for the robustness check to remove the issue. The problem of endogeneity in the variables and autocorrelation is resolved by applying the GMM methodology (Arellano & Bover, 1995). The empirical research model for the GMM methodology is as follows.

$$DPR_{it} = \beta_0 + \beta_1 DPR_{it-1} + \beta_2 EVA_{it} + \beta_3 TA_{it} + \beta_4 SGR_{it} + \beta_5 DE_{it} + \beta_6 CASH_{it} + \beta_7 AGE_{it} + \varepsilon_{it}. \quad (4)$$

3. RESULTS

The detailed summary statistics of the sample for the study are presented in Table 1. The age indicates the maturity of the firms, and the average and the median age were found to be 3.49 years and 3.40 years, respectively, whereas the average EVA by net sales is negative 0.07 for the firms; on average, companies have negative EVA. The average and median DPR are 0.14 and 0.08, indicating that firms distribute an average of 0.15 of approximate earnings to shareholders. At the same time, the average and median yearly sales growth appear to be around 0.2 and 0.10, respectively. The sample's average and median debt-equity ratios are 0.87 and 0.56, respectively, which gives firms capital gearing advantages without default risk as the debt-equity is below the 2:1 ratio. The firms have sufficient cash to use as working capital and distribute to shareholders as average, and the median cash holding of firms is 1.63 and 1.25, respectively, in logarithm terms. The firms hold appropriate total assets, which helps them to earn sufficient profit, as the mean and median of the natural logarithm of total assets are 9.60 and 9.52, respectively.

Table 3. Summary statistics of the samples

Variables	Mean	Median	Std. Dev.	Skewness	Kurtosis
DPR	0.1481	0.0843	0.1803	1.237	3.6233
EVA	-0.0781	-0.025	0.1785	-1.9787	6.5442
DE	0.8719	0.5603	0.9752	1.5144	4.6351
AGE	3.4906	3.4012	0.546	0.0798	3.4488
CASH	1.6385	1.2528	2.2385	0.5695	2.8683
TA	9.6022	9.5292	1.7924	0.03	4.1314
SGR	0.208	0.1063	0.3798	1.062	3.2126

Note: This table shows the descriptive statistics for the dependent, independent, and control variables. For a description of the variables, see Table 2.

Table 4 presents the correlation between various variables. It provides evidence that variables in this study do not have multi-collinearity problems, as every variable has a coefficient of less than 0.5 (Deloof, 2003).

Table 5 provides the panel regression results. The findings suggest a substantial positive linkage between DPR and economic value-added (P-value at 0.0051). The positively significant relationship indicates that the higher the economic value-added, the higher the dividend payout ratio for Indian listed firms. Earlier research works evidenced a substantial direct association between DPR and

the profitability of a firm (Fama & French 2001; Labhane & Mahakud, 2016). The direct relation between DPR and economic value-added is that the higher the profit, the higher the firm's cash holding, which results in a higher payment to shareholders. If a company consistently generates positive EVA, this suggests that it has the potential to distribute dividends to its shareholders. Strong EVA can provide the financial resources needed for dividend payments. Companies that focus on creating positive EVA may have a long-term perspective on value creation, which may align with a more stable and sustainable dividend policy. A history of positive EVA and consistent dividend

Table 4. Correlation analysis of the samples

Variables	DPR	EVA	DE	AGE	CASH	TA	SGR
DPR	1						
EVA	0.1329	1					
DE	-0.1757	-0.0485	1				
AGE	0.1038	-0.0081	-0.0459	1			
CASH	0.0994	0.0705	0.1212	0.1311	1		
TA	0.1174	0.066	0.2042	0.123	0.5922	1	
SGR	0.0309	0.132	0.0093	-0.0919	0.0141	-0.0423	1

Note: This table presents the correlation between various variables to check the multi-collinearity problem. For a description of the variables, see Table 2.

Table 5. Panel regression results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.2073	0.1578	1.3136	0.1891
EVA	0.0562	0.0201	2.7993	0.0051
DE	0.0005	0.0033	0.1603	0.8726
AGE	0.012	0.0412	0.29	0.7718
CASH	0	0.002	0.0071	0.9943
TA	-0.0094	0.0066	-1.4176	0.1564
SGR	-0.0347	0.0096	-3.6257	0.0003
R-squared				0.5442

Note: This table shows the regression results with a mixed model between the dependent variable, the Dividend Payout Ratio (DPR), and the independent variable, Economic Value Added (EVA). The control variables are Size (TA) proxied by the natural log of total assets, Annual Sales Growth (SGR), Debt to Equity Ratio (DE), the natural log of cash (CASH), and the natural log of age (AGE). For a description of the variables, see Table 2.

payments can enhance investor confidence and attract potential investors who seek both capital appreciation and dividend income.

As per knowledge and literature in hand, no previous work has investigated the relationship between DPR and EVA. The relationship between the two variables, as mentioned above, can be well understood with the results. However, previous studies that use a different proxy for profitability found a positive relationship between profitability & dividend payout.

Sales growth has an inverse association with DPR, indicating that the higher the firms' sales growth, the less dividend is distributed to shareholders. Anastacia et al. (2014) concluded an inverse relationship between the market-to-book ratio and dividend payment, signifying that dividend payout in growth firms is low because of lower agency costs.

This study confirms a negative and insignificant linkage between firm size and DPR, evidence provided by Al-Malkawi (2007). The results of this study conclude that DPR has a positive relationship with debt, cash holding, and age, but the relationship is insignificant. Lintner (1956) and Abor and Bokpin (2010) provided evidence that debt is a less significant factor in the corporate dividend policy. Al-Najjar and Belghitar (2011) suggest the direct association between cash holding and the dividend policy of a firm. Vasantha and Thirumagal (2017) evidenced a positive association between a firm's age and dividend across different sectors.

The previous literature documents that the past year's dividends significantly impact the current year's dividend (Lintner, 1956). The past dividend is calculated by dividing the previous year's dividend per share by earnings per share. This study used the GMM estimator to analyze the impact of past dividends and other control variables on the current year's dividend. The finding suggests that past dividends are insignificant in determining the dividend policy, and the rest of the results are the same as found in the previous section, see Table 6.

4. DISCUSSION

This study aims to shed light on the intriguing question of whether increased shareholder wealth is synonymous with higher dividend payouts. Extensive literature has delved into the connection between dividend payouts and a company's profitability (Fama & French, 2001; Labhane & Mahakud, 2016). Yet, notably absent is the examination of the relationship between dividend policy and Economic Value Added (EVA). Within the landscape of emerging markets, such as India, firms face the constant challenge of balancing the interests of shareholders by either distributing dividends or channeling retained earnings into more lucrative ventures that ultimately enhance shareholder wealth. This paper endeavors to provide an answer to the pivotal research question: Does EVA influence the dividend payout policies of Indian listed firms? The findings reaffirm that

Table 6. GMM regression model results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DPR (-1)	-0.06298	0.052415	-1.201573	0.2296
EVA	0.287712	0.162267	1.773079	0.0763
DE	-0.006622	0.008078	-0.819752	0.4124
CASH	0.00125	0.002664	0.46917	0.639
TA	-0.016347	0.005046	-3.23988	0.0012
SGR	-0.03282	0.009642	-3.40376	0.0007
AGE	0.158033	0.375924	0.420386	0.6742
AR (1) P-value				0.00
AR (2) P-value				0.89
J-statistic				22.47
Prob (J-statistic)				0.26
N				564

Note: This table shows the result of the GMM regression model between the dependent variable, the Dividend Payout Ratio (DPR), and the independent variable, the Economic Value Added (EVA). The control variables are Size (TA) proxied by the natural log of total assets, Annual Sales Growth (SGR), Debt to Equity Ratio (DE), the natural log of cash (CASH), and the natural log of age (AGE). For a description of the variables, see Table 2.

a higher Economic Value Added indeed corresponds to greater dividend disbursements. This underlines the significance of EVA in shaping the dividend policies of Indian listed companies and, ultimately, the translation of increased shareholder wealth into enhanced dividend payouts.

Previous research studies have found a strong correlation between a firm's profitability and DPR (Fama & French, 2001; Labhane & Mahakud, 2016). However, this study aims to build upon these earlier findings by using a value-based measure of profitability instead of the traditional measure, which may not fully account for the cost of capital (Sharma & Kumar, 2012; Kumar et al., 2022). Specifically, this study examines the linkage between dividend policy and economic value added (EVA) for listed firms in India.

The analysis reveals a significant and positive association between dividend payout ratios and EVA, indicating that firms with higher EVA tend to have higher dividend payouts. The statistical significance of this relationship is supported by a low p-value of 0.0051. Strong EVA can provide the financial resources needed for dividend payments. Companies that focus on creating positive EVA may have a long-term perspective on value creation, which may align with a more stable and sustainable dividend policy. Therefore, the find-

ings suggest that EVA is a useful proxy for profitability when examining the dividend payout behavior of Indian-listed firms (Sharma & Kumar, 2012; Kumar et al., 2022). This paper employed a dynamic panel data regression model to address potential issues such as endogeneity and autocorrelation. The results, using the generalized method of moments (GMM), confirm the earlier findings, indicating that higher EVA is indeed associated with higher dividend payments, with a p-value of 0.0763 in Table 4 (Labhane & Mahakud, 2016; Sharma & Kumar, 2012; Kumar et al., 2022). In conclusion, this study provides robust and consistent results that have important implications for investors, analysts, and policymakers seeking to understand the factors influencing dividend payout decisions of Indian listed firms.

However, this study has few limitations. This paper relied solely on a quantitative methodology to determine the determinants of dividend policy. The results could become more generalizable by considering additional firm-specific and country-specific factors. Furthermore, qualitative methodology could also be employed to explore the factors influencing dividend policy.

Despite these limitations, this study contributes to the existing literature on the determinants of dividend policy in Indian firms.

CONCLUSION

In conclusion, this study undertook a comprehensive investigation into the linkages between dividend policy and economic value added using panel data regression analysis with a dataset comprising 564 Indian firms over the period 2013–2019. The research outcomes unveiled a compelling and statistically significant positive connection between economic value added and the dividend payout ratio. This implies that firms boasting higher economic value added tend to exhibit more substantial dividend payout ratios. This reinforces the pivotal role of economic value added in bolstering the wealth of shareholders through the distribution of dividends.

The findings underscore that firms with higher economic value added are more capable of increasing dividend payments to their shareholders, as this measure reflects the actual amount added to shareholder wealth after accounting for the full cost of capital.

Furthermore, empirical findings indicate that firm size and dividend policy are significantly linked, whereas the previous year's dividend payment does not substantially impact the current year's dividend payment. The findings suggest that companies should focus on improving their economic value added to enhance shareholder value through dividend payouts while also considering factors such as firm size and current dividend payment levels.

This study has significant implications for managers and stakeholders, including equity shareholders and creditors. Investors who are interested in dividend-paying stocks should consider a company's EVA when making investment decisions. The findings offer decision-makers valuable insights to make informed decisions on investment and borrowing, thus enhancing their overall welfare.

AUTHOR CONTRIBUTIONS

Conceptualization: Rahul Kumar, Prince Bhatia.
 Data curation: Rahul Kumar, Prince Bhatia.
 Formal analysis: Rahul Kumar, Prince Bhatia.
 Investigation: Rahul Kumar, Prince Bhatia.
 Methodology: Rahul Kumar, Prince Bhatia.
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 Writing – original draft: Rahul Kumar, Prince Bhatia.
 Writing – review & editing: Rahul Kumar.

REFERENCES

1. Afza, T., & Mirza, H. H. (2011). Do mature companies pay more dividends? Evidence from Pakistani stock market. *Mediterranean Journal of Social Sciences*, 2(2), 152-161. Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1950698
2. Aivazian, V., Booth, L., & Cleary, S. (2003). Do emerging market firms follow different dividend policies from US firms? *Journal of Financial Research*, 26(3), 371-387. Retrieved from <https://ideas.repec.org/a/bla/jfnres/v26y-2003i3p371-387.html>
3. Allen, F., Bernardo, A. E., & Welch, I. (2000). A theory of dividends based on tax clienteles. *The Journal of Finance*, 55(6), 2499-2536. Retrieved from <https://rodney-whitecenter.wharton.upenn.edu/wp-content/uploads/2014/04/9815.pdf>
4. Allen, F., & Michaely, R. (1995). Dividend policy. *Handbooks in Operations Research and Management Science*, 9, 793-837. Retrieved from <https://www.sciencedirect.com/science/article/pii/S0927050705800696/pdf?md5=aa2059968fb2a6f5dfc396831ac63169&pid=1-s2.0-S0927050705800696-main.pdf>
5. Al-Malkawi, H. A. N. (2007). Determinants of corporate dividend policy in Jordan: an application of the Tobit model. *Journal of Economic and Administrative Sciences*, 23(2), 44-70. <https://doi.org/10.1108/10264116200700007>
6. Al-Najjar, B., & Belghitar, Y. (2011). Corporate cash holdings and dividend payments: Evidence from simultaneous analysis. *Managerial and Decision Economics*, 32(4), 231-241. <https://doi.org/10.1002/mde.1529>
7. Anastacia C. A., Abor, J., Charles K. D., Adjasi, C., & Amidu, M. (2014). What influence dividend decisions of firms in sub-Saharan African? *Journal of Accounting in Emerging Economies*, 4(1), 57-78. Retrieved from <https://ideas.repec.org/a/eme/jaepp/jaee-12-2011-0053.html>
8. Arellano, M., & Bover, O. (1995). Another look at the instrumental variable estimation of error-components models. *Journal of Econometrics*, 68(1), 29-51. [https://doi.org/10.1016/0304-4076\(94\)01642-D](https://doi.org/10.1016/0304-4076(94)01642-D)
9. Baker, H. K., & Powell, G. H. (1999). Dividend policy issues in regulated and unregulated firms: a managerial perspective. *Managerial Finance*. <https://doi.org/10.1108/03074359910765975>
10. Baltagi, B. (2008). *Econometric analysis of panel data*. John Wiley & Sons. Retrieved from <https://link.springer.com/book/10.1007/978-3-030-53953-5>
11. Bhattacharya, S. (1979). Imperfect information, dividend policy, and "the bird in the hand" fallacy. *The Bell Journal of Economics*, 259-270. <https://doi.org/10.2307/3003330>
12. Bishop, S. R., Crapp, H. R., Faff, R. W., & Garry J. Twite, G. J. (2000). *Corporate Finance*. Sydney: Prentice Hall Inc.
13. Black, F. (1976). The dividend puzzle. *Journal of Portfolio Management*, 2, 5-8. Retrieved from https://www.fecos.nfkatzke.com/Papers/Dividend_Puzzle.pdf
14. Bokpin, A. G., & Abor, J. (2010). Investment opportunities, corporate finance, and dividend payout policy: Evidence from emerging markets. *Studies in Economics and Finance*,

- 27(3), 180-194. <https://doi.org/10.1108/10867371011060018>
15. Bokpin, G. A. (2011). Ownership structure, corporate governance and dividend performance on the Ghana stock exchange. *Journal of Applied Accounting Research*, 12(1), 61-73. <https://doi.org/10.1108/09675421111130612>
 16. Chen, S. & Dodd, J. L. (1996). EVA: A New Panacea. *Business and Economic Review*, 28(4), 26-28. Retrieved from <https://www.proquest.com/magazines/eva-new-panacea/docview/209590323/se-2>
 17. Chen, S., & Dodd, J. L. (1997). Economic value added (EVA™): An empirical examination of a new corporate performance measure. *Journal of Managerial Issues*, 318-333. Retrieved from <https://www.jstor.org/stable/40604150>
 18. DeAngelo, H., DeAngelo, L., & Stulz, R. M. (2006). Dividend policy and the earned/contributed capital mix: a test of the life-cycle theory. *Journal of Financial Economics*, 81(2), 227-254. <https://doi.org/10.1016/j.jfineco.2005.07.005>
 19. Deloof, M. (2003). Does working capital management affect the profitability of Belgian firms? *Journal of Business Finance & Accounting*, 30(3-4), 573-588. <https://doi.org/10.1111/1468-5957.00008>
 20. Easterbrook, F. H. (1984). Two agency-cost explanations of dividends. *The American Economic Review*, 74(4), 650-659. Retrieved from <https://www.jstor.org/stable/1805130>.
 21. Elton, E. J., & Gruber, M. J. (1970). Homogeneous groups and the testing of economic hypotheses. *Journal of Financial and Quantitative Analysis*, 581-602. <https://doi.org/10.2307/2330115>
 22. Fama, E., & French, K. (2001). Disappearing dividends: changing firm characteristics or lower propensity to pay? *Journal of Financial Economics*, 60(1), 3-43. [https://doi.org/10.1016/S0304-405X\(01\)00038-1](https://doi.org/10.1016/S0304-405X(01)00038-1)
 23. Fama, E. F., & French, K. R. (2002). Testing trade-off and pecking order predictions about dividends and debt. *The Review of Financial Studies*, 15(1), 1-33. <https://doi.org/10.1093/rfs/15.1.1>
 24. Garten, J. E. (1997). Troubles ahead in emerging markets. *Harvard Business Review*, 75(3), 38-45. Retrieved from <https://link.gale.com/apps/doc/A58836147/AONE?>
 25. Gay, G. D., Lin, C. M., & Smith, S. D. (2011). Corporate derivatives use and the cost of equity. *Journal of Banking & Finance*, 35(6), 1491-1506. <https://doi.org/10.1016/j.jbankfin.2010.10.033>
 26. Gordon, M. J. (1959). Dividends, earnings, and stock prices. *The Review of Economics and Statistics*, 99-105. Retrieved from <https://www.jstor.org/stable/1927792?>
 27. Graham, B., Dodd, D. L. F., & Cottle, S. (1934). *Security analysis* (pp. 44-45). New York: McGraw-Hill.
 28. Green, B. F., & Tukey, J. W. (1960). Complex analyses of variance: general problems. *Psychometrika*, 25(2), 127-152. <https://psycnet.apa.org/doi/10.1007/BF02288577>
 29. Ho, H. (2003). Dividend policies in Australia and Japan. *International Advances in Economic Research*, 9(2), 91-100. Retrieved from <https://ideas.repec.org/a/kap/iaecre/v9y2003i2p91-10010.1007-bf02295710.html>
 30. Hsiao, C. (2014). *Analysis of panel data* (No. 54). Cambridge University Press.
 31. Huergo, E., & Jaumandreu, J. (2004). How does probability of innovation change with firm age? *Small Business Economics*, 22(3), 193-207. Retrieved from https://ideas.repec.org/a/kap/sbusec/v22y2004i3_4p193-207.html
 32. Husnan, S. (2001). *Business Research and Guidance for Academics and Practitioners*. Jakarta: Erlangga.
 33. Jensen, M. C. (1986). Agency costs of free cash flow, corporate finance, and takeovers. *The American Economic Review*, 76(2), 323-329. Retrieved from <https://www.jstor.org/stable/1818789>
 34. Kamat, M. (2016). Corporate dividend policy in India, 1976-2011: does industry affiliation matter? *Elk Asia Pacific Journal of Finance and Risk Management*, 7(2), 1-36.
 35. Kreft, I. G., Kreft, I., & de Leeuw, J. (1998). *Introducing multilevel modeling*. Sage.
 36. Kumar, R., Bhatia, P., & Chattopadhyay, S. (2022). The impact of leverages and operating efficiency on market value added: Empirical evidence from India. *Vision*, 26(3), 351-360. Retrieved from <https://ideas.repec.org/a/sae/vision/v26y2022i3p351-360.html>
 37. Labhane, N. B., & Mahakud, J. (2016). Determinants of dividend policy of Indian companies: A panel data analysis. *Paradigm*, 20(1), 36-55. Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3308721
 38. Lehn, K., & Makhija, A. K. (1997). EVA, accounting profits, and CEO turnover: an empirical examination 1985-1994. *Journal of Applied Corporate Finance*, 10(2), 90-96. <https://doi.org/10.1111/j.1745-6622.1997.tb00139.x>
 39. Lintner, J. (1956). Distribution of incomes of corporations among dividends, retained earnings, and taxes. *The American Economic Review*, 46(2), 97-113. Retrieved from <https://www.jstor.org/stable/1910664>
 40. Lucky, L. A. (2017). Cost of Capital and Corporate Earning of Nigeria Quoted Firms: A Multi-Dimensional Analysis of Quoted Firms in Nigeria. *Australian Finance & Banking Review*, 1(1), 41-65. <http://dx.doi.org/10.46281/afbr.v1i1.73>
 41. Miller, M. H., & Modigliani, F. (1961). Dividend policy, growth, and the valuation of shares. *The Journal of Business*, 34(4), 411-433. <http://dx.doi.org/10.1086/294442>
 42. Mueller, D. C. (1972). A life cycle theory of the firm. *The Journal of Industrial Economics*, 199-219. <https://doi.org/10.2307/2098055>
 43. Myers, S. C. (1984). The capital structure puzzle. *Journal of Finance*, 39(1), 575-592. <https://doi.org/10.1111/j.1540-6261.1984.tb03646.x>

44. Osegbu, I. F, Ifurueze, M., & Ifurueze, P. (2014). An analysis of the relationship between dividend payment and corporate performance of Nigerian banks. *Global Business and Economic Research Journal*, 3(2), 75-99. Retrieved from <http://www.journal.globe-journal.org>
45. Sharma, A. K., & Kumar, S. (2012). EVA versus conventional performance measures-empirical evidence from India. *ASBBS Proceedings*, 19(1), 804. Retrieved from <https://asbbs.org/files/AS-BBS2012V1/PDF/S/SharmaA.pdf>
46. Shleifer, A., & Vishny, R. (1997). A survey of corporate governance. *Journal of Finance*, 52(1), 737-83. <https://doi.org/10.1111/j.1540-6261.1997.tb04820.x>
47. Stewart, G. B. (1991). *The EVA Management Guide: The Quest For Value*. Retrieved from https://open-library.org/works/OL4453047W/The_quest_for_value
48. Thirumagal, P. G., & Vasantha, S. (2017). Dividend payout determinants: Evidence from Indian industries. *International Journal of Pure and Applied Mathematics*, 117(21), 811-829. Retrieved from <https://acadpubl.eu/jsi/2017-117-20-22/articles/21/70.pdf>
49. Yusof, Y., & Ismail, S. (2016). Determinants of dividend policy of public listed companies in Malaysia. *Review of International Business and Strategy*, 26(1), 88-99 <https://doi.org/10.1108/RIBS-02-2014-0030>