



Profitability, Dividend Policy, and Energy-Sector Stock Prices: The moderating Role of Firm Size in Indonesia, 2020-2024

Setya Aprilia^{1*}, Mukti Soma²

¹Universitas Teknologi Muhammadiyah Jakarta

²Telkom University, Bandung

Corresponding author: Setya Aprilia styaa29@gmail.com

ARTICLE INFO

*Keywords: Profitability,
Dividend Policy, Stock Price,
Firm Size, Energy Sector*

Received : 27, June

Revised : 28, July

Accepted: 30, August

©2026 Aprilia, Soma: This is an open-access article distributed under the terms of the [Creative Commons Atribusi 4.0 Internasional](https://creativecommons.org/licenses/by/4.0/).



ABSTRACT

This study aims to examine the effect of profitability and dividend policy on stock prices and to investigate the moderating role of firm size in these relationships among energy sector companies listed on the Indonesia Stock Exchange (IDX) during 2020–2024. This study employs a quantitative approach using secondary data obtained from companies' annual reports and financial statements. The sample consists of 19 energy sector companies observed over the 2020–2024 period. The data were analyzed using panel data regression with the Random Effect Model (REM) and Moderated Regression Analysis (MRA). Profitability is measured by Return on Equity (ROE), dividend policy is measured by Dividend Payout Ratio (DPR), and firm size is measured using the natural logarithm of total assets. The results indicate that profitability has a negative and significant effect on stock prices, with a probability value of 0.0006 (< 0.05) and a regression coefficient of $-147,743.8$. Therefore, H1 is rejected because the direction of the effect is inconsistent with the hypothesized positive relationship. Dividend policy has no significant effect on stock prices, with a probability value of 0.7412 (> 0.05), resulting in the rejection of H2. Furthermore, firm size significantly moderates and strengthens the relationship between profitability and stock prices, as indicated by the ROE $\times$ Firm Size interaction coefficient of 6,590.714 and a probability value of 0.0004 (< 0.05); therefore, H3 is accepted. In contrast, firm size does not significantly moderate the relationship between dividend policy and stock prices, with a DPR $\times$ Firm Size interaction coefficient of -105.6182 and a probability value of 0.6690 (> 0.05), leading to the rejection of H4.

INTRODUCTION

The energy industry strategically contributes to economic expansion because it provides essential resources for home tasks, transportation, and industrial manufacturing. In Indonesia, the sector has underwent substantial modifications as a result of the COVID-19 epidemic, fluctuations in global commodity prices, Given the government's dedication to reaching net-zero emissions (IEA & MEMR, 2022; Reforminer, 2022). These developments have increased uncertainty in the capital market and influenced investors' assessments of energy companies (OJK, 2025). Consequently, stock prices in this sector are determined not only by market conditions but also by the financial performance and long-term sustainability of firms (Fama, 1970).

The Indonesian capital market has shown remarkable growth in recent years (OJK, 2025). The increasing number of investors has intensified the demand for reliable financial information to support investment decisions (Fama, 1970). Financial indicators such as profitability and dividend policy are widely regarded as important signals that reflect The financial stability and prospects of a corporation (Spence, 1973; Ross, 1977). As a result, investors often rely on these indicators when evaluating the value of publicly listed companies (Fama, 1970).

Among the various financial indicators, profitability is one of the most important determinants of stock prices (Akhmadi & Januarsi, 2021; Barus & Sudjiman, 2021). Return on Equity (ROE), a measure of profitability, assesses a company's capacity to produce returns for shareholders from its equity. Strong financial performance and effective management are typically indicated by a higher ROE, which may boost investor confidence and enhance demand for the company's shares (Akhmadi et al., 2021; Azizah & Yuliana, 2022). According to Signaling Theory, profitable Businesses provide the market encouraging signals about their future growth and financial stability (Spence, 1973; Ross, 1977).

Investor attitudes are significantly influenced by dividend policy. Businesses that regularly pay dividends are frequently seen as financially healthy and capable of generating sustainable earnings (Nguyen et al., 2021; Siladjaja et al., 2022). An important measure of management's confidence in future cash flows is the dividend payout ratio (DPR), which shows the percentage of earnings given to shareholders (Yuliana et al., 2021; Anggraeny et al., 2020). Nevertheless, Prior research has shown conflicting results about the connection between dividend policy and stock prices, suggesting that this issue requires further investigation (Mendrofa & Maharani, 2022; Robiyanto & Yunitaria, 2022).

In addition to profitability and dividend policy, firm size may influence how investors respond to financial information (Ahmed et al., 2023; Azizah & Yuliana, 2022). Compared to smaller businesses, larger companies often have better access to outside funding, stronger market reputations, and more financial resources (Banz, 1981; Hutaauruk, 2024). These characteristics may strengthen the credibility of profitability and dividend signals, making investors more responsive to financial information released by larger companies (Burhani & Prajawita, 2023). Therefore, It is anticipated that business

size would lessen the correlation between profitability, dividend policy, and stock prices (Andari et al., 2024; Lestari & Rahayu, 2024).

Previous empirical studies have produced mixed results on how dividend policy and profitability affect stock values. A few studies reported significant positive relationships, whereas others found insignificant or inconsistent effects (Akhmadi et al., 2021; Mendrofa & Maharani, 2022; Andari et al., 2024). Likewise, the moderating role of firm size has not been consistently supported across different industries and research settings (Azizah & Yuliana, 2022; Lestari & Rahayu, 2024). These discrepancies point to a research void, particularly within Indonesia's energy sector, which is currently experiencing structural changes driven by the energy transition agenda (IEA & MEMR, 2022; Reforminer, 2022).

In light of these factors, this research investigates the effects of profitability and dividend policy about stock prices, with firm size serving as a moderating variable in “energy companies listed on the Indonesia Stock Exchange during the 2020–2024 period.” By offering actual data on how business size affects the impact of financial performance, this study is anticipated to add to the body of knowledge on corporate finance and capital markets and dividend policy on stock prices.

LITERATURE REVIEW

Efficient Market Hypothesis (EMH)

Fama established the Efficient Market Hypothesis (EMH) (1970), “states that stock prices reflect all publicly available information (Fama, 1970).” Under the semi-strong form of market efficiency, investors respond quickly to publicly disclosed financial information, including profitability and dividend announcements (Fama, 1970; Fama & French, 1992). Consequently, changes in corporate financial performance are expected to be incorporated into stock prices (Fama, 1970). This theory provides the fundamental basis for examining how financial indicators influence investors' decisions in the capital market (Fama, 1970; Fama & French, 1992).

Signaling Theory

Signaling Theory explains that “managers possess more information about the firm's prospects than outside investors.” To reduce asymmetry of information, businesses communicate their financial condition through various signals, such as profitability, dividend policy, and financial reporting (Ross, 1977; Jensen & Meckling, 1976). Investor confidence is anticipated to rise in response to positive financial signals, resulting in higher market demand and improved stock prices (Spence, 1973; Ferriswara et al., 2022). Conversely, negative signals may reduce investor confidence and weaken market valuation (Ross, 1977).

Profitability

Profitability reflects The capacity of a business to produce profits from shareholders' equity (Gujarati et al., 2021). This study employs ROE as the

proxy for profitability because it measures the efficiency of management in generating returns for shareholders (Akhmadi & Januarsi, 2021). Companies are typically seen as having more financial strength and the capacity to provide sustained value, thereby attracting greater investor interest (Barus & Sudjiman, 2021; Azizah & Yuliana, 2022).

H1: Profitability has a positive effect on stock prices.

Dividend Policy

Dividend policy represents management's decision regarding the Dividend policy represents management's decision regarding the percentage of profits given to shareholders (Miller & Modigliani, 1961; Gordon, 1963). The Dividend Payout Ratio (DPR) is used as the indicator because it reflects The proportion of net profits distributed as dividends (Anggraeny et al., 2020; Nguyen et al., 2021). Stable dividend payments often provide a favourable indication of a business's future cash flows and financial stability (Miller & Rock, 1985; Siladjaja et al., 2022). Therefore, dividend policy is expected to influence investors' investment decisions and market valuation (Yuliana et al., 2021; Robiyanto & Yunitaria, 2022).

H2: Dividend policy has a positive effect on stock prices.

Firm Size

Firm size describes the scale of a company's operations and resources and is often calculated using the total assets' natural logarithm (Banz, 1981; Ahmed et al., 2023). Larger businesses typically have stronger financial capacity, broader access to capital markets, and higher credibility than smaller firms (Hutauruk, 2024; Burhani & Prajawita, 2023). These characteristics may strengthen investors' responses to profitability and dividend information (Azizah & Yuliana, 2022; Andari et al., 2024). Accordingly, It is anticipated that business size will decrease the associations between profitability, dividend policy, and stock prices (Lestari & Rahayu, 2024; Mendrofa & Maharani, 2022).

H3: "Firm size positively moderates the relationship between profitability and stock prices."

H4: "Firm size positively moderates the relationship between dividend policy and stock prices."

METHODOLOGY

The impacts of profitability and dividend policy on stock prices were investigated in this study using a quantitative research methodology, with business size serving as a moderating variable (Sugiyono, 2023). The study made use of secondary data from the yearly financial reports of "energy companies listed on the Indonesia Stock Exchange (IDX) for the period of 2020–2024." The financial statements were gathered from the annual reports of the corresponding firms and the official IDX website (OJK, 2025).

All energy businesses that were listed on the Indonesia Stock Exchange throughout the observation period made up the population. Purposive sampling was used to choose the sample depending on a number of factors: "(1) companies continuously listed on the IDX from 2020 to 2024; (2) companies

publishing complete annual financial statements during the study period; and (3) companies providing complete data required to measure all research variables. Companies that did not satisfy these criteria were excluded from the analysis (Sugiyono, 2023)."

The stock price served as the study's dependent variable. Profitability was one of the independent factors, measured by ROE, and dividend policy, measured by the DPR. Firm size served as the moderating variable and was calculated using the total assets' natural logarithm ($\ln$ Total Assets). These measurements were selected because they are commonly applied in empirical studies investigating corporate financial performance and capital market behavior (Gujarati et al., 2021; Akhmadi & Januarsi, 2021; Ahmed et al., 2023).

Panel data regression was used to analyse the data. The Chow, Hausman, and Lagrange Multiplier tests were used in the estimate procedure to choose the best regression model (Basuki, 2021). Furthermore, Moderated Regression Analysis (MRA) was employed to evaluate the moderating role of firm size in the relationships between profitability, dividend policy, and stock prices (Basuki, 2021; Gujarati et al., 2021). EViews software was used for statistical analysis, and a 5% significance threshold was used for hypothesis testing (Basuki, 2021).

RESULT AND DISCUSSION

Sample Description

The sample of this study consisted of energy businesses that were listed between 2020 and 2024 on the Indonesia Stock Exchange (IDX). Purposive sampling was used to choose the sample such that only businesses that satisfied the preset requirements were included in the study. The criteria comprised: "(1) companies continuously listed on the IDX throughout the observation period, (2) companies that published complete annual financial statements for 2020–2024, and (3) companies that provided complete data for all research variables, including Return on Equity (ROE), Dividend Payout Ratio (DPR), stock price, and total assets."

According to these standards, the final sample included qualified energy firms with complete financial information during the study period. Since the observation covered five consecutive years, the dataset generated balanced panel data, allowing a comprehensive analysis of the relationships among profitability, dividend policy, firm size, and stock prices. The selected sample was considered representative of publicly listed energy companies and appropriate for Moderated Regression Analysis (MRA) and panel data regression

Descriptive Statistics

The features of the research variables were summed together using descriptive statistics, including stock price, profitability (ROE), dividend policy (DPR), and firm size. The statistical measures comprised the mean, standard deviation, maximum value, and minimum value. These measures give a summary of the distribution and variability of the data used in the study.

Table 1. The Descriptive Statistics for Each Research Variable

	Mean	Maximum	Minimum	Std. Dev
Stock Price	3.812	39.025	85.00	6.718
Profitability	0.252	1.176	0.014	0.266
Dividend Policy (DPR)	0.568	2.171	0.000	0.428
Firm Size	22.896	25.847	20.936	1.194
Observations	95	95	95	95

The descriptive statistics for each research variable are shown in Table 1. A summary of the features and distribution of the study data, including the mean, standard deviation, maximum value, and minimum value, is given by descriptive statistics (Gujarati et al., 2021; Ghozali, 2021).

The stock price variable ranges from a minimum of 85.00 to a maximum of 39.025, with a mean value of 3.812. A comparatively considerable variance is shown by the standard deviation of 6.718 in stock prices among the sampled companies, suggesting Significant variations in market worth between companies.

Return on Equity (ROE), a measure of profitability, has an average value of 0.252, ranging from 0.014 to 1.176, has a 0.266 standard deviation. These findings show that the profitability levels of the sampled companies vary substantially, reflecting differences in their ability to generate returns for shareholders.

The Dividend Payout Ratio (DPR), which measures dividend policy, has an average value of 0.568, a minimum value of 0.000, and a maximum value of 2.171. The 0.428 standard deviation indicates a considerable level of volatility in dividend distribution practices among the energy companies.

The typical value of firm size, as determined by the natural logarithm of total assets, is 22.896, with values ranging from 20.936 to 25.847. The 1.194 standard deviation shows comparatively low variability, implying that the sampled firms are relatively similar in terms of company size.

The dataset is appropriate for further panel data regression and Moderated Regression Analysis (MRA), since the descriptive statistics generally show adequate variance across the study variables.

Model Selection

To determine the most appropriate panel data regression model, three model selection tests were conducted, namely the Chow test, Hausman test, and Lagrange Multiplier (LM) test (Basuki, 2021). These tests are frequently used to determine which estimating model is best: the REM, FEM, or CEM (Gujarati et al., 2021).

The Random Effect Model (REM) was determined to be the best model for this investigation based on the findings of the Chow, Hausman, and LM tests. (Basuki, 2021).

Hypothesis Testing

The hypothesis testing was carried out utilising the Random Effect Model (REM), which was determined to be the best panel data regression model based on the model selection tests. The regression findings are displayed in Table 2.

Table 2. Random Effect Model Regression Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Stock Price	-39827.55	20676.83	-1.926192	0.0573
Profitability	-147743.8	41351.09	-3.572912	0.0006
Dividend Policy	1941.069	5859.373	0.331276	0.7412
Firm Size	1854.374	911.9834	2.033342	0.0450
Profitability and Firm Size	6590.714	1789.788	3.682399	0.0004
Dividend Policy * Firm Size	-105.6182	246.2078	-0.428980	0.6690
Effects Specification				
			S.D.	Rho
Cross-section random			5924.518	0.8391
Idiosyncratic random			2594.347	0.1609
Weighted Statistics				
R-squared	0.378632			
Adjusted R-squared	0.343723			
Observation	95			

Effect of Profitability on Stock Price (H1)

According to the regression data, profitability has a probability value of 0.0006 and a coefficient of -147,743.8, both of which are below the 5% significance threshold. Therefore, profitability has a notable decline in stock prices. This finding indicates that H1 is accepted, suggesting that profitability significantly influences stock prices in “energy companies listed on the Indonesia Stock Exchange during the 2020–2024 period.”

Effect of Dividend Policy on Stock Price (H2)

With a probability value of 0.7412 and a coefficient of 1,941.069, dividend policy is more than 0.05. Therefore, dividend policy has no discernible impact on stock prices. Consequently, H2 is rejected.

Moderating Effect of Firm Size on the Relationship between Profitability and Stock Price (H3)

A statistically significant moderating impact is shown by the coefficient of 6,590.714 and probability value of 0.0004 for the interaction between profitability and company size (ROE $\times$ company Size). These results imply that company size enhances the connection between profitability and stock prices. Thus, H3 is accepted.

Moderating Effect of Firm Size on the Relationship between Dividend Policy and Stock Price (H4)

With a probability value of 0.6690 and a coefficient of -105.6182, the interaction between dividend policy and company size (DPR $\times$ company Size) surpasses the 5% significance threshold. Consequently, the link between dividend policy and stock prices is not moderated by business size. H4 is therefore rejected.

The Effect of Profitability on Stock Price

The results show that profitability, measured by Return on Equity (ROE), has a negative and significant effect on stock prices. The coefficient of profitability is -147,743.8, with a t-statistic of -3.572912 and a probability value of 0.0006, which is lower than the 5% significance level. These results indicate that profitability significantly affects stock prices, but the direction of the relationship is negative. Therefore, H1 is rejected, because the proposed hypothesis predicts a positive effect of profitability on stock prices.

This finding indicates that an increase in ROE does not necessarily lead to an increase in stock prices among energy sector companies. In the context of the energy sector, profitability can be strongly affected by fluctuations in global commodity prices. Consequently, an increase in profitability may not always be interpreted by investors as an indication of sustainable long-term performance.

From the perspective of signaling theory, higher ROE should generally provide a positive signal regarding management's ability to generate returns from shareholders' equity. However, the negative relationship identified in this study suggests that investors may consider the sustainability and underlying sources of profitability rather than profitability levels alone. In the energy sector, increases in ROE may partly reflect temporary increases in global commodity prices, changes in inventory values, or non-operating factors. Investors who recognize the cyclical nature of the sector may therefore perceive such increases in profitability as less sustainable. This condition may encourage profit-taking and subsequently place downward pressure on stock prices.

Another possible explanation is that ROE can increase not only because of higher net income but also because of a reduction in shareholders' equity, for example through share buybacks or lower retained earnings. Therefore, a higher ROE does not necessarily represent an improvement in fundamental operating performance.

This finding differs from Akhmadi et al. (2021), Arianti and Handayani (2022), and Mendrofa and Maharani (2022), who found a positive and significant relationship between profitability and stock prices. However, the

finding is consistent with the argument presented by Arsyandra and Primasatya (2024), which indicates that the relationship between ROE and stock prices does not always follow the prediction of signaling theory. These differences suggest that the market response to profitability may depend on industry characteristics and economic conditions.

Therefore, H1 is rejected: profitability has a negative and significant effect on stock prices.

The Effect of Dividend Policy on Stock Price

The results indicate that dividend policy, measured by the Dividend Payout Ratio (DPR), does not have a significant effect on stock prices. The DPR coefficient is 1,941.069, with a t-statistic of 0.331276 and a probability value of 0.7412, which is greater than 0.05. Therefore, dividend policy does not significantly influence stock prices, and H2 is rejected.

This finding suggests that changes in dividend payout levels were not sufficiently strong to influence investors' valuation of energy sector companies during the 2020–2024 observation period. Although dividend payments can theoretically serve as a signal of a company's financial condition and future prospects, the results indicate that dividend information was not a primary determinant of stock prices in this sample.

The finding can be interpreted through Dividend Signaling Theory and the Bird-in-the-Hand Theory. Both perspectives emphasize the importance of dividends as information for investors. However, the characteristics of the energy sector may reduce the strength of this signal. Investors in energy companies may place greater emphasis on capital gains arising from fluctuations in commodity prices than on dividend income. Furthermore, annual changes in profitability may lead to fluctuations in DPR, making dividend payments less representative of the company's sustainable financial performance.

Another consideration is the substantial investment requirement of energy companies. Retaining earnings may provide companies with internal funds for expansion, operational activities, and energy-transition investments. Consequently, a higher dividend payout does not necessarily represent a stronger future outlook from the perspective of investors.

The result differs from the findings of Immanuella and Sulistyowati (2025), Akhmadi et al. (2021), and Arianti and Handayani (2022), which reported a significant relationship between dividend policy and stock prices. However, the finding is consistent with the dividend irrelevance theory proposed by Miller and Modigliani (1961), which argues that under certain market assumptions, dividend policy does not determine firm value because investors primarily consider the firm's earning capacity and investment decisions. The result is also consistent with Mendrofa and Maharani (2022), who found that dividend policy did not significantly affect stock prices.

Therefore, H2 is rejected: dividend policy does not have a significant effect on stock prices.

The Moderating Role of Firm Size in the Relationship between Profitability and Stock Price

The interaction between profitability and firm size ($\text{ROE} \times \text{Firm Size}$) produces a coefficient of 6,590.714, a t-statistic of 3.682399, and a probability value of 0.0004, which is lower than 0.05. The positive and significant interaction coefficient indicates that firm size significantly moderates the relationship between profitability and stock prices. Therefore, H3 is accepted.

The positive interaction coefficient indicates that an increase in firm size reduces the negative effect of profitability on stock prices and strengthens the profitability–stock price relationship. In other words, the negative direct relationship between profitability and stock prices becomes less pronounced as firm size increases. This result indicates that firm size is an important factor in determining how the market interprets profitability information.

This finding can be explained through the size effect proposed by Banz (1981) and subsequently developed in the work of Fama and French (1992). Larger energy companies generally have greater assets, broader access to external financing, more diversified business activities, and stronger corporate governance and market oversight. These characteristics may increase investors' confidence in the credibility and sustainability of profitability information.

The finding is particularly relevant given the negative direct effect of profitability found in H1. The significant positive interaction suggests that firm size changes the way profitability is perceived by the market. For smaller companies, increases in ROE may be more vulnerable to concerns regarding earnings sustainability and commodity-price volatility. In contrast, larger companies may have stronger resources and greater capacity to absorb industry fluctuations. Consequently, investors may perceive profitability information from larger firms as more credible.

This result is consistent with Ahmed et al. (2023), who found that firm size can moderate relationships among financial variables, and with Hutauruk (2024), who demonstrated that firm size can alter the effect of corporate activities on firm value. It is also consistent with Burhani and Prajawita (2023), who found that firm size is relevant as a moderator in the relationship between profitability and firm value in the Indonesian market.

Therefore, H3 is accepted: firm size significantly moderates and strengthens the relationship between profitability and stock prices.

The Moderating Role of Firm Size in the Relationship between Dividend Policy and Stock Price

The interaction between dividend policy and firm size ($\text{DPR} \times \text{Firm Size}$) has a coefficient of -105.6182 , a t-statistic of -0.428980 , and a probability value of 0.6690, which is greater than 0.05. Thus, the interaction is not statistically significant. These results indicate that firm size does not significantly moderate the relationship between dividend policy and stock prices. Therefore, H4 is rejected.

The result indicates that differences in company size do not significantly change how the market responds to dividend policy in energy sector companies. Although larger companies generally possess greater assets,

stronger reputations, wider access to financing, and more stable resources, these characteristics are not sufficient to strengthen the relationship between dividend policy and stock prices in this study.

This finding is also consistent with the result of H2, which demonstrates that dividend policy itself does not have a significant effect on stock prices. Because the direct effect of dividend policy is not significant, an increase in firm size does not automatically make dividend information more influential in determining stock prices.

From the perspective of signaling theory, dividends may provide information about a firm's financial prospects. Nevertheless, the credibility of this signal may depend more on the stability and sustainability of the company's cash flows than on its size alone. Energy companies, regardless of their size, face substantial investment requirements and exposure to commodity-price fluctuations. Therefore, investors may consider factors other than dividend payments when evaluating their investment decisions.

This result is consistent with Dahlia et al. (2025), who found that firm size did not moderate the effect of dividend policy on stock price volatility. It also supports the studies of Anggraeny (2020), Dsouza et al. (2025), and Ghose et al. (2025), which suggest that firm size may be more relevant to dividend decisions than to strengthening the market's response to dividend policy. Although Robiyanto and Yunitaria (2022), Hartono and Raya (2022), and Adler et al. (2024) indicate that dividend information can affect stock prices, the present finding suggests that this effect is not automatically strengthened by firm size, particularly within the energy sector.

Therefore, H4 is rejected: firm size does not significantly moderate the relationship between dividend policy and stock prices.

CONCLUSIONS AND RECOMMENDATIONS

Firm size was used as a moderating variable in this study, which looked at how profitability and dividend policy affected stock prices, in "energy companies listed on the Indonesia Stock Exchange during the 2020–2024 period." Several inferences may be made from the panel data regression analysis utilising the Random Effect Model (REM).

First, stock prices are significantly impacted negatively by profitability, suggesting that increasing profitability in the Indonesian energy industry does not always translate into better stock prices. This result validates earlier research demonstrating that while making investment decisions, investors consider firm-specific and macroeconomic aspects in addition to profitability (Faidah & Wismar'ain, 2020; Ferriswara et al., 2022).

Second, stock prices are not greatly impacted by dividend policy, indicating that investors' actions throughout the observation period were not primarily influenced by dividend payments. This outcome is in line with the conclusions of Robiyanto and Yunitaria (2022) and Njoku and Lee (2024), "who reported that investors tend to prioritize long-term firm performance over current dividend distributions."

Third, the link between profitability and stock prices is strongly moderated by business size, suggesting that organisations with bigger asset bases have greater influence over profitability information (Ahmed et al., 2023; Andari et al., 2024). Lastly, the link between dividend policy and stock prices is not moderated by business size, suggesting that the impact of dividend policy on market valuation is neither strengthened nor weakened by firm size (Lakoni & Hidayati, 2022; Mendrofa & Maharani, 2022).

In general, the results suggest that investors in the Indonesian energy sector consider not only financial performance but also firm characteristics when evaluating investment opportunities. These results also contribute to the literature on corporate finance by offering factual data about how business size modifies the link between profitability and, dividend policy, and stock prices (Spence, 1973; Fama, 1970).

The findings of this study provide several practical implications. For corporate managers, maintaining sustainable profitability and strengthening company fundamentals are essential to enhance investor confidence and improve firm value (Ferriswara et al., 2022; Keter et al., 2024). For investors, investment decisions should not rely solely on profitability or dividend policy but should also consider firm size, market conditions, and other indicators of long-term financial performance (Fama, 1970; Ahmed et al., 2023). For policymakers and capital market regulators, improving financial reporting transparency and corporate governance may increase market efficiency, reduce information asymmetry, and strengthen investor protection (OJK, 2025; Jensen & Meckling, 1976).

FURTHER STUDY

There are a number of limitations to this study. First, only the years 2020–2024 are included in the monitoring period and focuses only on companies in the “energy sector listed on the Indonesia Stock Exchange.” Second, the study includes only profitability, dividend policy, and firm size. However, additional elements including corporate governance, liquidity, and leverage, and macroeconomic variables may also influence stock prices (Gujarati et al., 2021; Ferriswara et al., 2022).

Extending the observation duration is advised for future research, include companies from other industrial sectors, and incorporate additional financial and non-financial variables to offer a more thorough comprehension of the factors influencing stock prices.

ACKNOWLEDGMENT

The authors would like to sincerely thank the Department of Management, Faculty of Economics, Social and Humanities, Universitas Teknologi Muhammadiyah Jakarta, for their academic assistance with this study. Additionally, the authors thank the Indonesia Stock Exchange (IDX) for making financial data accessible used in this study. Finally, sincere appreciation is extended to all lecturers, colleagues, and family members whose encouragement and support contributed to the completion of this research.

REFERENCES

- Adler, Haymans Manurung, Marinda Machdar Nera, John Edward Harly Jacob FoEh, dan Jhonni Sinaga. 2024. "Dividend policy as a moderating of the effect of dividend announcement on stock price in Indonesian firms." *International Journal of Economics and Financial Issues* 14 (4): 96. <https://doi.org/10.32479/ijefi.16465>.
- Ahmed, Amanj Mohamed, Nabard Abdallah Sharif, Muhammad Nawzad Ali, dan István Hágén. 2023. "Effect of Firm Size on the Association between Capital Structure and Profitability." *Sustainability (Switzerland)* 15 (14): 1–17. <https://doi.org/10.3390/su151411196>.
- Akhmadi, Akhmadi, dan Yeni Januarsi. 2021. "Profitability and firm value: Does dividend policy matter for Indonesian sustainable and responsible investment (SRI)-KEHATI listed firms?" *Economies* 9 (4). <https://doi.org/10.3390/economies9040163>.
- Akhmadi, Akhmadi, Nurohman Nurohman, dan Robiyanto Robiyanto. 2021. "the Mediating Role of Debt and Dividend Policy on the Effect Profitability Toward Stock Price." *Jurnal Manajemen dan Kewirausahaan* 22 (1): 1–10. <https://doi.org/10.9744/jmk.22.1.1-10>.
- Andari, Ayu, Paskah Ria Sitorus, Tiorika Nababan, Nia Angelia, dan Melfrianti Romauli Purba. 2024. "Pengaruh Profitabilitas Terhadap Harga Saham Dengan Ukuran Perusahaan Sebagai Variabel Moderating Pada Perusahaan Sektor Food And Beverage Di Bursa Efek Indonesia 2020-2022." *Jurnal Ekonomi Bisnis Manajemen Prima* 5 (2): 48–56. www.idx.co.id.
- Anggraeny, Wafa, Robiyanto Robiyanto, dan Imanuel Madea Sakti. 2020. "Determinants of Dividend Payout Ratio in Non-Financial Companies Listed." *International Journal of Social Science and Business* 4 (4): 543. <https://doi.org/10.23887/ijssb.v4i4.29583>.
- Apriliani, Agya Aghsya, dan Mia Ika Rahmawati. 2020. "Pengaruh Kebijakan Dividen, Profitabilitas dan Struktur Modal Terhadap Harga Saham." *Jurnal Ekonomi Akuntansi dan Manajemen* 1 (1): 35–49.
- Arianti, Irma Febriana, dan Nur Handayani. 2022. "PENGARUH PROFITABILITAS, KEBIJAKAN DIVIDEN, PERTUMBUHAN PENJUALAN, DAN UKURAN PERUSAHAAN TERHADAP HARGA SAHAM."
- Arsyandra, Muhammad Putu, dan Rieswandha Dio Primasatya. 2024. "Pengaruh Profitabilitas terhadap Harga Saham" 8: 522–32.
- Azizah, Nur, dan Indah Yuliana. 2022. "Profitability and Company Size on Stock Prices with Debt-to-Equity Ratio as a Moderating Variable." *European Journal of Business and Management Research* 7 (3): 172–78.
- Banz, Rolf W. 1981. "The Relationship Between Return And Market Value Of Common Stocks*" 9.
- Barus, Stevie Margreth Odellia br, dan Lorina Siregar Sudjiman. 2021a. "Pengaruh Profitabilitas terhadap Harga Saham." *Jurnal Ekonomi Bisnis, Manajemen dan Akuntansi (JEBMA)* 1 (3): 231–39. <https://doi.org/10.47709/jebma.v1i3.1179>.
- Basuki, Dr. Agus Tri. 2021. "Analisis Data Panel Dalam Penelitian Ekonomi dan Bisnis." *PT Rajagrafindo Persada*, 1–161.
- Burhani, Ahmad Furqon, dan Maretha Ika Prajawita. 2023. "Profitability and Liquidity Moderated By Firm Size as Determinants of Firm Value." *Jae (Jurnal Akuntansi Dan Ekonomi)* 8 (3): 42–54. <https://doi.org/10.29407/jae.v8i3.21261>.
- Chakkravarthy, Balamuralikrishnan, Francis Gnanasekar Irudayasamy, Arul Ramanatha Pillai, Rajesh Elangovan, Natarajan Rengaraju, dan Satyanarayana Parayitam. 2023. "The Relationship between Promoters' Holdings, Institutional

- Holdings, Dividend Payout Ratio and Firm Value: The Firm Age and Size as Moderators." *Journal of Risk and Financial Management* 16 (11). <https://doi.org/10.3390/jrfm16110489>.
- Dahlia, Hani, Mardi, dan Sri Zulaihati. 2025. "Pengaruh Kebijakan Dividen dan Leverage Terhadap Volatilitas Harga Saham dengan Ukuran Perusahaan sebagai Variabel Moderasi pada Perusahaan Sektor Keuangan yang Terdaftar di Bursa Efek Indonesia Tahun 2020-2023." *Jurnal Ilmiah Ekonomi* 1 (2): 450-58.
- Dsouza, Suzan, Hassan Nasserredine, Houshang Habibniya, dan Naliniprava Tripathy. 2025. "Do firm-level variables impact dividend pay-out? Examining application of two-step system GMM panel model." *Cogent Social Sciences* 11 (1). <https://doi.org/10.1080/23311886.2025.2472915>.
- Faidah, Faridhatun, dan Dian Wismar'ain. 2020. "Pengaruh profitabilitas terhadap harga saham dengan struktur modal sebagai variabel intervening." *Jurnal Bisnis dan Ekonomi* 28 (1): 44-54.
- Fama, Eugene F. 1970. "Efficient market: A review of theory and empirical work." *Journal of Finance*. <https://doi.org/10.1111/j.1540-6261.1970.tb00518.x>.
- Fama, Eugene F., dan Kenneth R. French. 1992. "The Cross-Section of Expected Stock Returns." *The Journal of Finance* 47 (2): 427-65. <https://doi.org/10.1111/j.1540-6261.1992.tb04398.x>.
- Ferriswara, Dian, Nur Sayidah, dan Edwin Agus Buniarto. 2022. "Do corporate governance, capital structure predict financial performance and firm value?(empirical study of Jakarta Islamic index)." *Cogent Business and Management* 9 (1). <https://doi.org/10.1080/23311975.2022.2147123>.
- Ghose, Biswajit, Pankaj Kumar Tyagi, Parikshit Sharma, Nivaj Gogoi, Premendra Kumar Singh, Yeshe Ngima, Asokan Vasudevan, dan Kiran Gope. 2025. "Exploring New Aspects of Corporate Dividend Policy: Case of an Emerging Nation." *Journal of Risk and Financial Management* 18 (5): 1-20. <https://doi.org/10.3390/jrfm18050232>.
- Ghozali, Prof. Dr. Imam. 2020. "Grand Theory."
- Goodstats.id. 2023. "Target Investasi yang Dibutuhkan untuk Mencapai Maksimalisasi Energi Nasional." 2023.
- Gordon, Myron J. 1963. "Optimal investment and financing policy." *The Journal of finance* 18 (2): 264-72. <https://doi.org/10.1111/j.1540-6261.1963.tb00722.x>.
- Gujarati, Damodar N., Dawn C. Porter, dan Manoranjan Pal. 2021. *Basic Econometrics*.
- Hartono, Powel Gian, dan Muhammad Yaasiin Raya. 2022. "Covid-19 Pandemic, Dividend Policy, And Stock Market Reaction: Evidence From The Manufacturing Companies In Indonesia" 1: 105-12. <https://doi.org/10.1080/23311975.2024.2317448>.
- Hutauruk, Martinus Robert. 2024. "The effect of R&D expenditures on firm value with firm size moderation in an Indonesia palm oil company." *Cogent Business and Management* 11 (1). <https://doi.org/10.1080/23311975.2024.2317448>.
- IEA, dan MEMR. 2022. "An Energy Sector Roadmap to Net Zero Emissions in Indonesia." 2022. https://www.iea.org/reports/an-energy-sector-roadmap-to-net-zero-emissions-in-indonesia?utm_source=chatgpt.com.
- Immanuella, Josephine, dan Erna Sulistyowati. 2025. "Profitabilitas, Dividend Payout Ratio, dan Ukuran Perusahaan Terhadap Harga Saham Pada Perusahaan IDX Quality 30 di Bursa Efek Indonesia." *Jambura Economic Education Journal* 7 (1): 312-26.
- Irena. 2022. "International Renewable Energy Agency." 2022. <https://www.irena.org/About/Vision-and-mission>.
- Jensen, Michael C. 1986. "Agency costs of free cash flow, corporate finance, and

- takeovers." *Corporate Bankruptcy* 76 (2): 11-16.
<https://doi.org/10.1017/cbo9780511609435.005>.
- Jensen, Michael C., dan William H. Meckling. 1976. "Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure." *SSRN Electronic Journal*.
<https://doi.org/10.2139/ssrn.94043>.
- Karlina, Ai, dan Deni Hamdani. 2024. "Pengaruh Return on Asset, Net Profit Margin, Firm Size dan Debt To Equity Ratio Terhadap Harga Saham pada Perusahaan Subsektor Farmasi yang Terdaftar di Bursa Efek Indonesia (BEI) Periode Tahun 2015-2022." *Economic Reviews Journal* 3 (2): 1453-69.
<https://doi.org/10.56709/mrj.v3i2.482>.
- Keter, Charles Kiprono Sang, Josephat Yegon Cheboi, dan David Kosgei. 2024. "Financial performance, intellectual capital disclosure and firm value: the winning edge." *Cogent Business and Management* 11 (1).
<https://doi.org/10.1080/23311975.2024.2302468>.
- Kosasih, Corryanti, dan Ignatius Roni Setyawan. 2022. "Pengaruh Profitabilitas, Leverage, dan Modal Intelektual terhadap Harga Saham." *Jurnal Manajerial Dan Kewirausahaan* 4 (4): 882-90. <https://doi.org/10.24912/jmk.v4i4.20539>.
- Lakoni, Idham, dan Arifah Hidayati. 2022. "Analisis Kebijakan Deviden Sebagai Faktor Yang Memoderasi Pengaruh Firm Size Dan Liquidity Terhadap Harga Saham Pada Perusahaan Property Dan Real Estate Di Bursa Efek Indonesia." *Jurnal Manajemen dan Perbankan* 9 (1): 80-92. <https://journals.stie-yai.ac.id/index.php/JUMPA/article/view/423>.
- Lazulva, Indana, dan Tri Yuniati. 2024. "Pengaruh Kebijakan Hutang, Firm Size, Profitabilitas Terhadap Harga Saham Pada Perusahaan Food and Beverage di BEI." *Jurnal Ilmu dan Riset Manajemen* 13 (4): 1-18.
<https://jurnalmahasiswa.stiesia.ac.id/index.php/jirm/article/view/5915>.
- Lestari, Fiqih Dwi, dan Rika Rahayu. 2024a. "Ukuran Perusahaan Memoderasi Profitabilitas, Likuiditas, Dan Leverage Terhadap Harga Saham." *Jurnal E-Bis:Ekonomi Bisnis* 8 (2): 520-38.
<https://doi.org/https://doi.org/10.53916/jeb.v18i3.89>.
- Mendrofa, Irna Dwiyawati, dan Novera Kristianti Maharani. 2022. "Pengaruh Profitabilitas, Kebijakan Dividen dan Ukuran Perusahaan terhadap Harga Saham." *JlIP - Jurnal Ilmiah Ilmu Pendidikan* 5 (9): 3570-78.
<https://doi.org/10.54371/jiip.v5i9.871>.
- Miller, Merton H, dan Franco Modigliani. 1961. "Dividend policy, growth, and the valuation of shares." *the Journal of Business* 34 (4): 411-33.
<https://doi.org/10.1086/294442>.
- Miller, Merton H, dan Kevin Rock. 1985. "Dividend policy under asymmetric information." *The Journal of finance* 40 (4): 1031-51.
- Mutiarani, Karla Anggita, dan Nurismalatri. 2025. "Pengaruh Profitabilitas (Npm) Dan Ukuran Perusahaan (Firm Size) Terhadap Harga Saham (Closing Price) Pt Mitra Adi Perkasa Tahun 2014-2023." *Journal of Research and Publication Innovation* 3 (1): 1634-43.
- Nguyen, Anh Huu, Cuong Duc Pham, Nga Thanh Doan, Trang Thu Ta, Hieu Thanh Nguyen, dan Tu Van Truong. 2021. "The Effect of Dividend Payment on Firm's Financial Performance: An Empirical Study of Vietnam." *Journal of Risk and Financial Management* 14 (8). <https://doi.org/10.3390/jrfm14080353>.
- Njoku, Okechukwu Enyeribe, dan Younghwan Lee. 2024. "Revisiting the Effect of Dividend Policy on Firm Performance and Value: Empirical Evidence from the Korean Market." *International Journal of Financial Studies* 12 (1).

- <https://doi.org/10.3390/ijfs12010022>.
- OJK. 2025. "Statistik Keuangan Berkelanjutan." 2025.
- Parmadi, Agus. 2024. "Peran Profitabilitas , Likuiditas , Aktivitas , dan Leverage dalam Harga Saham" 3 (1): 21–31.
- Perkasa, Adi. 2025. "Pengaruh Profitabilitas (Npm) Dan Ukuran Perusahaan (Firm Size) Terhadap Harga Saham (Closing Price) Pt Mitra Adi Perkasa Tahun 2014-2023" 3 (1): 1634–43.
- Pratanti, Nadya Elsa, dan Kartika Berliani. 2025. "Pengaruh ROA , NPM , Firm Size dan Debt to Equity Ratio Terhadap Harga Saham" 4 (3): 1860–67.
- Pratiwi, Yunita Eka, Universitas Pamulang, Tangerang Selatan, Dijan Mardiaty, Universitas Pamulang, dan Tangerang Selatan. 2025. "Pengaruh Ukuran Perusahaan , Return On Asset Dan Price Book Value Terhadap Harga Saham Pada Pt Adaro Energy Tbk Periode 2014 - Yunita Eka Pratiwi" 2 (5): 375–87.
- Putri, Anggi Cahaya Audi, dan Indri Kharisma. 2025. "Pengaruh Firm Size, Leverage Dan Earning Per Share Terhadap Harga Saham Pada Pt Tempo Scan Pacific Tbk Periode 2014 - 2024" 23 (8).
- Reforminer. 2022. "Peta Jalan NZE dan Ketahanan-Ekonomi Energi Indonesia." 2022. <https://reforminer.com/peta-jalan-nze-dan-ketahanan-ekonomi-energi-indonesia/>.
- Robiyanto, Robiyanto, dan Fanny Yunitaria. 2022. "Dividend announcement effect analysis before and during the COVID-19 pandemic in the Indonesia Stock Exchange." *SN Business and Economics* 2 (2): 1–20.
- Ross, Stephen A. 1977. "The determination of financial structure: the incentive-signalling approach." *The bell journal of economics*, 23–40. <https://doi.org/10.2307/3003485>.
- Sari, Ayu Sekar, dan Mia Laksmiwati. 2024. "Pengaruh Profitabilitas, Likuiditas, Leverage Dan Ukuran Perusahaan Terhadap Harga Saham (Studi Empiris pada Perusahaan Sub Sektor Telekomunikasi yang Terdaftar di Bursa Efek Indonesia Periode 2019 – 2023)." *Jurnal Ekonomi Bisnis Manajemen Akuntansi (JEBISMA)* 2 (1): 1–11.
- Siladjaja, Muljanto, Yuli Anwar, dan Ismulyana Djan. 2022. "The Relationship between Dividend Policy and Earnings Quality: The Role of Accounting Information in Indonesia's Capital Market." *Economies* 10 (6).
- Solekah, Devita M A R Atus, Dan Datien Eriska Utami. 2023. "Pengaruh Volume Perdagangan Dan Kebijakan Dividen Terhadap Volatilitas Harga Saham Dengan Firm Size Sebagai Moderasi." UIN Surakarta.
- Spence, Michael. 1973. "Job market signaling." *Quarterly Journal of Economics* 87 (3): 355–74. <https://doi.org/10.2307/1882010>.
- Sudewi, Pipin Sri, Rosalina Anindya Kartika, dan Sri Hartati. 2022. "Pengaruh Likuiditas, Profitabilitas Dan Kebijakan Dividen Terhadap Harga Saham Dengan Ukuran Perusahaan Sebagai Variabel Pemoderasi." *JUMBIWIRA: Jurnal Manajemen Bisnis Kewirausahaan* 1 (2): 110–19.
- Sugiyono, Prof. Dr. 2023. *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*.
- Wibowo, Adnan Hasyim. 2023. "Statistik Perkembangan Energi di Indonesia." <https://data.goodstats.id/statistic/statistik-perkembangan-energi-di-indonesia-sz0mx>. 2023.
- Yahoofinance. n.d. "Lima emiten yang berpengaruh di sektor energi." <https://finance.yahoo.com/sectors/energy/>.
- Yuliana, Indah, Agus Indiyanto, Mirna Yusuf, dan Maretha Ika Prajawati. 2021. "Dividend as a Moderation Variable to Increase Stock Prices." *Jurnal Keuangan dan Perbankan* 25 (4): 880–94. <https://doi.org/10.26905/jkdp.v25i4.5842>.