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The Effect Of Cost Of Capital And Free Cash Flow On Dividend Policy In Energy Sector Companies Listed On The Indonesia Stock Exchange (IDX) For The Period 2021–2024

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Abstract

This study aims to examine the effect cost of capital and free cash flow on dividend policy among energy sector companies listed on the Indonesia Stock Exchange (IDX) over the 2021-2024 period. The research employed a quantitative approach using panel data regression analysis with the assistance of EViews version 13, in which the Common Effect Model (CEM) was selected as the most appropriate model. The sample consisted of 19 companies with a total of 76 observations obtained from annual reports and financial statements. The findings indicate that cost of capital has negative and significant effect on dividend policy, while free cash flow does not have a significant effect. In addition, profitability as a control variable demonstrates a positive and significant influence. Simultaneously, all three variables in this study are found to significantly affect dividend policy.

Keywords: Cost of Capital, Free Cash Flow, Dividend Policy, Energy Sector, Panel Data Regression.

INTRODUCTION

Dividend policy is one of the most important corporate financial decisions because it determines how a firm's earnings are allocated between dividend distributions and retained earnings for future investment (Sulistyowati et al., 2025). Beyond reflecting a company's financial performance, dividend policy also serves as an important signal to investors regarding a firm's future prospects and financial stability (Trinh et al., 2022). In

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the Indonesian capital market, dividends remain one of the primary considerations for investors, particularly retail investors, as they provide a more certain than relying solely on capital gains (Kesuma et al., 2025). Consequently, maintaining a stable dividend policy has become an important strategy for enhancing investor confidence and firm value (Oktananda & Rini, 2025).

Among all industries listed on the Indonesia Stock Exchange (IDX), the energy sector has long been recognized as one of the largest dividend-paying sectors. Besides playing a strategic role in supporting industrial activities and household energy consumption, the sector also represents one of the largest market capitalizations in the Indonesian capital market. According to the Indonesia Central Securities Depository (KSEI), energy companies distributed IDR 75.60 trillion in dividends in 2024, representing a 34.51% increase from IDR 56.20 trillion in the previous year and surpassing the financial sector, which distributed IDR 60.53 trillion (Nabhani, 2024). This performance reinforces the perception of energy companies as attractive investment targets for shareholders seeking stable dividend income.

Despite this strong dividend-paying reputation, Indonesia's energy sector is currently experiencing substantial structural changes driven by the national energy transition agenda. The Indonesian government has targeted a 23% renewable energy mix by 2025 and aims to achieve net-zero emissions by 2060 (ESDM, 2021). Achieving these targets requires substantial capital investment in renewable energy development, infrastructure modernization, and low-carbon technologies. As a results, firms are increasingly confronted with a financial trade-off between retaining earnings to finance long-term investments and maintaining stable dividend distributions expected by shareholders. This emerging dilemma has made dividend policy increasingly complex within the Indonesia energy sector.

Evidence of this phenomenon can be observed among listed energy companies, where some firms have reduced or retained earnings to finance business expansion and strategic investment projects, while others continue to maintain relatively high dividend payout ratio despite rising capital requirements. These contrasting corporate decisions indicate that dividend policy is influenced not only by profitability but also by firms' internal financial conditions, particularly the cost of capital and free cash flow (Pratiwi et al., 2022). A higher cost of capital increases financing costs and may encourage firms to retain earnings for investment purposes, whereas greater free cash flow reflects a stronger financial capacity to distribute dividends after meeting operational and investment role (Arhinful et al., 2024; Diedrich et al., 2022; Januarsi & Sanusi, 2024).

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Previous studies investigating the relationship between cost of capital, free cash flow, and dividend policy have reported inconsistent findings, with some documenting significant relationships while other reporting insignificant or even contradictory results. Furthermore, empirical evidence focusing specifically on Indonesian energy companies during the ongoing energy transition remains limited. This indicates not only empirical gap but also contextual gap, as the financial characteristics and investment pressures faced by the energy sector differ considerably from those of other industries.

Unlike previous studies that primarly examine firms across various industries or different institutional settings, this study specifically investigates listed Indonesian energy companies during the 2021-2024 energy transition period. This context provides a unique setting in which firms simultaneously face increasing investment requirements and persistent shareholder expectations for stable dividend payments. Accordingly, this study aims to examine the effects of cost of capital and free cash flow on the dividend policy of energy companies listed on the Indonesia Stock Exchange (IDX) during the 2021-2024 period. The findings are expected to enrich the literature on corporate managers, investors, and policymakers in balancing investment financing with shareholder value creation amid the energy transition.

LITERATURE REVIEW

Agency Theory

Jensen & Meckling (1976) define agency theory as the contractual relationship between principals (shareholders) and agents (management), in which managers are entrusted with the responsibility of making decisions and managing the firm's resources on behalf of shareholders. In carrying out this role, managers are expected to utilize corporate resources efficiently, minimize unnecessary expenditures, and maximize shareholder value (Fadilah & Venusita, 2024). However, the separation of ownership and control inherently creates agency conflicts arising from divergent interests between owners and managers, giving rise to agency costs that the firm must bear to ensure managerial behavior remains aligned with shareholder interests. Dividend policy constitutes one of the key mechanisms for mitigating such conflicts, as distributing dividends reduces the discretionary cash flow available to managers, thereby limiting opportunities for overinvestment in unprofitable projects. This mechanism is particularly relevant in the energy sector, where high capital intensity and substantial free cash flow create considerable managerial discretion over resource allocation, making dividend

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policy a critical tool for disciplining managerial behavior and aligning the interests of managers and shareholders.

Bird in the Hand Theory

Gordon (1959) dan Lintner (1962) propose the Bird in the Hand Theory, which posits that investors prefer current cash dividends over uncertain future capital gains, given that dividend income represents a guaranteed return whereas capital gains remain contingent upon future market conditions. Gordon further reinforces this argument through the Gordon Growth Model, demonstrating that firm value increases with higher dividends and growth, while a rising cost of capital exerts a negative effect on firm value. This theory holds particular relevance in the context of the energy sector, where capital intensity, volatile revenues, and long-term investment demands from energy transition intensify shareholder preference for dividends as a more reliable form of return, making Bird in the Hand Theory a supporting theoretical lens in this study to explain investor preference for dividend distributions over uncertain capital gains.

Dividend Policy

Dividend policy represents a strategic financial decision concerning the proportion of earnings distributed to shareholders and the portion retained for reinvestment (Darmawan, 2019). This decision requires balancing shareholders' expectations for investment returns against the firm's need to fund future business growth. A dividend policy is considered optimal when the firm successfully equilibrates current dividend payments with long-term growth projections (Faridah & Putra, 2024).

Cost of Capital

Cost of capital is defined as the minimum rate of return a firm must generate from its investments to satisfy investors and sustain its market value (Natasha et al., 2025). Subramanyam (2014) further argues that cost of capital is determined by the market value proportions of debt and equity financing, weighted according to their respective contributions, which is commonly referred as the Weighted Average Cost of Capital (WACC). The magnitude of WACC carries direct implications for dividend policy, as firms bearing a high cost of capital tend to prioritize earnings retention over dividend distribution to reduce dependence on costly external financing. Conversely, firms with a lower cost of capital possess greater flexibility to distribute earnings as dividend without compromising their capacity to finance profitable investment projects.

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Free Cash Flow

Jensen & Meckling (1976) define free cash flow as the residual cash flow remaining after a firm has fulfilled all its operational and investment requirements, which may subsequently be utilized for dividend payments, debt repayment, or other strategic purposes. Jensen (1986) further agues that excessive free cash flow coupled with limited productive investment opportunities incentivizes managers to engage in overinvestment in low-value projects for personal benefit, thereby giving rise to agency conflicts. In this context, dividend distribution serves as an effective governance mechanism to reduce the discretionary cash available to managers while simultaneously mitigating the risk of resource misappropriation.

Profitability

Profitability reflects a firm's capacity to generate earnings through its operational activities. Higher profitability levels afford firms greater flexibility in allocating earnings, either as dividends to shareholders or as internal financing. Among various profitability measures, Return on Assets (ROA) is commonly employed as it captures a firm's effectiveness in utilizing its total assets to generate profits, offering a comprehensive representation of profitability from the company's perspective (Habibie & Triani, 2022). Profitability is incorporated as a control variable to isolate the influence of earnings-generating capacity on dividend policy, thereby enabling a more rigorous and objective examination of the relationship between cost of capital, free cash flow, and dividend policy (Lestari et al., 2021; Malau et al., 2024; Sumartana & Dewi, 2024).

HYPOTHESIS DEVELOPMENT

The Effect of Cost of Capital on Dividend Policy

Cost of capital, proxied by the Weighted Average Cost of Capital (WACC), reflects the cost a firm must bear in obtaining financing. From an agency theory perspective, dividend policy is regarded as a mechanism to reduce conflicts of interest between management and shareholders. When firms face a high cost of capital, management tends to retain more funds to support investment and operational needs, which potentially creates divergent interests with shareholders who expect earnings to be distributed as dividends. Prior studies examining the effect of cost of capital on dividend policy have yielded mixed findings, as Arhinful et al. (2024) and Hariyanur (2022) found a positive relationship between cost of capital and dividend policy. Conversely, Farooq & Jabbouri

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(2015) reported a strong negative relationship. Based on agency theory and prior empirical evidence, hypothesis one (H_1) is formulated as follows:

H_1 = Cost of capital affects dividend policy.

The Effect of Free Cash Flow on Dividend Policy

Free cash flow (FCF) represents the residual cash remaining after a firm has fulfilled its operational and investment requirements. According to agency theory, high free cash flow may intensify the potential for agency conflicts, prompting firms to employ dividend policy as a mechanism to mitigate such conflicts. High free cash flow indicates the availability of funds that can be used to pay dividends, but may also be allocated toward firm investment. Several studies have found that FCF negatively affects dividend policy, as evidenced by de Souza Junior et al. (2024), Nadila & Taqwa (2024) and Suriani & Wirawati (2025), while others such as Malau et al. (2024), Soeiswanto et al. (2024), and Sumartana & Dewi (2024) reported a positive relationship. In contrast, Arini Arthatami et al. (2024) Sawal et al. (2025), and Susanah & Ananda (2022) found no significant effect of FCF on dividend policy. Based on agency theory and prior empirical evidence, hypothesis two (H_2) is formulated as follows:

H_2 = Free cash flow affects dividend policy.

Based on the relationships among variables and the hypotheses, the conceptual framework of this study is illustrated as follows:

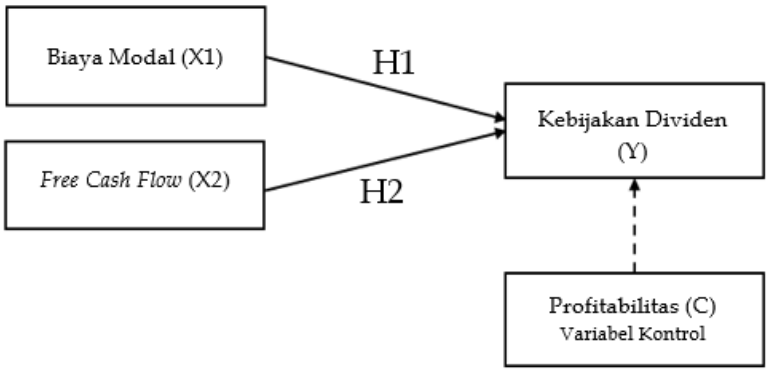


Figure 1: Conceptual Framework
Source: Data processed by Author (2026)

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RESEARCH METHODS

This study employs an associative quantitative research design aimed at examining the causal relationships among variables using secondary data derived from annual reports and financial statements of energy sector companies listed on the Indonesia Stock Exchange (IDX) over the period 2021–2024, accessed through the official IDX website, Yahoo Finance, and the official websites of the respective companies (Sugiyono, 2013). The population comprises all energy sector companies listed on the IDX during the study period, from which the sample was determined using purposive sampling based on specific criteria included: (1) companies consistently listed on the IDX during 2021–2024; (2) companies publishing complete annual reports and financial statements throughout the observation period; and (3) companies distributing cash dividends during the observation period. Based on these criteria, yielding a final sample of 19 companies with a total of 76 firm-year observations over the four-year period (Sugiyono, 2013). All data processing and analysis were conducted using EViews version 13.

This study employs three types of variables: a dependent variable, independent variables, and a control variable. The operationalization of each variable is summarized in Table 1 below.

Table 1: Operational Definition of Variables

Variable	Type	Indicator	Formula	Reference
Dividend Policy	Dependent	DPR	DPR = (Total Dividends Paid / Net Income After Tax) × 100%	(Suriani & Wirawati, 2025)
Cost of Capital	Independent	WACC	WACC = (E/V × Re) + (D/V × Rd × (1−T))	(Arhinful et al., 2024)
Free Cash Flow	Independent	FCF	FCF = Operating Cash Flow − Capital Expenditure	(Subramanyam, 2014)
Profitability	Control	ROA	ROA = (Net Income After Tax / Total Assets) × 100%	(Ratnasari & Nuswantara, 2020)

Source: Data processed by Author (2026)

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This study employs descriptive statistics to provide a general overview of the distribution of each research variable (Ghozali, 2016), followed by panel data regression analysis combining time series and cross-sectional data. Model selection tests conducted include the Chow Test, Hausman Test, and Lagrange Multiplier (LM) Test to determine the most appropriate estimation model among CEM, FEM, and REM (Wooldridge, 2010). Classical assumption tests are subsequently performed, encompassing the normality, multicollinearity, heteroscedasticity, and autocorrelation test (Ghozali, 2018). Hypothesis testing is conducted through the partial t-test, simultaneous F-test, and Coefficient of Determination (Ghozali, 2016). All analyses are performed using EViews version 13.

Hypothesis testing was conducted using panel data regression analysis to determine the effect of cost of capital and free cash flow on dividend policy. The panel data regression equation employed in this study is as follows:

$$Y_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 K_{it} + \varepsilon_{it}$$

where Y is dividend policy (DPR), X1 is cost of capital (WACC), X2 is free cash flow (FCF), K is profitability (ROA), β0 is the intercept, β1–β3 are slope coefficients, and ε is the error term. A t-test is subsequently conducted to examine the partial effect of each independent variable on dividend policy, an F-test to assess the simultaneous effect of all independent variables, and the Adjusted R^2 to determine the contribution of cost of capital, free cash flow, and profitability in explaining variations in dividend policy among energy sector companies listed on the IDX (Ghozali, 2016).

RESULT AND DISCUSSIONS

Descriptive Statistics

Table 2: Result of Descriptive Statistics

Statistik Deskriptif				
	Y	**X1**	**X2**	**K**
Mean	56.25	6.54	2,338,057	19.30
Median	58.00	6.59	1,153,654	13.19
Maximum	109.30	9.13	13,125,514	61.76
Minimum	12.00	3.55	-1,074,864	0.81
Std. Dev.	27.53	0.64	3.147.130	16.44
Skewness	0.03	-0.50	1.63	1.07
Kurtosis	1.90	10.82	5.02	3.05

Source: Data processed by EViews (2026)

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Table 2 presents the descriptive statistics of all research variables. The DPR averaged 56.25%, with some firms recorded paying dividends exceeding their net income, indicating efforts to maintain dividend continuity despite changing financial conditions. WACC averaged 6.54% with a low standard deviation of 0.64, suggesting relatively homogeneous distribution across firms. FCF averaged 2,338,057 with a considerably high standard deviation of 3,147,130, reflecting substantial variation across firms, with some firms recording negative FCF indicating that expenditures exceeded cash inflows during the period. ROA averaged 19.30% with a standard deviation of 16.44, reflecting considerable performance disparities across sample firms.

Panel Data Model Selection Tests

Table 3: Result of Panel Data Model Selection Tests

No.	Uji Pemilihan Model	Nilai Probabilitas	Nilai Signifikansi	Keputusan Pemilihan Model
1.	Uji Chow	0.0013	0.05	FEM
2.	Uji Hausman	0.0698	0.05	REM
3.	Uji *Lagrange Multiplier*	0.1409	0.05	CEM

Source: Data processed by EViews (2026)

The Chow Test yielded a Cross-section Chi-square probability of 0.0013 (<0.05), indicating that FEM is preferred over CEM. The subsequent Hausman Test produced a Cross-section random probability of 0.0698 (>0.05), indicating that REM is preferred over FEM. The Lagrange Multiplier Test then returned a Cross-section Breusch-Pagan probability of 0.1409 (>0.05), indicating that CEM is preferred over REM. As summarized in Table 3, the overall model selection process concludes that the Common Effect Model (CEM) is the most appropriate estimation model for this study.

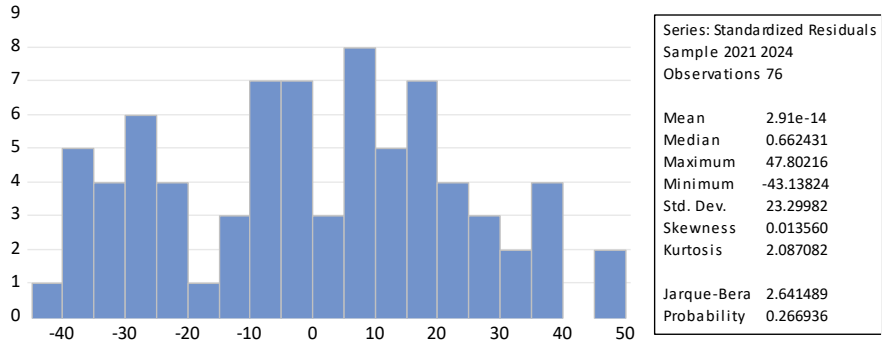
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Classical Assumption Tests

Normality Test

Table 4: Result of Normality Test



Source: Data processed by EViews (2026)

The Jarque-Bera test yielded a probability value of 0.2669, which exceeds the significance threshold of 0.05. This indicates that the residuals follow a normal distribution, confirming that the model satisfies the normality assumption required for valid statistical inference. Accordingly, the model is deemed suitable for further hypothesis testing and the regression results can be interpreted with confidence.

Multicollinearity Test

Table 5: Result of Multicollinearity Test

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	811.1101	109.0083	NA
X1	18.90793	109.5706	1.036215
X2	9.23E-13	1.891103	1.212801
K	0.032744	2.812662	1.173666

Source: Data processed by EViews (2026)

The Variance Inflation Factor (VIF) values for all variables were well below the threshold of 10, with WACC (X!) recording 1.036, FCF (X2) recording 1.213, and ROA (K) recording 1.174. These results confirm the absence of significant correlations among

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the independent variables, indicating that each variable contributes independently to the model without inflating the standard errors of the regression coefficients. Therefore, the model is free from multicollinearity issues and the estimated coefficients can be interpreted reliably.

Heteroscedasticity Test

Table 6: Result of Heteroscedasticity Test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	30.53287	15.24418	2.002919	0.0490
X1	-1.491181	2.327482	-0.640684	0.5238
X2	4.72E-07	5.14E-07	0.917405	0.3620
K	-0.127438	0.096857	-1.315729	0.1924

Source: Data processed by EViews (2026)

The Glejser test produced probability values of 0.5238, 0.3620, and 0.1924 for WACC, FCF, and ROA respectively, all of which exceed the significance level of 0.05. These results indicate that the variance of residuals is consistent across all observations, confirming that the model satisfies the homoscedasticity assumption and that no systematic pattern exists in the residual variance. Consequently, the model is declared free from heteroscedasticity, ensuring that the standard errors of the regression coefficients remain unbiased and efficient.

Autocorrelation Test

Table 7: Result of Autocorrelation Test

R-squared	0.283906	Mean dependent var	56.25474
Adjusted R-squared	0.254069	S.D. dependent var	27.53389
S.E. of regression	23.78028	Akaike info criterion	9.226786
Sum squared resid	40716.11	Schwarz criterion	9.349456
Log likelihood	-346.6179	Hannan-Quinn criter.	9.275811
F-statistic	9.515161	Durbin-Watson stat	1.481513
Prob(F-statistic)	0.000023		

Source: Data processed by EViews (2026)

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The Durbin-Watson statistic of 1.4815 fell below the lower bound dL of 1.5467, indicating the presence of positive autocorrelation whereby residuals across time periods are systematically related to one another. To address this violation, the study applies robust standard errors using the White cross-section method, which produces consistent and valid estimates in the presence of autocorrelation and heteroscedasticity (Min, 2010; Vogelsang, 2012). Following this correction, the regression model is considered reliable and the coefficient estimates are deemed sufficiently robust for subsequent hypothesis testing and interpretation.

Panel Data Regression

Table 8: Result of Panel Data Regression

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	138.1300	16.89288	8.176819	0.0038
X1	-14.76310	2.660731	-5.548512	0.0115
X2	1.23E-06	9.92E-07	1.235886	0.3045
K	0.608438	0.096566	6.300742	0.0081

R-squared	0.283906	Mean dependent var	56.25474
Adjusted R-squared	0.254069	S.D. dependent var	27.53389
S.E. of regression	23.78028	Akaike info criterion	9.226786
Sum squared resid	40716.11	Schwarz criterion	9.349456
Log likelihood	-346.6179	Hannan-Quinn criter.	9.275811
F-statistic	9.515161	Durbin-Watson stat	1.481513
Prob(F-statistic)	0.000023		

Source: Data processed by EViews (2026)

The panel data regression analysis was conducted using the Common Effect Model (CEM) with the White cross-section robust standard error approach, yielding the following regression equation:

$$Y = 138{,}130 - 14{,}763X_{1it} + (1{,}23 \times 10^{-06}X_{2it}) + 0{,}608K_{it} + \varepsilon_{it}$$

The constant value of 138.130 indicates the estimated value of dividend policy when all independent variables are held constant at zero. The regression coefficient of WACC is -14.763, indicating that each unit increase in cost of capital is associated with a decrease in dividend policy by 14.763 units, holding other variables constant. The

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regression coefficient of FCF is 1.23×10^{-6}, indicating a positive but negligibly small effect of free cash flow on dividend policy. The regression coefficient of ROA is 0.608, indicating that each unit increase in profitability is associated with an increase in dividend policy by 0.608 units, holding other variables constant.

Hypothesis Testing

T-Statistic Test

Table 9: Result of T-Statistic Test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	138.1300	16.89288	8.176819	0.0038
X1	-14.76310	2.660731	-5.548512	0.0115
X2	1.23E-06	9.92E-07	1.235886	0.3045
K	0.608438	0.096566	6.300742	0.0081

Source: Data processed by EViews (2026)

The partial t-test results indicate that cost of capital (X1/WACC) exerts a significant negative effect on dividend policy, with a probability value of 0.0115 (<0.05) and a regression coefficient of -14.763, suggesting that each 1% increase in cost of capital is associated with a 14.763-unit decrease in dividend payout, holding other variables constant. H1 is therefore accepted. In contrast, free cash flow (X2/FCF) does not exert a significant effect on dividend policy, with a probability value of 0.3045 (>0.05), leading to the rejection of H2. The control variable profitability (K/ROA) exhibits a significant positive effect on dividend policy with a probability value of 0.008 (<0.05) and a coefficient of 0.608, confirming that higher profitability is associated with greater dividend distribution.

F-Statistic Test

Table 10: Result of F-Statistic Test

R-squared	0.283906	Mean dependent var	56.25474
Adjusted R-squared	0.254069	S.D. dependent var	27.53389
S.E. of regression	23.78028	Akaike info criterion	9.226786
Sum squared resid	40716.11	Schwarz criterion	9.349456
Log likelihood	-346.6179	Hannan-Quinn criter.	9.275811
F-statistic	9.515161	Durbin-Watson stat	1.481513
Prob(F-statistic)	0.000023		

Source: Data processed by EViews (2026)

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The F-test yielded an F-statistic of 9.515 with a probability value of 0.000 (<0.05), indicating that cost of capital (X1/WACC), free cash flow (X2/FCF), and profitability (K/ROA) jointly exert a significant effect on dividend policy among energy sector companies listed on the IDX during the period 2021–2024. This result confirms that the independent variables as a whole are proven to simultaneously influence dividend policy, and that the regression model is statistically fit for explaining dividend policy decisions in the energy sector.

Coefficient of Determination (Adjusted R^2)

Table 11: Result of Coefficient Determination

R-squared	0.283906	Mean dependent var	56.25474
Adjusted R-squared	0.254069	S.D. dependent var	27.53389
S.E. of regression	23.78028	Akaike info criterion	9.226786
Sum squared resid	40716.11	Schwarz criterion	9.349456
Log likelihood	-346.6179	Hannan-Quinn criter.	9.275811
F-statistic	9.515161	Durbin-Watson stat	1.481513
Prob(F-statistic)	0.000023		

Source: Data processed by EViews (2026)

The Adjusted R-squared value of 0.254 indicates that cost of capital, free cash flow, and profitability are capable of explaining 25.4% of the variation in dividend policy among the sample firms, while the remaining 74.6% is explained by other variables not included in this study. This result suggests that while the variables examined in this study contribute meaningfully to explaining dividend policy, there remain other factors outside the scope of this model that also play a role in determining dividend policy decisions among energy sector companies.

The Effect of Cost of Capital on Dividend Policy

The hypothesis testing results confirm that cost of capital (WACC) exerts a significant negative effect on dividend policy among energy sector companies listed on the IDX during the period 2021–2024, with a probability value of 0.0115 (<0.05) and a regression coefficient of -14.763, indicating that each unit increase in WACC is associated with a 14.763-unit decrease in DPR. This finding suggests that as the cost of capital rises, energy sector companies tend to prioritize earnings retention to fulfill internal financing needs over distributing profits as dividends, a tendency that is further amplified by the

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pressures of energy transition which demand substantial capital allocation for renewable infrastructure and low-emission technology adoption.

This finding is consistent with Agency Theory, which posits that management tends to retain internal funds to finance investment and operational needs rather than distributing them as dividends (Jensen & Meckling, 1976). Under conditions of high cost of capital, the divergence of interests between management and shareholders becomes more pronounced, as shareholders prefer dividend distributions while management prioritizes fund retention to support operational and investment requirements. These results indicate that dividend policy decisions in the energy sector are more heavily shaped by managerial considerations in resource management as explained by Agency Theory, rather than by investor preferences as suggested by Bird in the Hand Theory. This finding is further supported by Farooq & Jabbouri (2015), who similarly confirm that higher cost of capital constrains a firm's capacity to distribute dividends to shareholders.

The Effect of Free Cash Flow on Dividend Policy

The hypothesis testing results reveal that free cash flow exerts a positive but insignificant effect on dividend policy, with a probability value of 0.3045 (>0.05), leading to the rejection of H2. This finding suggests that the magnitude of free cash flow does not necessarily determine whether dividends are distributed, as energy sector companies tend to prioritize the allocation of available cash for strategic investment projects before considering dividend payments (Arini Arthatami et al., 2024; Susanah & Ananda, 2022). Conversely, firms with low free cash flow may still distribute dividends to maintain investor confidence and preserve their reputation as consistent dividend payers.

This finding does not fully support Agency Theory, which posits that free cash flow is a determinant of dividend policy (Jensen & Meckling, 1976). Instead, the result is more aligned with Bird in the Hand Theory, which explains that firms may maintain stable dividend payments regardless of free cash flow fluctuations in order to satisfy investor preference for certain dividend income (Gordon, 1959; Lintner, 1962).These results are consistent with Arini Arthatami et al. (2024), Sawal et al. (2025), and Susanah & Ananda (2022), who similarly find that free cash flow does not significantly influence dividend policy, reinforcing the notion that dividend decisions in the energy sector are driven more by long-term strategic considerations and investor commitment than by the availability of free cash flow in any given period.

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CONCLUSION

Based on the analysis of the effect of cost of capital and free cash flow on dividend policy among energy sector companies listed on the IDX during the period 2021–2024, cost of capital (WACC) is proven to exert a significant negative effect on dividend policy, indicating that higher cost of capital leads firms to prioritize earnings retention over dividend distribution, while free cash flow does not exert a significant effect, suggesting that dividend decisions in the energy sector are driven more by long-term strategic considerations than by the availability of free cash flow. WACC, FCF, and ROA simultaneously explain 25.4% of the variation in dividend policy, with the remaining 74.6% attributed to other variables beyond the scope of this study. These findings affirm the continued relevance of Agency Theory in explaining dividend policy behavior in the energy sector, while also enriching the dividend policy literature by demonstrating that free cash flow availability is not necessarily the primary determinant of dividend decisions in capital-intensive industries. Practically, energy sector management should prioritize efficient cost of capital management to preserve dividend stability, investors are advised to consider cost of capital as a key signal of a firm's capacity to sustain consistent dividend payments, and regulators may draw on these findings to formulate policies that support capital market stability amid energy transition pressures.

Future research is encouraged to incorporate additional variables such as liquidity, firm size, and firm growth that may further explain dividend policy variations, given that this study only accounts for 25.4% of the variation in dividend policy, leaving a substantial portion unexplained by the variables examined. In addition, extending the observation period beyond the 2021–2024 timeframe would allow for a more comprehensive capture of long-term dividend policy trends, particularly in the context of the ongoing energy transition. Broadening the sectoral coverage of the sample beyond the energy sector would also enhance the generalizability of findings, enabling comparisons across industries with different capital structures and dividend practices. Furthermore, future studies may consider employing alternative proxies or more advanced methodological approaches to provide a more nuanced understanding of the factors influencing dividend policy decisions.

REFERENCES

Arhinful, R., Mensah, L., Amin, H. I. M., & Obeng, H. A. (2024). The influence of cost of debt, cost of equity and weighted average cost of capital on dividend policy decision: evidence from non-financial companies listed on the Frankfurt Stock

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Exchange. *Future Business Journal*, *10*(1), 1–24. https://doi.org/10.1186/s43093-024-00384-8

Arini Arthatami, A., Herawati, R., Suhartono, E., & Oktafiyani, M. (2024). Analisis Dampak Leverage , Pertumbuhan Perusahaan , ROA , dan FCF Terhadap Kebijakan Dividen (Studi Kasus Pada Sektor Financials di BEI Periode 2019-2022). *Jurnal Manajemen Sosial Ekonomi (DINAMIKA)*, *4*(1), 180–191. http://journal.stietekom.ac.id/index.php/dinamika

Darmawan. (2019). *Manajemen Keuangan : Memahami Kebijakan Dividen Teori dan Praktiknya di Indonesia*.

de Souza Junior, W. D., Hijazi, M. M., & da Silva, T. P. (2024). Determinants of Dividend Payout Policy: More Evidence From Emerging Markets of G20 Bloc. *International Journal of Finance and Economics*, 1–12. https://doi.org/10.1002/ijfe.3111

Diedrich, R., Dierkes, S., & Gröger, H. C. (2022). A note on the cost of capital with fixed payout ratios. *Review of Quantitative Finance and Accounting*, *59*(4), 1559–1575. https://doi.org/10.1007/s11156-022-01085-5

Fadilah, S. N., & Venusita, L. (2024). CEO Power dalam Kaitannya dengan Nilai Perusahaan. *Jurnal Akuntansi AKUNESA*, *12*(3), 226–237. https://doi.org/10.26740/akunesa.v12n3.p226-237

Farooq, O., & Jabbouri, I. (2015). Cost Of Debt And Dividend Policy : *The Journal of Applied Business Research*, *31*, *Number*(September), 1637–1644.

Ghozali, I. (2016). *Aplikasi Analisis Multivariate dengan Program IBM SPSS 23 (8th Ed.)* (8th ed.). Badan Penerbit Universitas Diponegoro.

Ghozali, I. (2018). *Aplikasi Analisis Multivariate dengan Program IBM SPSS 23 (8th Ed.)* (8th ed.). Badan Penerbit Universitas Diponegoro.

Gordon, M. J. (1959). *Dividends, Earnings, and Stock Prices*. *41*(2), 99–105.

Habibie, F. A., & Triani, N. N. A. (2022). Faktor – Faktor Yang Mempengaruhi Ketepatan Waktu Pelaporan Keuangan Pada Tahun 2015 – 2017. *Jurnal Akuntansi AKUNESA*, *10*(2), 36–45. https://doi.org/10.26740/akunesa.v10n2.p36-45

Hariyanur, R. (2022). *The effect of investment and financing decision , dividend policy and cost of capital on Indonesian firm value*. *1*(2).

Januarsi, Y., & Sanusi, F. (2024). Profitability and dividend policy: How does free cash flow explain this relationship? *Jurnal Siasat Bisnis*, *28*(1), 56–70. https://doi.org/10.20885/jsb.vol28.iss1.art4

Jensen, M. C. (1986). Agency Costs of Free Cash Flow , Corporate Finance , and Takeovers Agency Costs of Free Cash Flow , Corporate Finance , and Takeovers.

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The American Economic Review, *76*(2), 323–329.

Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, *3*(4), 305–360. https://doi.org/10.1016/0304-405X(76)90026-X

Kesuma, W., Bisnis, F., & Ali, U. D. (2025). *DIVIDENDS AND ATTENTION : HERDING , NEGLECT , AND DISTRACTION AMONG INDONESIAN RETAIL INVESTORS*. *6*(1), 176–190.

Lestari, H. S., Effendi, H. R. T., & Latiefa, F. A. (2021). Pengaruh Struktur Kepemilikan Terhadap Kebijakan Dividen Perusahaan Manufaktur Yang Terdaftar Di BEI. *Jurnal Ekonomi*, *26*(3), 345. https://doi.org/10.24912/je.v26i3.795

Lintner, J. (1962). Prices and The Supply of Capital to Corporations. *The Review of Economics and Statistics*, *44*(3), 243–269.

Malau, Y. N., Andini, C. S., Angelicca, & Ginting, W. A. (2024). The Influence of Net Profit, Free Cash Flow, Net Working Capital, Funding and Profitability on Dividend Policy in Food and Beverage Companies for The 2019-2022 Period. *Mount Hope Economic Global Journal (MEGA)*, *2*(1), 131–137. https://journal.bukitpengharapan.ac.id/index.php/MEGA/article/view/241

Min, C. K. (2010). Estimation of SEs for heteroscedastic and cross-sectionally correlated data. *Applied Economics*, *42*(14), 1825–1832. https://doi.org/10.1080/00036840701736172

Nabhani, A. (2024). *Sektor Energi Paling Royal Bagikan Dividen*. Neraca. https://www.neraca.co.id/article/212175/sektor-energi-paling-royal-bagikan-dividen

Nadila, C., & Taqwa, S. (2024). Pengaruh Struktur Kepemilikan dan Free Cash Flow terhadap Kebijakan Dividen. *Jurnal Nuansa Karya Akuntansi*, *2*(2), 132–146. https://doi.org/10.24036/jnka.v2i2.22

Natasha, V., Hawa, F., Nisa, C., P, S., & Pandin, M. (2025). Analisis Hubungan Antara Cost of Debt, Cost of Equity, dan Weighted Average Cost of Capital (WACC) dalam Keputusan Investasi. *Jurnal Ekonomi, Manajemen, Akuntansi Dan Keuangan*, *6*(3), 11. https://doi.org/10.53697/emak.v6i3.2646

Nela Nur Faridah, & Rediyanto Putra. (2024). Pengaruh Struktur Kepemilikan dan Struktur Modal terhadap Kebijakan Dividen dengan Nilai Perusahaan sebagai Variabel Moderasi. *Jurnal Riset Ekonomi Dan Akuntansi*, *2*(4), 224–242. https://doi.org/10.54066/jrea-itb.v2i4.2582

Oktananda, M. R., & Rini, P. (2025). Determinan Kebijakan Dividen pada Perusahaan

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Sektor Energi. *Kajian Ekonomi Dan Akuntansi Terapan*, *2*(2), 76–88.

Pratiwi, V. M., Wijaya, A. L., & Paramitasari, R. (2022). Dividend Policy and Firm Value in Indonesia: The Moderating Role of Capital Structure. *CECCAR Business Review*, *3*(3), 62–72. https://doi.org/10.37945/cbr.2022.03.08

Ratnasari, D., & Nuswantara, D. A. (2020). Pengaruh kepemilikan institusional dan leverage terhadap penghindaran pajak (tax avoidance). *AKUNESA: Jurnal Akuntansi UNESA*, *9*(1), 1–10. https://journal.unesa.ac.id/index.php/akunesa/article/view/9392

Sawal, N. S., Ohorella, R. W. U., & Meliana. (2025). The Influence of Ownership Structure, Capital Structure, Investment Opportunities on Dividend Policy and Company Value. *Jurnal of Contemporary Accounting*, *7*(3), 239–253. https://doi.org/10.20885/jca.vol7.iss3.art7

Soeiswanto, C. C., Karamoy, H., & Weku, P. (2024). Pengaruh Free Cash Flow, Profitabilitas, dan Likuiditas terhadap Kebijakan Dividen pada Perusahaan Food and Beverage yang Terdaftar di BEI Periode 2019-2022. *Jurnal Riset Akuntansi*, *24*(2), 168.

Subramanyam. (2014). *Financial Statement Analysis (11th ed.)*. McGraw-Hill Education.

Sugiyono. (2013). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Alfabeta.

Sulistyowati, T., Anwar, K., & Pardosi, P. (2025). a Systematic Literature Review on Dividend Policy: Theories, Determinants, and Firm Outcomes. *Journal EScience Humanity*, *5*(2), 338–364.

Sumartana, I. G. A., & Dewi, S. K. S. (2024). The Influence Of Free Cash Flow, Profitability and Growth Opportunity On Dividend Policy. *International Journal of Management Research and Economics*, *2*(3), 486–508. https://doi.org/10.54066/ijmre-itb.v2i3.2152

Suriani, N. P., & Wirawati, N. G. P. (2025). The Effect of Profitability, Leverage, and Free Cash Flow on Dividend Policy with Good Corporate Governance as a Moderating Variable. *International Journal of Economics, Accounting and Management*, *2*(2), 128–137. https://doi.org/10.60076/ijeam.v2i2.1440

Susanah, L., & Ananda, N. A. (2022). Pengaruh Free Cash Flow, Ownership Structure, Growth Opportunity Dan Proftabilitas Terhadap Kebijakan Deviden. *Jurnal Ekonomi Dan Bisnis Indonesia*, *7*(2), 17–22. https://doi.org/10.37673/jebi.v7i2.2169

Trinh, Q. D., Haddad, C., & Tran, K. T. (2022). Financial reporting quality and dividend policy: New evidence from an international level. *International Review of Financial*

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Analysis, *80*(January), 102026. https://doi.org/10.1016/j.irfa.2022.102026

Vogelsang, T. J. (2012). Heteroskedasticity, autocorrelation, and spatial correlation robust inference in linear panel models with fixed-effects. *Journal of Econometrics*, *166*(2), 303–319. https://doi.org/10.1016/j.jeconom.2011.10.001

Wooldridge, J. M. (2010). *Econometric Analysis of Cross Section and Panel Data*.

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