

THE EFFECT OF COMPANY SIZE, RETURN ON EQUITY (ROE), DIVIDEND POLICY, AND STOCK PRICE ON COMPANY VALUE

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Abstract – This study aims to examine the influence of company size, return on equity (ROE), dividend policy, and stock price on the value of telecommunications companies listed on the Indonesia Stock Exchange from 2018 to 2023. Using an associative research design with a quantitative approach. The purposive sampling method was selected by selecting 12 companies that met the criteria. With a quantitative approach using panel data regression analysis with EViews version 13. It was found that the size of the company negatively and significantly affects the value of the company, the ROE does not significantly affect the value of the company, the dividend policy does not significantly affect the value of the company, and the stock price significantly and positively affects the value of the company. Simultaneously the size of the company, the return on equity, the dividend policy and the share price have a significant influence on the value of the company.

Keywords: : firm value, firm size, ROE, dividend policy, and stock price

I. INTRODUCTION

Telecommunication companies play a strategic role in promoting economic equality throughout Indonesia. Through technological innovation and improved connectivity between regions, these companies facilitate access to information and economic opportunities, thereby contributing to regional economic growth. Currently, there are 18 telecommunication companies listed on the Indonesia Stock Exchange (IDX), which shows the significant contribution of this sector to the national economy. Every company is established with the primary goal of creating value for its stakeholders, especially shareholders. One of the main indicators of value creation is the increase in the value of the company. According to Harmono (2017), a company's value reflects the company's business performance, represented by its share price, which is formed through the interaction of supply and demand in the capital market. Return on Equity (ROE) is an indicator of a company's effectiveness in generating profits for its shareholders. ROE reflects how much net profit is generated from each shareholder's equity unit (Sinaga et al., 2023). High ROE indicates strong financial performance and increases the company's attractiveness to investors. Conversely, low ROE can indicate inefficiency in utilizing shareholder capital, thereby reducing investor interest. According to Mulyawan (2015), the dividend policy serves as an important signal for investors, reflecting financial stability and long-term growth prospects. The stock price is the market value of a company's shares at a given time, influenced by the dynamics of supply and demand in the stock market. Jogiyanto (2017) explained that stock prices are very important for investors because they serve as the basis for investment decision-making. A company's value is an important indicator of a business's success and is often reflected in its stock price. Higher company values attract more investors and represent operational and financial efficiency. Several internal variables, such as company size, profitability (ROE), dividend policy, and stock price, are believed to affect a company's value. However, the existing literature shows mixed results, prompting further investigation, especially in the growing and competitive telecommunications sector. Based on the research background described earlier, this research was formulated:

- Does the size of the company affect the value of telecommunications companies listed on the Indonesia Stock Exchange during the 2018–2023 period?
- Does return on equity (ROE) affect the value of telecommunications companies listed on the Indonesia Stock Exchange during the 2018–2023 period?

- Does the dividend policy affect the value of telecommunications companies listed on the Indonesia Stock Exchange during the 2018–2023 period?
- Does the stock price affect the value of telecommunications companies listed on the Indonesia Stock Exchange during the period

Research Objectives

The primary objective of this study is to examine the influence of firm size, return on equity (ROE), dividend policy, and stock price on firm value among telecommunication companies listed on the Indonesia Stock Exchange from 2018 to 2023.

II. LITERATURE REVIEW

Firm Size

Jogiyanto (2016) states that the size of a company can be observed from the operational scale, which is usually measured through total equity, total assets, or net profit. The size of a company represents the scale of a company's operations, which can be measured by equity, total assets, or net income. In this study, firm size is proxied using the natural logarithm of total assets:

$$\text{Firm Size} = \ln (\text{Total Assets})$$

The use of the natural logarithm helps simplify the extremely large values of total assets (which may reach billions or trillions) without changing their relative scale, ensuring a more manageable and interpretable numeric representation.

Return on Equity (ROE)

Mulyanti & Rimawan (2022) define ROE as a financial ratio used to assess the return generated from the capital invested by shareholders. A high ROE indicates the efficient utilization of shareholder funds in generating profits, which contributes to increased revenue over time. In contrast, a low ROE indicates an inefficient use of equity, resulting in limited profitability.

$$\text{ROE} = \frac{\text{Net Income After Interest and Tax}}{\text{Equity}} \times 100$$

Dividend Policy

Ovami & Nasution (2020) describe dividend policy as a company's strategic decision regarding profit allocation, determining whether profits will be distributed as cash dividends or reinvested as retained earnings to support investment and business growth. Dividend policy refers to a company's decision on the allocation of profits whether to pay it to shareholders or maintain it for future investment purposes.

$$\text{DPR} = \frac{\text{Dividend per Share}}{\text{Earning per Share}} \times 100$$

Stock Price

According to Jogiyanto (2017), the stock price is a value determined by market participants at a certain point in time. A stock price is a value determined by market forces based on transactions that occur at a given time.

The stock price used in this study is:

$$\text{Closing Stock Price}$$

Firm Value

According to Ramadhany & Suwaidi (2021), a company's value reflects an investor's perception of how well a company manages its resources, which is often indicated by the stock price. A company's value reflects the company's performance in resource management, as represented by the stock price. In this study, the value of a company is measured using the Price to Book Value (PBV) ratio, which reflects how the market values a company compared to its book value. Firm value represents investor perception of the respective company. According to Murhadi (2015), the formula for PBV is as follows:

$$PBV = \frac{\text{Stock Price}}{\text{Book Value per Share}}$$

This study uses a quantitative approach with an associative design. Investigate the influence of Company Size, Return on Equity (ROE), Dividend Policy, and Stock Price on Company Value. The data used in this study is secondary quantitative data, obtained from the financial statements of telecommunication companies listed on the Indonesia Stock Exchange (IDX) for the period 2018 to 2023. From the IDX website in www.idx.co.id, www.investing.com, and other electronic media. For data analysis, this study uses panel data regression analysis, using EViews version 13 as a statistical software tool. The independent variables consist of Company Size, Return on Equity (ROE), Dividend Policy, and Stock Price, while the dependent variable is Company Value.

IV. RESULTS AND DISCUSSION

Descriptive Statistical Analysis

Table 1. Descriptive Statistics

	PBV	SIZE	ROE	DPR	HRGSHM
Mean	2.344185	29.95046	-54.17707	57.63546	2153.333
Maximum	32.67425	33.29065	69.21005	2010.412	9375
Minimum	-0.424547	21.90683	-4165.122	-23.44329	50
Std. Dev.	3.914903	2.487013	493.1819	237.0715	2262.731

Source: Processed data using EViews 13 (2025)

- The results show that the variable Firm Value (PBV) has a minimum value of -0.424547 and a maximum value of 32.67425. The average (mean) of this variable is 2.344185, with a standard deviation of 3.914903.
- The Firm Size (SIZE) variable has a minimum value of 21.90683 and a maximum value of 33.29065. The mean value is 29.95046, with a standard deviation of 2.487013, indicating a relatively small variation compared to the mean. During the observation period, PT Telekomunikasi Indonesia Tbk recorded the highest average firm size among the sample companies. This is because PT Telekomunikasi Indonesia Tbk is the largest telecommunications company in Indonesia, with an extensive telephone and internet network, resulting in large and relatively stable total assets.
- For the Return on Equity (ROE) variable, the minimum value is -28.54139, and the maximum value is 28.58456. The mean ROE is 6.835448, while the standard deviation is 12.31341, indicating a very high degree of variability compared to the average. Among the sampled companies, PT Sarana Menara Nusantara Tbk had the highest average ROE during the research period. This is due to the company's success in generating profit from its shareholders' equity between 2018 and 2023. The high average ROE also indicates that the company's management has been efficient in generating income.

- The Dividend Policy, proxied by the Dividend Payout Ratio (DPR), shows a minimum value of -23.44329 and a maximum value of 140.7035. The average DPR is 23.28764, with a standard deviation of 36.63516, indicating a high level of data dispersion. PT Telekomunikasi Indonesia Tbk reported a higher average DPR compared to other companies in the sample. The high DPR values indicate that some companies in the sample distributed dividends exceeding their net income during certain periods.
- For the Stock Price (HRGSHM) variable, the minimum value is 50.00000, and the maximum value is 9375.000. The average stock price is 2153.333, with a standard deviation of 2262.731, showing a significant variation among the observed companies. Among the entire sample, PT Inti Bangun Sejahtera Tbk recorded the highest average stock price. A high stock price generally reflects a positive investor perception of the company's performance and prospects, indicating greater value created for shareholders.

Prior to further analysis, the data were log-transformed to stabilize variance and reduce potential heteroscedasticity. Subsequently, a stationarity test was conducted using the Augmented Dickey-Fuller (ADF) unit root test to ensure the data met the assumptions required for subsequent statistical procedures. The following are the results of the unit root test using the Augmented Dickey-Fuller (ADF) method.

Table 2. ADF Root Test

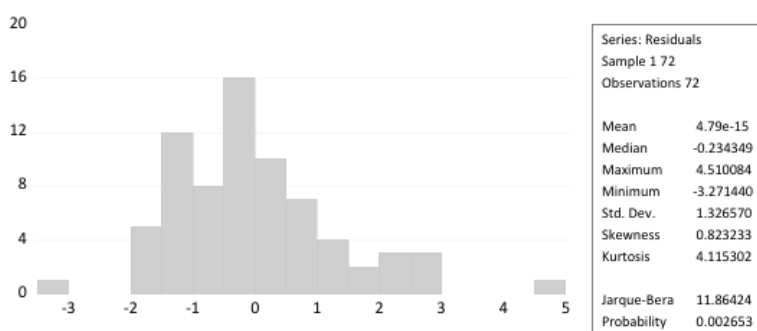
Variable	ADF-Fisher Chi-square	Probability	Choi Z-stat	Choi Prob	Conclusion
PBV	88.6733	0	-6.46798	0	Stationary ($\alpha = 5\%$)
ROE	106.336	0	-7.58211	0	Stationary ($\alpha = 5\%$)
SIZE	158.459	0	-9.28041	0	Stationary ($\alpha = 5\%$)
DPR	80.1032	0	-6.07229	0	Stationary ($\alpha = 5\%$)
HRGSHM	80.4389	0	-5.99443	0	Stationary ($\alpha = 5\%$)

Source: Processed data using EViews 13 (2025)

Table 2 presents the results of the panel unit root test using the ADF Fisher method for all variables, including PBV, ROE, Firm Size, Dividend Payout Ratio (DPR), and Stock Price. The null hypothesis in the ADF Fisher test states that the data has a unit root, implying non-stationarity. Based on the results, all variables show p-values less than 0.05, both in the ADF-Fisher Chi-square and Choi Z-statistics, indicating statistical significance at the 5% level. Therefore, the null hypothesis is rejected for all variables, meaning that PBV, ROE, SIZE, DPR, and Stock Price are stationary at level form. As such, no differencing transformation was necessary prior to further analysis. These findings confirm the reliability of the panel data regression analysis, as stationarity is a fundamental prerequisite to avoid spurious regression.

Normality Test

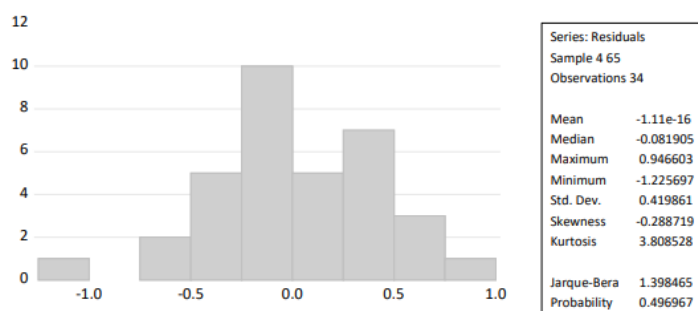
Figure 1 Normality Test Before Data Transformation



Source: Processed data using EViews 13 (2025)

Based on the results of the normality test, the Jarque-Bera probability value is 0.002653 (<0.05), indicating that the data are not normally distributed. To address the issue of non-normal distribution, a data transformation using the natural logarithm (Ln) is applied. The results after the transformation are as follows:

Figure 2 Normality Test After Data Transformation



Source: Processed data using EViews 13 (2025)

The test results show that the Jarque-Bera probability value is 0.496967 (>0.05), indicating that the data are normally distributed.

Multicollinearity Test

Table 2 Multicollinearity Test Before and After Data Transformation

Variable	Multicollinearity Test Before Transformation <i>Centered VIF</i>	Multicollinearity Test After Transformation <i>Centered VIF</i>
Firm Size	1.224472	1.301832
<i>Return on Equity</i> (ROE)	1.009485	1.360970
Dividend Policy	1.057957	1.381472
Stock Price	1.295983	1.257577

Source: Processed data using EViews 13 (2025)

The results indicate that none of the independent variables have a Variance Inflation Factor (VIF) value exceeding 10. Therefore, it can be concluded that the regression model is free from multicollinearity and is appropriate for further analysis.

Heteroskedasticity Test

Table 3 Heteroskedasticity Test Before Transformation

Variable	Heteroskedasticity Test Before Transformation	Prob Chi-Square
Firm Size	0.0016	0.0229
<i>Return on Equity (ROE)</i>	0.5181	
Dividend Policy	0.9177	
Stock Price	0.0219	

Source: Processed data using EViews 13 (2025)

As shown in table 3, one of the variables has a significance value below 0.05, and the Chi-Square probability is also less than 0.05, indicating the presence of heteroskedasticity in the regression model. To resolve this issue, a natural logarithm (Ln) transformation is applied.

Table 4 Heteroskedasticity Test After Transformation

Variable	Heteroskedasticity Test After Transformation	Prob Chi-Square
Firm Size	0.9335	0.3008
<i>Return on Equity (ROE)</i>	0.9059	
Dividend Policy	0.4199	
Stock Price	0.0671	

Source: Processed data using EViews 13 (2025)

The table 4 shows that all variables have significance values above 0.05, and the probability value is 0.3008 (>0.05). This indicates that the data are homoskedastic, and the model is free from heteroskedasticity.

Autocorrelation Test

Table 5 Autocorrelation Test Before Transformation

Variable	Autocorrelation Test Before Transformation	Prob Chi-Square
Firm Size	0.7063	0.0000
<i>Return on Equity (ROE)</i>	0.3613	
Dividend Policy	0.8231	
Stock Price	0.8194	
RESID(-1)	0.0000	
RESID(-2)	0.1638	

Source: Processed data using EViews 13 (2025)

As shown in table 5, the Chi-Square probability value is below 0.05, which indicates the presence of autocorrelation in the regression model. To address this, a Ln transformation is applied.

Table 6 Autocorrelation Test After Transformation

Variable	Autocorrelation Test After Transformation	Prob Chi-Square
Firm Size	0.9661	0.0953
<i>Return on Equity (ROE)</i>	0.9298	
Dividend Policy	0.8690	
Stock Price	0.9281	
RESID(-1)	0.0737	

RESID(-2)

0.7912

Source: Processed data using EViews 13 (2025)

The probability value for the Chi-Square statistic is greater than $\alpha = 5\%$ (e.g., 9%), which indicates that the data do not suffer from autocorrelation.

Chow Test

Table 7 Chow Test

Redundant Fixed Effects Tests			
Equation: Untitled			
Test cross-section fixed effects			
Effects Test	Statistic	d.f.	Prob.
Cross-section F	12.300438	(7,22)	0.0000
Cross-section Chi-square	54.129450	7	0.0000

Source: Processed data using EViews 13 (2025)

The results of the Chow Test show a cross-section chi-square probability value of 0.0000, which is lower than the significance level of 0.05. Therefore, the null hypothesis (H_0) is rejected, indicating that the Fixed Effect Model is more appropriate than the Pooled OLS Model for this study.

Hausman Test

Table 8 Hausman Test

Correlated Random Effects - Hausman Test			
Equation: Untitled			
Test cross-section random effects			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	29.029519	4	0.0000

Source: Processed data using EViews 13 (2025)

Based on the results of the Hausman Test, the cross-section random probability value is 0.0000, which is also less than the 0.05 significance level. As a result, the null hypothesis (H_0) is rejected, and it can be concluded that the Fixed Effect Model (FEM) is the most suitable model to be used in this research.

Multiple Linear Regression Equation Test

$$PBV = 6.84118655069 - 0.494641312671SIZE + 0.124249853729ROE + 0.103848381448DPR + 1.14372352445HRGSHM + (CX=F)$$

Referring to the results of the multiple linear regression estimation, a further analysis can be conducted to assess how each independent variable influences the dependent variable in this study, as follows:

t-Test (Partial Test)

Table 9 t-Test (Partial Test)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	6.841187	6.411715	1.066982	0.2975
SIZE	-0.494641	0.194410	-2.544317	0.0185
ROE	0.124250	0.135805	0.914913	0.3702
DPR	0.103848	0.137711	0.754101	0.4588
HRGSHM	1.143724	0.194692	5.874540	0.0000

Source: Processed data using EViews 13 (2025)

Based on the t-test results, the following decisions can be made:

- The firm size variable has a t-value of -2.544317 and a p-value of 0.0185, which is less than the significance level of 0.05. This indicates that firm size has a significant negative effect on firm value. Therefore, as firm size increases, firm value tends to decrease. Thus, hypothesis one (H_1), which stated that firm size has a significant positive effect on firm value, is rejected.
- The ROE variable has a t-value of 0.914913 and a p-value of 0.3702, which is greater than 0.05. This means that ROE does not have a significant effect on firm value. Hence, hypothesis two (H_2), stating that ROE has a significant positive effect on firm value, is rejected.
- The dividend policy (DPR) variable has a t-value of 0.754101 and a p-value of 0.4588, which is also greater than 0.05. This implies that DPR does not significantly affect firm value. Therefore, hypothesis three (H_3), asserting that DPR has a significant positive effect on firm value, is rejected.
- The stock price variable has a t-value of 5.874540 and a p-value of 0.0000, which is less than 0.05. This indicates that stock price has a significant effect on firm value. Thus, as stock price increases, so does firm value. Hence, hypothesis four (H_4), which claims that stock price has a significant positive effect on firm value, is accepted.

F-Test (Simultaneous Test)

Table 10 F-Test

Cross Section Fixed (dummy variables)	
<i>F-statistic</i>	13,85426
<i>Prob (F-Statistic)</i>	0,000000

Source: Processed data using EViews 13 (2025)

Based on the F-test results, the F-statistic is 13.85426, with a significance probability of 0.000000, which is less than 0.05. This indicates that the variables firm size (SIZE), return on equity (ROE), dividend payout ratio (DPR), and stock price simultaneously have a significant effect on firm value.

Adjusted Coefficient of Determination (Adjusted R^2)

Table 11 Adjusted Coefficient of Determination (Adjusted R^2)

Cross Section Fixed (dummy variables)	
Adjusted R-Squared	0.810776

Source: Processed data using EViews 13 (2025)

The adjusted R-square value is 0.810776, showing that approximately 81.07% of the variation in the dependent variable (firm value) can be explained by the independent variables used in the model. The remaining 18.93% is explained by other factors outside the scope of this research.

CONCLUSION

1. Firm Size (SIZE) has a negative and significant effect on the firm value of telecommunication companies listed on the Indonesia Stock Exchange (IDX) during the 2018–2023 period. This implies that the larger the firm size, the lower the firm value. Larger company size often increases an organization's exposure to higher risks, including financial, operational, and reputational threats. Additionally, the highly competitive telecommunication industry in Indonesia, intensified by the entry of global players, may negatively affect firm value.

2. Return on Equity (ROE) does not have a significant effect on firm value for telecommunication companies listed on the IDX during the 2018–2023 period. This means that fluctuations in ROE do not impact firm value. The instability of ROE mainly due to fluctuations in net income after tax and equity across the years leads to inconsistent ROE values throughout the study period.
3. Dividend Payout Ratio (DPR) also has no significant effect on firm value among the telecommunication companies listed on the IDX during the 2018–2023 period. This suggests that the level of dividend payments does not influence firm value. This is likely because investors prefer short-term profits through capital gains, making current low dividend payouts less attractive. Furthermore, some sample companies did not distribute dividends during the observation period, which may have affected investor interest and company liquidity.
4. Stock Price has a positive and significant effect on firm value in telecommunication companies listed on the IDX between 2018 and 2023. This indicates that the higher the stock price, the greater the firm value. A company's stock price is a powerful factor that can influence its ability to operate, grow, and attract talent. This finding aligns with the growing strategic importance of the telecommunications industry in the digital era, especially following the COVID-19 pandemic, which spurred increased demand for data, internet, and digital services.

REFERENCES

- Azis, M., Mintarti, S., & Nadir, M. (2015). *Manajemen Investasi: Fundamental, Teknikal, Perilaku Investor dan Return Saham*. Deepublish.
- Harmono. (2017). *Manajemen Keuangan Berbasis Balanced Scorecard (Pendekatan Teori, Kasus, dan Riset Bisnis)*. Bumi Aksara.
- Hartono, J. (2015). *Teori Portofolio dan Analisis Investasi Edisi Kelima*. BPFE.
- Hery. (2017). *Kajian Riset Akuntansi*. Grasindo.
- Jogiyanto. (2016). *Teori Portofolio dan Analisis Investasi Edisi Kesepuluh*. BPE.
- Jogiyanto. (2017a). *Teori Portofolio dan Analisis Investasi. Edisi Kesepuluh*. BPFE.
- Jogiyanto, H. M. (2017b). *Analisis dan Desain (Sistem Informasi Pendekatan, Terstruktur Teori dan Praktek Aplikasi Bisnis)*. Andi.
- Kasmir. (2015). *Analisis Laporan Keuangan Cetakan Ke-8*. PT Raja Grafindo Persada.
- Kasmir. (2017). *Pengantar Manajemen Keuangan (Edisi Kedua)*. Prenada Media.
- Mulyanti, S., & Rimawan, M. (2022). Analisis Return on Equity, Return on Asset Dan Debt to Equity Ratio Terhadap Nilai Perusahaan Pada PT. Nippon Indosari Corpindo, Tbk. *Jurnal Publikasi Manajemen Informatika*, 1(3).
- Mulyawan, S. (2015). *Manajemen Keuangan*. CV Pustaka Setia.
- Murhadi, W. . (2015). *Analisis Laporan Keuangan, Proyeksi dan Valuasi Saham*. Salemba Empat.
- Ovami, D. C., & Nasution, A. A. (2020). Pengaruh Kebijakan Dividen Terhadap Nilai Perusahaan yang Terdaftar dalam Indeks LQ 45. 4, 331–336.
- Ramadhany, N. D., & Suwaidi, R. A. (2021). Analisis Nila Perusahaan Pada Perusahaan Tekstil Dan Garmen Yang Terdaftar Di Bursa Efek Indonesia (BEI). *Jurnal Ilmiah Akuntansi Dan Keuangan*, 4(1), 264–276.
- Sejati, F. R., Ponto, S., Prasetianingrum, S., Sumartono, S., & Sumbari, N. N. (2020). Faktor-Faktor Yang Mempengaruhi Kebijakan Dividen. *Berkala Akuntansi Dan Keuangan Indonesia*, 5(2), 110. <https://doi.org/10.20473/baki.v5i2.21480>
- Sinaga, S. R., Brahmana, L. B., Sinaga, L. D., Silaban, I. J. H., Siallagan, H., & Sipayung, R. C. (2023). *PENGARUH ROA, ROE, Dan DER TERHADAP HARGA SAHAM PERUSAHAAN LQ45*

DI BEI. 12(3), 255–261.

Sudana, I. M. (2015). *Manajemen Keuangan Perusahaan*. Erlangga.

Sugiyono. (2019). *Metode Penelitian Kuantitatif, Kualitatif & RND*. Alfabeta.

Sulaeman, M. (2020). Pengaruh Keputusan Pendanaan, Kebijakan Dividen, Ukuran Perusahaan Dan Profitabilitas Terhadap Nilai Perusahaan. *Jurnal Bisnis Manajemen & Ekonomi*, 18(2), 241.
<https://doi.org/10.54964/liabilitas.v8i2.262>