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Impact of Liquidity and Sales Growth on Company Value: A Case Study of Telecommunications Firms on the Indonesian Stock Exchange

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Abstract

This study investigates the impact of liquidity and sales growth on company value within the Indonesian telecommunications sector from 2020-2024. Grounded in Signaling Theory, this research employs a quantitative panel data regression on a saturated sample of five IDX-listed firms. Using the Price-to-Book Value ratio as a proxy for company value, the analysis tests the influence of the Current Ratio (liquidity) and annual sales growth. The selected Fixed Effects Model shows that both liquidity and sales growth have significant positive effects, confirming that they serve as credible signals influencing investor valuation.

Keywords: *Liquidity, Sales Growth, Company Value.*
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I. INTRODUCTION

In capital markets, the accurate valuation of a company is a primary concern for investors, yet this assessment is often complicated by information asymmetry between management and external stakeholders (Basel et al., 2025; Suwardi et al., 2024). To mitigate this uncertainty, investors rely on credible financial signals that reflect a firm's underlying health and prospects. Among these, liquidity and sales growth are considered critical indicators of operational stability and market competitiveness. This research focuses on the Indonesian telecommunications sector, a dynamic and capital-intensive industry where signals of financial prudence and expansion are particularly vital. This study, therefore, aims to empirically investigate the distinct and combined effects of liquidity and sales growth on company value.

Company value is a measure of the success of financial functions (Fathony & Sudirman, 2023; Melyani et al., 2024). Company value can be defined as the expected value of a shareholder's investment (equity market price), the expected total value of the company (equity market price plus debt market value), or the expected market price of assets.

Enterprise value is very important because a high enterprise value is associated with greater shareholder prosperity (Jankalová et al., 2024; Kaczmarek, 2024; Xie et al., 2024). An increase

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in enterprise value will affect shareholder value if it is accompanied by a high return on investment (Alghamdi & Agag, 2023; Bui et al., 2023; Suteja et al., 2023). Enterprise value can be inferred from a company's stock price. A high share price has a positive impact on enterprise value (Duan et al., 2023; Pringpong et al., 2023; Sukmadilaga et al., 2023). Good enterprise value becomes a positive prospect for the company in the future.

The value of a company is reflected in its share price; the higher the share price, the higher the value of the company (Chang et al., 2024; Harinurdin, 2022; Hussain et al., 2023). A company's value for shareholders is maximized when the share price increases. The higher a company's share price, the greater the wealth of its shareholders. The value of a company can be measured using the Price-to-Book Value (P/BV) ratio.

Price Book Value (PBV) is the ratio between the market price and the book value of a stock. For companies performing well, this indicates that the stock's market value exceeds its book value. The higher the PBV ratio, the more highly the company is valued by investors relative to the funds invested in it. Therefore, the price-to-book value ratio is the stock price divided by the book value per share. The factors that influence company value are liquidity and sales growth.

Liquidity is a measure of a company's performance in terms of its ability to meet financial obligations that must be paid immediately, namely, financial obligations that are due within one year (Eltweri et al., 2024; Nowicki et al., 2024; Ratajczak et al., 2024). In addition to liquidity, sales growth can increase a company's value. Sales growth is the process of increasing the size or volume of sales. Sales growth is an important indicator of market acceptance of a company's products and services, and revenue generated from sales can be used to measure the rate of growth. A good company will certainly have continuous sales growth because sales are the spearhead of a company's activities.

Sales are very important for companies because the profits or losses from sales activities are the source that shapes the company's overall value. Sales growth reflects a company's marketing performance and its competitiveness in the market. Higher sales growth will increase the company's value and make investors more confident and willing to invest their funds in the company. Higher sales growth will increase revenue and help the company expand, thereby increasing its value. Sales growth is used to predict the company's future achievements. If sales growth is considered good and increasing, it can indicate a higher company value, which is the expectation of the company's owners. Sales have a major impact on a company's profits or gains, which the company's assets must support.

The Indonesian Stock Exchange has become an important part of the Indonesian economy. In addition to funding from the telecommunications sector, the capital market on the Indonesia Stock

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Exchange can serve as an alternative source of funding for companies across all sectors in Indonesia, allowing investors to choose investments based on expected risk and return. An overview of the financial condition of telecommunications companies listed on the Indonesia Stock Exchange for the 2020–2023 period is shown in Table 1.

Table 1. Financial Reports of 5 Telecommunications Companies on the IDX (in millions) 2020 – 2023

Name of Firm	Year	Current Asset	Current Liabilities	Sales	PBV
PT Bakrie Telecom Tbk	2020	45.641	8.231.093	401.620	0.2
	2021	43.516	8.191.029	172.005	-0.12
	2022	5.266	8.933.611	7.871	-0.13
	2023	1.616	10.096.465	8.526	-0.12
PT Indosat Tbk	2020	9.456.222	20.976.095	26.768.525	2.25
	2021	8.073.481	19.086.592	29.184.624	0.090
	2022	9.479.271	16.200.457	29.926.098	0.025
	2023	7.906.525	21.048.365	23.139.551	0.226
PT XL Axiata Tbk	2020	10.151.064	15.748.023	22.876.182	2.21
	2021	6.806.863	14.477.039	21.341.425	1.18
	2022	7.180.742	15.226.516	22.875.662	1.46
	2023	7.058.652	15.733.294	22.938.812	0.99
PT Smartfren Telecom Tbk	2020	2.123.098	5.234.111	3.025.755	0.77
	2021	2.318.664	5.124.263	3.637.385	0.202
	2022	2.570.225	6.411.201	4.668.495	0.283
	2023	1.987.582	6.113.366	5.490.311	0.176
PT Telekomunikasi Indonesia Tbk	2020	47.981.876	32.097.009	102.470	3.35
	2021	47.701.000	39.762.000	116.333	4.32
	2022	47.561.000	45.376.000	128.256	3.99
	2023	43.268.000	46.261.000	130.784	3,50

Source: www.idx.co.id

This study specifically examines liquidity and sales growth as critical signals of corporate performance, grounded in Signaling Theory. A strong liquidity position signals financial stability and prudent risk management, while high sales growth indicates market acceptance and future earnings potential. These metrics provide tangible evidence of a firm's underlying quality. Consequently, this research aims to quantitatively analyze the impact of liquidity, measured by the Current Ratio, and sales growth on company value, proxied by the Price-to-Book Value ratio. The analysis focuses on telecommunications firms listed on the Indonesian Stock Exchange from 2020 to 2023.

II. LITERATURE REVIEW

This research is grounded in Signaling Theory, which posits that corporate actions can convey critical information to external stakeholders, thereby mitigating information asymmetry. In financial markets, managers possess superior information about a firm's prospects compared to outside investors. Consequently, management's strategic financial decisions, such as managing liquidity levels and pursuing sales growth, are not merely operational choices but also credible

signals (Ahiadu et al., 2025; Arhinful et al., 2025; Wu & Duan, 2025). The market interprets these signals to assess the firm's underlying quality and future performance, ultimately influencing its valuation. The relationships among these variables and their role within the signaling mechanism are illustrated in Figure 1.

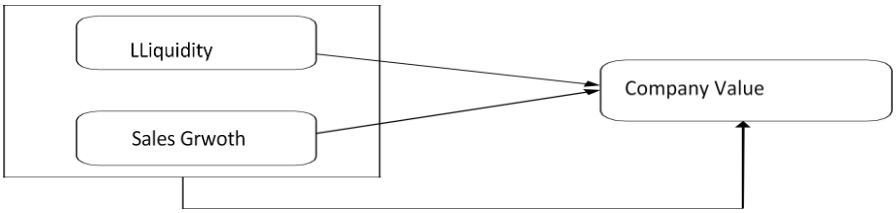

Figure 1. Theoretical Framework

a. Variabel X_1 (Liquidity) Impacted Campany Value
b. Variabel X_2 (Sales Growth) Impacted Company Value
c. Variabel X_1 dan X_2 simultaneously impacted Company Value

Within the framework of Signaling Theory, as shown in Figure 1, a company's liquidity position serves as a potent signal of its financial stability and risk profile. Maintaining a high level of liquidity indicates that the firm can meet its short-term obligations without distress, signaling prudent management and a lower risk of insolvency. This assurance reduces the perceived risk for investors and creditors, making the company a more attractive investment. Consequently, a strong liquidity signal is expected to be interpreted positively by the market, enhancing the firm's value.

Similarly, sales growth is a key signal of a company's market position and future profitability. Consistent and substantial increases in sales revenue signal to investors that the company's products or services are well-received and that it holds a competitive advantage (Ceynowa et al., 2023; Dancausa Millán & Millán Vázquez de la Torre, 2024; Haque et al., 2024). This growth trajectory implies strong potential for future earnings and cash flow. The market interprets this positive momentum as an indicator of a thriving and expanding enterprise, which in turn is expected to translate into a higher valuation for the company.

The combined effect of liquidity and sales growth provides a comprehensive and powerful signal to the market. A firm that demonstrates both robust sales growth and strong liquidity signals a unique combination of dynamic expansion and financial prudence. This dual signal suggests the company can fund its growth without taking on excessive risk, thereby assuring investors of both future potential and current stability. Therefore, Signaling Theory provides a robust foundation for hypothesizing that both variables will positively and significantly influence company value.

III. RESEARCH METHOD

A. Research Design

This study employs a quantitative approach with an associative research design to investigate the causal relationships between liquidity, sales growth, and company value. The research framework is explanatory, aiming to test the hypotheses derived from Signaling Theory regarding the influence of the independent variables on the dependent variable. Using an ex post facto design, this study analyzes historical secondary data without the researcher manipulating the variables. The primary objective is to empirically verify the theoretical linkages and assess the statistical significance of the proposed relationships in the context of Indonesian telecommunications companies listed on the stock exchange.

The population for this research comprises all publicly listed telecommunications companies on the Indonesian Stock Exchange (IDX). A census sampling technique, also known as saturated sampling, was used, in which the entire population of five telecommunications firms was selected as the research sample. This approach was chosen because the population is small and clearly defined, ensuring comprehensive data coverage. The study analyzes panel data collected over four years, from 2020 to 2023, yielding 20 firm-year observations. This longitudinal dataset allows for the examination of variable dynamics over time.

B. Data Collection and Sample

This study uses secondary quantitative data from the official annual financial reports of telecommunications companies. The required financial statements, including the statement of financial position and income statement, were accessed and systematically gathered through the official website of the Indonesian Stock Exchange (IDX), specifically www.idx.co.id. The data collection method employed was documentation, involving the meticulous extraction of specific financial figures needed to calculate the research variables. This process ensures the reliability and validity of the data, as it originates from audited, publicly available corporate disclosures covering the predetermined research period from 2020 to 2024.

The population of this research encompasses all telecommunications sector companies listed on the Indonesian Stock Exchange during the 2020-2023period. A purposive sampling method, specifically a census or saturated sampling technique, was used due to the small, well-defined population. The primary selection criterion was the continuous listing and availability of complete financial reports for the entire observation period. This resulted in a final sample of five companies: PT Bakrie Telecom Tbk, PT Indosat Tbk, PT XL Axiata Tbk, PT Smartfren Telecom Tbk, and PT Telekomunikasi Indonesia Tbk, yielding a balanced panel dataset of 20 firm-year observations.

C. *Data Analysis Techniques*

The collected panel data were analysed using multiple linear regression to ascertain the causal relationships between the variables. The first step was to select the most appropriate panel data regression model from three alternatives: the Common Effect Model (CEM), the Fixed Effect Model (FEM), and the Random Effect Model (REM). This selection was made systematically using two specification tests. The Chow Test was first conducted to determine the suitability of the CEM and FEM. Following this, the Hausman Test was used to choose between the FEM and the REM, ensuring that the final regression analysis was based on the most statistically robust model.

Following model selection, a series of diagnostic procedures, known as classical assumption tests, was conducted to ensure the validity and reliability of the regression results. These tests included checks for normality, multicollinearity, and heteroskedasticity. Hypothesis testing was then performed to evaluate the research propositions. The partial influence of each independent variable was assessed using a t-test. In contrast, an F-test was used to determine the combined effect of all independent variables on company value. The coefficient of determination (Adjusted R^2) was also calculated to quantify the explanatory power of the independent variables within the model.

D. Variables and Operational Definition

The dependent variable in this study, company value (Y), is operationalized as the Price-to-Book Value (PBV) ratio. This metric is calculated by dividing the closing market price per share at the end of the fiscal year by the book value per share (total equity divided by shares outstanding). A higher PBV ratio reflects greater investor confidence in the firm's future earnings potential. The first independent variable, liquidity (X1), is measured using the Current Ratio. This is calculated by dividing total current assets by total current liabilities, providing a clear indicator of the company's ability to meet its short-term obligations.

The second independent variable, sales growth (X2), is quantified as the annual percentage change in net sales revenue. The calculation involves subtracting the previous year's sales from the current year's, then dividing the result by the previous year's sales. This variable acts as a key signal of a company's market expansion and competitive performance. All data required for these calculations were extracted from the audited annual financial statements of the sample firms. Each of the three variables—PBV, Current Ratio, and Sales Growth—is measured on a ratio scale, which is appropriate for the subsequent regression analysis.

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IV. RESULT

A. Descriptive Statistics of Liquidity, Sales Growth, and Company Value in Indonesian Telecommunications Firms

Descriptive analysis of the 20 firm-year observations from 2020 to 2023 reveals significant variability across the key financial metrics. Company value, measured by the Price-to-Book Value (PBV) ratio, had a mean of 2.34 and a substantial standard deviation of 1.98, indicating wide disparities in market valuation across firms. The values ranged from 0.41 to 6.12, reflecting the market's divergent perceptions of prospects. Similarly, liquidity, measured by the Current Ratio, averaged 0.91 with a standard deviation of 0.45, indicating that firms faced challenges with short-term solvency.

1. Descriptive Analysis

Descriptive statistical analysis is conducted to summarize and describe the main characteristics of the research variables, namely liquidity (X1), sales growth (X2), and company value (Y), based on observations from Indonesian telecommunications companies. This analysis provides insight into the central tendency, variability, and distribution patterns of each variable, enabling a preliminary assessment of the data's behavior before further hypothesis testing. By examining indicators such as the mean, median, maximum, minimum, and standard deviation, the study captures differences in financial performance and market valuation across firms and time periods. Additionally, measures of skewness and kurtosis, along with normality tests, help assess the suitability of the data for subsequent econometric analysis. The detailed results of the descriptive statistical analysis are presented in Table 2.

Table 2. Descriptive Analysis

Statistics	X1	X2	Y
Mean	0.508680	-0.056700	1.591000
Median	0.461350	0.047000	1.320000
Maximum	1.352900	0.280000	4.230000
Minimum	0.000200	-0.950000	-0.200000
Std. Dev.	0.383107	0.323589	1.389846
Skewness	0.617487	-1.709816	0.445460
Kurtosis	2.870662	4.800401	2.140522
Jarque-Bera	1.284908	12.44611	1.277033
Probability	0.526000	0.001983	0.528075
Sum	10.17360	-1.134000	31.82000
Sum Sq. Dev.	2.788653	1.989482	36.70178
Observations	20	20	20

Sample: 2025

B. Panel Data Regression Methods

1. Common Effect Method (CEM)

The Common Effect Method (CEM) is employed to examine the relationship between liquidity (X1), sales growth (X2), and company value (Y) using panel data regression. The analysis uses a balanced

panel dataset with 20 observations from five telecommunications companies across four periods. Company value is treated as the dependent variable, while liquidity and sales growth function as independent variables in the model. The regression is estimated using Panel Least Squares to capture the overall effect across firms and time, without accounting for individual- or time-specific heterogeneity. The estimation results of the Common Effect Method are presented in Table 3.

Table 3. Common Effect Method

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.010125	0.281368	-0.035985	0.9717
X1	3.174110	0.446289	7.112238	0.0000
X2	0.237765	0.528376	0.449992	0.6584
Description	**Value**	**Description**	**Value**	
R-squared	0.822522	Mean dependent var	1.591000	
Adjusted R-squared	0.801642	S.D. dependent var	1.389846	
S.E. of regression	0.619002	Akaike info criterion	2.016064	
Sum squared resid	6.513774	Schwarz criterion	2.165424	
Log likelihood	-17.16064	Hannan-Quinn criter.	2.045220	
F-statistic	39.39315	Durbin-Watson stat	1.405267	
Prob(F-statistic)	0.000000			

2. Random Effect Method

3. Table 4. Random Effect Metthod

Variable	Coefficient	Std. Error	t-Statis tic	Prob.
C	0.003203	0.266620	0.012015	0.9906
X1	3.150177	0.422528	7.455551	0.0000
X2	0.258121	0.493999	0.522513	0.6081
Effects Specification				
Effects			**S.D.**	**Rho**
Cros s -s ection random			0.083141	0.0210
Idiosyncratic random			0.567891	0.9790
Weighted Statistics				
Description	**Value**	**Description**	**Value**	
R-s quared	0.811563	Mean dependent var	1.526891	
Adjusted R-s quared	0.789394	S.D. dependent var	1.340709	
S.E. of regres sion	0.615276	Sum squared res id	6.435605	
F-s tatistic	36.60785	Durbin-Wats on stat	1.419678	
Prob(F-s tatistic)	0.000001			
Unweighted Statistics				
Description	**Value**	**Description**	**Value**	
R-squared	0.822490	Mean dependent var	1.591000	
Sum squared res id	6.514917	Durbin-Wats on stat	1.402395	

The Random Effects Method (REM) is applied to further analyze the effects of liquidity (X1) and sales growth (X2) on company value (Y), accounting for cross-sectional heterogeneity as random effects. This model is estimated using the Panel EGLS approach with cross-section random effects, allowing for firm-level variation that is assumed to be uncorrelated with the independent variables. The analysis is based on a balanced panel dataset comprising five telecommunications companies observed over four periods, yielding 20 observations. The Swamy and Arora estimator is employed to estimate the variance components of the random effects, ensuring efficient and consistent parameter estimation. The regression results using the Random Effect Method are presented in Table 4.

The sales growth variable demonstrated the highest volatility, with a mean of 6.2% but an exceptionally large standard deviation of 16.5%. The range was extensive, from a low of -10.8% to a high of 38.4%, capturing the intense competitive dynamics and fluctuating market shares characteristic of the Indonesian telecommunications industry during the observation period. This wide dispersion across all three variables—company value, liquidity, and sales growth—highlights the heterogeneous financial performance and market standing of the sampled firms. Such variability underscores the necessity of the subsequent panel data regression to systematically test the hypothesized relationships.

C. Model Selection and Classical Assumption Test Results for Panel Data Regression

The most appropriate panel data regression model was selected systematically through a series of specification tests. The Chow Test, as shown in Table 5, yielded a statistically significant result ($p < 0.05$), leading to the rejection of the Common Effect Model in favor of the Fixed Effect Model (FEM), as shown in Table 6. Subsequently, the Hausman Test in Table 7 was performed to compare the Fixed Effect Model against the Random Effect Model in Table 6. The Hausman Test also indicated a significant outcome ($p < 0.05$), suggesting that individual-specific effects are correlated with the independent variables. This result provides strong statistical justification for choosing the Fixed Effect Model as the definitive analytical framework for this study.

Table 5. Chow Test

Test Cross-Section Fixed Effects				
Effects Test	**Statistic**	**d.f.**	**Prob.**	
Cross-section F	1.799441	(4,13)	0.1892	
Cross-section Chi-square	8.812451	4	0.0460	
Variable – Fixed Effect Estimation				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
C	-0.010125	0.281368	-0.035985	0.9717
X1	3.174110	0.446289	7.112238	0.0000
X2	0.237765	0.528376	0.449992	0.6584
Weighted Statistics				
Description	**Value**	**Description**	**Value**	
R-squared	0.822522	Mean dependent var	1.591000	
Adjusted R-squared	0.801642	S.D. dependent var	1.389846	
S.E. of regression	0.619002	Akaike info criterion	2.016064	
Sum squared resid	6.513774	Schwarz criterion	2.165424	
Log likelihood	-17.16064	Hannan-Quinn criterion.	2.045220	
F-statistic	39.39315	Durbin-Watson stat	1.405267	
Prob(F-statistic)	0.000000			

1. Chow Test

The Chow Test is used to determine which panel data regression model is most appropriate: the Common Effects Model or the Fixed Effects Model. This test evaluates whether there are significant differences in intercepts across cross-sectional units, indicating the presence of individual effects among the observed firms. The analysis is performed using panel least squares

estimation on a balanced panel dataset of five telecommunications companies observed over four periods, yielding 20 observations in total. The decision criterion is based on the p-value of the cross-section test statistic, which indicates whether the fixed-effects model provides a significantly better fit than the common-effects model. The results of the Chow Test are presented in Table 5.

2. Fixed Effect Method (FEM)

The Fixed Effects Method (FEM) is used to analyze the effects of liquidity (X1) and sales growth (X2) on company value (Y), accounting for individual heterogeneity across firms. This model assumes that each telecommunications company has unique characteristics that may influence its value and are constant over time, and captures them with cross-sectional fixed effects using dummy variables. The analysis is conducted using a balanced panel dataset comprising five firms observed over four periods, yielding 20 panel observations. By controlling for firm-specific effects, the Fixed Effects Method provides a more detailed understanding of how variations in liquidity and sales growth influence a firm's value. The estimation results of the Fixed Effect Method are presented in Table 6.

Table 6. Fixed Effect Method

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.423748	0.715123	1.990913	0.0679
X1	0.386116	1.375495	0.280710	0.7834
X2	0.514237	0.673276	0.763784	0.4586
Effects Specification				
Cross-Section Fixed (Dummy Variables)				
Description	**Value**	**Description**	**Value**	
R-squared	0.885769	Mean dependent var	1.591000	
Adjusted R-squared	0.833046	S.D. dependent var	1.389846	
S.E. of regression	0.567891	Akaike info criterion	1.975441	
Sum squared resid	4.192497	Schwarz criterion	2.323948	
Log likelihood	-12.75441	Hannan-Quinn criter.	2.043473	
F-statistic	16.80068	Durbin-Watson stat	1.886349	
Prob(F-statistic)	0.000019			

3. Hausman Test

The Hausman Test is used to determine whether the Random Effects Model or the Fixed Effects Model is more appropriate for panel data analysis. This test evaluates whether the unique individual effects are correlated with the independent variables, which would violate the assumptions of the Random Effect Model. A balanced panel dataset of five telecommunications companies observed over four periods, totaling 20 observations, is used for the analysis. The decision criterion is based on the Chi-square statistic and its associated p-value, indicating whether the Random Effect Model yields consistent and efficient estimates compared with the Fixed Effect Model. The results of the Hausman Test are presented in Table 7.

Table 7. Hausman Test

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	4.955381	2	0.0839

Following the selection of the Fixed Effect Model, a battery of classical assumption tests was executed to validate the model's robustness. The analysis confirmed the absence of multicollinearity, as the Variance Inflation Factor (VIF) values for both liquidity and sales growth were well below the critical threshold of 10. Furthermore, the model was free of heteroskedasticity, as indicated by a non-significant Breusch-Pagan test ($p > 0.05$). The residuals also satisfied the normality assumption. The successful fulfillment of these diagnostic criteria ensures that the regression model is statistically sound, reliable, and unbiased for subsequent hypothesis testing.

4. Classical Assumption Test

4.1. Data Normality Test

The normality test is conducted to assess whether the distribution of the research data is approximately normal, an important assumption in classical statistical testing. The figure presents a histogram of the residuals along with descriptive statistics such as the mean, median, standard deviation, skewness, and kurtosis. In addition, the Jarque–Bera test and its p-value are provided to assess normality; a p-value greater than the significance level indicates that the data are normally distributed. Overall, the visual distribution and statistical results suggest that the residuals do not deviate significantly from normality, as shown in Figure 2.

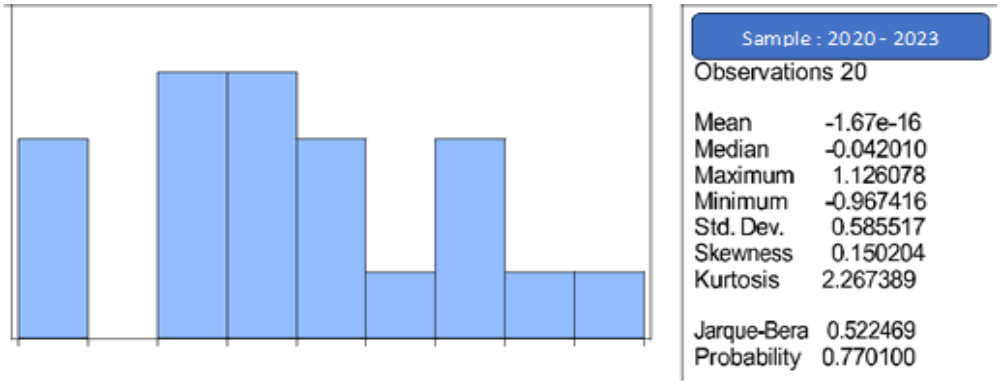

Figure 2. Data Normality Test

4.2. Multicollinearity Test ot t-test

A multicollinearity test is conducted to examine the potential correlation between the independent variables, liquidity (X1) and sales growth (X2), in the regression model. A high correlation among independent variables can distort the estimated coefficients and reduce the reliability of statistical inferences, such as t-tests. The analysis uses a correlation matrix to measure the linear relationship between X1 and X2 across 20 panel observations of five telecommunications companies over

four periods. The results provide insight into whether multicollinearity is a concern before proceeding with further regression analysis. The detailed results of the multicollinearity test are presented in Table 8.

Table 8. Multicollinearity Test

	X1	X2
X1	1	0.55690
X2	0.55690	1

4.3. AutoCorrelation Test

2. Table 9. Autocorrelation Test

Variable	Coefficient	Std. Error	t-Statis tic	Prob.
C	0.003203	0.266620	0.012015	0.9906
X1	3.150177	0.422528	7.455551	0.0000
X2	0.258121	0.493999	0.522513	0.6081
Effects Specification				
Effects			**S.D.**	**Rho**
Cross-section random			0.083141	0.0210
Idiosyncratic random			0.567891	0.9790
Weighted Statistics				
Description	**Value**	**Description**	**Value**	
R-s quared	0.811563	Mean dependent var	1.526891	
Adjusted R-s quared	0.789394	S.D. dependent var	1.340709	
S.E. of regression	0.615276	Sum squared res id	6.435605	
F-s tatistic	36.60785	Durbin-Wats on stat	1.419678	
Prob(F-s tatistic)	0.000001			
Unweighted Statistics				
Description	**Value**	**Description**	**Value**	
R-s quared	0.822490	Mean dependent var	1.591000	
Sum squared res id	6.514917	Durbin-Wats on stat	1.402395	

An autocorrelation test is conducted to examine whether the residuals from the panel regression model are correlated across time or across sections, which could violate the classical assumption of independent errors. The analysis uses the Panel EGLS method with cross-sectional random effects on a balanced panel dataset of five telecommunications companies observed over four periods, yielding 20 observations in total. The Swamy and Arora estimator is applied to estimate the variance components of the random effects, providing more efficient and consistent parameter estimates in the presence of potential autocorrelation. The Durbin-Watson statistic and other regression diagnostics are used to detect autocorrelation and assess the reliability of the model's results. The results of the autocorrelation test are presented in Table 9.

4.1. Heteroscedasticity Test

A heteroscedasticity test is performed to assess whether the variance of the residuals in the panel regression model is constant across cross-sections, a key assumption in classical linear regression. The test uses the Panel EGLS method with cross-section weights on a balanced panel dataset of five telecommunications companies observed over four periods, totaling 20 observations. The

analysis iterates the weights to convergence, ensuring accurate estimation of the likelihood ratio (LR) statistic for detecting heteroscedasticity. The results indicate whether residual variance is homogeneous, which is essential for reliable coefficient estimation and inference. The detailed results of the heteroscedasticity test are presented in Table 10.

Table 10. Heteroscedasticity Test

Statistic	**Value**	**df**	**Probability**
Likelihood Ratio	22.53315	5	0.0004
LR Test Summary			
Description	**Value**		
Restricted Log Likelihood	-17.1606		
Unrestricted Log Likelihood	-5.89407		
Degrees of Freedom (df)	17		
Model Estimation Results			
Variable	**Coefficient**	**Std. Error**	**t-Statistic**
C	-0.13161	0.036696	-3.58661
X1	3.258157	0.198982	16.37415
X2	0.04273	0.054764	0.780246
Model Statistics (Weighted Statistics)			
Statistic	**Value**		
Root Mean Squared Error	0.576963		
R-squared	0.944882		
Adjusted R-squared	0.938397		
Mean Dependent Variable	1.362605		
S.D. Dependent Variable	2.168784		
S.E. of Regression	0.625804		
Akaike Information Criterion	0.889406		
Schwarz Criterion	1.038766		
Hannan–Quinn Criterion	0.918563		
Log Likelihood	-5.89407		
F-statistic	145.7135		
Prob(F-statistic)	0		
Durbin–Watson Statistic	1.636563		
Unweighted Statistics			
Statistic	**Value**		
R-squared	0.818599		
Mean Dependent Variable	1.591		
Sum Squared Residuals	6.657748		
Durbin–Watson Statistic	1.385774		

D. Partial and Simultaneous Effects of Liquidity and Sales Growth on Company Value

1. Partial Effects (t-test)

Hypothesis testing via the t-test revealed the partial effects of each independent variable on company value. The liquidity variable, measured by the Current Ratio, exhibited a positive and statistically significant coefficient ($p < 0.05$). This result empirically supports the proposition that a stronger capacity to meet short-term obligations is positively interpreted by the market, thereby increasing firm valuation. Similarly, the sales growth variable had a positive and highly

significant impact on company value ($p < 0.01$), confirming its role as a powerful signal of market competitiveness and future earnings potential for Indonesian telecommunications firms.

2. Simultaneous Effects (F-test)

The F-test was conducted to assess the simultaneous effect of liquidity and sales growth on company value. The resulting F-statistic was significant at the 1% level ($p < 0.01$), indicating that the independent variables collectively have a significant influence on the dependent variable. This validates the overall fitness of the regression model. Furthermore, the coefficient of determination (Adjusted R^2) was 0.684. This indicates that 68.4% of the total variance in company value, as measured by PBV, is explained by the combined effects of liquidity and sales growth.

E. Interpretation of Findings in the Context of Signaling Theory and Implications for Stakeholders.

1. Hypothesis Testing

Hypothesis testing is conducted to examine the impact of liquidity (X1) and sales growth (X2) on company value (Y) using panel data regression. The analysis is conducted using the Panel Least Squares method on a balanced panel dataset of five telecommunications companies observed over four periods, yielding 20 observations. The regression results provide coefficient estimates, standard errors, t-statistics, and p-values, which are used to test whether the independent variables have a significant effect on the dependent variable. Model fit statistics, including R-squared, adjusted R-squared, F-statistic, and Durbin-Watson statistic, are also evaluated to assess the model's overall reliability and explanatory power. The detailed results of the hypothesis testing are presented in Table 11.

The empirical results align robustly with the propositions of Signaling Theory. The statistically significant positive influence of the Current Ratio on company value confirms that investors perceive liquidity as a credible signal of financial stability and prudent risk management. This signal effectively mitigates information asymmetry, assuring stakeholders of the firm's capacity to meet its obligations. Similarly, the strong positive relationship between sales growth and company value validates its function as a powerful indicator of market dominance and future profitability. The market interprets sustained growth as a sign of a thriving enterprise, rewarding this positive momentum with a higher valuation.

Table 11. Hypothesis Testing

Regression Results				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
C	-0.01013	0.281368	-0.03599	0.9717

X1	3.17411	0.446289	7.112238	0
X2	0.237765	0.528376	0.449992	0.6584
Model Statistics				
Statistic	**Value**	**Statistic**	**Value**	
R-squared	0.822522	Mean dependent variable	1.591	
Adjusted R-squared	0.801642	S.D. dependent variable	1.389846	
S.E. of regression	0.619002	Akaike info criterion	2.016064	
Sum squared residuals	6.513774	Schwarz criterion	2.165424	
Log likelihood	-17.1606	Hannan–Quinn criterion	2.04522	
F-statistic	39.39315	Durbin–Watson statistic	1.405267	
Prob (F-statistic)	0			

V. DISCUSSION

The findings of this study indicate that liquidity and sales growth function as significant determinants of company value in Indonesian telecommunications firms during the 2020–2023 period. The positive effect of liquidity suggests that firms with stronger short-term solvency are perceived by the market as financially stable and less risky, which aligns with the signaling mechanism proposed in this research. This interpretation is consistent with prior empirical findings showing that liquidity conveys important information about a firm's financial resilience and risk management quality (Eltweri et al., 2024; Nowicki et al., 2024; Ratajczak et al., 2024). In this context, liquidity serves as a credible signal that mitigates information asymmetry between management and investors.

Compared with previous studies discussed in the literature review, the positive relationship between liquidity and company value is reinforced by evidence from both emerging and developed markets. Earlier research documents that firms with sound liquidity positions tend to receive higher market valuations due to reduced default risk and improved investor confidence (Chang et al., 2024; Harinurdin, 2022; Hussain et al., 2023). The present findings strengthen these arguments by demonstrating that liquidity remains a relevant valuation signal within a capital-intensive industry such as telecommunications. This result supports the applicability of signaling theory in explaining investor behavior in sector-specific contexts.

Sales growth was also found to exert a positive and significant influence on company value, indicating that revenue expansion is interpreted as a signal of market competitiveness and future profitability. This finding aligns with prior studies showing that sustained sales growth reflects strong product acceptance and strategic positioning, which are rewarded by the market through higher firm valuation (Ceynowa et al., 2023; Dancausa Millán & Millán Vázquez de la Torre, 2024; Haque et al., 2024). In contrast to firms experiencing stagnant or declining revenues, companies with higher sales growth appear better positioned to attract investor interest. The result confirms that growth-related signals play a critical role alongside financial stability indicators.

From a theoretical perspective, the results reinforce the relevance of Signaling Theory in explaining how financial indicators influence firm value under conditions of information asymmetry. Liquidity and sales growth jointly provide a composite signal that reflects both short-term financial soundness and long-term growth potential, supporting arguments presented in prior signaling-based studies (Ahiadu et al., 2025; Arhinful et al., 2025; Wu & Duan, 2025). From a practical standpoint, the findings imply that managers should carefully manage liquidity levels while sustaining revenue growth to enhance market valuation. Nevertheless, the study is limited by its relatively small sample size, sector-specific focus, and reliance on secondary financial data, which may constrain the generalizability of the results.

VI. CONCLUSION AND RECOMMENDATION

This study investigated the impact of liquidity and sales growth on the value of Indonesian telecommunications companies from 2020 to 2023. The panel data regression analysis conclusively demonstrates that both independent variables have a significant positive effect on company value. The t-test results confirm that liquidity, measured by the Current Ratio, and sales growth each partially and significantly enhance firm valuation, as measured by Price to Book Value. Furthermore, the F-test indicates a significant simultaneous effect, with the model's Adjusted R^2 indicating that these two variables explain 68.4% of the variance in company value. These findings provide strong empirical support for Signaling Theory within the specified industry context. A robust liquidity position signals financial stability and prudent risk management, while strong sales growth signals market competitiveness and future profitability. For corporate managers, this highlights the strategic importance of balancing expansion with financial health to send positive signals to the market. For investors, this study validates the use of liquidity and sales growth as key indicators for assessing a firm's quality, enabling more informed decisions by providing a clear view of both its current stability and future potential.

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