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The Effect of Liquidity, Profitability, and Capital Structure on Firm Value In The Metal and Mineral Industry Sub-Sector Listed On The Indonesia Stock Exchange (IDX) For The 2019-2024 Period

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Abstract: Firm value is an important indicator that reflects a company's financial performance and market perception, in the metal and mineral industry, which frequently experiences fluctuations in financial conditions and investment decisions. Previous studies have shown inconsistent findings regarding the influence of liquidity, profitability, and capital structure on firm value, highlighting the need for further research. Therefore, this study aims to examine the effect of liquidity, profitability, and capital structure on firm value in the metal and mineral industry sub-sector listed on the Indonesia Stock Exchange (IDX) during the period of 2019-2024. This study employed a quantitative approach using secondary data obtained from the annual financial reports of each company. A purposive sampling technique was used to select 15 companies, resulting in 90 observation data points. Data analysis was conducted using multiple linear regression with SPSS. The results indicate that profitability and liquidity have a positive effect on firm value, while capital structure has a negative effect on firm value. Simultaneously, all variables significantly affect firm value. the coefficient of determination results indicate that liquidity, profitability, and capital structure explain 99,7% of the variationin firm value. In conclusion, liquidity and profitability play a more important role in increasing firm value compared to capital structure in companies within the metal and mineral industry sub-sector.

Key words: Liquidity, Profitability, Capital Structure, Firm Value

Introduction

The metal and mineral sub-sector is considered more significant than other industrial sectors because it serves as a fundamental supplier of raw materials for numerous downstream industries, incliding construction, manufacturing, automotive production, infrastructure development, and renewable energy technologies (Olivia et al., 2021). The increasing global demand for industrial metals, such as nickel, copper, aluminum, and other mineral resources, has positioned this sub-sector as an important driver of economic development and industrial sustainability (Anggraini, 2023). In Indonesia, the metal and mineral industry has become increasingly strategic due to government policies encouraging downstream industrialization and value-added processing of mineral resources (Radja & Artini, 2020). In addition, Indonesia possesses substantial natural resource reserves that

provide strong potential for long-term industrial growth and investment opportunities (Khanh et al., 2020). Compared to other sectors, the metal and mineral sub-sector tends to experience higher volatility in operational and financial performance because it is highly sensitive to commodity price movements, exchange rate fluctuations, and changes in global demand (Natsir et al., 2020). Therefore, analysing firm value withim this sub-sector provides a more complex and relevant context for understanding how financial factors influence corporate performance.

This study also offers several contributions to the existing literature. First, previous studies generally focused on manufacturing, consumer goods, banking, or broad mining sectors, while limited attention has been given specifically to the metal and mineral industry sub-sector listed on the Indonesia Stock Exhange (IDX) (Nafisah & Aris., 2025 ; Radja & Artini, 2020). Second, this study incorporates a more recent observation period from 2019 to 2024, enabling the analusis to capture economic conditions during and after major events, including global market uncertainty and changes in industrial policies (Handayani et al., 2020). Third, this study examines the simultaneous influence of liquidity, profitability, and capital structure on firm value within a specific industrial context, thereby providing a more comprehensive understanding of the financial determinants affecting firm value (Suwaidi & Wiguna, 2023). The findings are expected to contribute theoretically by enriching empirical evidence related to firm value determinants and practically by providing useful information for investors, managers, and policymakers in making strategic financial decisions (Okiro et al., 2025).

Recent industry developments further strengthen the relevance of this study. During the 2019-2024 period, companies in indonesia's mining and metal industry experienced fluctuations in market valuation due to changes in global commodity prices and investment trends (Purbasari et al., 2025). Several metal and mining companies showed variations in their Price to Book Value (PBV), reflecting differences in investor perceptions of future growth and financial performance (Handayani et al., 2020). Firms benefiting from increasing demand for strategic minerals and downstream industrial expansion generally demonstrated stronger market valuations, while companies facing operational challenges and commodity price pressures experienced lower valuation levels (Dewi et al., 2023). These changing conditions indicate that firm value in the metal and mineral industry is highly dynamic and influenced by both internal financial factors and external market conditions (Tripathy et al., 2023). Consequently, understanding the relationship between liquidity, profitability, capital structure, and firm value becomes increasingly important in explaining variations in corporate market performance (Markonah et al., 2020).

Conceptual Framework

In conducting a study, a researcher requires a conceptual framework prior to carrying out the research process. The research framework illustrates the relationship between theoris, independent variables, and dependent variables within the study (Nafisah & Aris., 2025). Liquidity, profitability, and capital structure are considered three major factors influencing firm value (Nafisah & Aris., 2025). String liquidity reflects a company's

capability to fulfill its short-term obligations, while profitability indicates the company's ability to generate earnings (Markonah et al., 2020). An efficient capital structure may maximize firm value by balancing risk and return (Anggraini, 2023).

The relationship between these three variables and firm value can be explained through signaling theory, capital structure theory, and agency theory, which emphasize the importance of financing policies and profitability as positive signals for investors (Markonah et al., 2020). Based on this explanation, a conceptual framework describing the relationship among the variables is developed as follows:

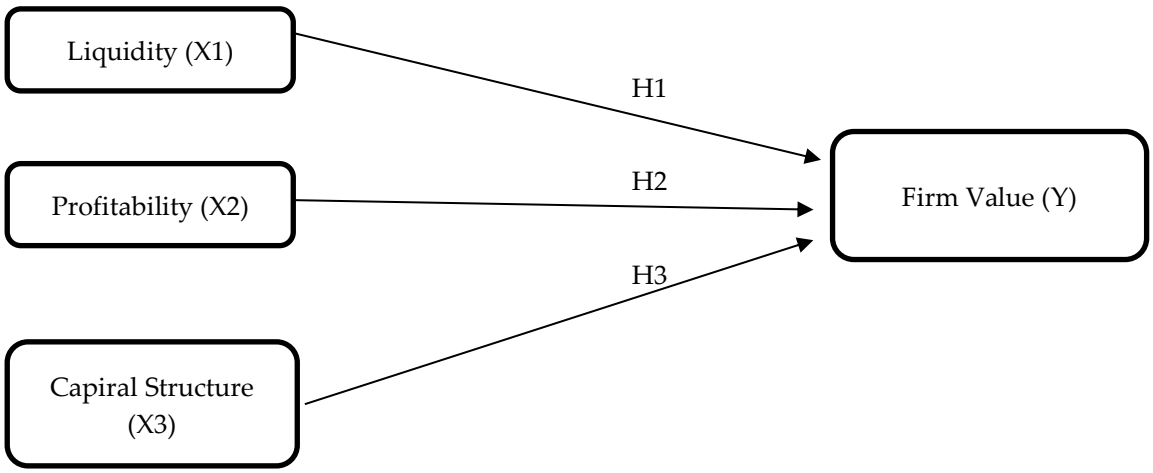

Figure 1. conceptual framework
Source : (Menuh et al., 2021)

Research Method

Research Design

This study used a quantitative research design using an associative approach. The purpose of the research was to look at how capital structure, profitability, liquidity, and company value are related.

Population, Sample, and Sampling

Companies listed on the Indonesia Stock Exchange between 2019 and 2024 that were part of the metal and mining industry subsector were the ones studied. Companies that were consistent in their financial report releases throughout the research period were among the criteria used to choose participants for the sample (Meilia et al., 2024). Using these parameters, we selected 15 companies with 90 observations.

Intervention Procedure

This analysis made use of secondary data derived from annual financial reports made available on the IDX website. According to Nairoukh et al. (2025), Markonah et al. (2020), and Pham et al. (2023), the liquidity of a company was measured by Return on Assets (ROA), the capital structure by Price to Book worth (PBV), and the worth of a firm was assessed by Price to Current Ratio (CR). Data analysis methods utilised included multiple linear

regression analysis, t-tests, F-tests, and coefficient of determination tests using SPSS software.

Result and Discussion

Descriptive Statistics

Table 1. Statistical Description

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Liquidity	90	0,1031102077	5,654751227	1,573444178	1,099165973
Profitability	90	-0,541046629	0,2408213452	0,0230293208	0,1013546580
Capital Structure	90	0,037664739	7,618175188	1,941617905	1,753190557
Firm value	90	0,000003802	12,73884147	1,747783138	1,980707376
Valid N (Listwise)	90				

The study used 90 observation data points, as shown in Table 1 above. According to the descriptive statistics, the liquidity variable (CR) ranged from a minimum of 0.03102077 to a high of 5.654752178, with a standard deviation of 1.099165973. Businesses were able to meet their short-term commitments when their mean liquidity value was greater than one, according to Mendeley Yahya. Nonetheless, the comparatively high standard deviation also shows variations in the liquidity levels of the study's participating enterprises (Sedana et al., 2020).

On a scale from -0.541046629 to 0.2408213452, the profitability variable (ROA) ranged from an average of 0.0230293208 to a standard deviation of 0.13546580.0. According to Putro and Risman (2021b), the low mean value suggests that the businesses' overall profitability level was relatively low. Also, some companies may have lost money over the observation period, as shown by the negative minimum value (Agustin, 2024).

The capital structure variable (DER) ranged from a low of 0.037664739 to a high of 7.618175188, with a mean of 1,941617905 and a standard deviation of 1,753190557. The average value is quite close to the standard deviation, indicating a small variation in the company's capital structure (Putri, 2020). This finding demonstrates that various companies' approaches to debt financing were quite variable (Nairoukh et al., 2025).

A low of 0,000003802 and a maximum of 12,73884147 were recorded for the firm value variable, which had a standard deviation of 1,980707376, and a mean of 1,747783138. Since the mean value was lower than the standard deviation, it was clear that there was a great deal of dispersion in the businesses' values (Kusuma & Saputra, 2025).

Classical Assumption Test

In the study, several classical assumption tests were conducted, including the normality test to determine whether the data follow a nomal distribution, the multicollinearity test to examine the relationship among independent variables, the heteroscedasticity tests to identify whether unequal variance occurs in the residuals, and the autocorrelation tests to assess the presence of correlation among residuals within the

regression model (Riza et al., 2025). Through these tests, the regression model is expected to satisfy the required assumptions and produce a reliable model.

Normality Test

Table 2. Normality Test

Unstandardized Residual		
N		90
Normal Parametersa[a.b]	Mean	0,0000000
	Std. Deviation	1,06064885
Most Extreme Differences	Absolute	0,088
	Positive	0,088
	Negative	-0,078
Test Statistic		0,088
Asynp. Sig. (2-taileed)		0,085[c]

a. Test distribution is Normal.
b. Calculated from data.
c. Liliefors Significance Correction.

Based on the residuals of the normality test using the Kolmogorov-Smirnov (K-S) method, the Asymp. Sig. (2-tailed) value was found to be 0,085. Since this value exceeds the significance level of 0,05 (0,085 > 0,05, it can be concluded that the residual data in the regression model are normality distributed (Brona et al., 2023).

As the normality assumption has been satisfied, the regression model employed in this study concerning the influence of liquidity, profitability, and capital structure on firm value in the metal and mineral industry sub-sector listed on the Indonesia Stock Exchange (IDX) can be considered appropriate for further analysis (Nafisah & Aris., 2025). This finding indicates that the data used in the study have fulfilled one of the classical assumptions, suggesting that the analytical results obtained can be regarded as valid and unbiased (Dhevyanto et al., 2024).

Multicollinearity Test

Table 3. Multicollinearity Test

		Unstandardizer Coefficients		**Standardized Coefficients**			**Collinearrity Statistics**	
Model		B	Std. Error	Beta	t	Sig.	tolerance	VIF
1	(Constant)	0,206	0,204		1,014	0,313		
	Likuiditas	0,938	0,007	1,012	134,020	0,000	0,541	1,849

	Unstandardizer Coefficients		Standardized Coefficients			Collinearrity Statistics	
Profitabilitas	0,015	0,005	0,022	2,903	0,005	0,549	1,820
Struktur Modal	-0,008	0,005	-0,009	-1,614	0,110	0,979	1,021

a. Dependent Variabel : Nilai Perusahaan

Based on the multicollinearity test result obtained from the SPSS output, the liquidity variable shows a Tolerance value of 0,541 and a Variance Inflation Factor (VIF) value of 1,849. The profitability variable has a Tolerance value of 0,549 and a VIF value of 1,820. Meanwhile, the capital structure variable presents a Tolerance value of 0,979 with value of 1,021.

According to the multicollinearity testing criteria, a model is considered free from multicollinearity issues when the Tolerance valus is greater than 0,10 and the VIF value is below 10. The results indicate that all independent variables in this study satisfy these requirements (Damayanti, 2022). Therefore, it can be concluded that no indivation of multicollinearity exists among the independent variables in the regression model (Handayani et al., 2020).

Heteroscedasticity Test

Table 4. Heteroscedasticity Test

Model		Unstandardized Coefficients B	Std. Error	Standardized Coeffients Beta	t	Sig.
1	(Constant)	0,857	0,132		6,508	0,000
	Likuiditas	-0,004	0,005	-0,142	-0,975	0,332
	Profitabilitas	-0,004	0,003	-0,164	-1,135	0,260
	Struktur Modal	0,001	0,003	0,044	0,411	0,682

a. Dependent Variabel : ABS_RES

Based on the heteroscedasticity test result using the Glejser method, it is known that the Glejser test is one of the approaches commonly employed to indetify the presence of heteroscedasticity in a regression model (Putri et al., 2024). Heteroscedasticity occurs when the variance of residuals is not constant across different levels of independent variables, which way lead to inaccuracies in estimating regression coefficients (Kusuma & Saputra, 2025). The Glejser test procedure involves regressing the absolute residual values (ABS_RES) as the dependent variable against the independent variables included in the model (Menuh et al., 2021). According to the Glejser test criteria, a regression model is considered free from heteroscedasticity when the significance value exceeds 0,05. The test results in this study indicate that all independent variables satisfly this requirement (Riza et

al., 2025).

Based on the Glejser test results presented in the table above, the significance value for liquidity, profitability, and capital structure are 0,332, 0,260, and 0,682, respectively, all of which are greater than 0,05. Therefore, it can be concluded that no heteroscedasticity problem exists in the regression model, indicating that the model has fulfilled the homoscedasticity assumption (Markonah et al., 2020).

Autocorrelation Test

Table 5. Autocorrelation Test

Durbin Watson (DW) Autocorrelation Test				
dL	dU	DW	4 - dU	4 - dL
1,588	1,726	1,824	2,274	2,412

Bused on the autocorrelation test result using the Durbin-Watson method, the Durbin-Watson (DW) value obtained was 1,824. This value was then compared with the lower bound value (dL) of 1,588, the upper bound value (dU) of 1,726, and the value of (4 – dU), which was 2,274. The findings indicate that the DW Value falls between dU and (4 – dU), namely 1,726 < 1,824 < 2,274. Therefore, it can be concluded that the regression model used in this study does not exhibit autocorrelation, indicating that one of the classical assumptions required in regression analysis has been fulfilled (Khanh et al., 2020).

Multiple Linear Regression Analysis

Table 6. Multiple Linear Regression Analysis Result

Model	B	Std. Error	Beta	t	Sig.
(Constant)	0,206	0,204		1,014	0,313
Liquidity	0,938	0,007	1,012	134,020	0,000
Profitability	0,015	0,005	0,022	2,903	0,005
Capital Structure	-0,008	0,005	-0,009	-1,614	0,110

a. Dependent Variable : Firm Value.

This study employed multiple linear regression analysis to examine the relationship between the dependent variable, firm value (PBV), and the independent variables, liquidity (CR), profitability (ROA), and capital structure (DER) (Riza et al., 2025).

The multiple linear regression equation may be created using the table as a guide:

$$PBV = 0{,}206 + 0{,}938\ CR + 0{,}015\ ROA - 0{,}008\ DER$$

The regression equation can be interpreted as follos:

1. Assuming liquidity, profitability, and capital structure are all set at zero, the value of the firm is 0.206, as shown by the constant value.
2. Second, with all other factors held constant, a one-unit increase in liquidity will lead to a 0.938-unit rise in firm value, according to the regression coefficient of the liquidity variable (0.938).
3. A one-unit increase in profitability will lead to a 0.015 increase in firm value when all

other variables are held constant, as seen in the regression coefficient of 0.015 for the profitability variable.

4. Assuming all other variables remain constant, a decline of 0,008 in firm value would occur for every one unit rise in capital structure, according to the capital structure variable's regression coefficient of -0,008.

Partial Test (t-Test)

Table 7. Multiple Linear Regression Analysis Result

Model	B	Std. Error	Beta	t	Sig.
(Constant)	0,206	0,204		1,014	0,313
Liquidity	0,938	0,007	1,012	134,020	0,000
Profitability	0,015	0,005	0,022	2,903	0,005
Capital Structure	-0,008	0,005	-0,009	-1,614	0,110

a. Dependent Variable : Firm Value.

With a significance level of 0.000 (less than 0.05) and a regression coefficient of 0.938, the liquidity variable was found to be statistically significant in the partial test (t-test) results. According to (Okiro et al., 2025). businesses are valued more when they have sufficient liquidity.

The profitability variable similarly had a regression coefficient and significance level below 0.05, with values of 0.015 and 0.005, respectively. Based on these results, it appears that profitability has a favourable effect on company value (Riza et al., 2025).

The capital structure variable, on the other hand, had a regression coefficient of -0.008 and a significance value of 0.110, which is higher than 0.05. Consequently, it may be said that capital structure has little bearing on company value (Putri et al., 2024).

Simultaneous Test (F-Test)

Table 8. Sumultaneous Test Result

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	37.668,497	3	12.556,166	10.785,052	0,000
Residual	100,123	86	1,164		
Total	37.768,620	89			

a. Dependent Variable : Firm Value.

b. Predictors : (Constant), Capital Structure, Profitability, Liquidity.

Table 8 shows the results of the simultaneous test (F-test), which led to an F-value of 10.785,052 at the 0.000 level of significance. A significance score below 0.05 indicates that liquidity, profitability, and capital structure all have a simultaneous and substantial impact on company value (Meilia et al., 2024). The findings indicate that the regression model employed in this study is appropriate for explaining the impact of the independent variables on the dependent variable (Trimurti et al., 2025).

Coefficient of Determination (Adjusted R Square)

Table 9. Coefficient of Determination (Adjusted R Square)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0,659[a]	0,434	0,416	0,7679223843

a. Predictors : (Constant), Capital Structure, Profitability, Liquidity.
b. Dependent Variable : Firm Value.

Based on the coefficient of determination (R^2) results, the R Square value obtained was 0,434 or 43,4%. This indicates that the independent variables consisting of liquidity, profitability, and capital structure are able to explain 43,4% ot the variation in firm value, while the remaining 56,6% is influenced by other factors outside the research model (Kusuma & Saputra, 2025 ; Brona et al., 2023).

Conclusion

The findings of this study provide several practical implications for investors and company management. For investors, the results suggest that liquidity and profitability should be considered important indicators when evaluating investment decisions, particularly in the metal and mining industry sub-sector. Companies with stronger profitability and adequate liquidity levels may be perceived as having better financial performance and lower investment risk, thereby increasing their attractiveness in the capital maket. For company management, the findings indicate the importance of maintaining effective liquidity management and improving profitability through efficient operational and financial strategies. Appropriate financial policies may help companies strengthen market confidence and enhance firm value over the long term.

Despite providing valuable findings, this study has several limitations that should be considered. Firt, the research focuses only on companies within the metal and mining industry sub-sector listed on the Indonesia Stock Exchange, which may limit the generalization of the findings to other sectors or industries with different characteristics. Second, this study examines only three independent variables, namely liquidity, profitability, and capital structure, while other factors that may influence firm value were not included in the analysis. In addition, the observation period was limited to 2019-2024, which may not fully capture long-term changes in financial and economic conditions.

Based on these limitation, future research is recommended to expand the scope of analysis by including companies from different sectors or industries in order to provide broader empirical evidence regarding the determinants of firm value. future studies are also encouraged to incorporate additional variables such as firm value. Future studies are also encouraged to incorporate additional variables such as firm size, corporate governance, dividend policy, company growth, investment decisions, or macroeconomic factors that may contribute to variations in firm value. Future studies are also encouraged to incorporate additional variables such as firm size, corporate governance, dividend policy, company growth, investment decisions, or macroeconomic factors that may contribute to variations in firm value. Furthermore, extending the observation period and applying alternative

analytical approaches may provide a more comprehensive understanding of the factors influencing firm value across different business environments.

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