

THE EFFECT OF LIQUIDITY AND LEVERAGE ON FINANCIAL DISTRESS WITH GOOD CORPORATE GOVERNANCE AS A MODERATING VARIABLE IN MINING COMPANIES LISTED ON THE INDONESIA STOCK EXCHANGE

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Abstract: This study's goal is to investigate how leverage and liquidity ratios affect financial crisis, with sound corporate governance acting as a moderating factor. This study uses an associative technique and a quantitative approach. Secondary data from the financial statements of businesses listed between 2020 - 2024 on the IDX makes up the data utilized. The sample was chosen via purposeful sampling. Forty yearly financial reports were examined in this study. The data analysis included both moderated regression analysis and multiple linear regression. The results show that financial hardship is positively and significantly impacted by liquidity and leverage. The link between liquidity, leverage, and financial distress is not moderated by GCG (Independent Commissioners). Leverage and liquidity have a 16.8% impact on financial distress. This study contributes theoretically by enriching the financial distress literature through the integration of leverage, liquidity ratios, and the moderating role of GCG (independent commissioners). Practically, the findings serve as a reference for company management, investors, creditors, and regulators in assessing and mitigating financial distress risk in the Indonesian capital market.

Keywords: *Liquidity, Leverage, Good Corporate Governance, Financial Distress, Mining Companies*

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1. Introduction

Behind the growing global economy lie various challenges that every company must face. These difficulties have the potential to cause financial crises and economic instability (MASRUROH et al., 2025) indonesia's economy is expanding quickly. "One of the primary economic sectors in Indonesia, the mining sector significantly contributes to both national income and economic growth" (Sinaga et al., 2025). Although the condition of companies in this sector was relatively healthy in the previous period, significant changes in global commodity prices—such as coal, oil, and nickel—can have a major impact on corporate financial performance. Fluctuations in these commodity prices have the potential to reduce revenue, disrupt cash flow stability, and increase the risk of financial distress, particularly for companies that are heavily reliant on natural resource exports and lack adequate business diversification.

According to (Theinvestor.id, 2024) coal prices fell by 7.68% throughout 2024. This decline was driven by projections of a drop in demand for metallurgical coal in China for three consecutive years, which has led companies to face unstable conditions, such as the profit decline mentioned above, as reported in the financial statements on Idx.id. The year 2023 was a particularly challenging year as mining companies in Indonesia experienced setbacks; for instance, PT Timah Tbk (TINS) recorded a loss of Rp 487 billion, while PT Bukit Asam Tbk (PTBA) reported a 51.7% drop in net profit to Rp 6.3 trillion from the previous Rp 12.78 trillion. A similar situation occurred at PT Aneka Tambang Tbk (ANTM), whose net profit fell to Rp 3.077 trillion from Rp 3.82 trillion, marking a 19.45% decline. According to (Atun Iswari, 2020) Mining export values over the past ten years have declined by approximately 14.56%, due to falling commodity prices resulting from the Indonesian government's decision to restrict all shipments of raw materials (except coal) and require the mining sector to add value to products prior to export.

Based on recent developments, A number of mining businesses that were listed on the IDX between 2020 - 2024 may have faced financial difficulties due to a decrease in income. When a business's financial performance is unsound or is steadily declining, this is known as financial hardship. According to (Tyas dkk., 2021) as cited in (Fuji Fiolin Gultom, 2025) "Currency changes, such as the rupiah's devaluation versus the US dollar, inflation, and other external issues all contribute to financial difficulties in mining enterprises, which reduces public purchasing power, high interest rates, and the money supply This sends a negative signal to external parties regarding their willingness to provide capital to the company". According to (Tyas dkk., 2021) cited in (Fuji Fiolin Gultom, 2025) external factors contributing to financial distress in mining companies include currency fluctuations—such as the depreciation of the rupiah against the US dollar—inflation that reduces public purchasing power, high interest rates, and the money supply. This serves as a negative signal to external parties regarding their willingness to provide capital to the company.

Financial distress can be assessed through the analysis of financial ratios. This study employs two key financial ratios, namely the liquidity ratio, represented by the current ratio, and the leverage ratio, represented by the debt-to-equity ratio. The current ratio measures a company's ability to meet its short-term obligations using its current assets, whereas the debt-to-equity ratio evaluates the proportion of debt relative to the company's equity. These two ratios serve as important indicators in identifying the likelihood of financial distress within a company.

Research on these ratios has, of course, been conducted extensively across various corporate sectors. Before this study, "Analysis of Financial Distress with Profitability as a Moderating Variable" (Idawati, Wiwi ., Aditya Kusuma Wardhana, 2021) found no correlation between liquidity and financial distress. According to (Gyarteng, 2021) research on "Corporate Financial Distress: The Impact of Profitability, Liquidity, Asset Productivity, Activity, and Solvency," however, liquidity is a major factor in financial distress. According to one study, "Analysis of Financial Distress with Profitability as a Moderating Variable," published (Idawati, Wiwi ., Aditya Kusuma Wardhana, 2021) leverage is positively associated with financial distress. In contrast, another study, "The Effect of Liquidity and Leverage on Financial Distress," published (Wijaya & Suhendah, 2023) found that leverage significantly negatively impacts financial distress.

Although previous research has examined this issue, most studies have only investigated two independent variables without considering a moderating factor. Research that incorporates a moderating variable is still relatively limited. Therefore, this study revisits the

relationship between liquidity, leverage, and financial distress by introducing good corporate governance as a moderating variable. Good corporate governance reflects a company's ability to effectively oversee and manage its financial performance. Theoretically, stronger governance practices can enhance financial monitoring and control, thereby reducing the risk of financial distress. In order to establish solid financial management and amplify the unfavorable association between liquidity, leverage, and financial crisis, organizations must maintain strong control.

This study differs from previous research by concentrating on a particular industry, namely the mining sector. Specifically, it investigates mining companies listed on the Indonesia Stock Exchange (IDX) during the 2020–2024 period. Mining companies are those that manage or explore natural resources and mineral resources; because these companies are highly dependent on global economic conditions, require substantial capital, and face unpredictable fluctuations in global commodity prices, this sector is highly sensitive to global market prices. When market prices decline, it results in a significant drop in profits for companies in this sector. In order to find solutions when financial challenges emerge, mining businesses must be able to recognize the early warning indicators.

This study aims to re-examine the relationship between financial distress, liquidity (current ratio), and leverage (debt-to-equity ratio) in mining sector companies listed on the IDX from 2020 to 2024. The novelty of this study lies in the use of independent commissioners as a moderating variable in the relationship between liquidity, leverage, and financial distress in mining companies listed on the Indonesia Stock Exchange (IDX) during the 2020–2024 period. Unlike previous studies, which generally treat good corporate governance (GCG) as an independent variable, this study positions independent commissioners as moderators, thereby offering a new perspective on the extent to which the effectiveness of good corporate governance can strengthen or weaken the influence of liquidity and leverage on financial distress.

2. Research Method

In order to examine the interrelationships of the independent, moderating, and dependent factors, this research employed an associative quantitative methodology. The primary goal of quantitative research is to test hypotheses by collecting numerical data from study variables and analyzing it statistically.

Table 1. Sample collection criteria

Description	Total
Population: Mining companies listed on the Indonesia Stock Exchange from 2020 to 2024	51
Companies that have not consistently published financial reports during the 2020–2024 period	(7)
Companies that do not use the rupiah in their financial statements	(30)
Companies that incurred losses between 2020 and 2024	(11)
Samples that meet the criteria	8
Sample size (8 X 5)	40

Source: data processed by researchers (2025)

Companies in the mining industry that will be listed on the IDX between 2020 - 2024 make up the study's population. Purposive sampling was used to choose the sample, which was done according to predetermined criteria that were linked to the aims of the study. The

sample size used in this study, based on the sampling criteria over a 5-year period for companies in the mining sector, resulted in a sample of 50 companies. After removing outliers and adjusting for the research period, the final dataset comprised 40 data points.

The analysis was conducted using SPSS statistical methods. Statistical procedures included a description of the data, tests for normalcy, multicollinearity, heteroscedasticity, autocorrelation (Durbin-Watson), and hypothesis testing using MRA. Furthermore, the following is a model of the study design that takes GCG into account while examining the relationship between liquidity, leverage, and financial distress:

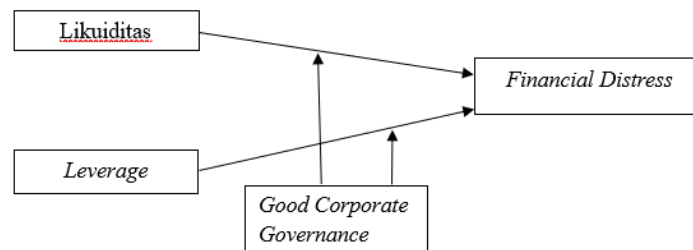


Figure 1. Research model
 Source: data processed (2025)

Table 2. Measurement Variables

Variabel	Proxy
Financial Distress	$G = 1,650X1 + 3,404X3 - 0,016ROA + 0,057$
Likuiditas	Current Ratio = $\frac{\text{Current Assets}}{\text{Current liabilities}}$
Leverage	Debt to Equity Ratio = $\frac{\text{Total liabilities}}{\text{Total equity}}$
Good Corporate Governance	$\frac{\text{Independent Commissioner}}{\text{Total independent commissioner}}$ $= \frac{\text{Total number of members of the board of commissioners}}{\text{Total number of members of the board of commissioners}}$

Tabel.2 explains that the ratios used in this assessment are liquidity (CR), leverage (DER), GCG, and financial distress, using grover’s formula as described below:

Financial Distress Formula:

X1 = Working capital/ Total assets

X3 = Earnings before interest and tax/ Total assets

ROA =Net income/ Total assets

A company's liquidity may be defined as its capacity to satisfy its short-term financial commitments (Oktaviani & Lisiantara, 2022) Avoiding future financial difficulty is possible

for a firm if it can efficiently finance and repay its short-term debt. The current ratio (cr) is the liquidity ratio utilized in this research.

The leverage ratio is a capital structure ratio that allows a company to measure its long-term liabilities, assess its capital structure, and evaluate its reliance on external capital. According to (Amalia & Trisnaningsih, 2023) the leverage ratio indicates the extent to which a company relies on external financing (debt) compared to its equity. The ratio used to measure leverage in this study is the debt-to-equity ratio (der).

GCG is a control mechanism within a company designed to ensure that the company is managed transparently and effectively and to improve its performance. This study uses independent commissioners as a moderating variable. According to (Permatasari et al., 2023) Independent commissioners are one of the supervisory bodies in the industry that can rationally control and provide advice to the board of directors. With the presence of independent commissioners, it is hoped that this can influence the management control of the industry without causing financial difficulties.

3. Results and Discussion

3.1. Results

Results of descriptive statistical tests

The study's variables are described using descriptive statistical tests. The study's descriptive statistical tests comprise the standard deviation, minimum, maximum, and average values. The following table displays the outcomes of the descriptive statistical analyses:

Table 3. Result of descriptive analysis

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
CR	40	.80	9.99	2.1488	1.56807
DER	40	.04	2.33	.5975	.51749
FD	40	.17	1.67	.7575	.37472
GCG	40	.33	.60	.4360	.10208
Valid N (listwise)	40				

Source: data processed by researchers (2025)

Financial distress (FD) has a mean value of 0.7575 and a standard deviation of 0.37472, according to the table above, which is based on descriptive statistical analysis of 40 data points. The range ranges from 0.17 at the bottom to 1.67 at the top. Companies in this study's sample are, on average, in a financial hardship situation, as shown by the average financial distress value of 0.7575. This is because a number higher than zero for financial hardship suggests that the firm is experiencing financial difficulties. There is a range of values for liquidity (CR) from 0.80 to 9.99, with an average of 2.1488 and a standard deviation of 1.56807. Accordingly, a larger current ratio indicates that the firm has a better liquidity value, which implies it can satisfy its short-term commitments more easily.

The DER has an average value of 0.5975 with a standard deviation of 0.51749. The 2.33 is the maximum value and 0.04 is the minimum. The bigger the ratio of debt to equity, the more funding is coming from debt. The standard deviation is 1.213 and the average is 0.241. From -2.595 to 12.944 is the range of values. An average of 0.4360, a standard deviation of

0.10208, a maximum of 0.60, and a minimum of 0.33 are all part of GCG (Independent Commissioners).

Results of the normality test

To find out if the data utilized in this study follows a normal distribution, the normalcy test is run. This research used the Kolmogorov-Smirnov test. In order to establish that the data follows a normal distribution, the p-value > 0.05. This is what the test came up with:

Table 4. Results of the normality test

		Unstandardized Residual	
N		40	
Normal Parameters ^{a,b}	Mean	.000000	
	Std. Deviation	.33248204	
Most Extreme Differences	Absolute	.072	
	Positive	.072	
	Negative	-.056	
Test Statistic		.072	
Asymp. Sig (2-tailed) ²		.200 ^d	
Monta Cario Sig. (2-tailed) ^e	Sig.	.868	
	99% Confidence Interval	Lower Bound	.860
		Upper Bound	.877

Source: data processed by researchers (2025)

Since the significance value is 0.860 (> 0.05), as shown in the table above, it may be inferred that the data utilized in this investigation follow a normal distribution.

Results of the multicollinearity test

Finding out how closely related a regression model's independent variables are is what the multicollinearity test is all about. Assuming a VIF below 10.00 and a tolerance value over 0.10, multicollinearity is not present in the data. Here are the findings from the tests:

Table 5. Results of the multicollinearity test

Model		Unstandardized B	Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.	Collinearity Tolerance	Statistics VIF
1	(Constant)	.736	.274		2.688	.011		
	CR	.080	.039	.333	2.031	.050	.812	1.231
	DER	.338	.121	.466	2.780	.009	.777	1.287
	GCG	-.806	.562	-.219	-1.433	.161	.932	1.073

Source: data processed by researchers (2025)

The results of the multicollinearity test show that the tolerance values are 0.812 for the CR variable, 0.777 for the DER variable, and 0.932 for the GCG variable; thus, it can be concluded that the tolerance values are greater than 0.10. The VIF values for the CR variable are 1.231, for the DER variable 1.287, and for the GCG (Independent

Commissioners) variable 1.073. Since these values are less than 1.00, it can be concluded that the data in this study does not exhibit multicollinearity.

Results of the heteroscedasticity test

To determine if the variance in a regression analysis is consistent across data, statisticians use the heteroscedasticity test. The Geljer test was utilized to evaluate heteroscedasticity in this investigation. The absence of heteroscedasticity is proven when the significance level exceeds 0.05. Here are the results of the test:

Table 6. Results of the heteroscedasticity test

Model	Unstandardized B	Coefficients Std. Error	Standardized Coefficients Beta	t	Sig
1 (Constant)	2.122	4.220		.503	.618
DER	.098	.074	.230	1.327	.193
GCG	-2.645	5.213	-1.223	-.507	.615
LNGCG	.903	2.258	.971	.400	.690
LNDER	2.510E-15	.000	.101	.626	.535

Source: data processed by researchers (2025)

We may infer that no variables display heteroscedasticity since the significance level of the results of the heteroscedasticity test in the table above is > 0.05 .

Autocorrelation test results

In a linear regression model, the autocorrelation test seeks to ascertain the degree of correlation between the residuals in one period and the errors in the preceding period. This study's autocorrelation test looks for the presence of autocorrelation using the Durbin-Watson (DW) test. If the value of dU, which is used to calculate the upper limit in the autocorrelation test, is less than or equal to four times d, then, and d is the result of the Durbin-Watson test in SPSS. The following is the test procedure.

Table 7. Autocorrelation test results

Model	R	R Square	Adjusted R Square	Std. Error of The Estimate	Durbin Watson
1	.193 ^a	.037	-.043	.20975	2.001

Source: data processed by researchers (2025)

From the above test, the value of dU is 1.721. the value of d is 2.001, and the value of 4-d is 2.279. It can therefore be concluded that $1.721 < 2.001 < 2.279$, meaning that the data in this study is free from autocorrelation.

Hypothesis Test Results

Regression Equation 1

Table 8. Results of Regression 1

Model		Unstandardized Coefficients	Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	.401	.144		2.778	.009
	CR	.082	.040	.345	2.075	.045
	DER	.301	.120	.415	2.497	.017

Source: data processed by researchers (2025)

Given that the sin Cr value is $0.045 < 0.05$, as shown in the previous experiments, it may be inferred that CR significantly alleviates financial strain. The conclusion that DER significantly alleviates financial suffering may also be drawn from the fact that the DER variable's significance value is $0.017 < 0.05$.

Regression Equation 2

Table 9. Results of Regresses 2

Model		Unstandardized B	Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1.483	1.234		1.202	.238
	CR	-.007	.329	-.029	-.021	.983
	GCG	-2.339	2.537	-.637	-.922	.363
	DER	-.919	1.303	-1.270	-.705	.485
	CRGCG	.162	.683	.316	.236	.815
	DERGCG	2.597	2.662	1.829	.976	.336

Source: data processed by researchers (2025)

We may infer that the Independent Commissioners variable does not influence the link between CR and FD, as the interaction coefficient between CR and GCG (Independent Commissioners) is 0.815 (>0.05). There is no moderating effect of the GCG variable on the association between CR and FD, since the significant value between DER and GCG is 0.336 (>0.05). Because other factors, such as capital intensity, long cycles, and high sensitivity to commodity prices and global policies, have a greater impact on financial distress in mining companies, Independent Commissioners do not work to strengthen the relationship between CR and DER in this area.

3.2. Discussion

The study's findings support the acceptance of H1: liquidity, represented by variable X1 (CR), significantly affects financial hardship. According to this research, financial difficulty is mitigated by a high Current Ratio; hence, a high Current Ratio can indicate that the organization is about to face financial distress. In signaling theory, a high Current Ratio typically indicates good liquidity; however, in this study of mining companies, it leads to an increase in financial distress. It can be said that this signal is a signal of inefficiency, as inventory in mining companies often consists of commodity inventory (mining output that has not yet been sold). If a high current ratio is due to inventory buildup which can be interpreted as weak market demand then the company actually lacks sufficient cash for its operations, thereby increasing the risk of financial distress. The results of this study align with research from (Gyarteng, 2021) and (Wijaya & Suhendah, 2023) which states that liquidity has a positive effect, in contrast to the studies by (Nophiyanti A, Nia Natia, 2021) and (Atika Widyo Ramadani, 2023) which state that liquidity has a negative effect on financial distress.

The Debt-to-Equity Ratio significantly reduces financial distress (H2 is accepted) according to the value of the X2 variable (DER, or leverage) in this study. This is because financial hardship is directly proportional to the quantity of debt or the Debt-to-Equity Ratio, which in turn increases the interest load and the danger of default. A high DER is considered a negative signal according to signaling theory. A more important metric than the current ratio is the debt-to-equity ratio, as changes in debt levels (DER) have a far greater effect on a

company's financial condition. Mining companies typically require substantial funds for their operations, which are often financed through debt. If commodity prices are falling, the company's revenue will also be under pressure, but the amount of debt to be repaid remains the same; furthermore, unpredictable price fluctuations can make mining companies vulnerable to global market shocks. This is what can trigger signs of financial distress. The results of this study are consistent with research from (Idawati, Wiwi ., Aditya Kusuma Wardhana, 2021) that the Debt-to-Equity Ratio (DER) has a positive effect on financial distress, in contrast to the findings of (Gyarteng, 2021) and (Wijaya & Suhendah, 2023) which states that the debt-to-equity ratio has a negative effect on financial distress.

For the purpose of this study, we reject Hypotheses 3 and 4 since the Independent Commissioners GCG moderating variable does not affect the link between the Current Ratio and the Debt-to-Equity Ratio in relation to financial crisis. Based on signaling theory, Independent Commissioners are seen as a good signal. However, this analysis reveals that the CR and DER send extremely unfavorable signals. Since external factors, such as global commodity prices and policies, often have a more significant impact on mining companies' financial distress, the high value of Independent Commissioners in this study of mining companies is not sufficient to mitigate this risk. In line with the claims made by (Sari & Rohman, 2023) "our study confirms that GCG is unable to mitigate the correlation between liquidity, leverage, and financial hardship". This goes against what (Herwiyanti et al., 2023) discovered, "which is that GCG can mitigate the correlation between liquidity, leverage, and financial hardship. The difference in results is due to the use of different proxies for the GCG variable; in the aforementioned studies, both used managerial ownership as a proxy, whereas this study uses independent commissioners."

4. Conclusion

We hope to learn how liquidity (the current ratio), leverage (the debt-to-equity ratio), and corporate governance (the number of independent commissioners) all play a role in the occurrence of financial trouble by conducting this study. From 2020–2024, eight mining sector businesses listed on the IDX provided the forty data points included in this analysis. According to this study's findings, a low debt-to-equity ratio and high current ratio significantly reduce financial distress. At the same time, the link between financial hardship, the debt-to-equity ratio, and the current ratio is unaffected by the moderating variable GCG (Independent Commissioners).

Limitations of this study include the research focus on companies in the mining sector, and the sample collected over five years is not very large, resulting in a limited sample size. Additionally, the study's variables are limited to only two independent variables and one moderating variable.

A suggestion for future research is to use different sectors, such as the property and real estate sector, and other manufacturing sectors. Future research is also expected to include additional independent variables and moderating variables.

References

- Amalia, N. N., & Trisnaningsih, S. (2023). Pengaruh Leverage, Likuiditas dan Ukuran Perusahaan Terhadap inancial Distress. *Jambura Economic Education Journal*, 5(2). <https://ejurnal.ung.ac.id/index.php/jej/index>,
- Atika Widyo Ramadani, D. R. (2023). PREDIKSI KESULITAN KEUANGAN: PERAN RASIO KEUANGAN DAN UKURAN PERUSAHAAN. *Jurnal Riset Akuntansi*

Kontemporer, 15, 19–26.

- Atun Iswari, B. N. (2020). *Jurnal Nusantara Aplikasi Manajemen Bisnis Analisis rasio keuangan untuk memprediksi financial distress pada perusahaan pertambangan di Indonesia Jurnal Nusantara Aplikasi Manajemen Bisnis*. 5(1), 13–20.
- Fuji Fiolin Gultom, D. H. (2025). *Pengaruh Likuiditas dan Leverage Terhadap Financial Distress dengan Profitabilitas sebagai Variabel Moderasi pada Perusahaan Pertambangan di Bursa Efek Indonesia Periode 2017-2023 (BEI) sebab adanya fenomena-fenomena tertentu yang terjadi di sector t*. 5(April).
- Gyarteng, K. A. (2021). Corporate Financial Distress: The Impact of Profitability, Liquidity, Asset Productivity, Activity and Solvency. *Journal of Accounting, Business and Management (JABM)*, 28(2), 104–115.
- Herwiyanti, E., Jamperryanto, Y. D., Riyanto, J., & Wijaya, T. (2023). *Peran Moderasi Tata Kelola Perusahaan yang Baik terhadap Hubungan antara Rasio Keuangan dan Keuangan Kesulitan*. 8, 37–44.
- Idawati, Wiwi ., Aditya Kusuma Wardhana. (2021). Analysis of Financial Distress with Profitability as Moderation Variable. *Jurnal Akuntansi*, 25(2), 222. <https://doi.org/10.24912/ja.v25i2.807>
- MASRUROH, I., SANUSI, F., & PURBASARI, I. (2025). The Influence of Liquidity and Leverage on Financial Distress With Profitability as Moderating Variables in Property and Real Estate Companies Listed on The IDX Period 2019-2023. *Journal of Governance, Taxation and Auditing*, 4(1), 31–46. <https://doi.org/10.38142/jogta.v4i1.1462>
- Nophiyanti A, Nia Natia, A. K. (2021). *THE EFFECT OF LIQUIDITY AND POROFITABILITY ON FINANCIAL DISTRESS WITH COMPANY AGE AS A MODERATING VARIABLE*. 32(3), 167–186.
- Oktaviani, N. D. D., & Lisiantara, G. A. (2022). Pengaruh Profitabilitas, Likuiditas, Aktivitas, Leverage, dan Sales Growth Terhadap Financial Distress. *Owner*, 6(3), 1649–1559. <https://doi.org/10.33395/owner.v6i3.944>
- Permatasari, M., B, N. N., & Nugroho, S. (2023). *Pengaruh Rasio Keuangan dan Kinerja Baik Tata Kelola Perusahaan dalam Situasi Keuangan Sulit : Komisioner Independen sebagai Moderator I Pendahuluan*. 321–336.
- Sari, Q. M., & Rohman, A. (2023). Pengaruh Rasio Keuangan terhadap Financial Distress dengan Good Corporate Governance sebagai Variabel Moderating. *Diponegoro Journal of Accounting*, 12(4), 1–15. <http://ejournal-s1.undip.ac.id/index.php/accounting>
- Sinaga, K., Nelyumna, & Basis Gumilarsih. (2025). Pengaruh Rasio Profitabilitas, Likuiditas Dan Solvabilitas Terhadap Financial Distress Pada Perusahaan Pertambangan Yang Terdaftar Di Bursa Efek Indonesia Periode 2020-2023. *Jurnal Ilmiah Akuntansi Pancasila (JIAP)*, 5(1), 1–10. <https://doi.org/10.35814/jiap.v5i1.7361>
- Theinvestor.id. (2024). Harga Komoditas Mayoritasnya Melemah, Apa Penyebabnya?. *Theinvestor*. <https://theinvestor.id/artikel/harga-komoditas-mayoritasnya-melemah-apa-penyebabnya/>
- Wijaya, J., & Suhendah, R. (2023). Pengaruh Likuiditas, Leverage, Dan Arus Kas Terhadap Financial Distress. *Jurnal Ekonomi*, 28(2), 177–196. <https://doi.org/10.24912/je.v28i2.1468>