

Financial Performance Dynamics in the Capital-Intensive Raw Materials Sector: A Liquidity-Moderated Approach

^{1*}Muhammad Dzaki, ²Nurul Hamidah, ³Junaina Jaidi

^{1*}Sekolah Tinggi Ilmu Ekonomi Tri Bhakti, Bekasi, Indonesia

²Universitas Indraprasta PGRI, Jakarta, Indonesia

²Universiti Malaysia Sabah, Sabah, Malaysia

Email : ²nurulhamidah83846@gmail.com; ³nenjaidi@ums.edu.my

Corresponding author e-mail: ^{1*}muhdzaki2406@gmail.com

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Abstract

Purpose – This study aimed to examine the effects of Operational Efficiency and Capital Structure on Financial Performance and to investigate the moderating role of Liquidity in these relationships in Basic Materials companies listed on the Indonesia Stock Exchange. The study was motivated by inconsistent empirical findings regarding the determinants of Financial Performance and the limited evidence concerning the role of Liquidity as a moderating variable.

Design/methodology/approach – This study employed a quantitative explanatory research design using secondary data obtained from annual reports and financial statements of Basic Materials companies listed on the Indonesia Stock Exchange during 2021–2025. The sample was selected using purposive sampling. Panel data regression was employed to examine the effects of Operational Efficiency and Capital Structure on Financial Performance, while interaction terms were used to test the moderating effects of Liquidity.

Findings – The results showed that Operational Efficiency had a positive and significant effect on Financial Performance, whereas Capital Structure did not have a significant effect. Liquidity also did not have a significant direct effect on Financial Performance. Furthermore, Liquidity did not significantly moderate the relationship between Capital Structure and Financial Performance or the relationship between Operational Efficiency and Financial Performance. These findings indicate that Financial Performance in Basic Materials companies is more closely associated with firm size and efficient asset utilization, while Liquidity does not significantly alter the effects of Capital Structure and Operational Efficiency on Financial Performance.

Research limitations/implications – This study was limited to Basic Materials companies listed on the Indonesia Stock Exchange during 2021–2025. The findings imply that companies should improve asset utilization and maintain appropriate Liquidity while managing their financing structure. Future research should extend the observation period, examine other industrial sectors, and incorporate additional financial and non-financial variables to provide a broader explanation of Financial Performance.

JEL : M41, G30, H26

INTRODUCTION

Financial performance is an important indicator for assessing a company's ability to manage its resources and generate profits. In the Basic Materials sector, company performance faces diverse business dynamics. In the first quarter of 2025, the Basic Materials sector recorded higher profit growth than sales growth, indicating improvements in companies' ability to control costs and increase profit margins (Malik, 2025). However, this condition was not evenly distributed across subsectors, as the cement and building materials subsector continued to face pressure from excess production capacity, weak domestic demand, and increasingly intense price competition (Pratama, 2024). These conditions suggest that Financial Performance in the Basic Materials sector cannot be understood solely through general financial ratios but should also be considered within the sector's specific operating environment.

One important financial decision concerns Capital Structure, which determines the proportion of debt and equity used to finance company activities. Trade-Off Theory suggests that companies balance the benefits of debt financing against the costs of financial distress and financial risk (Kraus & Litzenberger, 1973). In a sector where companies require substantial resources to support production and business activities, financing decisions may have implications for financial flexibility and profitability. However, empirical evidence remains inconsistent. Ritonga et al. (2021) found that Capital Structure, measured by the Debt to Equity Ratio (DER), had no significant effect on Return on Assets (ROA), whereas Dewi & Sedana (2024) and Nabiilah & Ghofar (2025) reported a positive relationship. These inconsistencies indicate that the effect of financing structure may depend on the characteristics and financial conditions of the companies being examined.

In addition to financing decisions, the ability to utilize assets efficiently is particularly relevant to Financial Performance. Operational Efficiency, measured by Total Asset Turnover (TATO), reflects the extent to which company assets are utilized to generate sales. Agency Theory views efficient resource utilization as an indication of management's ability to minimize inefficient resource use and create value for shareholders (Jensen & Meckling, 1976). The relevance of this relationship becomes more important in the Basic Materials sector because differences in production capacity, demand conditions, and competitive pressure may affect the extent to which assets can be converted into sales and ultimately into profits. Evidence from PT Barito Pacific Tbk and PT Semen Indonesia Tbk also illustrates that changes in Operational Efficiency and Liquidity may occur alongside changes in Financial Performance.

Liquidity represents another dimension of corporate financial flexibility. The Current Ratio (CR) reflects the company's ability to meet short-term obligations using current assets (Brigham & Houston, 2019). However, a high level of Liquidity does not necessarily translate into higher profitability because current assets may not always be utilized productively. This issue is particularly relevant when companies face changing operational requirements, because maintaining liquidity involves balancing short-term financial security with the productive use of resources. Previous studies have reported inconsistent findings regarding the effect of Liquidity on Financial Performance. Nawangsari & Nurani (2026) and Calvin Gunawan et al. (2022) found no significant effect, whereas Affi & As'ari (2023) reported a negative effect. These differences suggest that Liquidity may not operate as a universal determinant of Financial Performance across different corporate and industry contexts.

These differences indicate that the relationships between Capital Structure, Operational Efficiency, Liquidity, and Financial Performance remain inconclusive. Furthermore, Liquidity is relevant not only as a factor directly associated with Financial Performance but also as a potential factor that changes the strength of the relationship between internal company factors and Financial Performance. Conceptually, adequate Liquidity can provide companies with flexibility in conducting operational activities and meeting short-term obligations, while excessive Liquidity may create opportunity costs because some current assets may remain unproductive.

The existing literature has extensively examined Capital Structure, Operational Efficiency, and Liquidity as individual determinants of Financial Performance. However, limited attention has been given to whether Liquidity changes the relationships between financing decisions, asset utilization, and Financial Performance. This issue is particularly relevant because Liquidity represents not only a company's ability to meet short-term obligations but also the financial flexibility available to support operational activities. Therefore, examining Liquidity as a potential moderating condition may provide a different perspective on how Capital Structure and Operational Efficiency are translated into Financial Performance.

The Basic Materials sector provides a relevant context for examining this relationship because companies in this sector may face differences in production capacity, demand conditions, production costs, and competitive pressure. Such conditions may influence how financing decisions and asset utilization affect Financial Performance. Consequently, relationships identified in other sectors may not necessarily operate in the same manner among Basic Materials companies. This sector-specific context provides an opportunity to examine whether Liquidity strengthens or weakens the relationships between Capital Structure, Operational Efficiency, and Financial Performance.

Accordingly, this study aims to examine the effects of Capital Structure and Operational Efficiency on Financial Performance, the direct effect of Liquidity on Financial Performance, and the moderating role of Liquidity in the relationships between Capital Structure, Operational Efficiency, and Financial Performance among Basic Materials companies listed on the Indonesia Stock Exchange during 2021–2025. The contribution of this study is to provide sector-specific empirical evidence on whether Liquidity functions as a conditioning factor in these relationships, rather than assuming that higher Liquidity necessarily leads to better Financial Performance.

LITERATURE REVIEW

Trade-Off Theory

Trade-Off Theory explains that companies determine their financing structure by balancing the benefits and costs of debt. Myers (1984) explains that the static trade-off framework considers an optimal debt level by balancing the benefits of borrowing against the costs of financial distress. This theory is relevant to this study because the use of debt affects the company's financial risk and financial flexibility. In addition, the theory is used to explain Capital Structure and Liquidity because companies need to balance the use of external financing with their ability to maintain sufficient liquid resources to meet financial obligations.

Thus, an appropriate balance between financing and liquidity is expected to support better Financial Performance.

Agency Theory

Agency Theory explains the relationship between shareholders as principals and managers as agents who are responsible for managing company resources. Fama & Jensen (1983) explain that the separation between ownership and management can create agency problems and agency costs because managers may have interests that differ from those of shareholders. This theory is relevant to this study because management is responsible for utilizing company resources efficiently and achieving the interests of shareholders. Therefore, Operational Efficiency reflects management's ability to manage resources effectively, while Financial Performance represents the outcome of management's ability to utilize those resources in achieving company objectives.

Sector-Specific Financial Mechanism in Basic Materials

The financial relationships examined in this study should be considered within the operating characteristics of the Basic Materials sector. Companies in this sector may face differences in production capacity, domestic demand, and competitive pressure, which can influence the conversion of financial resources and productive assets into sales and profitability. The sector's operating conditions are therefore relevant when assessing whether conventional financial relationships observed across industries remain applicable to Basic Materials companies.

From the perspective of Trade-Off Theory, Capital Structure is determined by balancing the benefits of debt financing against financial risk and financial distress costs. However, the effect of debt on Financial Performance may depend on whether financing can be translated into productive business activities. Liquidity may provide short-term financial flexibility, but financial flexibility does not necessarily mean that additional resources will generate higher profitability. From the perspective of Agency Theory, Operational Efficiency reflects management's ability to utilize company resources effectively. Higher asset turnover indicates that assets are being used to generate sales more intensively. Nevertheless, the financial benefit of efficient asset utilization may depend on the company's ability to maintain operational continuity and manage short-term financial requirements. Liquidity can theoretically provide such flexibility, but whether this flexibility actually changes the relationship between asset utilization and Financial Performance remains an empirical question. Therefore, this study treats Liquidity as a potential boundary condition rather than assuming that higher Liquidity automatically improves the effect of Capital Structure or Operational Efficiency on Financial Performance. This sector-specific perspective provides the basis for testing whether the moderating mechanism proposed by conventional financial theory is supported among Indonesian Basic Materials companies.

Capital Structure

Capital Structure refers to the composition of financing used by a company to finance

its assets and operational activities, particularly the proportion of debt and equity. Mardiyanto (2009) defines Capital Structure as the composition of funds used by a company to finance its activities, while in this study Capital Structure is measured using the Debt to Equity Ratio (DER). Based on Trade-Off Theory, companies need to determine an appropriate balance between debt and equity because debt can provide financing benefits but can also increase financial risk when used excessively.

Operational Efficiency

Operational Efficiency refers to the company's ability to utilize its resources effectively to produce output with the most appropriate use of inputs. Farrel (1957) explains efficiency as the ability of a production unit to produce a certain level of output using the minimum possible inputs, while Brigham and Houston (2019) explain that Total Asset Turnover (TATO) reflects the effectiveness of asset utilization in generating sales. In this study, Operational Efficiency is measured using TATO. Based on Agency Theory, Operational Efficiency reflects management's ability to utilize company resources effectively and minimize inefficient resource use.

Liquidity

Liquidity refers to the company's ability to meet its short-term obligations using its current assets (Gitman, 2015). Brigham and Houston (2019) explain that liquidity reflects the relationship between current assets and current liabilities. In this study, Liquidity is measured using the Current Ratio (CR), which compares current assets with current liabilities. A higher CR indicates a better ability of the company to meet its short-term obligations (Brigham & Houston, 2019).

Financial Performance

Financial performance reflects how well or poorly a company manages its financial resources to achieve its established objectives (Indika & Hermawan, 2026). In this study, financial performance is measured using Return on Assets (ROA), which reflects the company's ability to generate profit from its assets. The use of ROA indicates the effectiveness of the company in managing its assets to generate profits (Brigham & Houston, 2019). Based on Agency Theory, financial performance reflects the effectiveness of management as the agent in managing company resources to achieve the interests of shareholders as the principal (Jensen & Meckling, 1976). Thus, higher financial performance indicates greater effectiveness in managing the company's resources.

Hypotheses development

The Effect of Capital Structure on Financial Performance

Capital Structure refers to the proportion of long-term debt and equity used by a company to finance its operational activities and investments (Mardiyanto, 2009). Based on

Trade-Off Theory, companies seek an optimal capital structure by balancing the benefits and costs of debt. The use of debt can provide tax-shield benefits and additional financing for operational and investment activities, while excessive debt may increase financial distress and financial risk (Kraus & Litzenberger, 1973). Therefore, an appropriately managed Capital Structure is expected to improve the effectiveness of financing and support Financial Performance. This relationship is supported by (Az-Zahra et al., 2026; Dewi & Sedana, 2024; Nabiilah & Ghofar, 2025), who found that Capital Structure has a positive effect on Financial Performance. Accordingly, the proposed hypothesis is:

H₁: Capital Structure has a positive effect on Financial Performance.

The Effect of Operational Efficiency on Financial Performance

Operational Efficiency refers to the company's ability to conduct operational activities effectively by utilizing resources optimally to produce maximum output at minimum cost (Darmawan et al., 2023). From the perspective of Agency Theory, efficient resource management reflects management's ability to minimize waste and agency costs while maximizing the interests of shareholders (Jensen & Meckling, 1976). Higher Operational Efficiency enables companies to control costs, optimize asset utilization, and increase productivity, thereby supporting higher profitability and Financial Performance. This relationship is supported by (Indika & Hermawan, 2026; Khairi & Tugiantoro, 2026; Sabila & Purwoko, 2026), who found that Operational Efficiency has a positive effect on Financial Performance. Accordingly, the proposed hypothesis is:

H₂: Operational Efficiency has a positive effect on Financial Performance.

The Effect of Liquidity on Financial Performance

Liquidity refers to the company's ability to meet its short-term financial obligations using its current assets (Septiana, 2019). Based on Trade-Off Theory, companies need to maintain an optimal level of Liquidity by balancing the ability to meet short-term obligations with the productive use of current assets. Adequate Liquidity can reduce financial distress, maintain operational stability, and support working capital management, whereas excessive Liquidity may create opportunity costs because some current assets may not be utilized productively. Therefore, optimal Liquidity is expected to support profitability and Financial Performance. This relationship is supported by (Nurzaeni et al., 2023), who found that Liquidity has a positive effect on Financial Performance. Accordingly, the proposed hypothesis is:

H₃: Liquidity has a positive effect on Financial Performance.

The Moderating Role of Liquidity in the Effect of Capital Structure on Financial Performance

Capital Structure determines how companies finance their assets and operational activities, while Liquidity represents their ability to meet short-term financial obligations. According to Trade-Off Theory, debt provides potential financing benefits but also increases financial obligations and financial distress risk when used excessively (Kraus & Litzenberger,

1973). Liquidity may provide financial flexibility that enables companies to meet short-term obligations associated with debt financing. This consideration is relevant for Basic Materials companies because differences in production capacity, demand conditions, and competitive pressure may require companies to maintain sufficient financial flexibility while managing their financing structure. However, financial flexibility does not necessarily translate into higher Financial Performance. Liquidity may reduce short-term financial pressure, but it may also represent resources that have not been allocated productively. Therefore, whether Liquidity changes the effect of Capital Structure on Financial Performance represents an empirical question in the Basic Materials context. Based on the Trade-Off Theory and the financial characteristics of the sector, higher Liquidity is expected to strengthen the positive effect of Capital Structure on Financial Performance.

H₄: Liquidity strengthens the positive effect of Capital Structure on Financial Performance.

The Moderating Role of Liquidity in the Effect of Operational Efficiency on Financial Performance

Operational Efficiency reflects management's ability to utilize company resources effectively, while Total Asset Turnover indicates the ability of company assets to generate sales. From the perspective of Agency Theory, efficient resource utilization reflects management's ability to reduce inefficient resource use and improve outcomes for shareholders (Jensen & Meckling, 1976). In the Basic Materials sector, the relationship between asset utilization and Financial Performance may be particularly relevant because differences in production capacity, domestic demand, and competitive pressure can affect the ability of companies to convert asset utilization into profitable sales. Liquidity may theoretically influence this relationship by providing short-term financial flexibility to support operational activities. Adequate Liquidity may enable companies to maintain working capital and operational continuity, potentially allowing the benefits of efficient asset utilization to be realized more effectively. However, excessive Liquidity may also indicate that resources remain in current assets without being productively deployed. Therefore, the moderating role of Liquidity should be evaluated empirically rather than assumed to be universally beneficial. Based on Agency Theory and the sector-specific operating context, higher Liquidity is expected to strengthen the positive relationship between Operational Efficiency and Financial Performance.

H₅: Liquidity strengthens the positive effect of Operational Efficiency on Financial Performance.

RESEARCH METHOD

Research Design

This study uses a quantitative approach with a causal research design to examine the effect of Capital Structure, Operational Efficiency, and Liquidity on Financial Performance. Liquidity is also examined as a moderating variable in the relationship between Capital Structure and Operational Efficiency with Financial Performance. The study uses panel data, which combines cross-sectional and time-series data, to obtain a broader observation of the

companies during the research period. Panel data regression is used because it combines observations across companies and periods in a single analytical model.

Population and Sample

The population of this study consists of 114 companies in the Basic Materials sector listed on the Indonesia Stock Exchange as of December 31, 2025. The sample was selected using a purposive sampling technique based on predetermined criteria.

1. Companies that were not listed on the Indonesia Stock Exchange during 2021–2025 were excluded.
2. Companies that did not submit annual reports that could be used for the research period were excluded.
3. Companies that did not report profits during 2021–2025 were excluded.

Based on these criteria, 44 companies were selected as the research sample, resulting in 220 observations from five years of observation.

Data Source

This study uses secondary data obtained from the annual reports of Basic Materials sector companies listed on the Indonesia Stock Exchange for the 2021–2025 period. The data were obtained from the official websites of the respective companies and the Indonesia Stock Exchange website. The use of secondary data is appropriate because the variables examined in this study, including Capital Structure, Operational Efficiency, Liquidity, and Financial Performance, can be measured using information reported in companies' financial and annual reports.

Data Collection Method

Data collection was conducted through library research and field research. Library research was carried out by reviewing relevant books, scientific journals, and other references related to the research topic. Field research involved collecting secondary data from published and audited financial and annual reports of Basic Materials sector companies through company websites and the Indonesia Stock Exchange.

Table 1. Measurement of Variables

Concept	Variable	Measurement	Source
Dependent Variable	Financial Performance	$\frac{\text{Net Profit}}{\text{Total Assets}}$	(Indika & Hermawan, 2026)
Independent Variable	Capital Structure	$\frac{\text{Total Liabilities}}{\text{Total Equity}}$	(Nabiilah & Ghofar, 2025)

Moderating Variable	Operational Efficiency	Liquidity	Net Sales	(Retnowati & Cahyani Putri, 2024)
			Total Assets	
			Current Assets	(Humaira & Delvianti, 2026)
			Current Liabilities	

Source: Processed data (2026)

Capital Structure is measured using the Debt to Equity Ratio (DER), which represents the proportion of debt relative to shareholders' equity. Operational Efficiency is measured using Total Asset Turnover (TATO), which indicates the effectiveness of asset utilization in generating sales. Liquidity is measured using the Current Ratio (CR), which represents the company's ability to meet short-term obligations using current assets. Financial Performance is measured using Return on Assets (ROA), which reflects the company's ability to generate profit from its total assets.

RESULTS

Table 2 Descriptive Statistics

Variable	N	Min	Max	Mean	Std.Dev
C	220	1.000	1.000	1.000	0.000
DER	220	0.019	2.186	0.576	0.474
TATO	220	0.011	5.764	0.896	0.836
CR	220	0.393	467.128	5.708	31.485
ROA	220	0.000	0.395	0.067	0.060

Explanatory :

DER (Capital Structure), TATO (Operational Efficiency), CR (Liquidity), ROA (Financial Performance)

Source: Eviews9 Data Processing (2026)

Based on the descriptive statistical analysis, all variables consist of 220 observations. Capital Structure, proxied by the Debt to Equity Ratio (DER), has a minimum value of 0.019 and a maximum value of 2.186, with a mean of 0.576 and a standard deviation of 0.474. This indicates that the level of debt relative to equity varies across the sampled companies. Operational Efficiency, proxied by Total Asset Turnover (TATO), has a minimum value of 0.011 and a maximum value of 5.764, with a mean of 0.896 and a standard deviation of 0.836. This indicates differences in the companies' ability to utilize their assets to generate sales. Meanwhile, Liquidity, proxied by the Current Ratio (CR), has a minimum value of 0.393 and a maximum value of 467.128, with a mean of 5.708 and a standard deviation of 31.485. The wide range and relatively high standard deviation indicate substantial variation in the liquidity levels of the sampled companies. Financial Performance, proxied by Return on Assets (ROA), has a minimum value of 0.000 and a maximum value of 0.395, with a mean of 0.067 and a standard deviation of 0.060. This indicates that the ability of companies to generate profits from their assets varies across the sample. Overall, the descriptive statistics indicate considerable differences in the characteristics and financial conditions of the companies included in the

study.

Selection of the Best Panel Data Model

Chow Test

Decision-making criteria and based on the value of F calculated:

- If the probability (Prob) on the cross-section $F < 0.05$ and if F calculates $> F$ table then a better model is Fixed Effect.
- If the probability (Prob) on the Cross Section F is > 0.05 and If F is calculated $< F$ table then a better model is Common Effect

Table 3. Uji Chow

Effects Test	Statistic	d.f.	Prob.
Cross-section F	7.514801	(43,171)	0.0000
Cross-section Chi-square	233.452592	43	0.0000

Source: Eviews9 Data Processing (2026)

Based on the results of the Chow Test using EViews 9, the probability value of the Cross-section F is 0.0000. This value is lower than the significance level ($\alpha = 0.05$). Therefore, the null hypothesis (H_0), which indicates that the Common Effect Model (CEM) is the appropriate model, is rejected. Thus, the Fixed Effect Model (FEM) is considered more appropriate than the Common Effect Model (CEM). Consequently, the Hausman Test is required to determine the most appropriate model between the Fixed Effect Model (FEM) and the Random Effect Model (REM).

Hausman Test

Decision-making criteria and based on the value of F calculated:

- If the probability on the Cross Section Random > 0.05 , then the better model is the Random Effect Model (REM).
- If the probability on Cross Section Random < 0.05 , then the better model is the Fixed Effect Model (FEM).

Table 4. Uji Hausman

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	38.401256	5	0.0000

Source: Eviews9 Data Processing (2026)

Based on the results of the Hausman Test, the probability value of the Cross-section

Random is 0.0000. This value is lower than the significance level ($\alpha = 0.05$). Therefore, the null hypothesis (H_0), which indicates that the Random Effect Model (REM) is the appropriate model, is rejected. Thus, the Fixed Effect Model (FEM) is considered more appropriate than the Random Effect Model (REM). Based on the results of the Chow Test and Hausman Test, the Fixed Effect Model (FEM) is selected as the most appropriate panel data regression model for this study.

Table 5. Hypothesis Test Result

Variable	Prediction	Coefficient	T-Statistic	Prob.
C		-0.031855	-1.899458	0.0592
DER	+	-0.003247	-0.166619	0.8679
TATO	+	0.111921	6.797285	0.0000
CR	+	-1.42E-05	-0.069663	0.9445
DER*CR	+	-0.004338	-0.383759	0.7016
TATO*CR	+	0.002077	0.765631	0.4450

Explanatory :

DER (Capital Structure), TATO (Operational Efficiency), CR (Liquidity), ROA (Financial Performance)

Source: Eviews9 Data Processing (2026)

Debt to Equity Ratio has a positive effect on Financial Performance

The first hypothesis (H_1) proposed in this study states that Debt to Equity Ratio (DER) has a positive effect on Financial Performance. The results show a regression coefficient of -0.003247, indicating a negative direction of influence, which is inconsistent with the proposed hypothesis. The t-statistic is -0.166619, with a probability value of 0.8679, which is greater than the significance level of 0.05 (5%). Thus, Debt to Equity Ratio has a negative and insignificant effect on Financial Performance. Therefore, H_1 is rejected and H_0 is accepted. This indicates that changes in the level of debt relative to equity do not significantly affect the company's Financial Performance.

Total Asset Turnover has a positive effect on Financial Performance

The second hypothesis (H_2) proposed in this study states that Total Asset Turnover (TATO) has a positive effect on Financial Performance. The results show a regression coefficient of 0.111921, indicating a positive direction of influence, which is consistent with the proposed hypothesis. The t-statistic is 6.797285, with a probability value of 0.0000, which is smaller than the significance level of 0.05 (5%). Thus, Total Asset Turnover has a positive and significant effect on Financial Performance. Therefore, H_2 is accepted and H_0 is rejected. This indicates that companies with higher asset utilization efficiency tend to achieve better Financial Performance.

Current Ratio has a positive effect on Financial Performance

The third hypothesis (H_3) proposed in this study states that Current Ratio (CR) has a

positive effect on Financial Performance. The results show a regression coefficient of $-1.42E-05$, indicating a negative direction of influence, which is inconsistent with the proposed hypothesis. The t-statistic is -0.069663 , with a probability value of 0.9445 , which is greater than the significance level of 0.05 (5%). Thus, Current Ratio has a negative and insignificant effect on Financial Performance. Therefore, H3 is rejected and H0 is accepted. This indicates that the level of current assets relative to current liabilities does not significantly affect the company's Financial Performance.

Liquidity moderates the effect of Debt to Equity Ratio on Financial Performance

The fourth hypothesis (H4) proposed in this study states that Liquidity moderates the effect of Debt to Equity Ratio (DER) on Financial Performance. The results show a regression coefficient of -0.004338 , indicating a negative interaction effect. However, the t-statistic is -0.383759 , with a probability value of 0.7016 , which is greater than the significance level of 0.05 (5%). Thus, the interaction between Debt to Equity Ratio and Current Ratio (DER*CR) does not have a significant effect on Financial Performance. Therefore, H4 is rejected and H0 is accepted. This indicates that Liquidity does not significantly moderate the relationship between Debt to Equity Ratio and Financial Performance.

Liquidity moderates the effect of Total Asset Turnover on Financial Performance

The fifth hypothesis (H5) proposed in this study states that Liquidity moderates the effect of Total Asset Turnover (TATO) on Financial Performance. The results show a regression coefficient of 0.002077 , indicating a positive direction of the interaction effect, which is consistent with the proposed hypothesis. The t-statistic is 0.765631 , with a probability value of 0.4450 , which is greater than the significance level of 0.05 (5%). Thus, the interaction between Total Asset Turnover and Current Ratio (TATO*CR) has a positive but insignificant effect on Financial Performance. Therefore, H5 is rejected and H0 is accepted. This indicates that Liquidity does not significantly moderate the relationship between Total Asset Turnover and Financial Performance.

Coefficient of Determination Test

Table 6. Coefficient of Determination Test

R-squared	0.711225	Mean dependent var	0.067260
Adjusted R-squared	0.630165	S.D. dependent var	0.059662
S.E. of regression	0.036283	Akaike info criterion	-3.601440
Sum squared resid	0.225115	Schwarz criterion	-2.845586
Log likelihood	445.1583	Hannan-Quinn criter.	-3.296206
F-statistic	8.774075	Durbin-Watson stat	1.844249
Prob(F-statistic)	0.000000		

Source: Eviews9 Data Processing (2026)

The coefficient of determination test shows an R-squared value of 0.711225 and an Adjusted R-squared value of 0.630165. This indicates that Capital Structure, Operational Efficiency, Liquidity, and the interaction variables explain 63.02% of the variation in Financial Performance after adjustment for the predictors included in the model, while the remaining 36.98% is explained by factors outside the research model. Furthermore, the F-statistic value of 8.774075 with a probability value of 0.000000 indicates that the model is statistically significant. Thus, the variables included in the model jointly provide explanatory information for Financial Performance.

DISCUSSIONS

The Influence of Capital Structure on Financial Performance

Based on the partial test results, the first hypothesis (H1) is rejected, indicating that Capital Structure has a negative and insignificant influence on Financial Performance. This finding indicates that changes in the proportion of debt and equity do not significantly affect Financial Performance. Based on Trade-Off Theory, debt can provide financing benefits but may also increase financial risk and financial obligations. Therefore, the use of debt in the company's capital structure does not necessarily improve Financial Performance. This finding is consistent with Andini & Imronudin (2026), who found that capital structure does not significantly affect Financial Performance. However, it differs from (Az-Zahra et al., 2026; Dewi & Sedana, 2024; Nabiilah & Ghofar, 2025), which found a positive influence of capital structure on Financial Performance.

The Influence of Operational Efficiency on Financial Performance

Based on the partial test results, the second hypothesis (H2) is accepted, indicating that Operational Efficiency has a positive and significant influence on Financial Performance. This finding suggests that companies with higher operational efficiency are better able to utilize their assets to support business activities and generate sales, which ultimately contributes to improved profitability and Financial Performance. Effective utilization of company assets allows resources to be used more productively, so the company can generate greater returns from the assets it owns. Therefore, the more efficiently a company manages and utilizes its operational resources, the greater its ability to improve Financial Performance. This finding is consistent with (Indika & Hermawan, 2026; Khairi & Tugiantoro, 2026; Sabila & Purwoko, 2026), who found that Operational Efficiency has a positive relationship with Financial Performance.

The Influence of Liquidity on Financial Performance

Based on the partial test results, the third hypothesis (H3) is rejected, indicating that Liquidity has a negative and insignificant influence on Financial Performance. This finding suggests that the company's ability to meet its short-term obligations does not significantly determine its Financial Performance. A higher level of Liquidity does not necessarily lead to higher profitability because excessive current assets may indicate that some company

resources are not being utilized productively to support business activities. Conversely, maintaining liquidity at an appropriate level allows companies to fulfill their short-term obligations while still utilizing their resources efficiently. Therefore, liquidity alone is not sufficient to improve Financial Performance, as profitability is also influenced by how effectively the company manages and utilizes its resources. This finding is consistent with (Calvin Gunawan et al., 2022; Humaira & Delvianti, 2026; Nawangsari & Nurani, 2026), which found that Liquidity does not significantly affect Financial Performance.

The Moderating Role of Liquidity in the Relationship between Capital Structure and Financial Performance

The results indicate that Liquidity does not significantly moderate the relationship between Capital Structure and Financial Performance. From the perspective of Trade-Off Theory, Liquidity may provide financial flexibility that enables companies to meet short-term obligations associated with debt financing. However, the availability of current assets does not necessarily determine whether debt financing is allocated to productive activities that generate higher returns. Therefore, greater Liquidity may reduce short-term financial pressure without necessarily changing the economic consequences of the company's financing structure. This finding may also be related to the characteristics of the Basic Materials sector. Companies in this sector may require substantial resources for production capacity, inventories, and operational activities, while the financial consequences of debt financing may depend on how effectively the funds are allocated and utilized. Consequently, the relationship between Capital Structure and Financial Performance may be influenced more strongly by the productive use of financing, financial costs, and operating conditions than by the level of short-term liquidity. In addition, the Current Ratio may not fully capture the dimension of financial flexibility that is relevant to the moderating mechanism. The Current Ratio measures the relationship between current assets and current liabilities, but it does not directly indicate the quality, availability, or productive use of those current assets. Thus, a higher Current Ratio does not necessarily mean that a company has greater flexibility to convert financing into productive activities. This provides a possible explanation for why Liquidity, when measured using the Current Ratio, does not significantly change the relationship between Capital Structure and Financial Performance. Therefore, the finding does not support the expectation derived from Trade-Off Theory that higher Liquidity strengthens the effect of Capital Structure on Financial Performance. Instead, the evidence suggests that Liquidity and Capital Structure may operate through different financial mechanisms in the observed Basic Materials companies.

The Moderating Role of Liquidity in the Relationship between Operational Efficiency and Financial Performance

The results show that Liquidity does not significantly moderate the relationship between Operational Efficiency and Financial Performance. From the perspective of Agency Theory, Operational Efficiency reflects management's ability to utilize company resources effectively and reduce inefficient resource use. Although efficient asset utilization is expected to improve Financial Performance, the benefits of Operational Efficiency do not necessarily depend on the amount of short-term financial resources held by the company. One possible

explanation is that Operational Efficiency and Liquidity represent different dimensions of financial management. Total Asset Turnover reflects the effectiveness of productive assets in generating sales, whereas the Current Ratio primarily reflects the company's ability to meet short-term obligations. Consequently, an increase in current assets does not automatically improve the utilization of productive assets or strengthen the contribution of asset turnover to Financial Performance. The characteristics of the Basic Materials sector may also contribute to this result. Asset utilization in this sector can be affected by production capacity, demand conditions, inventory requirements, and competitive pressure. These factors may influence the ability of productive assets to generate sales more directly than the level of short-term liquidity. Therefore, higher Liquidity does not necessarily provide an additional mechanism through which efficient asset utilization translates into higher Financial Performance. Furthermore, the use of Current Ratio as a proxy for Liquidity may not fully represent the type of financial flexibility required to support productive asset utilization. Current Ratio measures the relationship between current assets and current liabilities but does not distinguish whether current assets are readily available or efficiently deployed in operational activities. Thus, the insignificant moderating effect may indicate that short-term liquidity, as captured by Current Ratio, is not sufficient to change the relationship between Operational Efficiency and Financial Performance. Accordingly, the finding does not support the Agency Theory-based expectation that greater Liquidity strengthens the benefits of efficient resource utilization. The evidence instead suggests that Operational Efficiency and Liquidity may influence Financial Performance through relatively distinct mechanisms in the observed Basic Materials companies.

CONCLUSIONS

This study examined the effects of Capital Structure and Operational Efficiency on Financial Performance and investigated the direct and moderating roles of Liquidity among Basic Materials companies listed on the Indonesia Stock Exchange during 2021–2025. The findings indicate that Capital Structure does not have a significant effect on Financial Performance, whereas Operational Efficiency has a positive and significant effect. Liquidity does not have a significant direct effect on Financial Performance and does not significantly moderate the relationship between Capital Structure and Financial Performance or between Operational Efficiency and Financial Performance. The findings indicate that Financial Performance in the observed Basic Materials companies is more closely associated with the effective utilization of productive assets than with the level of debt financing or short-term liquidity. The results also show that Liquidity does not automatically function as a conditioning factor that strengthens the effects of Capital Structure or Operational Efficiency on Financial Performance. Thus, the proposed moderating mechanism of Liquidity is not empirically supported within the observed sector and period. The findings have practical implications for management. Companies should focus on improving the utilization of productive assets and ensuring that financial resources are allocated to activities that support sales and profitability. Liquidity remains important for maintaining the ability to meet short-term obligations, but increasing current assets alone should not be considered sufficient to improve Financial Performance. Financing decisions should also consider the productive use of debt and the financial risks associated with the chosen capital structure. This study has



several limitations. First, the analysis is limited to Basic Materials companies listed on the Indonesia Stock Exchange during the 2021–2025 observation period. Second, the model includes a limited number of financial variables and does not directly incorporate external sector-specific factors such as commodity price movements, production costs, demand conditions, and other industry dynamics. Third, Liquidity is measured using the Current Ratio, which may not fully capture all dimensions of financial flexibility relevant to the moderating mechanism. Future research may extend the observation period and examine other industrial sectors or subsectors to determine whether the relationships remain consistent under different operating conditions. Future studies may also incorporate sector-specific variables such as commodity prices, production costs, demand conditions, or inventory characteristics. In addition, alternative measures of Liquidity or multiple liquidity indicators may be employed to examine whether different dimensions of financial flexibility produce different moderating effects.

REFERENCE

- Affi, F., & As'ari, H. (2023). The Effect Of Profitability , Solvency And Liquidity On Company's Financial Performance. *JKAM*, 5(1), 59–77.
- Andini, Y. S., & Imronudin. (2026). *Analysis of financial performance of industrial sector companies through liquidity, leverage and efficiency ratios*. 639–659.
- Az-Zahra, N., Winarni, D., Fitriati, A., & Mudjiyanti, R. (2026). Pengaruh Struktur Modal, Pengungkapan Emisi Karbon Dan, Biaya Lingkungan Terhadap Kinerja Keuangan. *Eduonomika*, 10(01), 1–19.
- Brigham, E. F., & Houston, J. F. (2019). *Fundamentals Of Financial Management 15e*. Cengage Learning.
- Calvin Gunawan, Sudarsi, S., & Aini, N. (2022). Pengaruh Likuiditas , Struktur Modal , Ukuran Perusahaan Keuangan Perusahaan Pada Industri Manufaktur Yang Terdaftar Di Bursa Efek Indonesia Pada Tahun 2018-2020. *Dakp*, 11(1), 31–40.
- Darmawan, G., Sari, A. P., Hudzaifa, A. M., Lahanda, H., Samsi, P., & Avicenna, M. Y. (2023). *Efisiensi Operasional Dengan Promodel: Panduan Teori Antrian*.
- Dewi, P. Y. C., & Sedana, I. B. P. (2024). Pengaruh Struktur Modal terhadap Kinerja Keuangan pada Perusahaan Sektor Industri Barang Konsumsi di BEI. *JBFE*, 5.
- Fama, E. F., & Jensen, M. C. (1983). *Separation Of Ownership And Control*. XXVI(June), 301–325.
- Farrel, M. J. (1957). *The Measurement Of Productive Efficiency*. 120(3), 253–290.
- Gitman, L. J. (2015). *Principles Of Managerial Finance*.
- Humaira, Y. F., & Delvianti. (2026). Analisis Pengaruh Likuiditas, Solvabilitas, Dan Rentabilitas Terhadap Kinerja Keuangan Pada Perusahaan Property & Real Estate Yang Terdaftar di Bursa Efek Indonesia (BEI) 2016-2018. *EPJA*, 4(1), 119–132.
- Indika, S. K., & Hermawan, H. (2026). Pengaruh Struktur Modal , Likuiditas Dan Efisiensi Operasional Terhadap Kinerja Keuangan Pada PT Surya Citra Media Tbk Periode 2014-2024. *JAEM*, 3(1).
- Jensen, M. C., & Meckling, W. H. (1976). *Theory of the Firm : Managerial Behavior , Agency Costs and Ownership Structure*.
- Khairi, M. A., & Tugiantoro. (2026). Pengaruh efisiensi operasional, pengelolaan persediaan, modal kerja dan pendanaan utang terhadap kinerja keuangan. *ARBUS*, 4(1), 14–29.

- Kraus, A., & Litzenberger, R. H. (1973). *A State-Preference Model Of Optimal Financial Leverage*. 911-922.
- Malik, A. (2025). *Laba ANTM , INCO hingga ARTO Naik Ratusan Persen , Ini Rekap Kinerja Emiten Kakap di Kuartal I 2025*. <https://www.bareksa.com/berita/saham/2025-05-16/laba-antm-inco-hingga-arto-naik-ratusan-persen-ini-rekap-kinerja-emiten-kakap-di-kuartal-i-2025>
- Mardiyanto, H. (2009). *Inti Sari Manajemen Keuangan*.
- Myers, S. C. (1984). *The Capital Structure Puzzle*. <https://doi.org/10.1111/j.1540-6261.1984.tb03646.x>
- Nabiilah, A. S. N., & Ghofar, A. (2025). Pengaruh Struktur Modal Terhadap Kinerja Keuangan Dengan Good Corporate Governance Sebagai Pemoderasi Sebelum Dan Sesudah Pandemi Covid-19. *Jumea*, 2.
- Nawangsari, D. S., & Nurani, B. K. (2026). Pengaruh Likuiditas, Aktivitas, Dan Leverage Terhadap Kinerja Perusahaan Property Dan Real Estate Di Bei Tahun 2020-2024. *Jmam*, 07(1), 53-66.
- Nurzaeni, Z. A., Wiyono, G., & Kusumawardhani, R. (2023). Pengaruh Likuiditas , Aktivitas dan Kebijakan Dividen terhadap Kinerja Keuangan pada Industri Sub Sektor Telekomunikasi di Bursa Efek Indonesia. *AL-KHARAJ*, 5(2), 575-591. <https://doi.org/10.47467/alkharaj.v5i2.1221>
- Pratama, A. (2024). *Kondisi Industri Semen Saat Tahun Politik 2024*. Info Brand. <https://infobrand.id/kondisi-industri-semen-saat-tahun-politik-2024.phtml>
- Retnowati, D., & Cahyani Putri, W. (2024). Pengaruh Investasi Hijau, Kinerja Lingkungan, Dan Profitabilitas Terhadap Carbon emission disclosure. *Jurnal Cendekia Ilmiah*, 3(5), 4411-4424. www.cnnindonesia.com
- Ritonga, S. A., Effendi, I., & Prayudi, A. (2021). The Effect of Capital Structure on the Financial Performance of Consumer Goods Companies on the BEI. *JIMBI*, 2(2), 86-95. <https://doi.org/10.31289/jimbi.v2i1.383>
- Sabila, S., & Purwoko, G. D. (2026). Pengaruh struktur modal dan efisiensi operasional terhadap kinerja keuangan pada pt chitose internasional tbk periode 2015-2024 1. *JIEM*, 4(3), 108-121.
- Septiana, A. (2019). *Analisis Laporan Keuangan: Konsep Dasar dan Deskripsi Laporan Keuangan*.