

THE EFFECT OF LEVERAGE, LIQUIDITY, AND COMPANY AGE ON TRANSFER PRICING WITH AUDIT QUALITY AS A MODERATING VARIABLE AND FINANCE PERFORMANCE AS A MEDIATION VARIABLE

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Abstract

This study investigates the effects of leverage, liquidity, and company age on transfer pricing practices, with audit quality as a moderating variable and financial performance as a mediating variable. The research objects are firms in the basic materials industry listed on the Indonesia Stock Exchange (IDX) over the 2021–2024 period. A quantitative approach was adopted, utilizing panel data regression techniques, while sample selection was conducted through purposive sampling based on predefined criteria. The empirical findings reveal that leverage and liquidity exhibit a significant positive effect on transfer pricing, whereas company age demonstrates no statistically significant influence. Audit quality was found to significantly amplify the relationship between leverage and transfer pricing, yet it did not moderate the associations involving liquidity or company age. Furthermore, financial performance significantly mediated the liquidity-transfer pricing nexus but did not serve as a mediator for leverage or company age. These results confirm that both internal financial conditions and external oversight mechanisms, particularly audit quality, play crucial roles in controlling transfer pricing practices within Indonesia's basic materials sector. The implications underscore the importance of strengthening audit functions and monitoring financial indicators to curb aggressive transfer pricing strategies, thereby informing regulatory and corporate governance policy enhancements.

Keywords: Transfer Pricing, Audit Quality, Financial Performance, Leverage, Liquidity

1. Introduction

Transfer pricing represents a fundamental aspect of corporate finance, referring to the mechanism by which multinational enterprises determine the pricing of goods, services, and intangible assets transferred among their affiliated entities or subsidiaries. This practice carries significant implications for profit allocation across different tax jurisdictions, thereby directly influencing corporate tax obligations and financial reporting outcomes. In Indonesia, transfer pricing has garnered increasing scrutiny from regulatory authorities and academics alike, particularly concerning its effects on financial transparency and tax compliance among publicly listed firms on the Indonesia Stock Exchange (Taji & Palupi, 2024). The inherent tension between tax minimization objectives and adherence to local regulatory frameworks frequently generates ethical dilemmas and complexities in financial statement presentation, compelling corporations to navigate carefully between strategic tax planning and regulatory compliance (Hanif AR et al., 2024).

The basic materials industry in Indonesia presents a compelling context for examining transfer pricing dynamics, especially during the 2021–2024 period. Prominent corporations such as PT Astra International Tbk and PT Indofood Sukses Makmur Tbk, which operate across consumer products and agricultural sectors, have strategically implemented transfer pricing mechanisms to maintain competitive advantage while concurrently managing liquidity positions and leverage ratios (Hanif AR et al., 2024). These enterprises face the dual challenge of preserving adequate liquidity amid market volatility while simultaneously utilizing financial leverage through borrowed capital to support investment activities, with both factors exerting considerable influence on transfer pricing decisions (Mudrikah & Amalia, 2025).

Prior empirical investigations have established that leverage, liquidity, and company age significantly influence organizational decisions regarding transfer pricing implementation. Research indicates that higher levels of financial leverage correlate with more aggressive transfer pricing strategies, as firms seek to optimize capital efficiency and reduce overall tax burdens (Huynh et al., 2022). Similarly, liquidity serves as a critical determinant of an entity's capacity to meet short-term obligations, which may subsequently affect its negotiating position in intercompany pricing arrangements (Studies, 2025). Furthermore, company age appears to exhibit a meaningful association with transfer pricing practices, whereby more established enterprises tend to adopt more stable and consistent pricing strategies, reflecting their matured market positions and accumulated operational experience (Supriyadi et al., 2024).

Audit quality functions as a moderating variable capable of influencing the relationship between firm characteristics—namely leverage and liquidity—and transfer pricing practices. High-quality audits enhance corporate governance by ensuring that organizations maintain transparency and adhere to ethical standards, thereby mitigating the risks of financial misrepresentation and excessive risk-taking associated with aggressive transfer pricing strategies (Santosa et al., 2021). This issue assumes particular relevance in the Indonesian context, where evolving regulatory frameworks and heightened vigilance from tax authorities necessitate robust audit mechanisms to facilitate regulatory compliance and deter tax avoidance practices (Putri, 2023).

Financial performance may further mediate the linkages between internal financial conditions and transfer pricing decisions. The interplay between leverage, liquidity, and audit quality can substantially influence the financial outcomes of firms operating in the basic materials industry, underscoring the necessity of a comprehensive analytical approach that integrates both financial metrics and governance mechanisms (Caesaria & Suhartono, 2023). Despite the recognized importance of these variables, limited empirical evidence exists regarding the combined moderating and mediating effects of audit quality and financial performance on the determinants of transfer pricing within Indonesia's basic materials sector.

The primary objective of this research is to analyze the effects of leverage, liquidity, and company age on transfer pricing practices, with audit quality serving as a moderating factor and financial performance functioning as a mediating variable. This study contributes to the existing literature by providing empirical evidence from an emerging market context, thereby enriching the understanding of transfer pricing determinants in developing economies. Furthermore, the findings are expected to offer practical insights for corporate managers, regulators, and policymakers in formulating strategies to enhance transparency and compliance in transfer pricing practices. The remainder of this article is organized as follows: Section 2 presents the literature review and hypothesis

development, Section 3 describes the research methodology, Section 4 discusses the empirical results, and Section 5 concludes with implications and recommendations.

2. Theoretical Background

2.1 Agency Theory

This research is grounded in Agency Theory as proposed by Jensen and Meckling (1976), which elucidates the inherent conflict of interest between principals (owners or shareholders) and agents (managers). This conflict arises because managers, who are entrusted with the day-to-day operation of the firm, may pursue their own self-interests rather than maximizing shareholder value. One manifestation of such opportunistic behavior includes transfer pricing practices, which may be employed to reduce tax burdens and present more favorable financial performance indicators to stakeholders.

In the context of the basic materials and industrial sectors, transfer pricing practices are frequently utilized as an efficiency strategy to optimize profits across entities within a business group. The complexity of intercompany transactions, coupled with variations in tax rates across jurisdictions, enables management to strategically implement transfer pricing policies. This observation aligns with the findings of Widya Anggraini et al. (2024), which demonstrate that companies operating in these sectors tend to leverage transfer pricing mechanisms to manage tax obligations and enhance overall profitability. Agency Theory thus provides a robust theoretical lens for understanding managerial motivations underlying transfer pricing decisions.

2.2 Transfer Pricing

Transfer pricing constitutes a strategic mechanism employed by multinational enterprises to establish the pricing of goods, services, or intangible assets transferred between related entities within a corporate group, including transactions between a parent company and its subsidiaries operating across different countries (Fatmi & Amin, 2023). This practice carries significant implications for both financial management and tax compliance, as transfer pricing determinations directly affect reported profits and, consequently, the tax liabilities payable in each jurisdiction. In practice, corporations frequently utilize transfer pricing strategies to optimize profit allocation by shifting income to entities located in countries with lower tax rates, thereby reducing their aggregate tax burden and enhancing global fiscal efficiency (Respati, 2023). However, aggressive transfer pricing practices have attracted increasing regulatory scrutiny, particularly in emerging economies like Indonesia, where tax authorities have intensified efforts to curb base erosion and profit shifting.

2.3 Leverage

Leverage is a fundamental financial concept that describes the extent to which a company utilizes external funding sources, particularly debt, to finance its assets and operational activities, with the expectation of generating enhanced returns for shareholders. In financial analysis, leverage serves as an important indicator reflecting the proportion of debt relative to equity or total assets, commonly measured using ratios such as the Debt to Equity Ratio (DER) or total debt to total assets ratio (Studies, 2025). The strategic deployment of leverage can produce a multiplier effect on profits when the returns generated from borrowed funds exceed the associated interest costs. Conversely, excessive leverage amplifies financial risk and diminishes a firm's flexibility in navigating economic pressures, as declining revenues may precipitate liquidity stress due

to fixed interest and principal repayment obligations. Consequently, determining the optimal level of leverage necessitates careful consideration of the trade-off between potential profitability gains and bankruptcy risk, ensuring that the resulting capital structure remains both efficient and sustainable (Tambunan et al., 2023).

2.4 Liquidity

Liquidity denotes a company's capacity to meet its short-term financial obligations utilizing its current assets. A high level of liquidity indicates a healthy financial condition with sufficient cash availability to sustain operations without resorting to risky financial maneuvers. Within the context of transfer pricing, firms exhibiting high liquidity generally face reduced pressure to engage in tax avoidance through profit shifting, as their stable financial position diminishes reliance on aggressive tax efficiency strategies. Empirical research by Oktaviyanti et al. (2021) supports this perspective, demonstrating that liquidity exerts a negative effect on transfer pricing, suggesting that greater ability to meet obligations corresponds with a lower propensity to manipulate transfer prices for tax reduction purposes.

2.5 Company Age

Company age reflects an organization's level of maturity, accumulated experience, and management's capacity to effectively navigate risks and formulate strategic financial decisions. As firms mature, they typically develop more sophisticated internal control systems and governance mechanisms, rendering them more cautious in adopting financial practices that might potentially contravene regulatory requirements, including transfer pricing. Conversely, younger enterprises tend to exhibit greater aggressiveness in pursuing tax efficiency opportunities through transfer pricing strategies to accelerate profit generation and business growth. Research conducted by Christina and Irawati (2023) indicates that older companies possess stronger supervisory and regulatory compliance frameworks, thereby reducing their inclination toward transfer pricing practices.

2.6 Audit Quality

Audit quality reflects the auditor's competence and independence in detecting and reporting material misstatements within financial statements. Manurung and Rumagit (2022) assert that high audit quality enhances the credibility of financial reports and curtails opportunistic practices such as aggressive transfer pricing. Langelo and Subiyantoro (2023) further contend that competent auditors possess the capability to identify earnings manipulation and maintain objectivity in their audit opinions. Additionally, Putri (2023) found that high-quality audits attenuate the influence of leverage on transfer pricing aggressiveness, underscoring the deterrent effect of rigorous external oversight.

2.7 Financial Performance

Financial performance represents a company's ability to manage its resources efficiently and sustainably to generate profits. Supriyadi et al. (2024) posit that financial performance reflects management's effectiveness in controlling leverage, company size, and sales growth, all of which impact transfer pricing practices. Shahwan (2024) emphasizes that financial performance is closely intertwined with transfer pricing practices, as robust financial conditions may reduce a firm's motivation to engage in

aggressive profit shifting, while weaker performance might incentivize such behavior to meet earnings targets.

2.8 Hypothesis Development

In examining the effects of leverage, liquidity, and company age on transfer pricing, with audit quality serving as a moderating variable and financial performance functioning as a mediating variable, it is essential to establish clear and testable hypotheses. Each proposed hypothesis is grounded in existing empirical evidence demonstrating the relationships among the variables under investigation. The following hypotheses are proposed:

2.8.1 The Effect of Leverage on Transfer Pricing

Leverage is posited to exert a positive effect on transfer pricing. High leverage may incentivize management to utilize transfer pricing as a tax reduction strategy, thereby improving the appearance of profitability in financial statements (Studies, 2025). Companies tend to adopt tax avoidance tactics to optimize profits when debt levels are elevated, consistent with the predictions of Agency Theory (Okeke et al., 2025).

H1: Leverage has a positive effect on Transfer Pricing.

2.8.2 The Effect of Liquidity on Transfer Pricing

Liquidity is hypothesized to have a positive influence on transfer pricing. When companies possess sufficient liquidity, they enjoy greater flexibility in analyzing and selecting strategies with the potential to enhance profitability, including transfer pricing policies. This aligns with research indicating that liquidity facilitates more flexible decision-making in intercompany pricing structures (Kuncoro et al., 2025).

H2: Liquidity has a positive effect on Transfer Pricing.

2.8.3 The Effect of Company Age on Transfer Pricing

Company age is expected to negatively impact transfer pricing. Older companies tend to adopt more stable and ethical financial management policies, rendering them less likely to focus on tax avoidance through aggressive transfer pricing practices (Aisyah & Djuanda, 2022). Over time, organizations develop a deeper understanding of the risks and reputational consequences associated with unethical practices, prompting greater caution (Trisnawati et al., 2024).

H3: Company age has a negative effect on Transfer Pricing.

2.8.4 The Moderating Role of Audit Quality on Leverage and Transfer Pricing

Audit quality is hypothesized to moderate the relationship between leverage and transfer pricing. Higher audit quality can serve as a deterrent to risky decision-making related to tax avoidance through transfer pricing by providing stricter oversight of financial reporting (Fawwaz & Nurcahyono, 2024).

H4: Audit Quality moderates the effect of Leverage on Transfer Pricing.

2.8.5 The Moderating Role of Audit Quality on Liquidity and Transfer Pricing

Audit quality is posited to moderate the relationship between liquidity and transfer pricing. When a company is subject to a high-quality audit, the positive effect of liquidity on transfer pricing decisions may be mitigated, as audit oversight promotes transparency and policy compliance (Momoh et al., 2025).

H5: Audit Quality moderates the effect of Liquidity on Transfer Pricing.

2.8.6 The Moderating Role of Audit Quality on Company Age and Transfer Pricing

Audit quality is expected to moderate the relationship between company age and transfer pricing. A high-quality audit within an older company can enhance management's effectiveness in implementing transfer pricing ethically and in compliance with applicable regulations (Aisyah & Djuanda, 2022; Nurani & Lestari, 2022).

H6: Audit Quality moderates the effect of Company Age on Transfer Pricing.

2.8.7 The Mediating Role of Financial Performance on Leverage and Transfer Pricing

Financial performance is hypothesized to mediate the effect of leverage on transfer pricing. Effective leverage utilization can enhance financial performance, thereby encouraging companies to adopt more strategic decisions that lead to efficient transfer pricing policies (Studies, 2025).

H7: Financial Performance mediates the effect of Leverage on Transfer Pricing.

2.8.8 The Mediating Role of Financial Performance on Liquidity and Transfer Pricing

Financial performance is posited to mediate the influence of liquidity on transfer pricing. Strong liquidity reinforces financial performance and provides a more robust foundation for strategic decisions regarding transfer pricing (Okeke et al., 2025).

H8: Financial Performance mediates the effect of Liquidity on Transfer Pricing.

2.8.9 The Mediating Role of Financial Performance on Company Age and Transfer Pricing

Financial performance is expected to mediate the effect of company age on transfer pricing. Older companies with strong performance tend to exercise greater prudence in utilizing transfer pricing, thereby avoiding potential regulatory violations (Aisyah & Djuanda, 2022; Trisnawati et al., 2024).

H9: Financial Performance mediates the effect of Company Age on Transfer Pricing.

3. Methods

3.1 Research Design

This study employs a quantitative approach with a causality research design, aimed at analyzing the effect of leverage, liquidity, and company age on transfer pricing practices, with financial performance serving as a mediating variable and audit quality as a moderating variable. The research population comprises basic materials sector companies listed on the Indonesia Stock Exchange (IDX) during the 2021–2024 period. The quantitative approach is selected because it facilitates the empirical and measurable testing of relationships among variables, thereby yielding results that are objective, systematic, and generalizable. Through this method, the study can provide robust statistical evidence regarding the extent of influence exerted by each variable on the propensity of companies to engage in transfer pricing practices within the context of the examined industrial sector.

3.2 Population and Sample

The sampling technique employed in this study is purposive sampling, which involves the selection of samples based on specific criteria aligned with the research objectives. The criteria utilized include: (a) companies in the basic materials sector that consistently

publish complete annual financial statements during the 2021–2024 period; (b) companies with complete data related to research variables, including transfer pricing, leverage, liquidity, company age, financial performance, and audit quality; and (c) companies that have not been delisted from the Indonesia Stock Exchange during the observation period. Based on these criteria, a total of 14 companies were selected as research samples, yielding 113 firm-year observations. This sample size is considered representative for depicting the empirical conditions of companies operating in Indonesia's basic materials sector. Consequently, the results of this study are expected to provide a valid illustration of the influence of internal and external factors on transfer pricing practices during the specified observation period.

3.3 Data Sources and Collection

The data utilized in this research constitute secondary data obtained from audited annual financial reports downloaded through the official Indonesia Stock Exchange website (www.idx.co.id). Additional data sources include annual reports and corporate sustainability reports published by the respective sample companies. Data collection was conducted through documentation techniques, systematically gathering and recording relevant information from these published reports to ensure completeness and accuracy for subsequent analysis. This method was chosen because it ensures that only companies meeting the eligibility criteria are utilized as research samples, thereby enhancing the accuracy and relevance of the findings. Similar methods were also employed by Oktaviyanti et al. (2021) and Christina and Irawati (2023) in their research on manufacturing and basic materials sector companies in Indonesia.

3.4 Definitions of Research Variables

The operational definitions and measurements of each research variable are presented in Table 1.

Table 1. Variable Measurement

Variable	Definition	Measurement	Source
Transfer Pricing	Transfer pricing is the setting of prices between related entities with the aim of reducing tax burdens.	$TP = \frac{\text{Total Receivables from Related Parties}}{\text{Total Receivables}}$	Ouduil et al. (2024)
Leverage	Leverage is a metric used to assess a firm's ability to cover its short-term liabilities and long-term obligations.	$DER = \frac{\text{Total Debt}}{\text{Total Equity}}$	Monica & Josephine (2024)
Liquidity	Liquidity reflects how effectively a company can meet its immediate debt obligations.	$CR = \frac{\text{Current Assets}}{\text{Current Liabilities}}$	Herlinda & Rahmawati (2021)
Company Age	The age of a company indicates how long the company has been established, grown, and remained in operation.	$\text{Company Age} = \text{Year of research} - \text{Year of company establishment}$	Darma (2021)
Audit Quality	Audit quality reflects the execution of an audit in accordance with standards,	$KA = 1, \text{ if audited by a Big Four KAP}; 0, \text{ if}$	Ritonga (2022)

Variable	Definition	Measurement	Source
	encompassing the process, characteristics, and the auditor's final opinion.	audited by a non-Big Four KAP	
Financial Performance	Financial performance assesses management's ability to manage assets, liabilities, and capital through financial ratios.	ROA = Profit or Loss After Tax / Total Assets	Setiawati et al. (2023)

3.5 Data Analysis Techniques

The data analysis in this study employs a panel data regression approach, as the data encompass multiple companies (cross-section) over a specific time period (time series). Panel data regression is selected due to its capacity to accommodate both cross-sectional and time-series dimensions simultaneously, thereby yielding more efficient and unbiased estimates compared to ordinary least squares regression. The analysis is conducted using EViews 12 statistical software to ensure accuracy and precision in the results.

Prior to hypothesis testing, several diagnostic tests are performed to ensure the validity of the regression model. The model selection tests include the Chow Test, Hausman Test, and Lagrange Multiplier Test to determine the most appropriate model among Common Effects Model (CEM), Fixed Effects Model (FEM), or Random Effects Model (REM). Additionally, classical assumption tests are conducted, encompassing normality, multicollinearity, heteroscedasticity, and autocorrelation tests, to verify that the regression model meets the required criteria for unbiased and consistent estimation.

The hypothesis testing for moderation effects is conducted using the Moderated Regression Analysis (MRA) approach, which involves incorporating interaction terms between the independent variables and the moderating variable (audit quality) into the regression equation. The mediation analysis is performed using the Sobel Test to examine the significance of the indirect effects of financial performance in mediating the relationships between the independent variables and transfer pricing. The general regression equation for this study is formulated as follows:

$$TP = \alpha + \beta_1 LEV + \beta_2 LIQ + \beta_3 AGE + \beta_4 AQ + \beta_5 FP + \beta_6 (LEVAQ) + \beta_7 (LIQAQ) + \beta_8 (AGE* AQ) + \varepsilon$$

Where:

TP = Transfer Pricing

α = Constant

β_1 - β_8 = Regression Coefficients

LEV = Leverage

LIQ = Liquidity

AGE = Company Age

AQ = Audit Quality

FP = Financial Performance

ε = Error Term

This comprehensive analytical framework enables the study to simultaneously examine the direct effects, moderating effects, and mediating effects among the variables under investigation, thereby providing a holistic understanding of the determinants of transfer pricing practices in Indonesia's basic materials sector.

4. Results and Discussion

4.1 Results of Moderation Effect

4.1.1 Descriptive Analysis

Table 2. Results of Descriptive Statistical Analysis

Variable	Mean	Median	Maximum	Minimum	Std. Dev.
TP	0.372929	0.258000	1.000000	0.000000	0.373720
X1_LEV	0.550536	0.458000	1.770000	0.040000	0.425064
X2_LIK	3.608357	2.236000	15.03000	1.000000	3.331218
X3_UMP	41.21429	42.00000	58.00000	23.00000	11.81325
Z_KA	0.321429	0.000000	1.000000	0.000000	0.471405
LEV_KAX1	0.181711	0.000000	1.563300	0.000000	0.333113
LIK_KAX2	1.091518	0.000000	6.919000	0.000000	1.880587
UMP_KAX3	14.16071	0.000000	56.00000	0.000000	21.11342

Source: Processed Data, EViews 12 (2025)

Based on the data processing results with 56 observations, the average value of Transfer Pricing (TP) is 0.3729, indicating that transfer pricing practices in companies within the food and beverage sub-sector are moderate, with a standard deviation of 0.3737, suggesting differences in transfer pricing levels between companies. The Leverage variable (X1_LEV) has an average of 0.5505, meaning most companies finance around 55% of their assets with debt, while the maximum value of 1.7770 indicates there are companies with quite high leverage. The average Liquidity value (X2_LIK) is 3.608 with a standard deviation of 3.331, indicating that companies' ability to meet short-term obligations is generally good, although there are fairly large differences between companies. Next, Company Age (X3_UMP) shows an average of 41 years, which means most companies have been operating for quite some time and have experience in financial management as well as operational activities. Meanwhile, Audit Quality (KA) has an average value of 0.321, indicating that only a small portion of companies are audited by Big Four accounting firms, so the audit quality in this sector is still relatively low. The moderation interaction variables (LEV_KAX1, LIK_KAX2, and UMP_KAX3) show considerable variation, indicating that the effect of audit quality on the relationship between independent variables and transfer pricing differs across companies. Overall, these descriptive statistics results show that the financial conditions of food and beverage sub-sector companies listed on the IDX are quite diverse in terms of leverage, liquidity, and company age, and uneven audit quality can affect the transfer pricing practices carried out by companies.

4.1.2 Model Selection Techniques

Table 3. Model Selection Test Results

Test	Prob.	Decision
Chow	0.0001	REM
Hausman	0.0794	REM
Lagrange Multiplier	0.0111	REM

Source: Processed Data, EViews 12 (2025)

Based on the model selection test results presented in Table 3, the Chow test probability value of 0.0001 indicates that the Common Effect Model is rejected. The Hausman test probability value of 0.0794 (> 0.05) suggests that the appropriate model is the Random Effect Model (REM). This is also supported by the Lagrange Multiplier test result with a probability value of 0.0111 (< 0.05), which shows that the Random Effect

Model is more appropriate compared to the Common Effect Model. Thus, it can be concluded that the most appropriate panel regression model to use in this study is the Random Effect Model (REM). Since this model has already taken into account individual effects between companies through the random error components, there is no longer a need to conduct classical assumption tests in entirety, such as tests for multicollinearity, heteroscedasticity, autocorrelation, or residual normality. This is because the REM uses the Generalized Least Squares (GLS) approach, which is capable of correcting violations of classical assumptions in panel data, ensuring that the estimation results remain efficient and unbiased.

4.1.3 Hypothesis Testing

Table 4. F Test Results

Statistic	Value
F-statistic	2.505385
Prob (F-statistic)	0.028052

Source: Processed Data, EViews 12 (2025)

Based on the results of the F-statistic test presented in Table 4, a value of 2.505385 was obtained with an F-statistic probability of 0.028052, which is smaller than the significance level of 0.05. This indicates that simultaneously, the independent variables used in the study, namely leverage, liquidity, and company age, as well as the audit quality moderation variable, have a significant effect on transfer pricing.

Table 5. R² Test Results

Statistic	Value
R-Squared	0.267597
Adjusted R-Squared	0.160788

Source: Processed Data, EViews 12 (2025)

An R-Squared value of 0.267597 and an Adjusted R-Squared value of 0.160788 indicate that approximately 26.76% of the variation in transfer pricing can be explained by the variables of leverage, liquidity, company age, and audit quality, while the remaining 73.24% is influenced by other factors beyond the research model. Thus, the model's ability to explain the dependent variable is considered low to moderate, but it still shows that the model is feasible to use as it has a significant simultaneous effect.

Table 6. T-Test Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
X1_LEV	0.389906	0.141261	2.760187	0.0082
X1_LIK	0.035588	0.013725	2.614787	0.0119
X1_UMP	0.003335	0.007467	0.446663	0.6571
Z_KA	-0.798338	0.701936	-1.137337	0.2610
LEV_KA	-0.668975	0.238647	-2.803205	0.0073
LIK_KA	-0.026024	0.039669	-0.656046	0.5149
UMP_KA	0.027304	0.015011	1.818947	0.0752

Source: Processed Data, EViews 12 (2025)

The results of the partial t-test presented in Table 6 show that the Leverage (X1) and Liquidity (X2) variables have significance values of 0.0082 and 0.0119, respectively, which are less than 0.05. This means that both have a significant effect on transfer pricing.

The Company Age (X3) and Audit Quality (Z_KA) variables do not have a significant effect because their significance values are greater than 0.05. For the interaction variables, LEV_KA has a significant effect with a probability value of 0.0073, indicating that Audit Quality is able to moderate the effect of Leverage on Transfer Pricing. Meanwhile, the LIK_KA and UMP_KA interactions are not significant, so Audit Quality does not moderate the effect of Liquidity and Company Age on Transfer Pricing.

4.2 Results of Mediation Effect

4.2.1 Structural Model 1

Table 7. Mediation of Financial Performance on Leverage against Transfer Pricing

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.329014	0.062310	5.280295	0.0000
X1_LEV	-0.090640	0.032107	-2.823086	0.0068
X2_LIK	-0.000304	0.004235	-0.071752	0.9431
X3_UMP	0.006336	0.001309	4.840358	0.0000
M_KU	-2.212418	0.073227	-30.21299	0.0000

Source: Processed Data, EVIEWS 12 (2025)

Based on Table 7, the results of the partial hypothesis test are as follows:

- 1) Financial performance (M_KU) has a negative and significant effect on transfer pricing, indicated by a regression coefficient of -2.212418, a t-statistic of -30.21299, and a p-value of 0.0000 (<0.05). This indicates that a one-unit increase in financial performance will decrease transfer pricing intensity by 2.212418.
- 2) Leverage (X1_LEV) shows a negative and significant effect on transfer pricing, with a regression coefficient of -0.090640, a t-statistic of -2.823086, and a p-value of 0.0068. This means that a one-unit increase in leverage will decrease transfer pricing intensity by 0.090640.
- 3) Liquidity (X2_LIK) also has a negative but insignificant effect on transfer pricing. The regression coefficient of -0.000304, accompanied by a t-statistic of -0.071752 and a p-value of 0.9431, indicates that a one-unit increase in liquidity does not significantly impact transfer pricing practices.
- 4) Company age (X3_UMP) has a positive and significant effect on transfer pricing, with a regression coefficient of 0.006336, a t-statistic of 4.840358, and a p-value of 0.0000. This means that every one-year increase in company age increases the likelihood of transfer pricing by 0.006336.

4.2.2 Sobel Test

Table 7. Sobel Test Results

Independent Variable	Sobel Test Value	t-Table	Significance	Test Result
Leverage	-6.192	2.01	< 0.05	Mediating Negative
Liquidity	-13.850	2.01	< 0.05	Mediating Negative
Company Age	29.790	2.01	< 0.05	Mediating Positive

Source: Processed Data (2025)

Based on the results of the Sobel test used to test the influence of independent variables on Transfer Pricing through Financial Performance as a mediating variable, the following results were obtained:

- 1) The Effect of Leverage on Transfer Pricing, with Financial Performance as a Mediator. The Sobel test results indicate that financial performance significantly mediates the relationship between leverage and transfer pricing, with a Sobel test value of -6.192, a standard error of 0.0351, and a p-value of 0.000 (<0.05). The test statistic, which significantly exceeds 1.96, indicates a significant mediation effect on the path $X1 \rightarrow M \rightarrow Y$. Substantively, although the direct effect of leverage on transfer pricing is negative, the indirect path through financial performance demonstrates that highly leveraged companies may improve their financial performance to maintain stability. This improved performance ultimately encourages the use of transfer pricing in inter-entity efficiency strategies.
- 2) The Effect of Liquidity on Transfer Pricing, with Financial Performance as a Mediator. Liquidity also proved to have a very strong mediating effect through financial performance, as indicated by the Sobel test value of -13.850, standard error of 0.00418, and p-value of 0.000. The very large test statistic indicates that this mediation pathway is highly significant. This indicates that companies with high liquidity are able to strengthen their financial performance, and this improved performance contributes to the tendency of companies to utilize transfer pricing strategies. Thus, financial performance functions as a transmission mechanism that explains how liquidity influences the increase in transfer pricing intensity.
- 3) The Effect of Company Age on Transfer Pricing, with Financial Performance as a Mediator. The Sobel test results showed a test statistic of 29.790, a standard error of 0.00100, and a p-value of 0.000, indicating that the mediation was significant but positive. The positive mediation effect indicates that the older the company, the greater the indirect effect on transfer pricing through financial performance. Theoretically, companies that have been operating for a long time tend to have more established governance and stricter internal controls, so that increased financial performance does not necessarily encourage transfer pricing practices.

4.3 Discussion

4.3.1 The Effect of Leverage on Transfer Pricing

Based on the results of the regression analysis presented in Table 6, the Leverage variable ($X1_LEV$) has a positive coefficient of 0.3899 with a t-statistic of 2.760 and a probability of 0.0082, which indicates significance. This result shows that Leverage has a positive and significant effect on Transfer Pricing. Empirically, this finding indicates that the higher the company's debt level, the greater the tendency of the company to engage in transfer pricing practices. This condition can be explained through Agency Theory, which states that conflicts of interest between management and shareholders drive managers to make decisions that can maximize their utility, including through tax avoidance strategies. Companies with high leverage levels have large interest burdens, leading management to attempt to reduce tax burdens by shifting profits to affiliated entities with lower tax rates. These results are consistent with research conducted by Studies (2025) and Okeke et al. (2025), which found that high leverage encourages transfer pricing practices as part of tax efficiency efforts. Therefore, the first hypothesis ($H1$) which states that Leverage has a positive effect on Transfer Pricing is accepted.

4.3.2 The Effect of Liquidity on Transfer Pricing

The Liquidity Variable (X2_LIK) shows a positive coefficient of 0.0356 with a t-statistic value of 2.615 and a probability of 0.0119, which means it is significant. This result indicates that Liquidity has a positive and significant effect on Transfer Pricing. The interpretation of this result is that companies with high liquidity levels have stronger financial capabilities to set pricing policies between entities within a business group. Good liquidity allows companies more flexibility in tax planning and allocating resources for profit optimization strategies, including transfer pricing. This finding supports the research by Kuncoro et al. (2025), which states that liquidity provides management with the discretion to choose efficient financial strategies and increase profitability. Thus, the second hypothesis (H2) which states that liquidity has a positive effect on transfer pricing is accepted.

4.3.3 The Effect of Company Age on Transfer Pricing

The regression results show that the variable Company Age (X3_UMP) has a positive coefficient of 0.0033, but the t-statistic value is 0.447 and the probability is 0.6571, indicating that it is not significant. Although a positive relationship direction is mathematically detected, it is not statistically proven to affect Transfer Pricing. This result is not in line with the initial hypothesis (H3) which stated that company age has a negative effect on transfer pricing. Theoretically, older companies tend to have more mature governance and compliance systems, and avoid transfer pricing practices that risk their reputation. Research by Aisyah and Djuanda (2022) and Trisnawati et al. (2024) shows that the older the company, the greater the awareness of regulations and reputation, thereby reducing the tendency to manipulate financial statements. However, the lack of significant empirical results in this study may be caused by moderating factors such as differences in industry characteristics, company size, and applicable tax regulations. Therefore, the third hypothesis (H3) is rejected, because the age of the company is not proven to have a significant effect on transfer pricing in the research sample.

4.3.4 The Moderating Role of Audit Quality on Leverage and Transfer Pricing

The regression analysis results show that the interaction variable LEV_KA (Leverage $\times$ Audit Quality) has a coefficient of -0.668975 , a t-statistic of -2.803205 , and a probability of 0.0073, which means it is significant at the 1% confidence level. This negative coefficient indicates that audit quality negatively moderates the relationship between leverage and transfer pricing. In other words, the higher the audit quality of the company, the weaker the effect of leverage on transfer pricing practices. Good audit quality can curb the potential for financial statement manipulation because independent auditors provide stricter oversight and evaluation of inter-entity policies. This finding is in line with Fawwaz and Nurcahyono (2024), who stated that high-quality audits act as a governance mechanism capable of reducing opportunistic management behavior. Independent auditors provide assurance on the reliability of financial statements and prevent the use of leverage for tax avoidance purposes. Thus, the fourth hypothesis (H4) which states that audit quality moderates the effect of leverage on transfer pricing is accepted.

4.3.5 The Moderating Role of Audit Quality on Liquidity and Transfer Pricing

The analysis results on the interaction variable LIK_KA (Liquidity $\times$ Audit Quality) show a coefficient of -0.026024 , a t-statistic value of -0.656046 , and a probability of

0.5149, which means it is not significant. This indicates that audit quality does not moderate the relationship between liquidity and transfer pricing. This condition illustrates that a company's liquidity level is not much influenced by the presence of high-quality audits in determining transfer pricing policies. Liquidity more reflects the company's short-term ability to meet obligations, rather than strategic decisions directly overseen by auditors. These results are not in line with the research of Momoh et al. (2025) which stated that independent audits can strengthen controls over transfer pricing practices. Thus, the fifth hypothesis (H5) which states that audit quality moderates the effect of liquidity on transfer pricing is rejected.

4.3.6 The Moderating Role of Audit Quality on Company Age and Transfer Pricing

Based on the regression results, the interaction variable UMP_KA (Company Age $\times$ Audit Quality) has a coefficient of 0.027304, a t-statistic value of 1.818947, and a probability of 0.0752. A probability value greater than 0.05 indicates that its effect is not statistically significant. This means that audit quality does not moderate the relationship between company age and transfer pricing. Although the positive coefficient direction indicates a tendency for the relationship to be in the same direction, empirically it is not strong enough to prove a moderating effect. Companies that have been in operation longer do not necessarily show changes in transfer pricing behavior influenced by high-quality audits, because the company age factor is more related to stability and business experience than compliance aspects monitored by auditors. These results differ from the studies of Aisyah and Djuanda (2022) and Nurani and Lestari (2022), which found a significant effect. Thus, the sixth hypothesis (H6) which states that audit quality moderates the effect of company age on transfer pricing is rejected.

4.3.7 The Mediating Role of Financial Performance on Leverage and Transfer Pricing

The Sobel test results presented in Table 8 showed a test statistic of -6.192 with a p-value of 0.0000, indicating that financial performance significantly mediates the effect of leverage on transfer pricing. This means that leverage not only directly influences transfer pricing but also has an indirect effect through changes in financial performance. As leverage increases, a company's financing burden tends to be heavier, resulting in weaker financial performance, and this weakening performance ultimately contributes to a decline in transfer pricing. Thus, the effect of leverage on transfer pricing occurs through two channels: a direct channel and an indirect channel through financial performance. Therefore, the seventh hypothesis (H7) which states that financial performance mediates the effect of leverage on transfer pricing is accepted.

4.3.8 The Mediating Role of Financial Performance on Liquidity and Transfer Pricing

The Sobel test yielded a test statistic of -13.850 with a p-value of 0.0000, indicating a highly significant mediation by financial performance. Interestingly, liquidity was previously shown to have no significant direct effect on transfer pricing, so the relationship between the two only emerged when financial performance was included as a mediator. This means that liquidity primarily influences a company's ability to maintain its financial stability, and changes in financial performance subsequently influence transfer pricing intensity. In other words, financial performance is the only pathway connecting liquidity to transfer pricing, resulting in full mediation. Therefore, the eighth

hypothesis (H8) which states that financial performance mediates the effect of liquidity on transfer pricing is accepted.

4.3.9 The Mediating Role of Financial Performance on Company Age and Transfer Pricing

The Sobel test results on the path from company age to transfer pricing showed a test statistic of 29.790 and a p-value of 0.0000, confirming that financial performance is a highly significant mediator. This finding indicates that as a company ages, its financial performance tends to decline due to structural factors, efficiency, or organizational rigidity. This decline in performance then impacts transfer pricing. Because the effect of company age on transfer pricing is also directly significant, it can be concluded that financial performance strengthens this path, thus forming partial mediation. Therefore, the ninth hypothesis (H9) which states that financial performance mediates the effect of company age on transfer pricing is accepted.

5. Conclusion

This study examines the effects of leverage, liquidity, and company age on transfer pricing practices, with audit quality as a moderating variable and financial performance as a mediating variable, among basic materials sector companies listed on the Indonesia Stock Exchange during the 2021–2024 period. Based on the panel data regression analysis employing the Random Effects Model (REM), several key findings emerge as follows:

- 1) Leverage exhibits a positive and significant effect on transfer pricing, indicating that companies with higher debt levels tend to engage more aggressively in transfer pricing practices as a strategy to reduce tax burdens and manage interest obligations. This finding confirms that financial leverage serves as a critical driver of transfer pricing decisions, consistent with Agency Theory predictions regarding managerial opportunism.
- 2) Liquidity also demonstrates a positive and significant effect on transfer pricing, suggesting that companies with stronger liquidity positions possess greater financial flexibility to implement transfer pricing strategies for profit optimization purposes. This result reinforces the notion that adequate liquidity enables management to pursue tax efficiency through intercompany pricing policies.
- 3) Company age does not exhibit a statistically significant effect on transfer pricing, rejecting the hypothesis that older companies are less inclined toward transfer pricing practices due to more mature governance systems. This finding implies that company age alone is not a sufficient determinant of transfer pricing behavior in the Indonesian basic materials sector.
- 4) Regarding the moderating role of audit quality, the results indicate that audit quality significantly moderates the relationship between leverage and transfer pricing, with high-quality audits weakening the positive effect of leverage on transfer pricing. However, audit quality does not moderate the relationships between liquidity or company age and transfer pricing, suggesting that the deterrent effect of high-quality audits is specifically relevant to debt-related financial strategies.
- 5) With respect to the mediating role of financial performance, the Sobel test results confirm that financial performance mediates the effects of leverage, liquidity, and company age on transfer pricing. Specifically, leverage and liquidity exhibit negative mediation, meaning that increases in leverage or liquidity tend to weaken financial

performance, which subsequently reduces transfer pricing intensity. Conversely, company age demonstrates positive mediation, indicating that as companies age and financial performance declines, the indirect effect on transfer pricing increases.

Overall, the findings of this research confirm that internal financial conditions, particularly leverage and liquidity, along with external oversight mechanisms through audit quality, play crucial roles in controlling transfer pricing practices within Indonesia's basic materials sector. The study contributes to the existing literature by providing empirical evidence from an emerging market context and offers practical implications for regulators, corporate managers, and policymakers in strengthening governance mechanisms and monitoring financial indicators to curb aggressive transfer pricing strategies. Future research is encouraged to expand the observation period, incorporate additional sectors, and consider other moderating or mediating variables such as corporate governance mechanisms, tax regulations, or ownership structure to provide a more comprehensive understanding of transfer pricing determinants.

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