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The Effect of Transfer Pricing, Earnings Management, and Leverage on Tax Avoidance with Institutional Ownership as Moderator

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Abstract

This study aims to examine and analyze the effect of transfer pricing, earnings management, and leverage on tax avoidance, as well as to test the ability of institutional ownership to moderate the effects of transfer pricing, earnings management, and leverage on tax avoidance. This study employs a quantitative approach with purposive sampling, yielding 198 observations from manufacturing companies listed on the Indonesia Stock Exchange during 2021–2023. Data were analyzed using descriptive statistics, classical assumption tests, multiple linear regression, and Moderated Regression Analysis (MRA). The partial results indicate that transfer pricing has a negative but insignificant effect on tax avoidance. Earnings management has a positive but insignificant effect on tax avoidance. Meanwhile, leverage has a positive and significant effect on tax avoidance. The moderation test results reveal that institutional ownership fails to moderate the effects of both transfer pricing and earnings management on tax avoidance. However, institutional ownership is proven to significantly strengthen the effect of leverage on tax avoidance. The findings imply that tax efficiency through debt instruments (tax shield), supported by institutional shareholding monitoring, serves as the primary determinant of tax avoidance practices in the Indonesian manufacturing sector.

Keywords

Earnings Management, Institutional Ownership, Leverage, Tax Avoidance, Transfer Pricing.

1. Introduction

The dynamics of post-pandemic recovery, escalating geopolitical conflicts between Russia and Ukraine, and the global cost-of-living crisis have not undermined Indonesia's domestic economic performance. Inflation stability and measured interest rate adjustments have supported national economic resilience, contributing to continued growth in state revenue through the end of 2023. Tax revenue and Non-Tax State Revenue (*Penerimaan Negara Bukan Pajak*/PNBP) increased by 5.9% and 17.5% Year-on-Year (YoY), respectively, while state revenue and grants reached IDR 2,774.3 trillion, equivalent to 105.2% of the target stipulated in Presidential Regulation Number 75 of 2023 and representing 5.3% growth compared with the previous year (Kemenkeu.go.id, 2024). Nevertheless, Indonesia's tax-to-GDP ratio remains relatively low compared with countries at similar income levels, reflecting continuing challenges related to regulatory limitations, fiscal administration, taxpayer awareness, and institutional capacity.

These challenges are particularly relevant to the manufacturing sector, which remained a major contributor to domestic tax revenue but experienced a gradual decline in its contribution, from 29.6% in 2021 to 28.7% in 2022 and 26.9% in 2023. In contrast, the trade sector increased its contribution from 22.0% to 23.8% and 24.4% during the same period, while financial services and insurance contributed 12.9%, 10.6%, and 11.5%, respectively. Mining also recorded an increase from 5.9% in 2021 to 8.3% in 2022 and 9.4% in 2023 (MUC Consulting, 2024). The relatively declining contribution of manufacturing, despite its continued importance to tax revenue, highlights the need to examine corporate tax behavior within this sector. Indonesia's tax-to-GDP ratio reached only 10.9% in 2021, considerably below the Asia-Pacific average of 19.8% and the OECD average of 34.1% (OECD, 2023). This gap underscores the continuing challenge of optimizing tax revenue and provides an important context for examining factors associated with corporate tax avoidance among manufacturing companies.

In the context of international taxation, transfer pricing has attracted attention because multinational enterprises may establish prices for transactions between related entities operating across different jurisdictions. The OECD (2019) documented a 20% increase in global transfer pricing disputes compared with the previous period. The misalignment between evolving cross-border business models and international taxation frameworks has contributed to the development of initiatives by the OECD and G20 through the Base Erosion and Profit Shifting (BEPS) Action Plan. In Indonesia, the case involving PT Toyota Motor Manufacturing Indonesia illustrates a transfer pricing dispute concerning transactions with an affiliated company, resulting in a gross profit margin adjustment and tax-related measures.

In addition to transfer pricing, earnings management and leverage are relevant factors in examining tax avoidance practices. Multinational enterprises may utilize related-party transactions to shift taxable income toward jurisdictions with lower tax rates (Andayani, 2021). Previous studies by Barker and Brickman (2017) and Wier (2020) have examined the relationship between transfer pricing and tax avoidance, while Amidu et al. (2019) identified the relationship between transfer pricing, earnings manipulation, and tax avoidance strategies. West (2018) and Setyawan et al. (2024) also examined the effects of financial indicators on tax avoidance among energy companies.

Furthermore, Mansor (2021) and Susanto et al. (2024) found that corporate tax avoidance and free cash flow were associated with increased real earnings management, while Atayah et al. (2024) reported an increase in earnings management practices during economic downturns. Regarding corporate governance, Hasan et al. (2021) and Jiang et al. (2021) found that institutional

ownership was unable to moderate the relationships between earnings management and transfer pricing and tax avoidance, respectively. However, findings concerning the effects of institutional ownership and leverage on tax avoidance remain inconsistent, creating a research gap that warrants further investigation.

The novelty of this study lies in examining the direct effects of transfer pricing, earnings management, and leverage on tax avoidance, alongside the moderating role of institutional ownership, among manufacturing companies listed on the Indonesia Stock Exchange (IDX) during 2021–2023. This study aims to analyze the direct effects of transfer pricing, earnings management, and leverage on tax avoidance and examine whether institutional ownership moderates these relationships. The contribution of this study is to enrich empirical evidence regarding the determinants of tax avoidance and the role of institutional ownership in these relationships among manufacturing companies in Indonesia.

2. Literature Review and Hypothesis Development

2.1. The Effect of Transfer Pricing on Tax Avoidance

Transfer pricing refers to the price or terms applied when different entities within the same corporate group conduct transactions with one another. In practice, companies may establish or acquire related entities to strengthen their market position, achieve operational efficiency, or support long-term business growth. Such advantages can be obtained through lower raw material costs and through the acquisition or development of intellectual property and other intangible assets that enhance the sustainability of the business (Barker & Brickman, 2017). However, transfer pricing may also be used as part of international tax avoidance strategies, particularly when transactions among related parties are structured to shift income or expenses across jurisdictions with different tax rates (Sianturi & Sanulika, 2023). Amidu et al. (2019) explain that tax avoidance mechanisms may involve transfer price setting, corporate capitalization, the use of tax havens, affiliate financing structures through debt, manufacturing contracts, and decisions concerning the location of assets and overhead costs.

Several empirical studies have also supported the relationship between transfer pricing and tax avoidance. Setyawan et al. (2024) found that transfer pricing influences tax avoidance, indicating that related-party pricing decisions can affect the allocation of taxable income within corporate groups. Similarly, Barker and Brickman (2017) reported that transfer pricing is associated with tax avoidance practices. More recent empirical evidence from Rizki and Nugroho (2024), Mukarramah and Nugroho (2025), and Tamam and Tarmidi (2025) further demonstrates that transfer pricing significantly affects tax avoidance. These findings suggest that transfer pricing remains an important factor in understanding corporate tax avoidance, particularly among companies operating through related-party transactions and across different tax jurisdictions.

H1: Transfer pricing has a significant effect on tax avoidance.

2.2. The Effect of Earnings Management on Tax Avoidance

Earnings management refers to managerial actions aimed at adjusting reported earnings to achieve the interests of managers and shareholders. Hong et al. (2022) note that although companies generally seek to maximize firm value, managers may also engage in earnings management to influence reported taxable income and reduce corporate income tax expenses. Through the adjustment of accounting estimates, accruals, or the timing of transactions, managers can influence the amount of profit reported in financial statements and, consequently, the company's tax burden (Mulyaningsih & Handayani, 2024). This practice becomes particularly

relevant when managers face incentives to maintain earnings targets while simultaneously seeking to minimize tax obligations. Thus, earnings management may serve as a mechanism that complements corporate tax avoidance by providing managers with greater flexibility in determining the timing and presentation of taxable income.

The relationship between earnings management and corporate tax avoidance has received empirical support from several studies. Mansor (2021) found that earnings management influences tax avoidance, indicating that managerial discretion over reported earnings may be associated with efforts to reduce corporate tax liabilities. Similarly, Atayah et al. (2024) confirmed a relationship between earnings management and tax avoidance. Hong et al. (2022) also stated that earnings management affects corporate tax avoidance, reinforcing the view that accounting decisions and tax-related strategies can be closely connected. These findings suggest that earnings management is an important factor in explaining corporate tax avoidance because managers may use discretion in financial reporting to pursue both organizational and managerial objectives.

H2: Earnings management has a significant effect on tax avoidance.

2.3. The Effect of Leverage on Tax Avoidance

Leverage reflects the extent to which a company relies on debt to finance its operations and is therefore an important factor in understanding corporate tax avoidance. Mulyati et al. (2019) and Juliyanti and Wibowo (2021) note that the use of debt generates interest expenses, which can reduce taxable income and, consequently, the company's tax liability. Unlike dividends paid to shareholders, interest expenses are generally treated as deductible costs for tax purposes, allowing companies with greater debt dependence to obtain potential tax benefits. Accordingly, companies that rely more heavily on debt financing may have greater opportunities to reduce their taxable income through interest deductions (Nurhidayah et al., 2021; Umar et al., 2021). However, the extent to which leverage affects tax avoidance may depend on the company's financing structure, profitability, and tax circumstances (Fadilah & Ambarita, 2024). Thus, leverage represents not only a financing decision but also a factor that may influence corporate tax planning and the effective tax burden.

Empirical findings generally indicate a positive relationship between leverage and tax avoidance. Nugroho et al. (2023) found that higher leverage has a positive and significant effect on tax avoidance, suggesting that companies with greater reliance on debt financing may utilize interest expenses as tax-deductible costs to reduce tax liabilities. Higher leverage may therefore provide companies with greater opportunities to manage taxable income through financing decisions and reduce their tax burden. This condition can create incentives for companies to use debt financing as part of their tax management strategies (Suciarti et al., 2020). Based on these empirical and theoretical considerations, companies with higher leverage are expected to engage in greater tax avoidance. Therefore, leverage is expected to have a positive and significant effect on tax avoidance among manufacturing companies listed on the Indonesia Stock Exchange.

H3: Leverage has a significant effect on tax avoidance.

2.4. The Effect of Institutional Ownership as a Moderator

One strategy frequently employed by companies to reduce their tax burden is transfer pricing, which refers to policies used to determine the prices of goods or services transferred among business units within the same corporate group (Sari &

Chairunisa, 2025). Institutional ownership may influence the relationship between transfer pricing and tax avoidance because institutional shareholders can strengthen managerial oversight. However, research by Rahmanda and Prabowo (2024) and Rahmadhani and Lastanti (2024) indicates that institutional ownership moderates the effect of transfer pricing on tax avoidance. This suggests that institutional investors may not possess sufficient power or incentives to significantly influence transfer pricing practices. In contrast, agency theory suggests that institutional ownership can constrain managerial opportunism, including earnings manipulation undertaken to support tax avoidance. Institutional investors generally have stronger monitoring incentives and may encourage management to adopt more cautious tax strategies. Consistent with this view, Qawqzeh (2023) found that institutional ownership weakens the effect of earnings management on tax avoidance.

Institutional ownership refers to shares held by institutional entities such as investment firms, banks, and insurance companies (Thomsen & Watrin, 2018). Higher institutional ownership may also strengthen monitoring of debt-related decisions and consequently reduce the influence of leverage on tax avoidance. Institutional shareholders tend to emphasize profit optimization and operational efficiency, while high interest expenses may reduce investment returns (Hakim & Cahyonowati, 2024). Furthermore, institutional ownership can influence agency conflicts between shareholders and bondholders, as bondholders generally favor prudent management whereas shareholders may accept greater risk for higher returns. Institutional ownership can mitigate the negative effect of leverage on tax avoidance. Thus, institutional monitoring may moderate the relationship between leverage and tax avoidance by encouraging more prudent financial and tax-related decisions.

H4: Institutional ownership moderates the relationship between transfer pricing and tax avoidance.

H5: Institutional ownership moderates the relationship between earnings management and tax avoidance

H6: Institutional ownership moderates the relationship between leverage and tax avoidance.

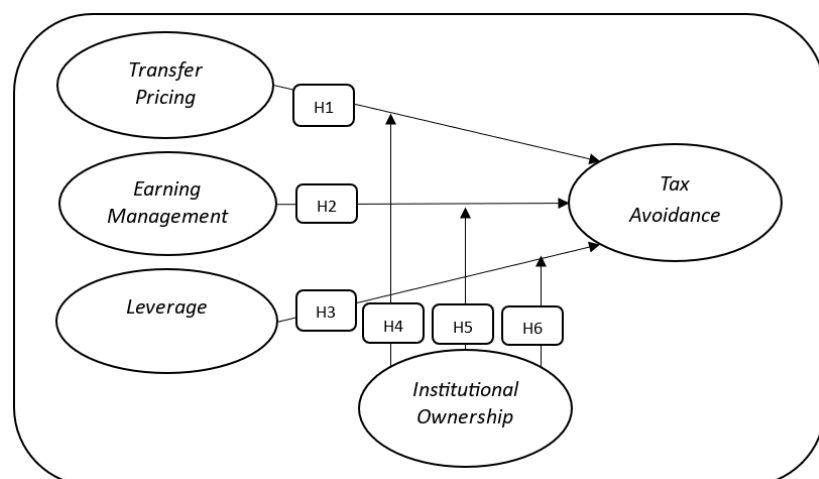


Figure 2. Conceptual Framework

Figure 2 illustrates the conceptual framework examining the effects of transfer pricing, earnings management, and leverage on tax avoidance, with institutional ownership positioned as a moderating variable. The framework proposes that each independent variable is associated with tax avoidance, while institutional ownership

is expected to moderate these relationships. This model is designed to assess both the direct relationships between the financial factors and tax avoidance and the potential role of institutional ownership in strengthening or weakening these effects

3. Methods

This study employs a quantitative approach with a causal research design to examine the effects of transfer pricing, earnings management, and leverage on tax avoidance, while investigating institutional ownership as a moderating variable. The study uses secondary data obtained from annual reports and financial statements of manufacturing companies listed on the IDX during the 2021–2023 period. A quantitative approach is applied to test the hypotheses through statistical analysis of relationships among variables (Sugiyono, 2018).

The population comprises all manufacturing companies listed on the IDX during the 2021–2023 period. The sample is selected using purposive sampling based on the following criteria: companies listed throughout the research period, companies that publish complete annual reports, companies that meet the related-party relationship provisions under Income Tax Law Number 36 of 2008, and companies that provide the information required to measure all research variables. Based on these criteria, 66 companies were selected, resulting in a total of 198 observations.

The research variables consist of tax avoidance as the dependent variable, transfer pricing, earnings management, and leverage as independent variables, and institutional ownership as the moderating variable. Transfer pricing is measured using the Berry Ratio, calculated as gross profit from related-party transactions divided by operating expenses (Setyawan et al., 2024). Earnings management is measured using the ratio of working capital accruals to revenue, with working capital accruals calculated based on changes in current assets minus changes in current liabilities and changes in cash and cash equivalents (Nguyen et al., 2022). Leverage is measured using the Debt-to-Equity Ratio (DER), calculated as total liabilities divided by total equity (Darsani & Sukartha, 2021). Institutional ownership is measured as the proportion of shares held by institutional investors relative to total outstanding shares (Alkurdi & Mardini, 2020). Meanwhile, tax avoidance is measured using the Effective Tax Rate (ETR), calculated as tax expense divided by income before tax (Setyawan et al., 2024).

Data are collected using documentation techniques by accessing annual reports and financial statements of manufacturing companies through the official IDX website and the respective company websites. The collected data include financial information, tax expenses, income before tax, related-party transactions, and shareholding structures required to measure the research variables during the observation period. Data analysis is conducted using panel data regression with the assistance of EViews 12. The analytical procedures include descriptive statistics, panel data model selection through the Chow, Hausman, and Lagrange Multiplier tests, and relevant assumption testing, including the normality test, multicollinearity test, and heteroscedasticity test. Hypothesis testing is performed using Moderated Regression Analysis (MRA) to examine the direct effects of the independent variables and the interaction effects of institutional ownership on the relationships between the independent variables and tax avoidance. Statistical tests include the t-test for partial effects, the F-test for simultaneous effects, and the coefficient of determination (Adjusted R^2) to evaluate the model's explanatory power regarding tax avoidance.

4. Results

The evaluation of data characteristics was conducted by examining the statistical distribution of each variable under study. The study focuses on manufacturing

companies listed on the IDX. The model's variable structure positions tax avoidance as the primary outcome, influenced by transfer pricing, earnings management, and leverage. Additionally, institutional ownership was included to test for any moderating effects on these relationships.

Table 1. Statistic Descriptive

Statistics	Tax Avoidance	Transfer Pricing	Earning Management	Leverage	Institutional Ownership
Mean	0.470475	0.341984	0.831232	0.767463	0.659717
Median	0.222611	0.001151	0.161948	0.534077	0.660777
Maximum	46.12105	13.13870	57.32902	3.928398	0.987871
Minimum	0.006963	-1.900145	-0.547384	0.002487	0.201622
Std. Dev.	3.262099	3.356713	5.728214	0.714166	0.194086
Observations	198	198	198	198	198

Table 1 presents the descriptive statistics for 198 observations. Tax avoidance has a mean of 0.470475, a median of 0.222611, and values ranging from 0.006963 to 46.12105, with a standard deviation of 3.262099, indicating considerable variation across observations. Transfer pricing has a mean of 0.341984 and a median of 0.001151, with a minimum of -1.900145 and a maximum of 13.13870, while its standard deviation of 3.356713 indicates substantial dispersion.

Earnings management records a mean of 0.831232 and a median of 0.161948, ranging from -0.547384 to 57.32902, with the highest standard deviation of 5.728214, reflecting considerable differences among companies. Leverage has a mean of 0.767463 and a median of 0.534077, with values between 0.002487 and 3.928398 and a standard deviation of 0.714166. Meanwhile, institutional ownership has a mean of 0.659717 and a median of 0.660777, ranging from 0.201622 to 0.987871, with a standard deviation of 0.194086, indicating comparatively lower variation among the observations. The descriptive statistics show substantial differences in the distribution of the variables across the 198 observations.

Table 2. Panel Data Model Selection Tests

Test	Test	Statistic	d.f.	Prob.
Chow test	Cross-section F	0.766898	65, 13	0.8823
	Cross-section Chi-square	65.122389*	65	0.4724
Hausman Test	Cross-section random	2.875386	4	0.5789
Breusch–Pagan LM Test	Cross-section	2.104118	—	0.1469
	Time	0.157778	—	0.6912
	Both	2.261896	—	0.1326

Table 2 presents the results of the panel data model selection tests. The Chow test reports a cross-section Chi-square probability of 0.4724, exceeding the 0.05 significance level, indicating that the Common Effect Model (CEM) is preferred to the Fixed Effect Model (FEM). The Hausman test yields a probability value of 0.5789, also above 0.05, indicating that the Random Effect Model (REM) is preferred to the FEM. However, the Breusch–Pagan Lagrange Multiplier (LM) test produces a probability value of 0.1469 for the cross-section effect, which exceeds the 0.05 threshold. Therefore, the null hypothesis of no random effect is not rejected, confirming that the CEM is more appropriate than the REM. Based on these sequential model selection tests, the CEM is selected as the final estimation approach for the panel data analysis.

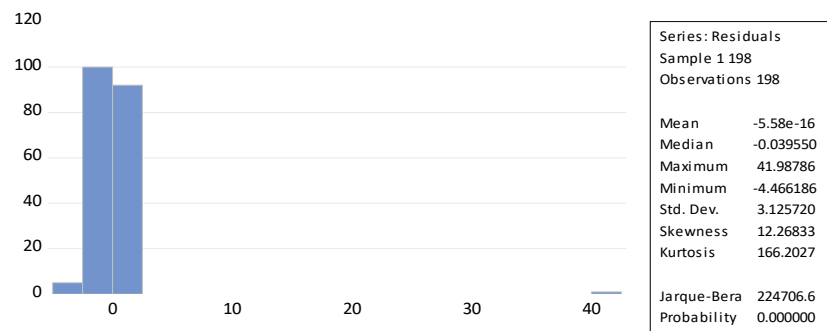


Figure 2. Normality Test

Based on the Jarque-Bera test in Figure 2, the test statistic of 22,706.6 and a probability value of zero indicate that a deviation from the normality assumption regarding the distribution of residuals was detected. However, in accordance with the Central Limit Theorem, this limitation regarding the assumption can be disregarded for large samples. With a total of 198 observation units exceeding the minimum threshold of one hundred observations, the model satisfies the requirement for asymptotic normality for further analysis.

Table 3. Multicollinearity Test Results

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
Constant	0.722937	14.35347	NA
Transfer Pricing	0.004628	1.040932	1.030185
Earnings Management	0.001674	1.108148	1.085181
Leverage	0.102164	2.224058	1.029328
Institutional Ownership	1.410604	13.23891	1.049663

Table 3 presents the results of the collinearity test among independent variables, assessed via Variance Inflation Factor (VIF) values. These results confirm that all explanatory factors, namely institutional ownership, dividend policy, leverage, and firm size, fall well below the critical threshold of ten. This quantitative evidence demonstrates that the regression model specification is free from the issue of multicollinearity, rendering it valid for analysis in the subsequent hypothesis testing stage.

Table 4. Heteroscedasticity and Autocorrelation Test Results

Test	Null Hypothesis	Measure	Statistic	d.f.	Prob.
Glejser Heteroskedasticity Test	Homoscedasticity	F-statistic	1.245607	F (4,193)	0.0000
		Obs*R-squared	4.062693	Chi-Square (4)	0.0000
		Scaled explained SS	1.020220	Chi-Square (4)	0.0000
Breusch-Godfrey Serial Correlation LM Test	No serial correlation up to 2 lags	F-statistic	0.489582	F (2,191)	0.6136
		Obs*R-squared	1.009872	Chi-Square (2)	0.6035

Table 4 shows that the test for error variance consistency yielded a Chi-Square probability value of 0.0000. This significance level falls below the threshold for variance normality ($0.0000 < 0.05$), indicating the presence of heteroscedasticity in the model. To address this distortion, a correction procedure was applied using a cross-section weighting technique. This balancing estimation approach ensures that

the interpretation of the final statistical parameters remains valid and academically sound, despite the initial non-uniformity of the error structure. A numerical evaluation involving the product of observations and the coefficient of determination yielded a Chi-Square probability of 0.6035. These quantitative findings provide empirical confirmation that the equation specification is free from time-dependency issues or autocorrelation among the error terms.

Table 5. R² and F² Test Results

Model	Adjusted R-Squared	Prob (F-Statistic)
Model 1	0.063302	0.001304
Model 2	0.091343	0.000064

Table 5 presents the results of the coefficient of determination and model feasibility tests. Model 1 has an Adjusted R-Squared value of 0.063302, indicating that the independent variables explain 6.33% of the variation in tax avoidance, while the remaining 93.67% is explained by other factors outside the model. Model 2 has an Adjusted R-Squared value of 0.091343, indicating that the model explains 9.13% of the variation in tax avoidance, with the remaining 90.87% attributable to other factors. Furthermore, the probability values of the F-statistic for Model 1 (0.001304) and Model 2 (0.000064) are both below the 5% significance level, indicating that the models are statistically significant in their overall fit.

Table 6. Hypothesis Testing Results

Variable	Coefficient	Std. Error	t-statistic	Prob.
Constant	-0.510357	0.336924	-1.514753	0.1315
Transfer Pricing	-0.029022	0.067917	-0.427323	0.6696
Earnings Management	0.006589	0.040039	0.167068	0.8675
Leverage	1.283705	0.319222	4.021355	0.0001

Table 6 shows that the estimation results indicate that the regression coefficient for transfer pricing is -0.029022, with a t-statistic of -0.427323 and a probability value of 0.6696. Since the probability value exceeds the five-percent significance level (0.6696 > 0.05), transfer pricing does not have a statistically significant effect on tax avoidance, despite exhibiting a negative relationship. Therefore, the hypothesis proposing an effect of transfer pricing on tax avoidance is rejected. The estimation results for earnings management show a regression coefficient of 0.006589, a t-statistic of 0.167068, and a probability value of 0.8675. As the probability value exceeds the five-percent significance level (0.8675 > 0.05), earnings management does not have a statistically significant effect on tax avoidance, although the relationship is positive. Accordingly, the hypothesis proposing an effect of earnings management on tax avoidance is rejected. For leverage, the regression coefficient is 1.283705, with a t-statistic of 4.021355 and a probability value of 0.0001. Since the probability value is below the five-percent significance level (0.0001 < 0.05), leverage has a positive and statistically significant effect on tax avoidance. Therefore, the hypothesis stating that leverage influences tax avoidance is accepted.

Table 7. Moderated Regression Analysis Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Constant	-0.488246	0.306514	-1.592896	0.1128
TPxIO	-0.043867	0.099326	-0.441642	0.6592
EMxIO	0.014748	0.121857	0.121025	0.9038
LExIO	1.867120	0.393936	4.739660	0.0000

Note: TP= Transfer Pricing, EM= Earnings Management, LE= Leverage, and IO= Institutional Ownership

The moderation analysis in Table 7 indicates that institutional ownership does not significantly moderate the relationship between transfer pricing and tax avoidance. The interaction between transfer pricing and institutional ownership (TPxIO) has a negative coefficient of -0.043867 with a probability value of 0.6592, which exceeds the 0.05 significance level. Therefore, the interaction effect is statistically insignificant. Similarly, institutional ownership does not significantly moderate the relationship between earnings management and tax avoidance. The interaction between earnings management and institutional ownership (EMxIO) has a positive coefficient of 0.014748 with a probability value of 0.9038. This result indicates that the interaction effect is not statistically significant. In contrast, the interaction between leverage and institutional ownership (LExIO) has a positive coefficient of 1.867120 with a probability value of 0.0000. This result indicates a statistically significant interaction effect between leverage and institutional ownership in relation to tax avoidance.

5. Discussion

The findings indicate that transfer pricing has no significant effect on tax avoidance, suggesting that related-party transaction intensity is not a key determinant of tax avoidance among manufacturing companies. From the perspective of Agency Theory, this finding does not support the assumption that affiliated transactions are systematically used for profit shifting. This may reflect tax regulations, including transfer pricing documentation and the arm's length principle, which constrain managerial discretion. Related-party transactions may also primarily support operational and supply chain activities, while auditor and shareholder oversight may limit potential misuse. This finding contradicts Barker and Brickman (2017), Amidu et al. (2019), and Eriotis et al. (2021), but is consistent with Falbo and Firmansyah (2021) and Rahmadhani and Lastanti (2024).

Earnings management also has no significant effect on tax avoidance, indicating that discretionary accruals are not necessarily used to reduce corporate tax liabilities. This may be explained by the distinction between commercial and fiscal reporting, whereby fiscal reconciliation adjusts differences in income and expense recognition for tax purposes. Earnings management may instead be motivated by financial reporting objectives, such as meeting performance targets, smoothing income, and satisfying investor expectations. Thus, earnings management and tax planning do not necessarily occur simultaneously. This finding is consistent with Nugroho et al. (2024), but contradicts Falbo and Firmansyah (2021), Abdurrosyid and Damayanti (2023), and Rahmanda and Prabowo (2024).

In contrast to the preceding variables, leverage has a positive and significant effect on tax avoidance. This finding indicates that debt-based financing is associated with corporate tax planning strategies. Within the Agency Theory framework, debt financing may serve as a managerial instrument for optimizing capital structure while utilizing tax benefits arising from interest expenses that qualify as deductible expenses under applicable regulations. The capital-intensive nature of the manufacturing industry, which requires substantial financing for fixed assets, expansion, and working capital, provides contextual support for this relationship. Interest expenses arising from external financing may reduce taxable income in accordance with prevailing tax provisions. This finding supports the studies by Widyastuti et al. (2022) and Effendi and Trisnawati (2023), but differs from the findings of Purnama (2017), Arianandini and Ramantha (2018), and Safitra and Totanan (2025).

The moderation analysis reveals that institutional ownership does not moderate the relationship between transfer pricing and tax avoidance. This result suggests that institutional ownership does not significantly alter the relationship between these variables. Transfer pricing regulations, investors' emphasis on legal

compliance, and the complexity of monitoring affiliated transactions may provide explanations for this finding. The result is consistent with Rahmadhani and Lastanti (2024). Similarly, institutional ownership does not significantly moderate the relationship between earnings management and tax avoidance. This finding indicates that institutional ownership does not significantly influence the relationship between earnings management and tax avoidance. Differences in investment priorities, information asymmetry, and limitations in monitoring effectiveness may affect institutional investors' ability to oversee managerial accounting decisions. This result is consistent with Rahminda and Prabowo (2024), but differs from Abdurrosyid and Damayanti (2023).

Meanwhile, institutional ownership positively moderates the relationship between leverage and tax avoidance. This finding indicates that institutional ownership is associated with changes in the strength of the relationship between debt financing and tax avoidance. From the perspective of Agency Theory, institutional investors' monitoring capacity and analytical resources may support the management of capital structure and the utilization of interest tax shields. However, this interpretation should consider that institutional monitoring is not necessarily directed toward restricting tax planning strategies, but may also focus on optimizing corporate value. This finding is consistent with Rahmawaty and Astuti (2023), but contradicts the findings of Prasatya et al. (2020), Effendi and Trisnawati (2023), and Apriyanto and Purwatiningsih (2024).

6. Conclusion

This study examines the effects of transfer pricing, earnings management, and leverage on tax avoidance, with institutional ownership serving as a moderating variable among manufacturing companies listed on the Indonesia Stock Exchange during 2021–2023. The findings indicate that transfer pricing has a negative but insignificant effect, while earnings management has a positive but insignificant effect on tax avoidance. In contrast, leverage demonstrates a positive and significant effect, highlighting the relevance of debt financing and interest tax shields in corporate tax strategies. Furthermore, institutional ownership does not moderate the relationships between transfer pricing and earnings management and tax avoidance. However, it positively moderates the relationship between leverage and tax avoidance, functioning as a quasi-moderator. These findings imply that corporate tax planning is more closely associated with debt financing decisions than with related-party transactions or discretionary earnings management. Therefore, management should balance tax efficiency with solvency risks, regulatory compliance, and long-term financial sustainability, while tax authorities should strengthen transfer pricing oversight and monitoring of excessive interest deductions.

This study provides empirical insights into the role of institutional ownership in corporate tax avoidance within the Indonesian manufacturing sector. However, its generalizability is limited by the sector-specific sample, three-year observation period, and quantitative measures of related-party transactions that do not distinguish among transaction types, including sales, royalties, and related-party loans. The limited explanatory power of some moderating relationships also indicates that other determinants may influence corporate tax avoidance beyond the proposed framework. Future research could broaden the sample across industries and extend the observation period to examine longer-term patterns. Alternative tax avoidance measures, such as Book-Tax Differences (BTB) and Long-run Cash ETR, could also be considered, alongside additional factors such as capital intensity, corporate social responsibility, executive compensation, independent commissioners, and audit committees to provide a more comprehensive understanding of corporate tax avoidance.

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