

DOI: 10.55643/fcapter.5.64.2025.4822

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Received: 05/05/2025

Accepted: 06/10/2025

Published: 31/10/2025

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# DISENTANGLING CORPORATE TAX BEHAVIOR: THE MODERATING ROLE OF TRANSFER PRICING IN THE NEXUS BETWEEN CAPITAL INTENSITY, MANAGERIAL OWNERSHIP, SALES GROWTH, AND EFFECTIVE TAX RATE

## ABSTRACT

This research investigates the influence of capital intensity, managerial ownership, and sales growth on firms' effective tax rates (ETRs), incorporating transfer pricing as a moderating factor. The study focuses on manufacturing companies listed on the Indonesia Stock Exchange (IDX) during the period 2019–2023. The entire population comprises all publicly traded manufacturing firms within that timeframe. A purposive sampling approach was applied, resulting in a final sample of 18 companies that met predetermined selection criteria. The study utilizes secondary data retrieved from the official IDX database, and panel data regression is employed as the analytical technique to assess the relationships among the variables. The results indicate that capital intensity does not significantly impact the ETR. In contrast, both managerial ownership and sales growth demonstrate a statistically significant negative relationship with ETR, suggesting that greater ownership by managers and increased revenues are associated with reduced tax burdens. Additionally, the moderating effect of transfer pricing is not observed in the relationships involving capital intensity or sales growth. However, transfer pricing does significantly moderate the link between managerial ownership and the effective tax rate. From a theoretical standpoint, the study contributes to the discourse on corporate tax behaviour by integrating elements of corporate governance and tax planning, particularly within the context of emerging markets. Practically, the findings offer value to tax authorities by identifying firm-level characteristics that may signal tax avoidance practices, especially in relation to ownership structure and intercompany pricing. The insights may also guide companies in aligning internal governance and growth strategies with responsible tax compliance. Furthermore, the results provide an empirical foundation for policymakers to refine regulatory frameworks and strengthen supervision of related-party transactions.

**Keywords:** capital intensity, managerial ownership, sales growth, effective tax rate, transfer pricing, IDX

**JEL Classification:** H25, G32, M41

## INTRODUCTION

Fiscal contributions serve as a fundamental pillar in sustaining national development agendas (Laura, 2022), particularly within developing economies such as Indonesia, where taxation represents the dominant stream of government income (Senior et al., 2022). Among the spectrum of tax instruments, corporate income tax exerts a substantial influence on corporate earnings (Hanappi & Millot, 2023), thereby encouraging companies to adopt lawful measures aimed at reducing tax expenditures (Vance, 2025). Concurrently, governmental bodies continue to enhance their tax administration and collection capabilities, shaping a complex interplay between regulatory authorities and corporate taxpayers. This interplay accentuates the critical role of strategic tax planning that adheres to prevailing legal norms. One frequently utilised metric in assessing the efficacy of such planning is the effective tax rate (ETR), which quantifies the share of corporate income devoted to tax liabilities (Afifah & Hasymi, 2020).

In recent periods, the phenomenon of persistently low ETRs within Indonesia's manufacturing industry has drawn significant interest from both academia and regulators, as such patterns may indicate deliberate efforts to minimise tax exposure or engage in avoidance tactics. Anchored in agency theory, this investigation explores how internal attributes of firms shape tax-related conduct, particularly within the context of conflicting objectives between shareholders and managerial agents. Although numerous studies have examined how variables such as capital intensity, managerial ownership, and sales growth influence tax outcomes, the empirical evidence remains inconclusive and inconsistent.

Capital intensity — typically measured as the ratio between fixed and total assets — is theorised to influence ETR via the tax deductions permitted through depreciation (Gropp, 1997; Rosydayanti et al, 2024). While some scholars report no observable impact (Rahmi et al., 2023), while some scholars report no observable impact (Ma'ruf & Murwaningsari, 2022). In parallel, managerial ownership, defined by the proportion of equity held by executives, is posited to reduce agency conflicts and promote tax efficiency. Nonetheless, existing empirical work yields contrasting outcomes: some findings support a negative effect on ETR (Niandari et al., 2020), while others detect no meaningful association (Rahmi et al., 2023) or even identify a positive link (Saparinda et al., 2023). Similarly, sales growth, often considered a signal of firm success, may increase the tax burden; yet, many firms use this momentum to implement tax optimisation strategies (Ma'ruf & Murwaningsari, 2022; Rizal & Sari, 2022).

In an effort to resolve these discrepancies, the present study expands on the analytical model developed by Rahmi et al (2023) by introducing transfer pricing as a moderating construct. Transfer pricing—defined as the pricing of intercompany transactions within affiliated entities—is a common mechanism used by both multinational and domestic enterprises to reallocate profits across jurisdictions with differing tax regimes. Despite its practical relevance, the function of transfer pricing as a moderator in the nexus between firm-specific factors and tax burden has been insufficiently explored. Focusing on manufacturing firms listed on the Indonesia Stock Exchange over the 2019–2023 period, this study seeks to offer clarity on previous conflicting results and to contribute both theoretical enrichment and practical implications for the formulation of corporate tax policies. In doing so, it addresses a notable gap in the Indonesian tax literature concerning the interplay between transfer pricing and firm-level determinants of tax behaviour.

## LITERATURE REVIEW

Agency theory conceptualizes the relationship between company owners (principals) and managers (agents), whereby the principals delegate decision-making authority to the agents (Jensen & Meckling, 1976). In organizational structures characterized by decentralization, managers often possess superior information compared to owners and may pursue personal objectives that are not aligned with shareholder interests (Davis et al., 1997). In the absence of robust monitoring mechanisms, managers are likely to prioritize their own benefits, including manipulating financial reporting to decrease the effective tax burden for self-gain (Janský, 2023).

The notion of effective tax rates can also be interpreted through the lens of agency theory. Here, the effective tax rate represents the proportion of tax paid by a firm in relation to its pre-tax earnings, which frequently falls below normative expectations (Janský, 2023). Within this theoretical framework, capital intensity is associated with long-term assets that influence both profitability and tax exposure. Managers might use capital investments as a tool to optimize depreciation and, thereby, reduce the company's effective tax rate (Lenz, 2020). Managerial ownership also ties into this theory, as differing interests may arise—owners generally aim to maximize profits, whereas managers might be inclined to suppress reported profits in pursuit of lower tax obligations (Gusti et al., 2024). Furthermore, agency theory views transfer pricing as a deliberate corporate tactic for reallocating profits across entities, thus decreasing the effective tax rate and reflecting a misalignment between corporate behavior and government tax interests (Evi, 2023).

Signaling theory, originally proposed by Spence (1973), asserts that a signal sender (such as a firm) conveys information to reduce information gaps, thereby aiding the signal receiver (typically investors) in making decisions. The theory emphasizes the need for firms to disclose financial statements to external stakeholders to address asymmetries in information. Given that firms inherently possess more knowledge about their operations than outside investors and creditors, transparent and credible reporting can help diminish ambiguity regarding the firm's future performance (Mesioye & Bakare, 2024).

In the context of this research, signaling theory is applied to the sales growth variable. Anticipated increases in sales are typically accompanied by managerial decisions involving financing and investment strategies. These decisions act as market signals, influencing investor perceptions and decision-making. A positive trend in sales growth is often interpreted by the market as an indicator of future expansion and enhanced firm valuation (Munawaroh & Munandar, 2024).

### ***Capital Intensity, Effective Tax Rate, and Transfer Pricing***

This study introduces two hypotheses that explore the linkage between capital structure investment and its interaction with transfer pricing in influencing a company's tax burden efficiency. The allocation of firm resources toward long-term productive assets—commonly referred to as capital structure investment—holds a central role in determining both operational profitability and associated fiscal responsibilities. Practitioners frequently utilize strategic mechanisms to reduce their firm's overall tax liability, with minimizing the effective tax burden being a prominent approach (Kałdoński & Jewartowski, 2020). Empirical inquiries by Ma'ruf & Murwaningsari (2022) as well as Rosydayanti et al. (2024) reveal a statistically positive correlation between capital structure investment and tax burden efficiency. Based on such findings, the initial hypothesis of this study posits a direct and positive relationship between capital intensity and the effective tax burden.

Furthermore, under the lens of agency theory, it is plausible that capital structure investment decisions may impact a firm's tax burden when considered alongside intercompany pricing arrangements (Taji & Palupi, 2024). Agency theory explains that executives may prefer to redirect idle resources into fixed capital to benefit from depreciation deductions, ultimately reducing taxable earnings. Transfer pricing, within this context, acts as a moderating construct that may either magnify or diminish this relationship. Thus, the second hypothesis is developed to test the moderating role of transfer pricing in the relationship between capital allocation intensity and tax burden efficiency.

H1a: Capital structure investment positively influences the effective tax burden.

H1b: Transfer pricing moderates the influence of capital structure investment on the effective tax burden.

### ***Managerial Ownership, Effective Tax Rate, and Transfer Pricing***

Managerial shareholding, derived from agency theory, serves as a pivotal factor in understanding the divergence between owners' goals — primarily wealth maximization — and managerial preferences, which may lean toward reducing taxable earnings for personal gain (Duhoon & Singh, 2023). While Rahmi et al. (2023) found no statistically relevant relationship between managerial ownership and effective taxation, contrasting results from Saida Rahma & Masripah (2024) suggest otherwise. Drawing from these varying outcomes, the present research theorizes that an increased managerial equity stake may lead to higher involvement in tax governance, thus influencing the effective tax rate positively.

Consistent with agency theory, the extent to which management holds equity in a firm may shape tax-related decisions, particularly those involving inter-affiliate pricing strategies (Rizki & Nugroho, 2024). Ownership by management often fosters deeper strategic engagement, including tax optimization via mechanisms such as transfer pricing. In this framework, transfer pricing may mediate or adjust the strength of the connection between managerial ownership and effective taxation levels. The hypotheses developed in this segment are as follows:

H2a: Managerial equity ownership exerts a positive impact on the effective tax burden.

H2b: Transfer pricing modifies the relationship between managerial ownership and tax burden efficiency.

### ***Sales Growth, Effective Tax Rate, and Transfer Pricing***

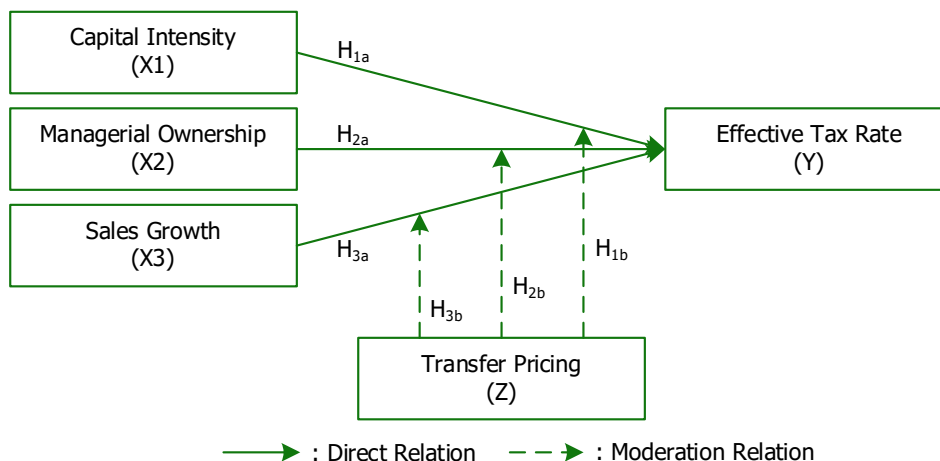
The upward trajectory of a firm's revenue growth frequently prompts financial managers to reevaluate investment and financing strategies, especially when planning for future opportunities. In this sense, revenue expansion functions as an informative market indicator, conveying critical expectations about the firm's future financial performance and value creation potential. A consistent increase in sales performance typically enhances investor confidence and firm valuation (Salfore, 2023). Although Bahtiar & Wenten (2024) did not observe a significant association between revenue expansion and tax efficiency, the findings from Ainniyya et al. (2021) offer opposing evidence, highlighting a statistically meaningful effect. In light of these differing conclusions, this study proposes that revenue growth may positively correlate with tax liability, as improved revenue often translates into elevated profit margins and, consequently, higher taxation.

Viewed through the framework of signaling theory, a firm's sales momentum may have direct implications for tax planning, especially in conjunction with transfer pricing practices (Parahita & Tjahjono, 2025). Businesses that demonstrate significant sales growth often possess the capability and leverage to employ advanced tax planning strategies to maintain a competitive edge. Within this scope, transfer pricing may act as a regulating variable that either amplifies or mitigates the relationship between revenue expansion and tax obligations. Hence, this study formulates the following hypotheses:

H3a: Revenue growth has a direct and positive effect on the effective tax burden.

H3b: Transfer pricing moderates the connection between revenue growth and tax burden efficiency.

Guided by an integrative theoretical foundation derived from both agency and signaling theories, this research develops a conceptual framework to explore the effects of capital investment intensity, managerial equity ownership, and sales performance on effective tax burden levels, with transfer pricing introduced as a moderating construct. The proposed model is illustrated in Figure 1 below.



**Figure 1. Conceptual Framework.**

## AIMS AND OBJECTIVES

This research aims to investigate the extent to which capital intensity, managerial shareholding, and revenue expansion affect the effective tax rate within manufacturing firms listed on the Indonesia Stock Exchange. Furthermore, the study incorporates the concept of transfer pricing as a moderating element to determine whether it intensifies or mitigates the relationship between these explanatory variables and a company’s tax liabilities. Through this empirical inquiry, the study enhances the theoretical understanding of tax management behavior in developing economies. It also provides actionable insights for fiscal authorities and business leaders striving to create more transparent, equitable, and effective taxation systems.

## METHODS

This study employs a quantitative associative approach to investigate the causal relationships between capital intensity, managerial shareholding, and revenue growth in relation to the effective tax rate, with a particular focus on the moderating role of transfer pricing. The primary objective is to assess the degree to which these explanatory variables impact tax efficiency and to explore whether the inclusion of transfer pricing mechanisms amplifies or mitigates their influence.

The empirical analysis is centered on manufacturing sector entities publicly traded on the Indonesia Stock Exchange (IDX) throughout the 2019 to 2023 period. A purposive sampling strategy is utilized to ensure the selection of firms that are most relevant to the study’s analytical framework. The investigation relies entirely on secondary quantitative data, drawn from the annual financial statements officially published and made available through the IDX’s online platform ([www.idx.co.id](http://www.idx.co.id)) for the specified years. These data points encompass comprehensive figures related to total assets, revenue streams, and liability structures. The findings derived from this research are intended to advance theoretical and practical insights into the dynamics of tax avoidance within the Indonesian manufacturing industry, with empirical evidence summarized and presented in Table 1.

**Table 1. Operational Definition of Variables.** (Source: Literature Review, 2024)

Variables	Operational Definition	Formula	Scale
Effective Tax Rate (Y)	<i>Effective tax rate</i> is the percentage of tax rate that compares profit before tax with income tax expense according to fiscal calculations (Gloria & Prima, 2020)	$ETR = \frac{\text{Total Income Tax Expense}}{\text{Profit before tax}} \times 100\%$	Ratio
Capital Intensity (X1)	<i>Capital intensity</i> is the ratio of investment activities carried out by a company related to fixed asset investments (Chytia & Pradana, 2021)	$CI = \frac{\text{Total Net Fixed Assets}}{\text{Total Assets}} \times 100\%$	Ratio
Managerial Ownership (X2)	Managerial ownership is a situation where managers own shares in the company, or in other words, managers not only act as intermediaries but also as shareholders in the company (Giri & Darmawan, 2022)	$MO = \frac{\text{Managerial Share Ownership}}{\text{Number of Shares Outstanding}} \times 100\%$	Ratio
Sales Growth (X3)	<i>Sales growth</i> is a company performance indicator that evaluates revenue from year to year and projects future growth (Tanjaya & Nazir, 2021)	$SG = \frac{\text{Sales}(t) - \text{Sales}(t-1)}{\text{Sales}(t-1)}$	Ratio
Transfer Pricing (Z)	<i>Transfer pricing</i> is a transaction between related parties to influence the conditions of a transaction involving the provision of property or services, the use of assets, including intangible assets, and the provision of finance, all of which need to be priced (Syahbana et al., 2023)	$TP = \frac{\text{Accounts Receivable from Affiliated Parties}}{\text{Total Receivables}} \times 100\%$	Ratio

The analysis presented in Table 1 was executed using EViews 12.0, implementing a panel data regression framework to investigate how capital intensity, managerial ownership, and sales growth contribute to variations in the effective tax rate, with transfer pricing assessed as a moderating influence. To determine the optimal regression model for the panel structure, the study applied a series of specification tests: the Chow Test, Hausman Test, and Lagrange Multiplier (LM) Test. The Chow Test served to evaluate whether a fixed effects model offered a statistically superior fit over a pooled OLS model. Subsequently, the Hausman Test was employed to examine the appropriateness of adopting a fixed effects model as opposed to a random effects model. Lastly, the LM Test was applied to decide whether the random effects model was preferable to the pooled regression approach, ensuring that the chosen model appropriately captured the nature of the panel data (Yulyanti et al., 2022).

#### Model 1:

$$YETR = \alpha + \beta_1 CI_{it} + \beta_2 MO_{it} + \beta_3 SG_{it} + \varepsilon$$

where: *ETR*<sub>it</sub> – Effective Tax Rate;  $\alpha$  – constant;  $\beta_1, 2, 3, 4$  – independent variable regression coefficient; *CI* – Capital Intensity; *MO* – Managerial Ownership; *SG* – sales Growth; *i* – company; *t* – Time;  $\varepsilon$  – error.

To investigate the moderating role of transfer pricing, the study applied Moderated Regression Analysis (MRA) (Baron & Kenny, 1986), which enables the assessment of how transfer pricing influences the strength or direction of the relationship between the independent variables and the effective tax rate.

#### Model 2:

$$YETR = \alpha + \beta_1 CINT_{it} + \beta_2 MOWN_{it} + \beta_3 SG_{it} + \beta_4 CINT * TP_{it} + \beta_5 MOWN * TP_{it} + \beta_6 SG * TP_{it} + \varepsilon$$

where: *TP* – Transfer Pricing; *CINT\*TP* – Capital Intensity moderates Transfer pricing; *MOWN\*TP* – Managerial Ownership moderates Transfer pricing; *SG\*TP* – Sales Growth moderates Transfer pricing.

## RESULTS

**Table 2. Descriptive Statistic.** (Source: Eviews 12.0 Output, 2024)

	Effective Tax Rate	Capital Intensity	Managerial Ownership	Sales Growth	Transfer Pricing
Mean	0.2458	0.3250	0.0945	0.0931	0.2328
Median	0.2209	0.3218	0.0762	0.0721	0.0652
Maximum	0.8146	0.6011	0.3732	0.9917	0.9582
Minimum	0.1237	0.1223	0.0002	-0.2619	0.0002
Std. Dev.	0.1022	0.1165	0.1149	0.1941	0.3338
Skewness	4.2841	0.2262	1.4652	1.7829	1.4106
Kurtosis	22.983	2.3811	9.9509	9.1671	3.2717
<b>Observations</b>	<b>90</b>	<b>90</b>	<b>90</b>	<b>90</b>	<b>90</b>

Referring to Table 2, the effective tax rate across the sample exhibits a mean of 0.2458, with the highest value reaching 0.8146 and the lowest at 0.1237. This range reflects a substantial disparity in the tax obligations faced by the firms analyzed. The mean capital intensity stands at 0.3250, signifying a considerable investment in fixed assets relative to total asset holdings. In comparison, the average figures for managerial ownership and sales growth are notably lower, at 0.0945 and 0.0931, respectively, indicating minimal equity held by management and modest levels of revenue expansion. Additionally, the transfer pricing variable has an average of 0.2328, suggesting that although not uniformly applied, such practices are evident within a notable segment of the companies observed.

**Table 3. Panel Data Regression Testing.** (Source: Eviews 12.0 Output)

Model Test	Prob > F	(Prob>F)/(Prob>Chi-bar2)/(Prob>Chi2)	Description
Chow Test	0.000002	0.0000	FE
Hausman test	0.000000	0.0913	RE
Lagrange Multiplier Test	0.001935	0.0000	RE

Referring to Table 3 the analysis adopts the Random Effects (RE) model as the chosen panel data regression technique, in alignment with the results derived from the Chow and Hausman evaluations. The RE model is deemed appropriate for its capability to simultaneously capture both temporal and cross-sectional fluctuations through the application of the Generalized Least Squares (GLS) estimation. This approach is particularly noted for its effectiveness in mitigating autocorrelation and interdependence among observations. Furthermore, since the GLS estimator operates independently of classical assumption testing, it is considered the most suitable framework for investigating the effects of capital intensity, managerial shareholding, and revenue growth on the effective tax rate, while also facilitating a comprehensive assessment of the moderating influence exerted by transfer pricing practices.

**Table 4. Results of Moderation Statistical Test.** (Source: Processed data, 2024)

Independent Variable	t-Statistic / Prob	Moderation Variable	t-Statistics / Prob	Independent * Moderation	t-Statistics / Prob	Information
(CINT --> ETR)	-1.592318 / 0.1152	(TP --> ETR)	-1.698262 / 0.0933	(CINT * TP)	0.963259 / 0.3382	Homologizer Moderator
(MOWN --> ETR)	-4.4742332 / 0.0000			(MOWN * TP)	3.426731 / 0.0010	Quasi Moderator
(SG --> ETR)	-2.037090 / 0.0449			(SG * TP)	-0.805905 / 0.4266	Predictor Moderator

Referring to Table 4, it is evident that transfer pricing assumes a differentiated moderating function across the associations between each independent variable and the effective tax rate. Specifically, in the context of capital intensity, transfer pricing operates as a neutral moderator – designated as a homologizer – indicating that its presence neither amplifies nor diminishes the relationship and lacks statistical significance. In contrast, transfer pricing behaves as a quasi-moderator in

the linkage between managerial ownership and the effective tax rate, characterized by its dual role in exerting a significant direct influence and in shaping the interaction between the variables. Meanwhile, within the nexus of sales growth and the effective tax rate, transfer pricing functions as a predictor moderator, where its significant direct impact on the effective tax rate is evident, yet it does not intervene in moderating the interaction between these two variables. Collectively, these results highlight the essential and strategic positioning of transfer pricing as an influential element in the formulation of tax strategies for manufacturing enterprises.

**Table 5. Summary of Research Results.** (Source: Processed data, 2024)

Hypothesis	Panel Data Regression Model Test	Moderation Analysis Regression Model Test	Interpretation of Moderation Analysis	Conclusion
CINT → ETR	- 0.599180 (0.0511)			Rejected
MOWN → ETR	- 2.117166 (0.0007)			<b>Accepted</b>
SG → ETR	- 0.311348 (0.0493)			<b>Accepted</b>
CINT*TP → ETR		1.424677 (0.3382)	Homologizer Moderator	Rejected
MOWN*TP → ETR		18.11016 (0.0010)	Quasi Moderator	<b>Accepted</b>
SG*TP → ETR		- 0.299253 (0.4266)	Predictor Moderator	Rejected
Adjusted R-squared				0.128547
F- statistic				5.376094
Prob (F- F-statistic)				0.001935

### Model 1

$$YETR = 1.893502 - 0.599180 CI_{it} - 2.117166 MO_{it} - 0.311348 SG_{it} + \varepsilon$$

Based on the analysis presented in Table 5, the outcomes of this research indicate that capital intensity bears no statistically meaningful effect on the effective tax rate (ETR) among manufacturing firms listed on the Indonesia Stock Exchange (IDX) during the 2019 to 2023 period. This conclusion is drawn from a t-statistic of -0.599180 and a p-value of 0.0511, which marginally surpasses the conventional 0.05 threshold for significance. While agency theory traditionally argues that greater fixed asset investment should reduce corporate tax burdens through depreciation allowances, the empirical evidence contradicts this assumption. In practical application, these assets appear to be primarily allocated for routine operational functions rather than for minimizing taxable income. These findings are consistent with the studies of Afandi & Rahmawati, (2019) and Rahmi et al. (2023), both of which reported an absence of a significant relationship between capital intensity and ETR. Furthermore, Chytia & Pradana (2021) underscored that in manufacturing contexts, fixed asset accumulation is more directly tied to improving operational efficiency than to leveraging depreciation for tax reduction purposes.

### Model 2

$$YETR = 1.948025 - 0.560904 CINT_{it} - 4.050417 MOWN_{it} - 0.303770 SG_{it} + 1.424677 CINT_{it} * TP_{it} + 18.11016 MOWN_{it} * TP_{it} - 0.299253 SG_{it} * TP_{it} + \varepsilon$$

In addition, insights derived from Table 5 indicate that transfer pricing operates as a neutral moderator in the linkage between capital intensity and the effective tax rate. This suggests that transfer pricing does not exert a statistically meaningful influence—neither amplifying nor diminishing—the association between these variables. This inference is supported by the statistical evidence, with a t-value of 0.963259 and a p-value of 0.3382, which exceeds the conventional 0.05 threshold for significance. Hence, although transfer pricing is integrated into the analytical framework, it fails to alter the intensity of the relationship between the predictor and the outcome variable. One possible explanation for this non-significant moderating effect is that, within the observed firms, capital intensity is primarily directed toward supporting operational activities rather than serving as a tool for tax planning via transfer pricing. These empirical results stand in contrast to the expectations set forth by agency theory, which contends that tangible assets may affect tax-related outcomes through strategies such as transfer pricing.

## DISCUSSION

The analysis demonstrates that ownership by management exerts a statistically significant and inverse effect on the effective tax rate, as reflected in a t-statistic of -3.523334 and a p-value of 0.0007, which is below the 0.05 threshold. This implies that as the proportion of shares held by executives increases, so too does their propensity to engage in tax planning practices that minimize the corporation's fiscal liabilities. Such an outcome aligns with earlier research, Ma'ruf & Murwaningsari (2022 and Rosydayanti et al. (2024), which similarly concluded that managerial equity stakes have a considerable influence on effective taxation levels. Greater equity participation by managers often leads to heightened involvement in policy formulation, particularly regarding strategic tax minimization. Conversely, this conclusion diverges from that of Rahmi et al. (2023), who observed no meaningful correlation between managerial ownership and effective tax outcomes. In aggregate, the empirical data support the view that increased managerial equity is frequently associated with more assertive approaches to tax management. In addition, the research introduces transfer pricing as a quasi-moderating factor within the nexus of managerial ownership and effective taxation. A quasi-moderator is defined as a construct that not only independently affects the dependent variable but also interacts with the main predictor to intensify its influence. Statistical testing substantiates this moderating function, evidenced by a t-statistic of 3.426731 and a p-value of 0.0010, signifying significance at the 5% level. The moderating role suggests that transfer pricing techniques not only directly shape tax effectiveness but also reinforce the influence of managerial equity on tax avoidance schemes. This intensified linkage may arise from elevated managerial ownership, which incentivizes the use of transfer pricing as part of a larger strategy for enhancing tax efficiency. The results are congruent with agency theory, which contends that when managerial interests are aligned with those of shareholders through ownership, the likelihood of engaging in aggressive tax planning via transfer pricing mechanisms is heightened.

The findings derived from this research demonstrate that sales growth exerts a statistically significant negative influence on the effective tax rate, as shown by a t-value of -1.994054 and a corresponding p-value of 0.0493 ( $p < 0.05$ ). While an upsurge in sales contributes to increased corporate revenue, it is frequently accompanied by elevated operational costs—encompassing expenditures in production, logistics, and administrative activities—which ultimately diminish taxable earnings and thus reduce the effective tax burden. Firms experiencing rapid expansion typically refine their cost-efficiency strategies, thereby reducing their overall tax exposure. These results are consistent with those reported by Ainniyya et al. (2021), who similarly documented an inverse and statistically significant association between sales growth and the effective tax rate.

In terms of transfer pricing's role as a moderating variable, the empirical analysis positions it as a predictor moderator—meaning it directly affects the dependent variable (effective tax rate) without modifying the interaction between the independent variable (sales growth) and the dependent one. Statistical evidence confirms that transfer pricing does not exert a significant moderating influence on this relationship, as evidenced by a t-value of -0.805905 and a p-value of 0.4266 ( $p > 0.05$ ). This indicates that while transfer pricing independently affects tax outcomes, it does not enhance or weaken the influence of sales growth. The lack of moderation may be attributed to the fact that fluctuations in sales growth are largely governed by external dynamics, such as consumer demand and marketing efforts, rather than internal mechanisms like transfer pricing. Consequently, these results offer only partial support for signaling theory, which suggests that firm growth conveys meaningful signals regarding fiscal outcomes.

## CONCLUSIONS

Drawing from empirical results, it is inferred that capital intensity bears no statistically meaningful influence on the effective tax rate, primarily because fixed asset investments are predominantly utilized for core operational functions. In contrast, managerial ownership is inversely and significantly related to the effective tax rate, with transfer pricing functioning as a quasi-moderator that intensifies this association. Additionally, sales growth demonstrates a negative correlation with the effective tax rate, though this relationship remains unaffected by the moderating role of transfer pricing. Transfer pricing also serves as a homologizer moderator in the linkage between capital intensity and the effective tax rate—its presence is evident, yet it does not alter the directional nature of the association. In sum, transfer pricing engages in several interactive mechanisms; however, it does not uniformly reinforce or weaken the effects exerted by the independent variables on the effective tax rate.

This investigation adhered to stringent methodological standards; nevertheless, it is constrained by several notable limitations. The first limitation pertains to the restricted sample size, which resulted from the application of inclusion criteria such as the existence of managerial ownership, utilization of foreign currencies, reporting of financial deficits, and the presence of outliers. Second, the scope of analysis omitted various other plausible determinants of the effective tax rate.

Third, the study's focus on consumer goods manufacturing companies listed on the Indonesia Stock Exchange during the 2016–2020 period potentially narrows the extent to which the findings can be generalized to other sectors or temporal settings.

Given these constraints, several suggestions for improvement are put forward. Corporations are encouraged to produce comprehensive and systematically structured annual and sustainability disclosures, aimed at improving transparency and delivering relevant, current data. Subsequent researchers should consider integrating additional explanatory factors—such as Corporate Social Responsibility (CSR), financial performance, debt ratios, liquidity levels, organizational scale, and dividend distribution policies—in order to enhance the model's adjusted  $R^2$  and deepen its analytical capacity. Adopting alternative variables and expanding the sample scope may yield novel insights and facilitate a more holistic understanding of the drivers affecting effective tax rates and corporate tax strategies.

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## ADDITIONAL INFORMATION

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### AUTHOR CONTRIBUTIONS

*All authors have contributed equally.*

### FUNDING

*The Authors received no funding for this research.*

### CONFLICT OF INTEREST

*The Authors declare that there is no conflict of interest.*

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## **РОЗМЕЖУВАННЯ КОРПОРАТИВНОЇ ПОДАТКОВОЇ ПОВЕДІНКИ: МОДЕРУЮЧА РОЛЬ ТРАНСФЕРТНОГО ЦІНОУТВОРЕННЯ У ВЗАЄМОЗВ'ЯЗКУ МІЖ КАПІТАЛОМІСТКІСТЮ, УПРАВЛІНСЬКОЮ ВЛАСНІСТЮ, ЗРОСТАННЯМ ПРОДАЖІВ ТА ЕФЕКТИВНОЮ ПОДАТКОВОЮ СТАВКОЮ**

У цьому дослідженні автори вивчають вплив капіталомісткості, управлінської власності та зростання продажів на ефективні податкові ставки (ETR) фірм, ураховуючи трансфертне ціноутворення як стримуючий фактор. Дослідження зосереджене на виробничих компаніях, акції яких котируються на Індонезійській фондовій біржі (IDX) протягом 2019–2023 років. Усе населення включає в себе всі публічні виробничі фірми в цьому періоді. Було застосовано цілеспрямований підхід вибірки, у результаті чого була отримана остаточно вибірка з 18 компаній, які відповідали заздалегідь визначеним критеріям відбору. У дослідженні використані вторинні дані, отримані з офіційної бази даних IDX, а регресію панельних даних автори застосовують як аналітичний метод для оцінки взаємозв'язків між змінними. Результати свідчать про те, що капіталомісткість суттєво не впливає на ETR. На противагу цьому, й управлінська власність, і зростання продажів демонструють статистично значущий негативний зв'язок з ETR, що свідчить про те, що більша власність менеджерів і збільшення доходів пов'язані зі зниженням податкового навантаження. Крім того, пом'якшувальний ефект від трансфертного ціноутворення не спостережений у відносинах, пов'язаних із капіталомісткістю або зростанням продажів. Однак трансфертне ціноутворення значно пом'якшує зв'язок між управлінською власністю й ефективною податковою ставкою. Із погляду теорії дослідження сприяє формуванню дискурсу про податкову поведінку корпорацій шляхом інтеграції елементів корпоративного управління та податкового планування, особливо в контексті ринків, що розвиваються. На практиці ж отримані результати мають цінність для податкових органів шляхом виявлення на рівні фірми характеристик, які можуть сигналізувати про практику ухиляння від сплати податків, особливо щодо структури власності й внутрішньофірмового ціноутворення. Отримані результати також можуть допомогти компаніям узгодити стратегії внутрішнього управління та зростання з відповідальним дотриманням податкового законодавства. Крім того, отримані результати забезпечують політикам емпіричну основу для вдосконалення нормативно-правової бази та посилення нагляду за операціями з пов'язаними сторонами.

**Ключові слова:** капіталомісткість, управлінська власність, зростання продажів, ефективна ставка податку, трансфертне ціноутворення, IDX

**JEL Класифікація:** H25, G32, M41