SIMBA

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THE EFFECT OF LEVERAGE, PROFITABILITY, SALES GROWTH AND CAPITAL INTENSITY ON TAX AVOIDANCE WITH EARNINGS MANAGEMENT AS A MODERATION VARIABLE

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Abstract

Penelitian ini bertujuan untuk menganalisis pengaruh *leverage*, profitabilitas, *sales growth*, dan *capital intensity* terhadap *tax avoidance* dengan manajemen laba sebagai variabel moderasi. Data penelitian diperoleh dari laporan keuangan perusahaan manufaktur yang terdaftar di Bursa Efek Indonesia (BEI) periode 2021–2024, dengan metode *purposive sampling* sehingga diperoleh sejumlah sampel 42 perusahaan dengan 168 data yang memenuhi kriteria penelitian. Analisis data dilakukan menggunakan model regresi linier berganda dan *Moderated Regression Analysis* (MRA). Hasil penelitian menunjukkan bahwa *leverage*, *sales growth*, *capital intensity* dan manajemen laba berpengaruh positif signifikan terhadap *tax avoidance*, sedangkan profitabilitas tidak menunjukkan pengaruh signifikan terhadap *tax avoidance*. Uji moderasi menemukan bahwa manajemen laba memperkuat secara positif signifikan pengaruh *leverage*, *sales growth* dan *capital intensity* terhadap *tax avoidance*, sedangkan manajemen laba tidak dapat memoderasi pengaruh profitabilitas terhadap *tax avoidance*. Temuan ini memberikan implikasi bahwa kebijakan pengelolaan pajak perusahaan tidak hanya dipengaruhi oleh struktur modal dan kemampuan menghasilkan laba, tetapi juga dapat dipengaruhi oleh praktik manajemen laba.

Kata kunci: *leverage*, profitabilitas, *sales growth*, *capital intensity*, manajemen laba, *tax avoidance*

Abstract

This research seeks to examine how leverage, profitability, sales growth, and capital intensity affect tax avoidance, with earnings management serving as a moderating variable. The data were collected from the financial reports of manufacturing firms listed on the Indonesia Stock Exchange (IDX) for the 2021–2024 period, applying a purposive sampling technique that resulted in 42 companies being selected and producing 168 observations that met the study's requirements. The analysis was conducted through multiple linear regression and Moderated Regression Analysis (MRA) to test the proposed relationships. The findings revealed that leverage, sales growth, capital intensity, and earnings management each have a significant and positive impact on tax avoidance, while profitability did not display a notable effect. Furthermore, the moderation analysis demonstrated that earnings management significantly amplified the effect of leverage, sales growth, and capital intensity on tax avoidance, but failed

to moderate the relationship between profitability and tax avoidance. These results highlight that tax management strategies within corporations are shaped not only by structural and financial elements, but also by managerial actions related to earnings. In addition, the study emphasizes the importance of considering profit management when evaluating corporate behavior in minimizing tax obligations.
Keywords: *leverage, profitability, sales growth, capital intensity, earnings management, tax avoidance*

A. INTRODUCTION

The global economy has been heavily affected by two major events, namely the COVID-19 pandemic in 2019 and the Russian invasion of Ukraine in 2022. The pandemic also triggered disruptions in economic activities, causing Indonesia's GDP to fall drastically to $0.5 trillion, which represented considerable financial losses (Subagiyo, 2021). According to Law Number 16 of 2009 on State Regulations, taxes are defined as compulsory contributions owed to the state by both individuals and legal entities, which are accompanied by obligations under the same law related to interest and profits without any form of direct compensation, with the aim of supporting state needs for the welfare of the people. From this perspective, the existence of taxation functions not only as a source of revenue but also as a vital instrument to maintain national economic stability. The community's compliance with its tax obligations is the main capital in building a nation so that it can achieve its national development goals (Safitri & Mariani, 2024).

The practice of tax avoidance in Indonesia shows an increasing trend from year to year, which of course has a bad impact on the national development process and causes inequality in the distribution of community welfare. PT Adaro Energy, accused of tax manipulation by Global Witness, an international non-governmental organization focused on environmental issues, as reported in an official document in 2019). PT BAPI is suspected of deliberately submitting an incorrect or incomplete Income Tax Return article 4 Paragraph 2 for the period of August and December 2018 and did not report the Income Tax Return Article 4 paragraph 2 of January December 2019. Tax avoidance It is interpreted as one of the strategies commonly used by companies to reduce tax burden, while remaining within the corridor of the provisions of applicable tax law (Dayani & Suryandari, 2022). Leverage It can be defined as the utilization of a number of assets and funds by the company, where in the process of utilization, the

company is obliged to bear the burden of fixed costs. In other words, Leverage reflects the use of resources that give rise to fixed payment obligations in the company's operations (Nurcholis & Triyani, 2024). Profitability serves as a financial ratio to evaluate how effectively a company can generate profits from the resources it possesses, while also indicating the efficiency of its operational activities (Handayani et al., 2024). This ratio is therefore essential for stakeholders to understand the company's ability to manage its assets and operations profitably.

The potential and future profitability of a company can be reflected through sales growth, which is reported in the annual financial statements and serves as an important indicator for evaluating business performance (Amelia, 2023). Capital intensity, on the other hand, represents the level of investment activities conducted within a company (Dewi & Octaviani, 2021)**.** Such investment typically takes the form of fixed assets aimed at enhancing the company's profit-generating capacity (Ramdiani et al., 2022). Earnings management is a series of actions taken by management to manipulate the value of profit by utilizing the discretion that exists in the accounting provisions but still in line with the principles in financial accounting standards and then uses that discretion to obtain the desired level of profit by management (Jati & Murwaningsih, 2020). Earnings management was chosen as a moderator because Based on research conducted by Sundvik (2017) contained in Nordic Tax Journal states that private companies have a tendency to carry out profit management in order to face changes in tax rates that will apply.

Theoretical Studies

Agency Theory

Jensen and Meckling (1976) explained that an agency relationship is defined as a contract or agreement between one or more parties that acts as Main, namely shareholders, with other parties acting as agents, namely the management of the company who is authorized to carry out operations on behalf of shareholders. Tax activities managed by such managers can ultimately lead to tax evasion (*Tax avoidance*) (Amelia, 2023).

Signaling Theory

Ghozali (2020:166) claims that signal theory explains how two parties behave when they have access to different types of information. Companies need to take the initiative to disclose not only information required by applicable laws and regulations, but also additional information that is considered important for shareholders, creditors, and other interested parties to support the appropriate decision-making process.

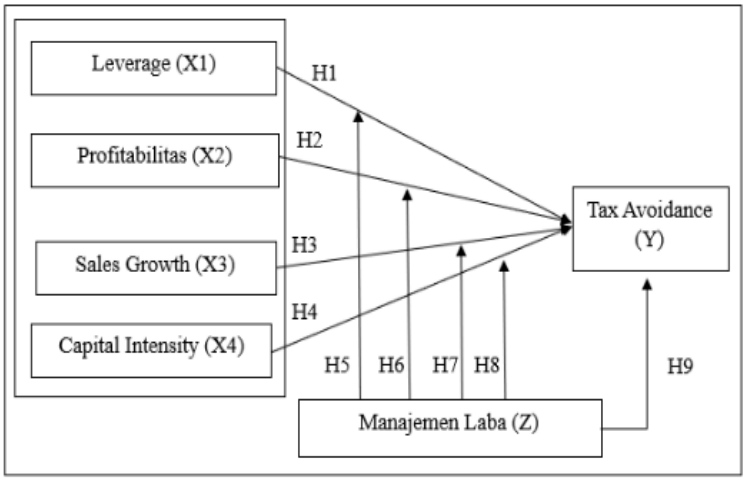

Figure 1. Conceptual Framework

Using the above structure as a guide, the results of the hypothesis development of this research are:

H1 : *Leverage* affects *Tax avoidance*

H2 : Profitability affects *Tax avoidance*

H3 : *Sales growth* affects *Tax avoidance*

H4 : *Capital intensity* affects *Tax avoidance*

H5 : Earnings management can moderate *Leverage* towards *Tax avoidance*

H6 : Earnings management can moderate profitability against *Tax avoidance*

H7 : Earnings management can moderate *Sales growth* towards *Tax avoidance*

H8 : Earnings management can moderate *Capital Intensity* towards *Tax avoidance*

H9 : Earnings management affects *Tax avoidance*

B. METHOD

This research employs a quantitative methodology. The study relies on secondary data obtained from the Indonesia Stock Exchange (IDX) through its official website at www.idx.co.id. The population includes all insurance companies listed on the IDX during the 2021–2024 period. For sample selection, a purposive sampling method was applied, considering several criteria: 1) manufacturing companies listed on the IDX from 2021 to 2024, 2) companies that consistently publish financial statements throughout 2021–2024, 3) companies with an ETR value of less than 1, and 4) companies that did not experience consecutive losses during the 2021–2024 period. Based on these criteria, a total of 42 companies were chosen, resulting in 168 data points (42 companies over 4 years). Data analysis was conducted using multiple linear regression, classical assumption tests, hypothesis testing, and Moderated Regression Analysis (MRA) to examine the proposed relationships.

C. RESULTS AND DISCUSSION

Descriptive Statistical Analysis

Table 1 Descriptive Statistical Analysis

Descriptive Statistics					
	N	*Minimum*	*Maximum*	*Mean*	*Std. Deviation*
Leverage	168	52.0	1039.0	419.571	183.8287
Profitabilitas	168	1.0	402.0	78.607	75.8582
Sales growth	168	-999.0	1475.0	170.470	305.8543
Capital intensity	168	2.0	1125.0	371.405	210.9991
Manajemen Laba	168	-770.0	866.0	-59.583	224.3936
Tax avoidance	168	2.0	954.0	228.113	106.0929
Valid N (listwise)	168				

Source: Data processed (2025)

Normality Test Results

Table 2 Normality Test Results

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		168
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	217.02566089
Most Extreme Differences	Absolute	.046
	Positive	.041
	Negative	-.046
Test Statistic		.046
Asymp. Sig. (2-tailed)		.200[c,d]

Source: Data processed (2025)

Table 4.4 indicates that the research data, represented by the residuals, follow a normal distribution. This is evidenced by an asymp. sig (2-tailed) value of 0.200, which is higher than the 0.05 significance level. Therefore, the normality assumption for the dataset is considered fulfilled, providing a reliable basis for further statistical testing.

Autocorrelation Test Results

Table 3 Autocorrelation Test Results

Model Summary[b]					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.254[a]	.065	.036	220.34937	2.099

Source: Data processed (2025)

The regression model in this study does not exhibit autocorrelation, as evidenced by the Durbin-Watson (DW) test results shown in the table above. The DW value is 2.099, which falls between the upper bound (du) of 1.8092 and 4 minus du, which equals 2.1908, while the lower bound (dl) is 1.6868. These results indicate that the residuals are independent, confirming the validity and reliability of the regression analysis conducted.

Multicollinearity Test Results

Table 4 Multicollinearity Test Results

Coefficients[a]			
		Collinearity Statistics	
Model		Tolerance	VIF
1	(Constant)		
	DAR	.911	1.098
	ROA	.975	1.026
	SLS	.960	1.042
	CI	.914	1.095

Source: Data processed (2025)

Referring to Table 4.5, the multicollinearity test results for the independent variables indicate that the model meets the required criteria. Specifically, since the Variance Inflation Factor (VIF) values do not exceed 10 and the tolerance values are not below 0.1, it can be concluded that the regression model is free from multicollinearity issues. This ensures that the independent variables are not highly correlated, allowing for reliable estimation of their individual effects.

Heteroscedasticity Test Results

Table 5 Heteroscedasticity Test Results

Coefficients[a]						
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	97.131	44.561		2.180	.031
	DAR	.012	.061	.016	.195	.846
	ROA	.189	.142	.103	1.328	.186
	SLS	.062	.036	.135	1.724	.087
	CI	.103	.053	.155	1.939	.054

Source: Data processed (2025)

Referring to Table 4.4, the test results reveal that all independent variables have significance levels exceeding 0.05. Therefore, it can be concluded that the regression model does not exhibit heteroscedasticity. This indicates that the variance of the residuals is consistent across all levels of the independent variables, supporting the reliability of the regression analysis.

Multiple Linear Regression Analysis

Table 6 Multiple Linear Regression Analysis

Coefficients[a]						
Model		*Unstandardized Coefficients*		*Standardized Coefficients*	*t*	*Sig.*
		B	*Std. Error*	*Beta*		
1	(Constant)	54.190	71.040		.763	.447
	DAR	.002	.097	.002	.020	.984
	ROA	.100	.226	.034	.442	.659
	SLS	-.115	.057	-.157	-2.027	.044
	CI	-.205	.085	-.193	-2.429	.016

Source: Data processed (2025)

Based on table 4.5, the linear regression equation from this study is as follows:

$$Y = a + b1X1 + b2X2 + b3X3 + b4C4 + \sum$$

$$Y = 54.190 + 0.002X1 + 0.100X2 - 0.115X3 - 0.205X3 - \varepsilon$$

Based on the regression equation, the SPSS 25 output shows that the dependent variable, tax avoidance, has a constant of 54.190. The output also indicates the direction of each variable, whether positive or negative. In terms of significance levels, sales growth and capital intensity are identified as independent variables with significance below 0.05, indicating a significant effect. In contrast, leverage and profitability have significance levels above 0.05, showing that their effects on tax avoidance are not statistically significant.

Partial Test Results (t-test)

Table 7 Partial Test Results (t-test)

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	27.992	25.029		1.118	.265
	DAR	.474	.065	.388	7.289	.000
	ROA	-.384	.279	-.131	-1.375	.171
	SLS	-.107	.038	-.146	-2.840	.005
	CI	-.639	.073	-.601	-8.721	.000
	Manajemen Laba**Tax avoidance*	.004	.000	.875	28.829	.000
a. Dependent Variable: ETR						

Source: Data processed (2025)

Table 7 shows that the t-test in this study can be used to say:

1) The effect of leverage on tax avoidance

The effect of leverage on tax avoidance shows a t-calculated value of 7.289, compared to a t-table value of 1.9747, meaning that t-calculated (7.289) exceeds t-table (1.9747). Meanwhile, the significance value for leverage's effect on tax avoidance is 0.000, which is below the 0.05 threshold. These findings indicate that leverage exerts a significant positive influence on tax avoidance, so **H1 is accepted**.

2) The effect of profitability on tax avoidance

The t-calculated value for the effect of profitability on tax avoidance is -0.1375 with a table t-value of 1.9747 which means t calculated (-0.1375) < t table (1.9747). The value of profitability significance to tax avoidance was 0.171 > 0.05. These results show that profitability has no effect on tax avoidance, so **H2 is rejected**.

3) The effect of sales growth on tax avoidance

The effect of sales growth on tax avoidance is reflected in a t-calculated value of -2.840, compared to a t-table value of 1.9747, indicating that t-calculated (-2.840) exceeds the t-table (1.9747) in absolute terms. The significance value for this effect is 0.005, which is below the 0.05 threshold. These results demonstrate that sales growth has a significant negative impact on tax avoidance, so **H3 is accepted.**

4) The effect of capital intensity on tax avoidance

The t-calculated value for the effect of capital intensity on tax avoidance is -8,721 with a table t-value of 1.9747 which means t calculated (-8,721) > t table (1.9747). The value of capital intensity significance to tax avoidance is 0.000 < 0.05. These results show that capital intensity has a significant negative effect on tax avoidance so that **H4 is accepted**.

5) The effect of earnings management on *tax avoidance*

The t-calculated value for the effect of earnings management on tax avoidance is 28,829 with a table t-value of 1.9747 which means t calculation (28,829) > t table (1.9747). The value of the significance of earnings management to tax avoidance is 0.000 < 0.05. These results

show that earnings management has a significant positive effect on tax avoidance so that **H9 is accepted**

Coefficient of Determination Test (R2)

Table 8 Determination Coefficient Test Results (R^2)

Model Summary				
Type	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.927a	.860	.852	86.26476

Source: Data processed (2025)

The table above shows that the determination coefficient (Adjusted R Square) has a value of 0.399, indicating that together the variables account for 39.9% of the variation in financial distress. This finding highlights the considerable role of Firm Size, capital structure, and the moderating effect of free cash flow in influencing financial distress. At the same time, the remaining 60.1% of variation is attributed to factors not examined in this study, suggesting that other external or internal elements may also play a significant role in affecting financial distress outcomes.

Moderated Regression Analysis *(MRA)* Test

Table 9 Moderated Regression Analysis *(MRA)* Test Results

Coefficients[a]					
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
	*Leverage**Manajemen Laba	-.002	.000	-.661	-8.209	.000
	Profitabilitas* Manajemen Laba	.002	.001	.125	1.319	.189
	*Sales growth**Manajemen Laba	.000	.000	.143	2.453	.015
	*Capital intensity**Manajemen Laba	.003	.000	.682	8.116	.000
a. Dependent Variable: ETR						

Source: Data processed (2025)

From the results of the Moderated Regression Analysis (MRA) test in the table above, in general, the regression equation is as follows:

Y = a + β1 X1 + β2 X2 + β3 X3 + β4 X4 +β5 X1*DA + β6 X2*DA + β7 X3*DA + β8 X4*DA +DA*Y +ε

Y = 27.992 + 0.474 DAR – 0.384 LONG – 0.107 SLS – 0.639 CI – 0.002 DAR*DA + 0.002 LONG*DA + 0.000 SLS*DA + 0.003 CI*DA + 0.004 DA*ETR +∑

So it can be described as follows:

1) The coefficient value of the interaction of the leverage variable with earnings management of -0.002 is negative, meaning that every increase of one unit of earnings management reduces the influence of leverage on tax avoidance by -0.002.
2) The coefficient value of the interaction of the profitability variable with earnings management of 0.002 is positive, meaning that every increase of one unit of earnings management increases the effect of profitability on tax avoidance by 0.002.
3) The interaction between sales growth and earnings management shows a positive coefficient value of 0.000, indicating that each one-unit increase in earnings management slightly enhances the effect of sales growth on tax avoidance. This result demonstrates that earnings management can moderate the influence of sales performance on tax avoidance behavior.
4) The interaction between capital intensity and earnings management displays a positive coefficient value of 0.003, showing that each one-unit increase in earnings management raises the effect of capital intensity on tax avoidance by 0.003. This finding indicates that earnings management can strengthen the influence of investment activities on tax avoidance behavior.

D. CONCLUSION

1. Leverage has a positive and significant effect on tax avoidance. The higher the debt level, the greater the potential for using interest expenses as a profit deduction
2. Profitability has a positive effect on tax avoidance. The size of profits is not always the main driver for legally reducing the principal burden. That way, the better a company's finances, the more careful it tends to be in doing tax planning.
3. Sales growth has a negative and significant effect on tax avoidance. Sales growth that has increased can increase the company's profit so the company develops a strategy to make tax efficient.
4. Capital intensity has a negative and significant effect on tax avoidance. Large fixed assets can result in high depreciation costs, from which depreciation costs can be used to lower pre-tax profits
5. Earnings management can moderate the influence of leverage on tax avoidance, meaning that earnings management strengthens the influence of leverage on tax avoidance. Companies can set the time for income and expense recognition to create certain financial conditions, including reducing tax burdens.
6. Earnings management cannot moderate profitability to tax avoidance, meaning that profit management weakens the influence of profitability on tax avoidance. Earnings management does not need to reduce profits aggressively, because the financial position is already strong and does not require additional efforts to manipulatively reduce tax burdens.
7. Earnings management can moderate sales growth to tax avoidance, meaning that earnings management strengthens the influence of sales growth on tax avoidance. Management that can regulate the recognition of income freely by accounting which states that if the company experiences an increase in sales of financial statements can be engineered so that it does not reflect continuous profit growth, so that the tax burden that should occur can be suppressed.
8. Earnings management can moderate capital intensity to tax avoidance, meaning that earnings management strengthens the influence of capital intensity on tax avoidance.

Companies can regulate the company's accounting by setting an accounting policy on depreciation.

9. When a company's earnings management increases, it tends to engage in tax avoidance measures. This shows that earnings management has a positive and significant effect on tax avoidance.

E. SUGGESTIONS

Based on the presentation of the results of the analysis and the identification of limitations in this study. It is recommended to add additional variables, both independent variables and moderation variables, such as firm size, inventory intensity, good corporate governance, corporate social responsibility to enrich the model and improve the accuracy of results. This research is further also recommended to separate the analysis based on the sub-sectors of manufacturing companies, in order to find out more complex between sub-sectors that are indicated to carry *out tax avoidance* practices.

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