

THE EFFECT OF PROFITABILITY AND INSTITUTIONAL OWNERSHIP TAX AVOIDANCE WITH LEVERAGEAS MODERATING VARIABLES

Christina Sofi Yuslianwati¹⁾, Moh. Ubaidillah²⁾, Nik Amah³⁾

¹Faculty of Economics and Business, Universitas PGRI Madiun

e-mail: christinasofi7@gmail.com

² Faculty of Economics and Business, Universitas PGRI Madiun

e-mail: mohubaidillah@unipma.ac.id

³Faculty of Economics and Business, Universitas PGRI Madiun

e-mail: nikamah@unipma.ac.id

Abstrak

Penelitian ini bertujuan untuk menganalisis pengaruh profitabilitas dan kepemilikan institusional terhadap penghindaran pajak, dengan leverage sebagai variabel moderasi, pada perusahaan manufaktur yang termasuk dalam subsektor industri dasar dan kimia yang terdaftar di Bursa Efek Indonesia. Sebanyak 34 perusahaan dipilih dari 96 populasi perusahaan melalui teknik purposive sampling berdasarkan kriteria tertentu. Data sekunder diperoleh dari laporan tahunan perusahaan serta situs web resminya dan dianalisis menggunakan Moderated Regression Analysis (MRA) dengan bantuan perangkat lunak SPSS versi 24. Hasil penelitian menunjukkan bahwa profitabilitas dan kepemilikan institusional berpengaruh negatif secara signifikan terhadap penghindaran pajak. Artinya, semakin tinggi tingkat profitabilitas dan kepemilikan institusional, semakin rendah tingkat penghindaran pajak yang dilakukan perusahaan. Namun, leverage tidak mampu memoderasi hubungan antara profitabilitas dan penghindaran pajak. Sebaliknya, leverage terbukti memiliki peran dalam memoderasi hubungan antara kepemilikan institusional dan penghindaran pajak.

Kata Kunci: Profitabilitas, Kepemilikan Institusional, *Tax Avoidance*, *Leverage*.

Abstract

This study aims to analyze the effect of profitability and institutional ownership on tax avoidance, with leverage as a moderating variable, in manufacturing companies belonging to the basic and chemical industry subsectors listed on the Indonesia Stock Exchange. A total of 34 companies were selected from a population of 96 companies through a purposive sampling technique based on certain criteria. Secondary data Translated from Indonesian to English - www.onlinedoctranslator.com were obtained from the companies' annual reports and official websites and analyzed using Moderated Regression Analysis (MRA) with the help of SPSS version 24 software. The results showed that profitability and institutional ownership had a significant negative effect on tax avoidance. This means that the higher the level of profitability and institutional ownership, the lower the level of tax avoidance by the company. However, leverage was unable to moderate the relationship between profitability and tax avoidance. Conversely,

leverage was shown to have a role in moderating the relationship between institutional ownership and tax avoidance.

Keywords: Profitability, Institutional Ownership, Tax Avoidance, Leverage.

A. INTRODUCTION

Substantial and sustainable funding is essential for national development. Taxes, as a fiscal policy instrument regulated by Law No. 28 of 2007, are the primary source of state revenue in Indonesia. Taxes are mandatory contributions made to the public without direct returns, but aim to support state operations and improve public welfare. The role of taxes in the state budget (APBN) is crucial. The government continues to strive to increase tax revenue annually. However, tax revenue data from 2020 to 2024 shows fluctuations, with the highest growth in 2022 (34.38%) and a drastic decline to 3.38% in 2024. This fluctuation indicates tax non-compliance, which can hinder national development.

Many large companies in the basic and chemical industries are tax evasive, particularly through tax avoidance practices. PT Toba Pulp Lestari Tbk, for example, shifts profits to tax havens like Macau (Laia, 2020). Companies tend to do this. Tax avoidance is legal through legal loopholes to maintain profits. While legal, this practice negatively impacts state revenues, disrupts public funding, and harms public welfare by hindering development funding. While not illegal, tax avoidance is still not recommended because it is detrimental to the state, while until now there are no clear regulations that specifically prohibit this practice.

Practical measurement of tax avoidance: In this study, Usboko & Sulistiawan (2024) used the CTTOR ratio, which compares income tax with profit before tax. A low CTTOR value indicates the presence of tax avoidance, while high values reflect tax compliance. Profitability is thought to drive tax avoidance because companies want to reduce their tax burden to maintain profits, although previous research results have varied. Institutional ownership is considered capable of suppressing tax avoidance through its monitoring function, but its influence remains debated. Because leverage can naturally lower taxable income, it is used as a moderating variable.

Although it has the potential to strengthen the influence of institutional ownership on tax avoidance, the effectiveness of leverage as a moderator is also inconsistent. This study expands on the study by Oktaviani et al. (2023) with a new approach: adding variables, reversing the roles of variables, and using CTTOR, which has not been widely applied. This study Filling the research gap by focusing on the basic and chemical industry sub-sectors 2018–2024, due to the high number of tax avoidance cases and the rare testing of leverage as a moderating variable.

This study aims to fill the research gap and provide new methodological contributions by focusing on the basic and chemical industry sub-sectors for the 2018–2024 period. Unlike previous studies that covered the entire manufacturing sector, this study was chosen due to the high number of cases.tax avoidancein the sector. Furthermore, this research is important because leverage has rarely been tested as a moderating variable, despite being shown to be influential as an independent variable in several previous studies.

B. METHOD

This study applies agency theory and legitimacy theory to explain the relationship between profitability, institutional ownership, leverage, and tax avoidance. High profitability encourages managers to engage in tax avoidance, while institutional ownership acts as a monitoring mechanism, and leverage reflects creditor pressure. Tax avoidance is measured using CTTOR, profitability with ROA, institutional ownership with the percentage of institutional shares, and leverage with DER. The hypotheses propose that profitability and institutional ownership negatively affect tax avoidance, while leverage moderates these relationships. The study uses secondary data from annual reports of manufacturing companies in the basic and chemical subsectors listed on the Indonesia Stock Exchange (IDX) for the 2018–2024 period, with purposive sampling as the selection method.

C. RESULTS AND DISCUSSIONS

1. Description of Research Data

This study employed a quantitative method, centered on the analysis of numerical data to objectively identify relationships between variables. Annual manufacturing reports from the basic and chemical industry subsectors listed on the Indonesia Stock Exchange (IDX) from 2018 to 2024 served as the data source for analysis. This data can be statistically measured and includes financial information. The researcher employed a purposive sampling technique, based on predetermined standards, to ensure that the selected organizations had the necessary data, consistent reporting throughout the observation period, and possessed characteristics related to the research variables (Martono, 2011).

Table 1. Company Samples

No	Kriteria	Sampel
1	Perusahaan manufaktur yang termasuk dalam sub sektor industri dasar dan kimia serta tercatat di Bursa Efek Indonesia (BEI) selama rentang tahun 2018-2024	96
2	Perusahaan manufaktur sub sektor industri dasar dan kimia yang tidak mempublikasikan atau memiliki data laporan keuangan tidak lengkap selama rentang tahun 2018-2024	(29)
3	Perusahaan manufaktur sub sektor industri dasar dan kimia yang mengalami kondisi defisit selama kurun waktu 2018-2024.	(33)
4	Jumlah sampel perusahaan	34
5	Tahun penelitian 2018-2024	7 thn
6	Jumlah data sampel penelitian	238
7	Data outlier	(96)
8	Total data diolah	142

2. Normality

Ghozali (2018:196) states that the normality test is used to determine whether the residual values or deviations in a regression model follow a normal distribution. This is because it is one of the main assumptions in classical regression analysis. A regression model is declared statistically valid if the residuals are normally distributed, indicated by a p-value > 0.05 . This ensures consistent, unbiased, and efficient regression parameter estimates, so that the analysis results can be trusted and used as a basis for data-driven decision-making.

Table 2. Normality Test

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		141
Normal Parameters ^{a,b}	Mean	0,0000000
	Std. Deviation	13,89171800
Most Extreme Differences	Absolute	0,066
	Positive	0,063
	Negative	-0,066
Test Statistic		0,066
Asymp. Sig. (2-tailed)		0,200 ^{c,d}
a. Test distribution is Normal.		
b. Calculated from data.		
c. Lilliefors Significance Correction.		
d. This is a lower bound of the true significance.		

Results Source: SPSS 24 processed data

The results of the normality test show that the Asymp. Sig. (2-tailed) value of 0.200 indicates that the residual data is normally distributed. This is because the value is above the significance threshold of 0.05, so there is insufficient evidence to refute the null hypothesis that the data is normally distributed. Therefore, it can be concluded that the data collected in this study does not deviate significantly from the normal distribution.

3. Multicollinearity Test

Ghozali's explanation (2018:157) aims to identify the existence of a strong relationship or connection between variables X which gives rise to a correlation in a regression model.

Table 3 Multicollinearity Test

Coefficients^a			
Model	Collinearity Statistics		Keterangan
	Tolerance	VIF	
1 (Constant)			
Profitabilitas	0,983	1,017	Tidak terjadi multikolinearitas
Kepemilikan institusional	0,960	1,042	Tidak terjadi multikolinearitas
Leverage	0,971	1,030	Tidak terjadi multikolinearitas
a. Dependent Variable: Tax avoidance			

Results Source: SPSS 24 processed data

tolerance value exceeding 0.100 indicates that the independent variables, or X variables, in the regression model are not significantly correlated with each other. This high tolerance value indicates that there is no redundancy in the model because each independent variable does not overrepresent the others. Furthermore, the total Variance Inflation Factor (VIF) value is below the common limit of 10.00, which is the normal threshold for multicollinearity symptoms. This indicates that there is no strong linear correlation between the model's independent variables.

4. Heteroscedasticity Test Explanation

From Ghozali (2018:178) to identify the existence of inequality in residual variance in the regression model between observations which can later give rise to heteroscedasticity.

Table 4 Heteroscedasticity Test

Coefficients ^a				
Model		t	Sig.	Keterangan
1	(Constant)	1,308	0,321	
	Profitabilitas	-1,740	0,224	Tidak terjadi heteroskedastisitas
	Kepemilikan institusional	0,083	0,941	Tidak terjadi heteroskedastisitas
	Leverage	4,218	0,052	Tidak terjadi heteroskedastisitas
a. Dependent Variable: ABS_RES				

Results Source: SPSS 24 processed data

It's possible that heteroscedasticity symptoms are not visible in the regression model if the significance value of the heteroscedasticity test is greater than 0.05. In other words, the inconsistent residual dispersion is not caused by the independent variables. All three variables—leverage, profitability, and institutional ownership— have significance values exceeding the 0.05 threshold, according to previous research findings.

5. Autocorrelation Test

Ghozali's explanation (2018:162) detects the presence of autocorrelation in the linear regression model, especially in the previous t and t-1 residuals, using Durbin Watson Test.

Table 5 Autocorrelation Test

Model Summary ^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0,336 ^a	0,113	0,093	14,04299	2,000
a. Predictors: (Constant), Leverage, Profitabilitas, Kepemilikan institusional					
b. Dependent Variable: Tax avoidance					

Result Scohrance-Orcutt Source: SPSS24 data processing

The Durbin-Watson (DW) value is 2,000 with a sample size (n) of 141 and independent variables (k) of 2. This condition indicates that the conventional assumption of residual

independence has been met; as a result, the constructed regression model can be considered free from autocorrelation problems and the resulting estimation results are more reliable.

6. Moderated Regression Analysis (MRA)

Test Ghozali (2018:251) explains that the MRA analysis method used in testing a variable Z can influence the moderating or non-moderating relationship between.

Table 6 MRA Equation Results

Coefficients ^a				
Model		Unstandardized Coefficients		Standardized Coefficients
		B	Std. Error	Beta
1	(Constant)	-12,816	3,472	
	Profitabilitas	-0,125	0,043	-0,328
	Kepemilikan institusional	-0,003	0,004	-0,071
	Leverage	0,135	0,155	0,164
	Profitabilitas*Leverage	0,000	0,002	-0,016
	Kepemilikan institusional*leverage	0,000	0,000	-0,239
a. Dependent Variable: Tax avoidance				

Source: SPSS 24 data processing

MRA is $= + \beta_1 + \beta_2 + \beta_3.Z + \beta_4.X_1.Z + \beta_5.X_2.Z + \epsilon$. CTTOR ($\beta = -0.125$), indicates that the higher the profitability, the lower the indication tax avoidance (H1 accepted). KI also has a significant negative effect ($\beta = -0.003$), meaning (H2 accepted). DER has a positive effect ($\beta = 0.135$), indicating that the company does not carry out tax avoidance because they receive tax benefits from interest expenses. The ROA \times DER interaction is not significant ($\beta = 0.000$; standardized = -0.016), so leverage does not moderate the effect of ROA on tax avoidance. (H3 is rejected). However, the KI \times DER interaction is significant at the 10% level ($\beta = 0.000$; standardized = -0.239), indicating that leverage weakens the influence of KI in suppressing tax avoidance (H4 is accepted).

7. Test of the Coefficient of Determination

In regression analysis, the adjusted coefficient of determination, also known as adjusted R², is a statistical indicator used to measure how much the independent variable contributes to explaining the variation in the dependent variable. or changes that occur in the dependent variable. Adjusted R² is more accurate because it takes into account the number and effects of independent variables in the model.

Table 7 Results of the Determination Coefficient (R²) Test

Model Summary			
Model	R	Adjusted R Square	Std. Error of the Estimate
1	0,361 ^a	0,098	14,00334
a. Predictors: (Constant), Kepemilikan institusional*leverage, Profitabilitas, Kepemilikan institusional, Profitabilitas*Leverage, Leverage			

Source: SPSS 24 data processing

After adding moderating variables to the model, the coefficient of determination (adjusted R²) test showed a 5% increase. The initial value decreased from 0.093 to 0.098. This increase is small, but it indicates that adding moderating variables can improve the model's statistical efficiency. This indicates that the presence of moderating variables improves. In other words, although the model becomes more complex, the gains in explaining the relationships between variables are quite substantial. As a result, the resulting model becomes more interesting to study and better fits the phenomenon under study.

8. T-statistic test (Partial Test)

The purpose of evaluating the impact of independent variables on the dependent variable, both as a whole and individually, is to gain a better understanding of how each variable in the research model interacts with one another. This analysis not only explains the extent of influence each independent variable has on the dependent variable separately, but also shows how all independent variables contribute to the overall influence of the dependent variable. Therefore,

the findings of this evaluation can help draw conclusions and provide theoretical and practical implications for the phenomenon studied by Ghozali (2018:75).

Table 8. t-Test Equation

Coefficients ^a			
Model		t	Sig.
1	(Constant)	-3,572	0,000
	Profitabilitas	-3,783	0,000
	Kepemilikan institusional	-2,156	0,033
	Leverage	-0,365	0,715
a. Dependent Variable: Tax avoidance			

Source: SPSS 24 data processing

Profitability is proven to have a significant negative effect on CTTOR (Current Tax to Total Operating Revenue), as indicated by a significance value of 0.000 which is much smaller than the threshold of 0.05, as well as a calculated t-value of -3.783 which absolutely exceeds the t-table value of 1.97730. Based on these results, the H1 hypothesis is declared accepted. This finding indicates that the higher the level of profitability of a company, the lower the CTTOR ratio value it has. A decrease in this ratio indicates that companies tend to pay a smaller amount of tax compared to their operating income, indicating a signal of tax avoidance as company profits increase.

C. CONCLUSIONS

This study, conducted from 2018 to 2024, examines how corporate tax avoidance correlates with profitability and institutional ownership. Leverage is used as a moderating variable to determine whether this element strengthens or weakens the relationship between the independent variables and tax avoidance. The results indicate that both profitability and institutional ownership have a significant negative effect on tax avoidance; in other words, the higher the level of profitability and institutional ownership, the less likely a company is to avoid taxes. To maintain profits, high profitability encourages tax avoidance. taxes (Fawzi Shubita, 2024; Fauzan et al., 2019), while institutional ownership supportstax avoidancelegally for financial stability (Syahirah et al., 2024; Cristan & Poniman, 2023). Institutional ownership is significant at the 10% level, indicating that the level of debt affects the effectiveness of institutional supervision in suppressingtax avoidance.

D. SUGGESTIONS

This study recommends that further research include additional variables, objects, and time periods for more comprehensive results. Companies are urged to be more transparent and responsible in their tax payments for business sustainability. Investors are also encouraged to consider tax compliance as part of their risk assessment and encourage transparency in reporting before investing.

REFERENCES

- Afridayani, & Ramlan Nugraha. (2024). The Influence of Institutional Ownership on Sales Growth, and Capital Intensity on Tax Avoidance. *SeMaRaK JOURNAL*, 7(1), 1– 10. <https://doi.org/10.32493/smk.v7i1.38536>
- Ainniyya, SM, Sumiati, A., & Susanti, S. (2021). The Influence of Leverage, Growth Sales, and Company Size on Tax Avoidance. *Owner*, 5(2), 525– 535. <https://doi.org/10.33395/owner.v5i2.453>
- Cristan, Y., & Poniman, P. (2023). The Influence of Good Corporate Governance Structure Against Tax Avoidance. *Owner*, 7(2), 1096–1112. <https://doi.org/10.33395/owner.v7i2.1408>
- Fauzan, F., Ayu, DA, & Nurharjanti, NN (2019). The Effect of Audit Committees, Leverage, Return on Assets, Company Size, and Sales Growth on Tax Avoidance. *Indonesian Accounting and Finance Research*, 4(3), 171–185. <https://doi.org/10.23917/reaksi.v4i3.9338>
- Fawzi Shubita, M. (2024). The relationship between sales growth, profitability, and tax avoidance. *Innovative Marketing*, 20(1), 113–121. [https://doi.org/10.21511/im.20\(1\).2024.10](https://doi.org/10.21511/im.20(1).2024.10)
- Frisila, T., & Jaeni, J. (2022). Impact of Profitability and Leverage on Tax Avoidance; Corporate Social Responsibility (CSR) As Mediating Variable. *Journal of Accounting and Taxation*, 8(2), 201–224. <https://doi.org/10.26905/ap.v8i2.9318>
- Ghozali. (2018). *Multivariate Analysis Application with SPSS 26 Program* (EDITION 10). Diponegoro University Publishing Agency.
- Haudi, Burhanudin, & Denny Putri Hapsari. (2022). The Effect of Fixed Asset Intensity Leverage Sales Growth and Profitability Against Tax Avoidance. *LAWSUIT Taxation Journal*, Vol 2(2), 109–136. <https://doi.org/10.30656/lawsuit>.
- Hermi, H., & Petrawati, P. (2023). The Effect Of Management Compensation, Thin Capitalization and Sales Growth on Tax Avoidance With Institutional Ownership As Moderation. *Accounting, Auditing & Information Research Media*, 23(1), 1–14. <https://doi.org/10.25105/mraai.v23i1.16790>

- Laia's Kennial. (2020). Alleged Manipulation of Dissolved Pulp Export Data Leads to Tax Losses Rp 1.9 trillion. *Betahita*. <https://betahita.id/news/detail/5796/dugaan-manipulasidataekspor-pulp-solv-kerugian-pajak-rp-1-9t.html.html#>
- Meckling, J. and. (2014). Theory Of Yhe Firm: Managerial Behavior, Agency Costs and Ownership Structure. In *The Corporate Financiers* (Vol. 3, pp. 305–360). Palgrave Macmillan. <https://doi.org/10.1057/9781137341280.0038>
- Mocanu, M., Constantin, S.-B., & Răileanu, V. (2021). Determinants of tax avoidance – evidence on profit tax-paying companies in Romania. *Economic Research-Ekonomska Istraživanja*, 34(1), 2013–2033. <https://doi.org/10.1080/1331677X.2020.1860794>
- Rachmawati Meita Oktaviani, Sevi Lestya Dewi, Sartika Wulandari, S. (2023). Tax Avoidance: Overview of Companies in Indonesia. *Journal of Finance and Banking*, 27(1), 112–126. <https://doi.org/10.26905/jkdp.v27i1.9028>
- Syahirah, NP, Sugiyarti, L., Effriyanti, E., & Effriyanti, E. (2024). The influence of sales growth and institutional ownership on tax avoidance with leverage as a moderator. *Bisnis-Net Journal of Economics and Business*, 7(2), 611–620. <https://doi.org/10.46576/bn.v7i2.4781>
- Usboko, Y., & Sulistiawan, D. (2024). Stock Returns, Tax Avoidance, Leverage, and Oil Prices: A Study of Indonesian Companies. *Journal of Economic, Management, Accounting and Technology (JEMATech)*, 7(2), 313–321. <https://doi.org/https://doi.org/10.32500/jematech.v7i1.7509> Returns