The Effect of Tax Avoidance and Leverage on Profitability in Sub-Sector Companies (Property, Real Estate and Building *Construction)* Registered on The Idx 2020-2023

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Abstract.

This study was conducted to gain a better understanding of how tax avoidance and leverage affect the profitability of real estate and building construction sub-sector companies listed on the IDX from 2020 to 2023. A quantitative method based on multiple linear regression analysis was used in this work. The researcher compiled a sample of 36 companies with 144 observations using secondary data obtained from the IDX website. The sample was intended to represent the real estate property and building development industry and comprised of financial statements from 92 companies. There was no significant effect of ETR or DER on ROA, either alone or in combination, according to the results of this study. This is due to factors related to companies not fully implementing a strategy for balanced tax and leverage. This is in line with concerns voiced by those in the know.

Keywords: *Tax Avoidance; Leverage; Profitability; ETR and DER.*

I. INTRODUCTION

The property, real estate, and building construction sectors play a crucial role in supporting economic development through investment and contributions to infrastructure development. In addition to focusing on real estate development, businesses in this industry also contribute to job creation and economic expansion. Financial management is a crucial factor for companies navigating the dynamic business landscape. Companies often employ tax avoidance schemes to manage their tax burden, leaving ample funds to support operations and expansion. In other situations, leveraging is a financing strategy that allows companies to undertake large projects without relying entirely on internal capital. This can be beneficial for companies if used appropriately, despite the risks associated with increased debt burdens. Both internal and external factors can impact a company's profitability. Among these factors are the effectiveness of tax management, measured by the Effective Tax Rate (ETR), and leverage, measured by the Debt-to-Equity Ratio (DER). A high ETR can reduce available net income, while a high DER can reflect dependence on external funding, which can impact interest expenses and financial risk.Profitability in this sector is influenced by various factors, including the effectiveness of tax management and financing structure. When evaluating a company's financial health and resilience in the face of intense competition, profitability is a critical metric to consider. However, leverage and tax avoidance do not necessarily result in lower profits. Profitability refers to a company's capacity to generate income over time. Profitability is defined as the ratio of a company's total revenue to its total assets over a specific period; this ratio is a measure of an organization's efficient use of assets (Subkhi Mahmasani, 2020).

"Tax avoidance" refers to the process of controlling actions to minimize undesirable consequences for taxpayers.Tax avoidance can also be defined as the practice of taxpayers attempting to reduce their tax obligations by avoiding regulatory audits in order to legally avoid paying taxes without breaking any laws. This is an additional meaning of tax avoidance.(Khairunnisa et al., 2023). Certain parties engage in excessive tax avoidance practices, which can negatively impact the company. For example, if the public or investors learn that a company is using highly unethical tax avoidance practices, investor confidence could be eroded, potentially leading to a significant drop in the company's stock price.*Leverage*is the amount of debt a company incurs to finance its operations. This debt will result in interest payments, which will impact the

company's bottom line. A company's ability to reduce its tax burden will be affected by the amount of third-party debt used and the interest costs associated with that debt.(Sophian & Putra, 2022) This study focuses on companies listed in the real estate and building construction subsector of the Indonesian Stock Exchange (IDX) between 2020 and 2023. It aims to determine the effect of ETR and DER on ROA. This research is expected to enhance our understanding of the impact of tax difficulties and capital structure on profitability. Therefore, this research is expected to benefit the property, real estate, and building construction sectors listed on the IDX.

II. METHODS

For 2020–2023, this quantitative analysis uses secondary data (financial report data) from companies listed on the Indonesia Stock Exchange engaged in property, real estate, and building construction. Company details are sourced from www.idx.co.id. This study covers the period from October 2024 to July 2025. This study includes data from 92 property, real estate, and building construction companies listed on the Indonesia Stock Exchange from 2020 to 2023. This study uses a purposive sampling approach to obtain the sample. The method criteria are as follows:

Table1. Research Sample Criteria

No	Kriteria	Jumlah Sampel
1	Perusahaan sub sektor *real estate* dan *building construction* yang terdaftar di BEI tahun 2020-2023.	92
2	Perusahaan yang memiliki laporan keuangan yang tidak lengkap seperti yang tidak memiliki laba bersih (untuk menghitung ROA), beban pajak penghasilan, laba sebelum pajak penghasilan, guna untuk mengukur pengaruh data penghindaran pajak dan profitabilitas perusahaan.	-54
3	Perusahaan yang tidak memiliki laba bersih positif	-2
Total Sampel		36
Total Pengamatan 36 x 4		**144**

Sumber: Penelitian 2025

The 144 observations included in this study relate to 36 property and building construction businesses listed on the Indonesia Stock Exchange (IDX) between 2020 and 2023. This study used 36 data samples. Companies involved in the property and building construction subsector were the focus of the data collection approach, which was a documentary study. The companies' financial reports for 2020–2023, which can be viewed on the IDX website, constitute part of this data. In the data collection technique, the researchers used sorted data by looking at indicators per variable, as explained below.

In this study, the dependent variable is profitability (Y), while the indicator is return on assets (ROA). According to Santoso (2023), these signals are expressed as follows:

$$\textbf{ROA} = \frac{\text{Laba Bersih Setelah Pajak}}{\text{Total Aktiva}}$$

Profitability is the ultimate consequence of the various actions and policies a company takes throughout its existence. Source:(Setiowati et al., 2023)

Leverage (X2) and Tax Avoidance (X1) are the independent variables in this study. Efforts to minimize taxes by complying with tax regulations are known as tax avoidance, and this is acceptable because it exploits legal weaknesses, source:(Subkhi Mahmasani, 2020)and calculate with the formula following the source: this variable indicator follows(Octavia & Sari, 2022)which one.

$$\textbf{ETR} = \frac{\text{Beban Sebelum Pajak Penghasilan}}{\text{Laba Sebelum Pajak Penghasilan}}$$

Leverage (X2) Leverage isthe proportion of total debt to total capital, which indicates the extent to which debt finances the company's capital. Source:(Meylani Dwi Anggorowati & Meifida Ilyas, 2022)This indicator follows(Firmansyah & Lesmana, 2021)where:

DER= Total Debt

Total Equity

(Ghozali, 2018) is considered the person who developed the classical assumption testing approach, which the researchers used in this study. Starting with the classical premise, this study used four normality testing techniques: autocorrelation, multicollinearity, and heteroscedasticity to produce a robust and acceptable test.

Through the use of multiple linear regression analysis, this study investigates the impact of tax avoidance and leverage on the profitability of the real estate and building construction subsector listed on the IDX from 2020 to 2023. The multiple linear regression model is formulated as follows:

$$Y = \alpha + \beta 1X1 + \beta 2X2 + e$$

Keterangan: Y = Profitabilitas
α = Konstanta
β1-2 = Koefisien regresi
X1 = Penghindaran Pajak
X2 = Leverage
e = error

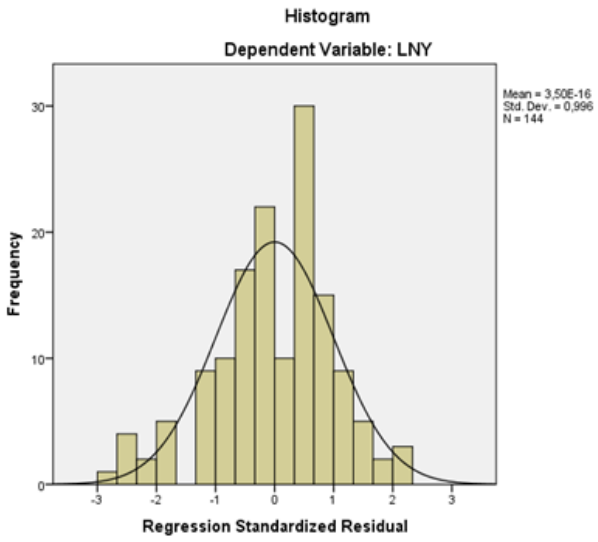
III. RESULT AND DISCUSSION

1. Results of classical assumption testing

1.1 Normality Test Results

1). Histogram Test Results

Fig 1. Normality Test Results with Histogram

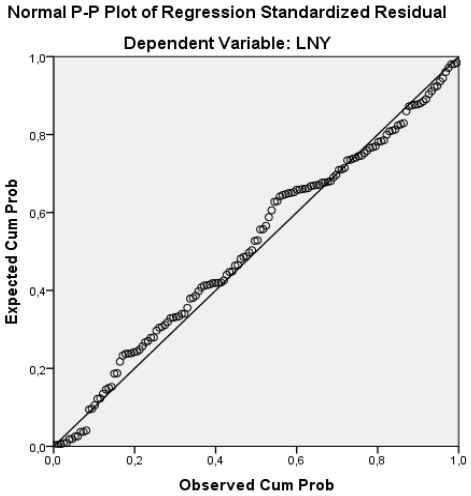


Source: 2025 research results

Considering the test results presented previously, it is clear that the histogram has a shape similar to a normal curve, also known as a bell-shaped curve, which spreads symmetrically to the left and right from the center point. This indicates a nearly normal distribution for the residual values of the regression model. This is reinforced by the normal curved line (curve) that follows the pattern of the histogram bar, and there are no significant extreme deviations on the left or right sides.Thus, it can be said that the regression normality assumption has been met and the residual data from the normality test using the histogram table test is normally distributed.

2). P-PLOT Test Results

Fig 2. P-PLOT Test Results



Source: Research Results 2025

This data normality test was performed using a p-plot test for normal distribution, as indicated by the data distribution around the diagonal line and its direction. The test results presented previously illustrate this.

1.2 Multicollinearity Test Results

Table 2. Multicollinearity Test Results

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	X1	1,000	1,000
	X2	1,000	1,000

Sumber: Hasil Penelitian 2025

All variables have tolerance values greater than 0.10 and VIF values lower than 10, according to the test results shown above. The multicollinearity test was successful, as shown here.

1.3 Heteroscedasticity Test Results

1). Scatterplot Test Results

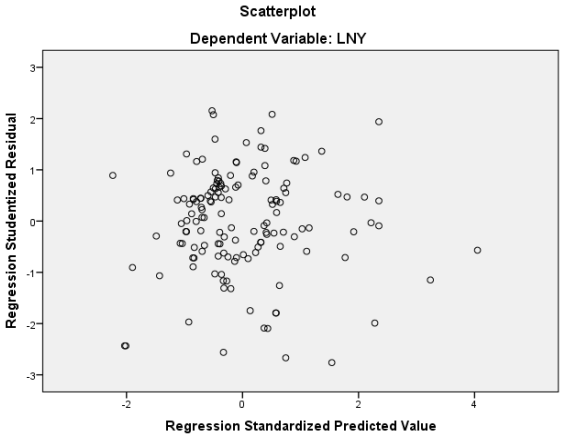


Fig 3. Heteroskeletal Test Results with Scatterplot

Source: Research Results 2025

It is clear from the test results presented previously that the points are randomly distributed above and below the Y-axis value of 0. Consequently, we can say that the data distribution is neither funnel-shaped nor predictable. Therefore, homoscedasticity is an assumption that the regression model meets.

2). Glacier Test Results

Table 3. Heterotest Results with Gletjer

Coefficient

Model		Sig.
1	(Constant)	,000
	LNX2	,080

a Dependent Variable: ABSUT

Source: Research Results 2025

Based on the test results presented previously, it is clear that the Glejser test significance level, as previously demonstrated for all variables, is greater than 0.05 (significant value > 0.05). This indicates that no heteroscedasticity was found.

1.4 Autocorrelation Test Results

Table 4 Hasil Uji Autokolerasi

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,201[a]	,040	,027	,06522	1,683

a. Predictors: (Constant), X2, X1

b. Dependent Variable: Y

Sumber: Hasil Penelitian 2025

The Durbin-Watson value obtained from the test is 1.683. The data set contains approximately 100 observations, and a 5% significance level is applied to this figure. Furthermore, there are two independent variables. The cutoff value of 2.41 is equal to 4-du, and the achieved du value is 1.59. For the simple reason that 1.59 is less than 1.683, which in turn is less than 2.41 (du is less than d is less than 4-du), we can see this relationship in action. Since the Durbin-Watson value of 1.683 falls within the range of possible values between the lower and upper limits, we can say that this regression model has passed the autocorrelation test (4-du). Therefore, it is safe to say that this model is autocorrelation-free.

2. Results of research data analysis

2.1 Multiple Linear Regression Analysis Research Model

Table 5 Model Penelitian Regresi Liner Berganda

Coefisients[a]

Model		Unstandardized Coefficients	
		B	Std. Error
1	(Constant)	,068	,008
	X1	-,037	,023
	X2	-,033	,018

a. Dependent Variable: Y

The following equation is obtained from the test results presented previously:

(ROA = 0,68 - 0,37 ETR - 0,33 DER)

Where:

The constant value of 0.068 indicates that if the ETR (X1) and DER (X2) variables are considered constant (unchanged), then the average ROA value in the company is 0.068.

1. Based on the fact that the ETR variable (X1) Based on the regression coefficient of -0.037, we can conclude that for every one unit increase in the ETR variable, there will be a decrease of 0.037 units in the ROA value, if other factors remain the same.
2. DER Variable (X2) With a regression coefficient of -0.033, we can see that for every one unit increase in DER, there will be a decrease of 0.033 units in ROA, if other factors remain the same.

2.2 Coefficient of Determination Test (R2)

Table 6 Hasil koefisien determinasi

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,201[a]	,040	,027	,06522	1,683

a. Predictors: (Constant), X2, X1
b. Dependent Variable: Y

Sumber: Hasil Peletian 2025

The two independent variables included in this research model explain 2.7% of the dependent variable, Return on Assets (ROA), according to an Adjusted R Square value of 0.027. These metrics include ETR and DER, or the debt-to-equity ratio. The data shown above form the basis for this conclusion. However, other variables outside the scope of this study explain the remaining 97.3% (100% minus 2.7%). This indicates that the contribution of ETR and DER to determining ROA is still rather modest. Consequently, there may be other variables that are more dominant in explaining ROA development in the organizations studied.

2.3 Simultaneous F-Test Results

Table 7 Hasil Uji F Secara Simultan

ANOVA[a]

Model		F	Sig.
1	Regression	2,963	,055[b]
	Residual		
	Total		

a. Dependent Variable: Y
b. Predictors: (Constant), X2, X1

Sumber: Hasil Penelitian 2025

With an adjusted R-squared value of 0.027, the two independent variables that make up this study's model account for 2.7% of the variance in the dependent variable, Return on Assets (ROA). Some examples of these measures include the debt-to-equity ratio (DER) and the equity-to-debt ratio (ETR). This conclusion is based on the evidence presented previously. However, the remaining 97.3% (100% minus 2.7%) is explained by additional variables not included in the scope of this study. Consequently, this indicates that the independent factors do not have a substantial impact on the dependent variable, ROA, simultaneously. In other words, the combined effect of ETR (X1) and DER (X2) cannot provide a satisfactory explanation for the ROA (Y) results in this regression model.

Table 8 Hasil uji t secara parsial

Coefficients[a]

Model		t	Sig
1	(Constant)	8,030	,000
	X1	-1,628	,106
	X2	-1,820	,071

Sumber: Hasil Penelitian 2025

2.4 Partial T-Test Results

From the hypothesis testing, it was obtained (with a ttable value = 2.00)

1. The independent variable X1 (ETR) has a t value of -1.628 and a significance value of 0.106, which means that ETR has no influence on the company's ROA.
2. The independent variable X2 (DER) has a t value of -1.820 and a significance value of 0.071, which means that DER has no influence on the company's ROA.

Therefore, it can be concluded that ROA is not significantly influenced by either of the two independent factors discussed here. The calculated t-value is smaller than the t-table value of 2.00, and the significance level is greater than 0.05, thus we can conclude this. All independent variables in this study have a significance value greater than 0.05, as indicated by the results of the t-test and F-test. This means there is no significant influence indicated by these results. Therefore, it can be concluded that ETR and DER do not significantly affect ROA, either singly or combined.

3. Discussion of Research Results

3.1 The effect of ETR (Effective Tax Rate) on ROA (Return on Assets)

With a significance level of 0.106 (higher than 0.05), the ETR variable does not significantly affect ROA in any way. This conclusion is based on statistical research. Based on these results, it appears that a company's profitability is not directly affected by tax evasion, as assessed by the ETR statistic.

This is because companies operating in the building construction, real estate, and property subsectors employ tax management strategies that have little impact on their asset performance. This research finding aligns with research by Kusumanningsih and Mujiyati (2024), who also found that tax evasion had no significant impact on company profitability. This is possible because taxes are a burden that does not directly impact company operations in the short term, and therefore do not directly impact ROA.

3.2 The influence of DER (Debt to Equity Ratio) on ROA (Return on Assets)

This is because companies operating in the building construction, real estate, and property subsectors employ tax management measures that do not significantly impact their asset efficiency. Kusumanningsih and Mujiyati (2024) also found that tax avoidance did not significantly impact company profitability, which aligns with the research findings. This suggests that the leverage level (debt-to-equity ratio) does not significantly influence profitability in the companies studied. This is likely because the debt used by the companies is still within reasonable limits and does not exert significant pressure on asset performance.

Lamba and Atahau's (2022) study found no significant effect of DER on ROA, which is consistent with our findings. This may be due to ineffective debt management or other factors, such as operational efficiency, that significantly impact profitability.

3.3 Effect of ETR (Effective Tax Rate) and DER (Debt to Equity Ratio) on ROA (Return on Assets)

Based on the F-test results, the calculated F-value was 2.963 with a significance level of 0.055. Because the significance value is greater than 0.05, it can be concluded that the ETR and DER variables simultaneously have no significant effect on profitability (ROA). However, because the value is close to 0.05, it can be said that the influence of these two variables on ROA is quite strong but does not meet the significance criteria at the 5% level. This indicates that other factors outside the model likely play a greater role in influencing profitability. These results align with research by (Kusumaningsih & Mujiyati, 2024) which states that tax avoidance does not significantly affect profitability. This could occur because taxes are costs that do not directly affect a company's operations in the short term, thus do not directly affect ROA. Furthermore, research by (Lamba & Atahau, 2022) also states that DER does not significantly affect ROA. This could be due to suboptimal debt management or other factors such as operational efficiency that more dominantly affect profitability. This means that the independent variable is not enough to make the dependent variable have a significant influence, which is only around 5% to explain that the independent variable has a significant influence, the rest is explained by other variables as significant supporters.

IV. CONCLUSION AND SUGGESTION

Conclusion

Several conclusions about the benefits of this research can be drawn from the results of the hypothesis testing, as follows. For property, real estate, and building construction companies listed on the IDX, ETR had no clear impact on ROA from 2020 to 2023. This suggests that increased tax avoidance does not necessarily translate into decreased profitability; this may be due to the fact that the tax management strategies employed by these companies do not impact the efficiency of their asset performance.Furthermore, in 2020–2023, companies listed on the IDX in the property and building construction subsector did not experience significant changes in ROA due to DER. This concludes the second problem identification, which has proven that the effect of leverage on profitability tends to vary. Variation can be both positive and negative.

Positive occurs when they (IDX-listed companies) use debt wisely for expansion and profit generation, while negative occurs when they have excessive debt that burdens costs and reduces their profits. As the results of this study, many companies tend to be negative, namely the level of leverage (debt to equity ratio) is not strong enough to influence profitability in the company, the debt used by the company is still within reasonable limits and has not put great pressure on asset performance, debt management is not optimal or there are other factors such as operational efficiency that are more dominant in influencing profitability, and also each company has a different financial strategy and risk level.Meanwhile, ETR and DER do not have a significant impact on ROA. This clearly indicates that the two independent factors included in this study cannot provide a comprehensive explanation for the dependent variable, namely profitability.

Suggestion

The recommendations made in the conclusion are: Increase the study sample size, extend the observation period, and consider incorporating additional factors that may influence organizational profitability, including firm size, liquidity, or operational efficiency, for future researchers. The study's findings can help businesses manage their tax and financial planning and improve profitability by employing more effective managerial strategies that focus beyond leverage and ETR. Investors can use the study's findings as a starting point for assessing a company's financial health, but should consider additional metrics that may more accurately reflect the business's overall profitability performance.

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