

## The Influence of Profitability, Leverage and Capital Intensity Ratio to Tax Management in Manufacturing Companies

Bela Christy<sup>1\*</sup>, Kezia Josephine<sup>2</sup>, Wendy Salim Saputra<sup>3</sup>

<sup>1,2</sup>. Bunda Mulia University , North Jakarta, Indonesia

\* Corresponding Author : [s911210031@student.ubm.ac.id](mailto:s911210031@student.ubm.ac.id)

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### ABSTRACT

*Taxes are the main source of state revenue and play an important role in supporting development and maintenance economic stability. Taxes are mandatory in nature and do not provide direct compensation, but they are used for the benefits of the state and public welfare. In practice, tax management is often associated with agency theory, which describes a contractual relationship between one or more principals and agents who are given authority to make decisions in managing the company. This company condition forms the basis of tax management practices, which include strategies such as tax planning, financial structure arrangements, and the selection of certain accounting policies to reduce tax burdens and increase the company's net profit. This study aims to determine the effect of profitability, leverage, and capital intensity ratio on tax management in manufacturing companies listed on the Indonesia Stock Exchange (IDX) during the 2021–2024 period. This research is a quantitative study using secondary data. The population in this study consists of manufacturing companies listed on the IDX during the 2021–2024 period. The sampling technique used was purposive sampling, resulting in 86 manufacturing companies as the final sample. After the data were collected, multiple linear regression analysis was conducted. The data were processed using IBM SPSS version 27 for Windows. The results of the analysis indicate that profitability, leverage, and capital intensity ratio have an effect on tax management. Based on these findings, it is expected that taxpayers will fulfill their tax obligations properly without manipulating data in order to make the company appear to have good profitability, leverage, or capital intensity ratios.*

**Keywords:** Profitability, Leverage, Capital Intensity Ratio, Tax Management

### INTRODUCTION

Tax is the main source of revenue for the state which plays an important role in supporting development and maintaining economic stability. In accordance with Law of the Republic of Indonesia Number 28 of 2007 Article 1 paragraph (1), tax is defined as a mandatory contribution that

must be paid by individuals and bodies to the state. Tax is mandatory and does not provide direct compensation, but is used for the benefit of the state for the welfare of the community. In addition, based on Law of the Republic of Indonesia Number 36 of 2008 Article 6 paragraph (1), taxable income is calculated by deducting costs required to obtain, collect, and maintain income from gross income.

In practice, tax management is often associated with agency theory, which describes a contractual relationship between one or more principals and agents who are given the authority to make decisions in company management (Larasati & Hartika, 2025). This theory highlights the differences in interests between two parties, namely agents and principals, as explained by Jensen & Meckling (1976) (Larasati & Hartika, 2025). In the corporate context, conflicts of interest often arise because management (agents) tend to prioritize increasing after-tax profits and personal welfare, while the government or company owners (principals) expect maximum tax compliance and increased tax revenue (Priani, Trisnayuni, & Suryandari, 2025). This situation is exacerbated by information asymmetry, where management has broader access to company conditions than supervisors, thus giving them room to make profitable tax decisions as long as they comply with regulations (Larasati & Hartika, 2025). Some companies, especially those operating in the manufacturing sector, contribute significantly to national tax revenue. The following is evidence of tax payments reported by manufacturing companies, as well as a table showing the sectors with the largest tax payments over the past 4 years (2021-2024):

Figure 1 Proof of Tax Payment for 2021 - 2024



Source: Directorate General of Taxes (DGT)

**Table 1.1 1of Sectors with the Largest Tax Payments in 2021-2024**

Corporate Sectors	Year			
	2021	2022	2023	2024
Industry Processing	350,834.01	443,309.64	474,254.71	473,170.04
Trade / Retail	260,805.34	388,184.52	433,741.27	469,112.58
Financial Services and Insurance	150,633.13	161,671.90	202,078.33	232,007.60

Source : Directorate General Tax (DGT)

Companies are required to optimally manage their tax obligations without disrupting their financial performance. Therefore, tax management is a crucial issue to study, as it relates to a company's efforts to plan and manage tax obligations to align with its objectives and applicable tax regulations. Tax management is a comprehensive effort undertaken by managers to ensure that all aspects of a company's taxation are managed effectively, efficiently, and economically, thus ensuring optimal contribution to the company. Management is motivated to plan and manage tax payments to maximize profits while minimizing the tax burden (Febe & Novianti, 2025). Tax management can be understood as a legitimate tax planning strategy implemented by companies to reduce the tax burden and increase after-tax profit.

The phenomenon of tax management arises from differing interests between companies, which seek to maximize profits, and the government, as the tax collector. This practice is evident in variations in effective tax rates between companies and the exploitation of loopholes in legally valid tax regulations (Fitriana & Isthika, 2021) and (Hanum & Br. Manullang, 2022). Empirical evidence shows that companies often engage in tax management by adjusting their financial structure, choosing specific accounting policies, and managing their assets (Febriyanti & Susanty, 2023).

Manufacturing companies such as PT Unilever Indonesia Tbk in 2023 recorded a significant difference between profit before tax and corporate income tax expense. The annual financial statements show changes in the amount of income tax payable and tax expense, which are important components in evaluating the company's tax burden. This indicates that managing tax obligations is a crucial aspect of the company's financial management and has an impact on the net profit reported to shareholders. This data is included in the notes to Unilever Indonesia's financial statements for 2023–2024, which describe the amount of corporate income tax and tax payable, which must be presented transparently in accordance with accounting and tax regulations.

Various previous studies have shown that tax management practices are influenced by the company's financial condition, including profitability, *leverage*, company size, *capital intensity ratio*, inventory intensity, sales growth, and corporate governance mechanisms (Noviatna, Zirman, & Safitri, 2021; Putri, et al. 2022 & Monica & Josephine, 2024). Companies with high profitability tend to have greater incentives to engage in tax management to reduce the tax burden on profits earned (Aini & Ikram, 2025) & (Fatmawati, et al. 2025). In addition, the use of debt (*leverage*) allows companies to obtain tax benefits from interest expenses, while *capital intensity ratio* reflects the level of investment in fixed assets that can be used for tax reduction through depreciation expenses (Imaniar, Rely, & Prayogo, 2024). In this study, the factors examined are profitability, *leverage*, and *capital intensity ratio*.

The first variable in this study is profitability. Profitability describes a company's ability to generate profits from its operational activities (Fitriana & Isthika, 2021). Companies with high profitability generally bear a larger tax burden, thus encouraging tax planning to minimize the impact of taxes on net income (Aini & Ikram, 2025). Several previous studies have shown a link between profitability and tax management practices in manufacturing companies, although the findings have not been consistent across studies. Companies with high profitability bear a large tax burden, thus requiring tax management strategies to minimize net income pressure.

Previous research has shown that the influence of profitability on tax management has yielded mixed findings. Noviatna, Zirman, and Safitri (2021) and Gurusinga, Robin, and Colossal (2024) stated that profitability has a positive effect on tax management. This means that companies with higher profits tend to manage their taxes to reduce their tax burden. On the other hand, Satriyo, Khasanah, and Ningrum (2024) and Febriyanti and Susanty (2023) found that profitability has a negative effect on tax management, indicating that companies with high profit levels tend to be more compliant in fulfilling their tax obligations. Furthermore, Putri et al. (2022) and Fitriana and Isthika (2021) concluded that profitability does not significantly influence tax management. These differing research findings indicate that the relationship between profitability and tax management remains inconsistent. Therefore, further research is needed to re-examine the effect of profitability on tax management across different sectors and time periods.

The second variable in this study is *leverage*. *Leverage* describes a company's funding structure, which is derived from the use of debt (Noviatna, Zirman, & Safitri, 2021). The use of debt generates interest expenses that are deductible from pre-tax profit, thus affecting the amount of tax a company must pay (Fitriana & Isthika, 2021).

*Leverage* is one factor thought to influence corporate management practices or tax avoidance. *Leverage* reflects a company's funding structure, which relies on debt, where the use of debt generates interest expenses. This interest expense can be deducted from pre-tax profit, potentially reducing the company's tax liability (Fitriana & Isthika, 2021). The use of

debt in a company's capital structure generates interest expenses that can impact the amount of tax payable, so companies need to consider *leverage* in their tax planning.

Previous research has shown that the effect of *leverage* on tax management has yielded mixed findings. Febriyanti and Susanty (2023) and Suryarini and Erwanti (2022) found that *leverage* has a positive effect on tax management, meaning that the higher the *leverage level*, the more likely companies are to engage in tax avoidance to maximize the tax benefits from using debt. Conversely, Gusinga, Robin, and Colossal (2024) and Loanza and Saputra (2025) found that *leverage* has a negative effect on tax management, indicating that companies with high debt levels tend to be more cautious and less aggressive in engaging in tax avoidance. Meanwhile, Satriyo, Khasanah, and Ningrum (2024) and Febe and Novianti (2025) reported that *leverage* has no significant effect on tax management, suggesting that not all companies utilize debt as a strategy to reduce their tax burden. These differing research findings indicate inconsistent findings, indicating a persistent *research gap* regarding the effect of *leverage* on tax management. Therefore, further research is needed to re-examine the effect of *leverage* on tax management by considering differences in industrial sectors, research periods, and company characteristics.

The third variable in this study is *Capital intensity* *Capital intensity ratio* *The fixed asset ratio* indicates the proportion of fixed assets to a company's total assets. Ownership of fixed assets creates depreciation expenses that can reduce taxable profit, potentially impacting a company's tax management practices. The higher the fixed asset intensity, the greater the depreciation expense, which can be utilized as a tax reduction strategy, especially for companies operating in capital-intensive sectors, such as manufacturing and infrastructure. Research by Apriani (2022) shows that companies with high capital intensity tend to utilize depreciation expenses to increase tax efficiency, while Loanza & Saputra (2025) found a significant effect of *Capital Intensity. Ratio* to tax management practices. Fixed assets incur depreciation charges that can reduce taxable profit, so the proportion of fixed assets (*capital intensity ratio*) is an important factor that can influence a company's tax management practices.

Previous research shows that the relationship between *capital intensity ratio* and tax management still produce mixed findings. Fitriana and Isthika (2021) found that *capital intensity The ratio* influences tax management, indicating that companies with higher capital intensity tend to be more active in tax planning through the utilization of depreciation and expenses related to fixed assets. Conversely, Imaniar, Rely, and Prayogo (2024) and Noviatna, Zirman, and Safitri (2021) concluded that *capital intensity intensity The ratio* does not significantly influence tax management, so the proportion of fixed assets does not always determine a company's tax management practices. The differences in research results indicate inconsistent findings, indicating a continuing research gap regarding the influence of capital adequacy. intensity ratio on tax management. Therefore, further research is needed to re-

examine this relationship by considering the industry context, company size, and implemented financial strategy .

## RESEARCH METHOD

Study This use method quantitative with approach causality For analyze influence profitability, leverage, and capital intensity ratio against management taxes on companies manufacturing companies listed on the Indonesia Stock Exchange for the 2021–2024 period . According to Sugiyono (2024), research quantitative is method research used For test connection between variables through analyzed numerical data use technique statistics . The data used in study This is secondary data in the form of report annual and reports finance company manufacturing obtained through Indonesia stock exchange as well as the official website of each company . Data retrieval techniques sample using purposive sampling with criteria company registered manufacturers in a way consecutive during period research , publishing report finance complete , no experience losses , and use rupiah currency in report finance.

Data analysis techniques in study This use analysis statistics descriptive and analytical multiple linear regression with help IBM SPSS application version 27. Before done testing hypothesis , especially formerly assumption testing was carried out classical which includes normality test , multicollinearity test , heteroscedasticity test , and autocorrelation test For confirm the regression model fulfil BLUE (Best Linear Unbiased Estimator) assumption as explained by Ghozali (2021). Variables dependent in study This is management measured tax using the Effective Tax Rate (ETR), whereas variables independent consists of from measured profitability using Return on Assets (ROA), leverage is measured using the Debt to Asset Ratio (DAR), and the capital intensity ratio which is measured use ratio asset still to total assets company . Testing hypothesis done through t-test, F-test, and coefficient determination (Adjusted R<sup>2</sup>) for know influence partial and simultaneous variables independent to management tax company .

Population refers to the conceptual area that groups object or individual based on attribute certain that have been determined by researchers For Then made into base in interesting conclusion . Population No only refers to the amount object or subject , but also involving all accompanying characteristics ( Sugiyono , 2024) . Population in study This is report finance annual company manufacturers listed on the Indonesia Stock Exchange ( IDX ) during period 2021 to 2024. Meanwhile Sample is reflection amount as well as properties possessed by a population . When population too big and not Possible For investigate all its members , then the process of taking is carried out sample . Findings from sample This Then buffer generalized to overall population ( Sugiyono , 2024). Determination sample in study This use technique *purposive sampling* , namely method determination sample based on criteria certain that have been determined by researchers .

Variables dependent is type variables that are influenced by variables independent . Variable This often called as variables response and symbolized with letter Y. In study this , variable dependents used is management tax . According to Nugraha , Utaminingtyas , & Respati (2023) management tax is effort company in manage obligation taxation in a way effective and efficient with still comply provision regulation applicable taxation . Management tax done through planning and control taxes that are aimed at For minimize burden tax without violate rule applicable law , so that company can reach efficiency in

expenditure taxes . Management tax is steps taken legally to optimize burden tax with utilise available opportunities in regulation taxation . In in practice , management tax often associated with measurement performance tax company use rates tax Effective *Tax Rate* ( ETR), which is used For describe level efficiency taxes borne company (Susilo & Sari, 2022). Tariff model tax effective (ETR), which uses formula following :

$$ETR = \frac{Income\ Tax\ Burden}{Profit\ before\ tax}$$

Profitability is a company's ability to generate profits from all its resources, particularly assets used in its operational activities, within a specific period. Profitability indicates the efficiency of asset management to generate net income. In this study, profitability was measured using the Return on Assets (ROA) ratio. on Return on Assets (ROA) reflects a company's ability to generate net profit from the use of its total assets. A higher ROA indicates a higher level of efficiency and profitability. ROA, as a profitability indicator, is calculated using the following formula:

$$ROA = \frac{Net\ Income}{Total\ Assets} \times 100\%$$

**Information:**

Net Income : The profit after tax earned by a company in one period.

Total Assets : The total amount of assets owned by the company at the end of the period.

The capital intensity ratio is the amount of a company's capital invested in its fixed assets. This ratio is measured by dividing fixed assets by sales. According to Cahyana (2022), capital intensity is the capital required by a company to generate revenue. The required calculation is based on the ratio of fixed assets, such as factory equipment, machinery, and various properties, to sales (Cahyana, 2022).

The capital intensity ratio can be used to describe a company's efficiency in generating profit or income through its capital ( Javiera , 2024). Generally, almost all fixed assets experience depreciation, which in a company's financial statements is an expense that can reduce income in the company's tax calculations. This is because depreciation expenses directly reduce the company's profit, which is the basis for calculating corporate tax (Tanjung & Nadi, 2024).

Capital calculation The intensity in this study refers to the formula used by Pratiwi and Oktaviani (2021) in Apriani's (2022) research as follows:

$$CIR = \frac{Total\ Fixed\ Assets}{Total\ Assets}$$

**Table 1** Variable Operationalization Table

Variables	Measurement ( Source Reference every Minimum variable 3, years )	Scale
Y = Management Tax	$ETR = \frac{Income\ Tax\ Burden}{Profit\ before\ tax}$ Monica, C., & Josephine, K. (2024) Putri, E., Zulaecha, HE, Hamdani, & Rohmansyah, B. (2022) Apriani, IS (2022)	Ratio
X <sub>1</sub> = Profitability	$ROA = \frac{Net\ Income}{Total\ Assets} \times 100\%$ Putri, E., Zulaecha, HE, Hamdani, & Rohmansyah, B. (2022) Apriani, IS (2022) Fitriana, E., & Isthika, W. (2021)	Ratio
X <sub>2</sub> = Leverage	$DAR = \frac{Total\ Liabilities}{Total\ Assets}$ Imaniar, NI, Rely, G., & Prayogo, B. (2024) Febriyanti, V., & Susanty, M. (2023) Apriani, IS (2022)	Ratio
X <sub>3</sub> = Capital Intensity Ratio	$CIR = \frac{Total\ Fixed\ Assets}{Total\ Assets}$ Monica, C., & Josephine, K. (2024) Putri, E., Zulaecha, HE, Hamdani, & Rohmansyah, B. (2022), Noviatna, H., Zirman, & Safitri, D. (2021)	Ratio

Source: Data processed by researchers (2026)

Data analysis is the step taken after obtaining data from respondents and other data sources. This step begins with grouping data based on variables and respondents, tabulating the data, and performing calculations to answer the research question (Sugiyono, 2024).

The following is the data processing carried out by the researcher:

**Data Selection**

Study This using secondary data in the form of report finance company manufacturers listed on the Indonesia Stock Exchange ( IDX ) during period 2021–2024. The data obtained through the official BEI website . Selection sample done with purposive sampling method according to with criteria that have been determined previously . Companies that do not fulfill criteria the No included in research , while the data that passes selection Then entered to Microsoft Excel for stage initial processing .

### Data processing

The collected data was then calculated based on the variable operational formulas based on previous research. The data was then processed using the SPSS statistical application. The analysis phase began with descriptive statistics to provide an overview of the research data. Next, classical assumption tests were conducted, including tests for normality , multicollinearity , heteroscedasticity , and autocorrelation , to ensure that the regression model met the required assumptions.

### Results Analysis

The final stage is to conduct a multiple linear regression analysis to test the effect of the independent variables on the dependent variable. The test results are then compared and analyzed with research findings in previous journals as a basis for drawing conclusions.

## RESULTS AND DISCUSSION

### Research result

This study used manufacturing companies listed on the Indonesia Stock Exchange (IDX) for the 2021-2024 period. The study utilized secondary data in the form of annual financial reports obtained from [www.idx.co.id](http://www.idx.co.id) or the company's website . This study used data from these financial reports to measure profitability, leverage , and capital intensity. Tax Ratios and Management. The following are the sample criteria that will be used for the research sample:

**Table 1**  
**Sample Criteria**

No	Criteria	Amount
1.	Sector companies manufacturing companies listed on the Indonesia Stock Exchange in the 2021-2024 period	190
2.	Manufacturing companies that do not publish <i>annual report</i> or <i>financial report</i> for the 2021-2024 period sequentially or complete	(11)
3.	Manufacturing companies that use foreign currency in report his finances	(32)
4.	Manufacturing companies that experience loss during 2021-2024 period	(61)
	Number of Companies that meet criteria sample	86

	Number of observation data (86 x 4 years )	344
	Number of <i>outlier</i> data	67
	Amount of data	277

Source: Data processed by researchers (2026)

Table 4.1 explains that there were 190 companies in the initial sample group. However, there were 32 manufacturing companies that did not publish annual reports. The report is denominated in rupiah. Furthermore, 61 manufacturing companies experienced losses during the 2021-2024 period. Eleven manufacturing companies also lacked complete financial information and did not meet the sample selection criteria. This resulted in 86 companies, or 344 items, being included in the research sample. However, 67 items had values significantly above the normal range, thus becoming outliers . This resulted in a total of 277 items.

This study used a multiple linear regression method that utilizes a series of hypothesis tests and classical assumptions. The classical assumptions tested include normality , multicollinearity , heteroscedasticity , and autocorrelation . Furthermore, hypothesis assessment was conducted using the F-test, T-test, and coefficient of determination ( $R^2$  ).

**Table 2 Descriptive Statistics**

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
ETR	277	.1414	.3052	.221873	.0260390
ROA	277	.4690	1.6438	.820991	.1235915
DAR	277	.0327	.8661	.326015	.1705533
CIR	277	.0044	.8557	.357442	.1979703
Valid N (listwise)	277				

Source: *Output SPSS 27 (2026)*

Based on Table 4.2, the company data used in this study totaled 277, after reducing data identified as outliers for the 2021-2024 period. The descriptive analysis results for each variable are as follows:

- **Tax Management (ETR)**

Based on Table 4.2, the ETR variable has a minimum value of 0.1414, which is data from KMI Wire & Cable Tbk. (KBLI) in 2021. This very low ETR value indicates that the company only pays taxes in a small proportion of its pre-tax profit, which means its level of tax planning is relatively low. Therefore, it can be concluded that the higher the ETR value, the lower the level of tax planning carried out by the company. Conversely, the *maximum* ETR value of 0.3052 is data from Semen Indonesia (Persero) Tbk (SMGR)

in 2023. This high value indicates that the company pays taxes in a large proportion of its pre-tax profit, which means its level of tax planning is relatively low. Therefore, it can be concluded that the higher the ETR value, the lower the level of tax planning carried out by the company. In addition, the *mean* ETR value of 0.221873 indicates that in general, companies pay taxes around 27.07% of their pre-tax profit. The standard deviation value of 0.0260390 from 277 data indicates that there is quite a large variation in the level of tax payments between companies in the research sample.

- **Profitability (ROA)**

Based on Table 4.2, the profitability variable (ROA) has a minimum value of 0.4690, which is data from the company Lautan Luas Tbk. (LTLS) in 2023. This value indicates that the company has a lower level of ability to generate profits from its total assets, thus indicating relatively low asset utilization efficiency compared to other companies in the sample. Meanwhile, the *maximum value* The ROA of 1.6438 is data from Budi Starch & Sweetener Tbk. (BUDI) in 2023. This value reflects the company's excellent ability to utilize assets to generate profits, thus indicating a high level of profitability. The *mean value* of 0.820991 indicates that, in general, the companies in the sample have a fairly good level of profitability in generating profits from their assets. Meanwhile, the standard deviation value of 0.1235915 indicates a relatively small variation in profitability between companies. Therefore, the higher the ROA value, the better the company's profitability performance in managing its assets to generate profits.

- **Leverage (DAR)**

Based on Table 4.2, the *leverage variable* (DAR) has a minimum value of 0.0327, which is data from Sinergi Inti Plastindo Tbk. (ESIP) in 2022. This low DAR value indicates that the company has a very low level of debt usage in its funding structure, so that its asset financing is mostly from equity. Conversely, the *maximum value* of 0.8661 is data from Unilever Indonesia Tbk. (UNVR) in 2024. This high value indicates that the company has a high level of leverage, meaning that a larger portion of the company's assets are financed by debt than equity. The *mean value* of 0.326015 indicates that approximately 32.6% of the company's assets in the sample are financed by debt. Meanwhile, the standard deviation value of 0.1705533 indicates that there are quite varied levels of leverage between companies. Thus, the higher the DAR value, the greater the portion of the company's funding that comes from debt, while a lower DAR value indicates a funding structure that is more dominated by equity.

- **Capital Intensity Ratio (CIR)**

Based on table 4.2, the *Capital Intensity variable Ratio* (CIR) Has a minimum value of 0.0044 which is data from the company Wilmar Cahaya Indonesia Tbk. (CEKA) in 2024, this value indicates that the company has a relatively small proportion of fixed assets to its total assets, so the level of capital intensity used in the company's operations is

relatively low. Meanwhile, the *maximum value* of 0.8557 is data from the company Surya Biru Murni Acetylene Tbk. (SBMA) in 2024, this value indicates that the company has a large proportion of fixed assets compared to its total assets, thus indicating the level of capital intensity used in the company's operations is relatively low. high intensity in the company's operational activities. Therefore, the higher the CIR value, the greater the proportion of fixed assets owned by the company, which reflects a high level of capital intensity in carrying out its operational activities. The *mean value* of 0.357442 indicates that in general, the companies in the sample have a proportion of fixed assets of around 35.74% of total assets. Meanwhile, the standard deviation value of 0.1979703 indicates that there is quite a wide variation between companies in the level of *capital intensity* between companies.

**Table 3 Normality Test Results**

**One-Sample Kolmogorov-Smirnov Test**

		Unstandardized Residual
N		277
Normal Parameters <sup>a,b</sup>	Mean	-.0118291
	Std. Deviation	.02374735
Most Extreme Differences	Absolute	.047
	Positive	.034
	Negative	-.047
Test Statistic		.047
Asymp. Sig. (2-tailed) <sup>c</sup>		.200 <sup>d</sup>

Source: SPSS 27 Output (2026)

*One- Sample Testing The Kolmogorov-Smirnov test* in Table 4.3 shows a significance value of Asymp . Sig . (2-tailed) of 0.200, which is greater than 0.05. Therefore, it can be concluded that profitability, leverage, capital intensity ratio, and tax management are normally distributed.

**Table 4 Multicollinearity Test Results**

		Coefficients <sup>a</sup>					Collinearity Statistics	
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Tolerance	VIF
		B	Std. Error	Beta				
1	(Constant)	.252	.010		24.915	<.001		
	ROA	-.065	.012	-.311	-5.684	<.001	.974	1.027
	DAR	.033	.008	.217	4.011	<.001	.992	1.008
	CIR	.035	.007	.267	4.898	<.001	.981	1.020

a. Dependent Variable: ETR

Source: SPSS 27 Output (2026)

Based on table 4.4, it is known that the tolerance value of the profitability variable (ROA) is 0.974, leverage (DAR) is 0.992 and Capital Intensity (CPI) is 0.992. Ratio (CIR) of 0.981. With a VIF value, profitability (ROA) of 1.027, leverage (DAR) of 1.008 and Capital Intensity (CIR) of 0.981. Ratio (CIR) is 1.020. Based on the test results above, if the tolerance value is greater than 0.10 and the VIF value is less than 10, it can be concluded that there is no multicollinearity in the regression model between the independent variables.

**Table 5 Heteroscedasticity Test Results**

		Coefficients <sup>a</sup>				
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.009	.007		1.306	.193
	ROA	.012	.007	.095	1.571	.117
	DAR	.003	.005	.030	.501	.617
	CIR	.001	.001	.060	.992	.322

a. Dependent Variable: ABS\_RES3

Source: SPSS 27 Output (2026)

Based on table 4.5 above, it indicates that the Sig value for the profitability variable is 0.117, leverage is 0.617 and capital is 0.117. intensity The ratio is 0.322. This means that all independent variable values are greater than 0.05. It can be concluded that the regression model in this study does not exhibit symptoms of heteroscedasticity.

**Table 6 Autocorrelation Test Results**

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.118 <sup>a</sup>	.014	.010	.02313077	1.999

a. Predictors: (Constant), LAG\_RES

b. Dependent Variable: Abs\_Res

Source: SPSS 27 Output (2026)

Based on table 4.6, the results of the autocorrelation test show that the Durbin-Watson (DW) value is 1.999. Based on the Durbin-Watson (DW) table at a significance level of 5% with a sample size of 277 and a total of 3 variables, the dL value is 1.78560 and the dU value is 1.81543. Thus, the 4- dU value is 2.18457 and the 4- dL value is 2.21440. Based on these values, the model is declared to have passed the autocorrelation test because the Durbin-Watson (DW) value of 1.999 is between the dU and 4- dU values , which means there is no autocorrelation problem in the regression model.

**Table 7 Multiple Linear Regression Test Results**

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.252	.010		24.915	<.001
	ROA	-.065	.012	-.311	-5.684	<.001
	DAR	.033	.008	.217	4.011	<.001
	CIR	.035	.007	.267	4.898	<.001

a. Dependent Variable: ETR

Source: SPSS 27 Output (2026)

Based on table 4.7, the formulation of the multiple linear regression equation in this study is:

$$ETR = 0.252 - 0.065 ROA + 0.033 DAR + 0.035 CIR + e$$

The following are the results of multiple linear regression analysis:

- If the value of all independent variables, namely profitability, *leverage* , and *capital intensity ratio* has a constant value of 0, then the value of the dependent variable tax management (ETR) will increase by 0.252.

- The regression coefficient value for profitability (ROA) is -0.065, which means that assuming other independent variables are constant, each additional unit of the profitability variable (ROA) will reduce ETR by 0.065.
- The regression coefficient value for *leverage* (DAR) is 0.033, which means that assuming other independent variables are constant, each additional unit of *leverage variable* (DAR) will increase ETR by 0.033.
- *Capital Intensity* regression coefficient value *Ratio* (CIR) of 0.035 means that assuming other independent variables are constant, then every additional unit of *the Capital Intensity variable Ratio* (CIR) will increase ETR by 0.035.

**Table 8 Coefficient of Determination Test (R2)**

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.453 <sup>a</sup>	.205	.196	.0233414

a. Predictors: (Constant), CIR, DAR, ROA

b. Dependent Variable: ETR

Source: SPSS 27 Output (2026)

Based on table 4.8, it shows that the *Adjusted R Square* figure of 0.196 indicates that profitability, leverage, and capital intensity The ratio contributes 19.6% to ETR. Meanwhile, other factors contribute 80.4% to tax management (ETR).

**Table 9 Stimulus Analysis Test (F Test)**

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.038	3	.013	23.493	<.001 <sup>b</sup>
	Residual	.149	273	.001		
	Total	.187	276			

a. Dependent Variable: ETR

b. Predictors: (Constant), CIR, DAR, ROA

Source: SPSS 27 Output (2026)

Based on table 4.9, the sig. value is 0.001 or  $0.001 < 0.05$ . This means that this hypothesis is supported or the regression model is suitable for use, so that profitability, leverage, and capital are intensity ratio affects Tax Management (ETR). The T-test is a significance test that aims to determine the partial influence between the independent variables on the dependent variable in this study. If the Sig. value is  $<0.05$ , then  $H_a$  is accepted and  $H_o$  is rejected. The following are the results of the t-test in this study.

**Table 10 Partial Analysis Test (T-Test)**

		Coefficients <sup>a</sup>				
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	.252	.010		24.915	<.001
	ROA	-.065	.012	-.311	-5.684	<.001
	DAR	.033	.008	.217	4.011	<.001
	CIR	.035	.007	.267	4.898	<.001

a. Dependent Variable: ETR

Source: SPSS 27 Output (2026)

Based on table 4.10, the following conclusions can be drawn:

- Profitability (ROA) with a significant value of  $0.001 < 0.05$ , it can be concluded that profitability (ROA) has a significant influence on tax management (ETR) and the first hypothesis is accepted.
- Leverage (DAR) with a significant value of  $0.001 < 0.05$ , it can be concluded that leverage (DAR) has a significant influence on tax management (ETR) and the second hypothesis is accepted.
- Capital Intensity Ratio (CIR) with a significant value of  $0.001 < 0.05$ , it can be concluded that Capital Intensity Ratio (CIR) has a significant influence on tax management (ETR) and the third hypothesis is accepted.

**Discussion**

Based on the hypothesis testing results in Table 4.11, the profitability significance value was 0.001. This value is lower than the 0.05 significance level, indicating that profitability has a significant effect on tax management. Therefore, the first hypothesis (H1) is accepted. Therefore, profitability has been shown to have a significant effect on tax management.

Profitability indicates a company's ability to generate profits over a specific period. The higher a company's profitability, the greater its profits. This situation also increases the company's tax burden. Therefore, companies are encouraged to implement tax management to ensure more efficient tax payments without compromising profit optimization.

Companies with high profitability are generally more active in tax planning, utilizing tax policies that comply with statutory provisions. This indicates that profitability is a factor influencing corporate tax management practices.

Profitability indicates a company's ability to generate profits over a specific period. The higher a company's profitability, the greater its profits. This high profit also increases the company's tax burden, as income tax is calculated based on the company's profits. This situation encourages management to implement tax management to legally reduce the company's tax burden and maintain high after-tax profits.

Agency theory explains that management has an interest in demonstrating good company performance to both owners and investors. One form of this performance is reflected in high net profit. Therefore, management tends to employ various tax management strategies, such as *tax planning*, to minimize tax payments without violating applicable tax regulations. With efficient tax management, companies can maintain higher profit levels.

The results of this study indicate that profitability influences tax management. This is in line with agency theory, which states that the higher a company's profitability, the greater the incentive for management to engage in tax management. Management strives to reduce the tax burden to maintain optimal profits, thereby meeting the expectations of owners and improving management performance. Thus, agency theory can explain the influence of profitability on tax management because companies with high profits are more motivated to manage taxes efficiently to maintain corporate profits and maintain management's interests.

The results of this study are in line with previous studies conducted by Noviatna, Zirman, and Safitri (2021), Gurusinga, Robin, and Colossal (2024), and Fatmawati, Setyowati, Ratnawati, and Purwantoro (2025) which stated that profitability has a significant effect on tax management.

### **The Effect of Leverage on Tax Management**

Based on the hypothesis testing results in Table 4.11, the significance value for leverage was 0.001. This value is lower than the 0.05 significance level, indicating that leverage has a significant effect on tax management. Therefore, the second hypothesis (H2) is accepted. Therefore, leverage has been shown to have a significant effect on tax management.

*Leverage* is the extent to which a company uses debt to finance its operational and investment activities. A company with a high level of *leverage* indicates that it uses more debt financing than equity. This debt usage results in interest expenses that the company must pay. In taxation, interest expenses can be used as a deduction from taxable profit, thereby lowering the company's tax liability.

*Leverage* also reflects the extent to which a company uses debt to finance its operations. The greater the use of debt, the greater the interest expense. This interest expense is included in the deductible expenses for income tax calculations (*deductible expense*), so that the company can obtain tax savings (*tax shield*) by reducing the tax burden from debt interest costs.

These results are also supported by previous studies by Fitriana and Isthika (2021), Satriyo, Khasanah, and Ningrum (2024), and Putri, Zulaecha, Hamdani, and Rohmansyah (2022), which show that leverage has a significant effect on tax management.

### **The Influence of *Capital Intensity Ratio* to Tax Management**

Based on the results of the hypothesis testing in table 4.11, the significance value of *capital intensity ratio* is 0.001. This value is smaller than the significance level of 0.05, so this indicates that *capital intensity ratio* has a significant effect on tax management. Thus, the third hypothesis (H3) is accepted. Thus, *capital intensity ratio* is proven to have a significant influence on tax management.

*Capital Intensity Ratio* describes the proportion of a company's fixed assets to its total assets. The higher the fixed assets, the greater the depreciation expense that can be used to reduce taxable income. Fixed asset depreciation expense is an expense that can be recognized in tax calculations, thus reducing the company's taxable income. Therefore, companies with *high capital intensity ratios* tend to carry out tax management to optimize the tax burden borne.

The results of this study can also be explained through agency theory (*theory*) which states that the relationship between company owners (*principals*) and management (*agents*) can give rise to differing interests in corporate decision-making, including tax policy. Management, as the party that manages the company, will strive to make decisions that can increase company profits, one of which is through efficient tax payments.

This result is also supported by previous studies by Fitriana and Isthika (2021), Satria (2023), and Putri, Zulaecha, Hamdani, and Rohmansyah (2022), which show that *Capital Intensity Ratio* has a significant effect on tax management.

## **CONCLUSION**

Based on the results of research and discussions that have been carried out in this study to determine the influence of profitability, leverage, and *capital intensity ratio* to tax management in manufacturing companies listed on the IDX for the 2021-2024 period, the following conclusions can be drawn:

Profitability is measured using *Return on Assets* (ROA) has been shown to significantly influence tax management. These results indicate that a company's ability to generate profits is one of the factors influencing its tax management policies. Companies with high profitability tend to implement more optimal tax planning to reduce their tax burden without reducing their profits.

*Leverage* proxied by *Debt to Equity Ratio* (DAR) also has a significant impact on tax management. This indicates that the use of debt in a company's capital structure can impact the amount of tax payable. High levels of *leverage* lead to increased interest expenses, which can be used to reduce taxable income, thus enabling companies to achieve tax efficiencies.

*Capital Intensity* The *Capital Assets Ratio* (CIR) is known to have a significant impact on tax management. This condition indicates that the proportion of fixed assets owned by a company can influence its tax policy. The higher the *capital assets value*, the *intensity* The *higher the ratio* , the greater the depreciation expense of fixed assets that can be used to reduce the company's taxable profit. Therefore, companies with high levels of fixed assets tend to be more active in tax management.

Simultaneously, *profitability*, *leverage* , and *capital intensity* The *ratio* has been shown to significantly influence tax management in manufacturing companies listed on the Indonesia Stock Exchange for the 2021–2024 period. Thus, these three variables collectively influence company policies in implementing tax management practices.

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