

**EFFECT OF TAX PLANNING, CAPITAL INTENSITY AND LEVERAGE  
ON COMPANY FINANCIAL PERFORMANCE  
(EMPIRICAL STUDY OF MANUFACTURING COMPANIES IN THE BASIC MATERIALS SECTOR LISTED ON THE  
INDONESIAN STOCK EXCHANGE 2017-2021).**

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**Abstract**

**Purpose** - The aim of this research is to see how tax planning, capital intensity, and leverage affect business financial performance using data from basic materials industrial manufacturing companies listed on the Indonesia Stock Exchange from 2017 to 2021.

**Design/methodology/approach** - This research uses a quantitative multiple linear regression model. Purposive sampling was used and resulted in 47 companies with a total of 162 observation data. Data analysis was carried out using SPSS 25.

**Finding** - Based on research findings, leverage has a negative impact on the company's financial performance, although capital intensity and tax planning both significantly improve financial performance.

**Originality** -

**Keyword** - Tax Planning, Capital Intensity, Leverage, Financial Performance

**Paper Type** – Research Paper



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## Introduction

The manufacturing industry is expected to experience strong growth in the coming years and generate profitable businesses. The industrial production sector is expected to increase in 2021 compared to the previous year. This is shown by the increasingly improving performance of manufacturing companies, as can be seen from the value of Gross Domestic Product (GDP), investment realization, export achievements and the Manufacturing Purchasing Manager's Index (PMI) in Table 1.

**Table 1. Manufacturing Company Contribution Value Indicator**

Indikator Nilai	2020	2021
PDB	Rp2.760,43 Triliun	Rp2.946,9 Triliun
Realisasi Investasi	Rp272,9 Triliun	Rp325,4 Triliun
Ekspor	Rp131 Miliar	USD177,10 Miliar
PMI	51,3	53,5

Source: Kemenperin.go.id, 2022, data processed

The contribution of manufacturing companies in December 2021 reached a PMI of 53.5, indicating that this figure was above expansion (50) based on the results of the IHS Markit survey. The increasing performance of companies in the manufacturing sector is influenced by demand conditions which are generally stronger, which encourages increased purchasing activity which ultimately increases profits which generate income. For companies, this has an impact on improving the company's financial performance (kemenperin.go.id, 2022).

Financial performance is the extent to which company goals have been or will be achieved (Yahaya and Lamidi, 2015). Furthermore, financial performance is a subjective measure of a company's ability to utilize its assets and ensure how well the company fulfills its main mission as a business leader and future generation revenue (Kajirwa, 2015). Therefore, taxpayers usually exploit loopholes in tax laws to legally and morally ensure that they pay as little tax as possible to the state through tax planning.

Several factors are believed to influence the financial performance of a company and this research discusses several of these factors such as tax planning, capital intensity, and leverage. These factors were chosen because they are directly related to the company's financial reporting. Tambun, Sihar (2021) stated that tax planning has a small positive impact on business performance. On the other hand, Adejumo & Sanyaolu (2020) argue that tax planning based on effective tax rates has a negative effect on the level of return on assets (ROA).

Oeta et al. (2019) explained that capital intensity and financial performance have a positive but not significant relationship. In contrast, Lee and Xiao (2011) find no relationship between capital intensity and firm performance for publicly traded US hotels and restaurants.

According to Ado et al. (2021), leverage and ROA used to assess financial performance have a positive and substantial relationship. However, Enekwe et al. (2014) examined the relationship between debt ratio and return on assets in Nigerian pharmaceutical companies, finding a large and unfavorable effect.

Previous research has provided mixed results and provides opportunities for further research. The novelty of this research lies in the novelty of the data used, sourced from manufacturing companies in the basic materials sector in the 2017-2021 period which have been registered on the IDX. The object of this research is basic materials manufacturing companies registered on the IDX, namely in 2017-2021, which led the author to conduct research with the title “Effect of Tax Planning, Capital Intensity, and Leverage on Company Financial Performance (Empirical Study of Basic Materials Manufacturing Companies Registered on Indonesian Stock Exchange 2017-2021)”.

## **Literature Review**

### **Agency Theory**

The contractual relationship between principal and agent can be referred to as an agency theory concept. This relationship occurs when the principal prioritizes the interests of optimizing company profits to minimize expenses, including tax burdens, and empower agents to make the best decisions (Supriyono, 2018).

Governments and companies have different interests in paying taxes, according to agency theory. Tax revenues are used by the government (principal) to finance government expenditure. On the other hand, companies (agents) try to pay as little tax as possible because paying taxes means reducing the company's economic performance. The higher the company's income, the higher the tax rate, so that companies with more income have a higher tax burden. This affects the company's net profit and financial performance. This allows the company (agent) to minimize the tax burden that must be paid to the government (principal). Therefore, there is a conflict of interest between companies and the government.

### **Tax Planning**

Tax planning is a form of tax management that aims to save legitimate taxes. Tax planning is said to be the systematic arrangement of financial activities without violating legal provisions, by means of which full benefit is taken to allow tax exemptions, allowances, concessions, deductions, rebates and other benefits permitted within the framework of the Income Tax Act (Vasanthi, 2015). Suandy, Erly (2017:2), states that tax planning in general is the process of managing the taxpayer's business and transactions so that the taxpayer's tax responsibilities are minimized without violating existing tax regulations. Tax planning is proxied by TRR which compares net profit with net profit before tax. Tax Planning or tax planning can be calculated using the following formula (Nailufaroh, et al., 2022):

$$TRR = \frac{\text{Net Profit}}{\text{Net Profit Before Tax (Ebit)}}$$

### **Capital Intensity**

The investment activities of a company in relation to capital investment in the form of fixed assets are called capital intensity. Capital intensity refers to the level of investment in fixed assets by a company and the impact of that investment on the level of capital assets in relation to the incentives available to the company. This has been proven to be a good tax planning strategy, because incentives and allowances on capital intensity can be enjoyed by companies (Jumriaty & Firda, 2020; Ado et al, 2021; Nwaobia et al., 2016;

Ohaka and Agundu, 2012). Whether or not a company's asset management system is good at generating income can be seen in the capital intensity ratio. Comparison of total assets and fixed assets results in capital intensity. Capital Intensity can be calculated using the formula (Oeta et al., 2019) as follows:

$$\text{Capital Intensity} = \frac{\text{Fixed Assets}}{\text{Total Assets}}$$

### **Leverage**

An important measure of how much debt is used to fund an organization's assets is leverage. This shows that businesses depend more on debt than their own funds to run their operations (Kasmir, 2017: 113). The leverage ratio is widely used to measure the portion of long-term debt to the total assets of a business organization's activities. According to Ado, et al. (2021), the leverage ratio is one of the financial determinants that has been supported to significantly influence tax planning activities considering that financial ratios produce several exempt tax values which are of great concern to debt levels. The high debt of a company indicates a high leverage value.

$$\text{Leverage} = \frac{\text{Long-term debt}}{\text{Total Assets}}$$

### **Financial Performance**

Financial performance is a subjective measure of a company's ability to utilize its assets, which shows how well the company fulfills its main mission in running its business and, as a result, generates income (Kajirwa, 2015). As stated by Ado et al. (2021), an organization's financial performance is influenced by how effectively its assets are used in their main function of running a business and generating income.

Among the financial performance evaluation metrics that can be obtained from analysis of company financial reports, including gross profit margin, return on equity, and return on assets are indicators of return on assets (ROA) (Mwangi & Murigu, 2015). One of the financial performance measurement tools in this research is ROA which is often used in accounting studies (Ogundajo & Onakoya, 2016). ROA can be calculated using the formula created by Ado et al. (2021)

$$\text{ROA} = \frac{\text{Net Profit}}{\text{Total Assets}}$$

### **Tax Planning and Financial Performance**

Tax planning is a form of tax management that aims to save legitimate taxes. Tax planning is said to be the systematic arrangement of financial activities without violating legal provisions, by means of which full benefit is taken to allow tax exemptions, allowances, concessions, deductions, rebates and other benefits permitted within the framework of the Income Tax Act (Vasanthi, 2015). Tax planning and financial performance have a positive relationship (Suandy, Erly, 2017:2; Tambun, Siyar, 2022; Nailufaroh, et al. 2022).

Tax planning is an important segment of corporate strategy because it can provide companies and tax managers with the opportunity to minimize or reduce corporate tax liabilities, so that the minimum possible tax is paid to the government without violating

tax laws or regulations. By using existing laws and regulations, tax planning seeks to increase profit after tax, which in turn will improve company performance.

Based on the hypothesis explained previously, the hypothesis formulated is as follows:

H1: Tax planning has a positive effect on company financial performance.

### **Capital Intensity and Financial Performance**

According to Jumriaty & Firda (2020), capital intensity refers to the amount of investment invested by a company in its fixed assets. A description of a company's efficiency in utilizing its assets can be reviewed using the capital intensity ratio. According to Shahean and Malik (2012), capital intensity is the total value of investment in non-current assets made by an organization. It is usually calculated by dividing the total value of non-current assets in the statement of financial position by the value of the company's total assets. Financial performance and capital intensity are highly positively correlated (Oeta et al. 2019; Shahean & Malik, 2012; John & Stephanie, 2021). With a capital intensity strategy that is handled and monitored closely, the company's financial performance will improve. This can be seen from the low level of taxable income due to higher depreciation expenses (Dharma & Noviari, 2017). Therefore, large investments in fixed assets can give rise to large depreciation expenses, which in turn can result in a reduction in the company's taxable income and improve the company's financial performance.

Based on the development of the hypothesis above, the hypothesis formulated is as follows:

H2: Capital intensity has a positive effect on the company's financial performance.

### **Leverage and Financial Performance**

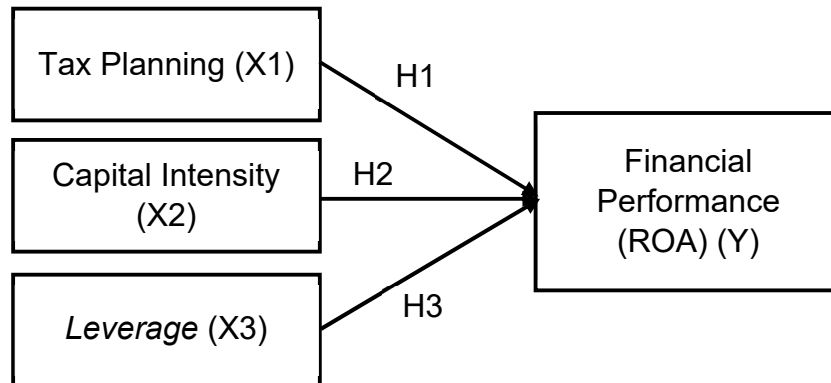
Leverage is an important metric that shows how much of a company's assets are financed by debt (Hidayat, 2018). A business with a high leverage value shows that the more debt the company uses for financing, the greater the debt. According to Ado, et al. (2021), the leverage ratio is one of the financial determinants that has been supported to significantly influence tax planning activities considering that financial ratios produce several exempt tax values which are of great concern to debt levels. Aggressive corporate tax planning used by corporate managers will largely increase this ratio to gain more tax breaks. There is a significant positive relationship between leverage and financial performance (Ado, et al. 2021; Ogundajo & Onakoya, 2016).

Companies that have high levels of leverage indicate that they rely on debt as part of their financing strategy to expand operations. In a scenario where company operations increase, this has the potential to increase revenue, which in turn can result in increased company profits. This can then have a positive impact on overall financial performance. Based on the development of the hypothesis above, the hypothesis formulated is as follows:

H3: Leverage has a positive effect on company financial performance.

## Research Model

Image 1. Research Model



## Research Methodology

The subjects of this research are companies that use raw materials in their manufacturing industry and are listed on the Indonesia Stock Exchange from 2017 to 2021. The findings taken from data analysis were prepared using numerical descriptive techniques. There is an emphasis on quantitative secondary data.

Using a purposive sampling approach, 200 observation data from annual reports and financial profit records were included in 47 sample companies. The research population was 94 manufacturing companies in the raw materials category listed on the IDX in 2021.

## Finding

### Normality test

Based on the asymptotic value of the Kolmogorov-Smirnov normality test, the data distribution is categorized as normal with a significance value of 0.096 ( $>0.05$ ).

### Multicollinearity Test

The results of the multicollinearity test show that tax planning (TRR) has a VIF value of 1.023 with a tolerance value of 0.978, capital intensity (CAPINT) has a VIF value of 0.770 with a tolerance value of 1.298, and leverage (LEVRG) has a VIF value of 0.756 with a tolerance value of 0.1323. Based on the VIF value, it can be concluded that there is no sign of multicollinearity.

### Autocorrelation Test

To test autocorrelation, a run test is used. The results show that there is no sign of autocorrelation with the asymp value. Sig. (2-tailed) of 0.156 is greater than 0.05.

## Multiple Linear Regression Analysis

**Table 2. Multiple Linear Regression Test Results**  
**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-3.015	.185		-16.286	.000
	TRR	.820	.387	.164	2.118	.036
	CAPINT	.192	.082	.204	2.335	.021
	LEVRG	-.103	.049	-.187	-2.124	.035

a. Dependent Variable: ROA

The regression model equation used in this research is:

$$\text{ROA} = -3.015 + 0.820 + 0.192 - 0.103 + e$$

### Model Feasibility Test

The results of this study indicate that the Adjusted R square reached 0.054. This indicates that tax planning, capital intensity and leverage have an influence of 5.4% on financial performance, while other variables have an influence of 94.6%.

Based on the F test, the table F value is 2.66 and the calculated F value is 4.086. The significance value (0.008) is smaller than the significance threshold  $\alpha$  (0.05), while the calculated F value (4.086) > F table (2.66). Therefore, because all independent variables jointly influence the dependent variable and the model used is worthy of further development, it can be said that H1 is accepted.

### Hypothesis testing

The calculated t value of the TRR tax planning variable (X1) is greater than the t table (2.118 > 1.9705), and this variable has a significant value of 0.036 < 0.05. Thus, H1 can be trusted which states that tax planning improves financial performance.

The calculated t value is greater than the t table (2.335 > 1.9705) and the capital intensity variable CAPINT (X2) has a significant value of 0.021 < 0.05. Therefore, it was decided to believe variable H2, which claims that capital intensity improves financial performance. The leverage variable LEVRG (X3) has a significance value of 0.035 < 0.05. The calculated t value is greater than the t table (-2.124 > 1.9705), indicating a negative trend. Thus, H3 which states that leverage improves financial performance is not accepted.

### Effect of Tax Planning on Financial Performance

The tax planning variable which is related to financial success through the TRR proxy has a calculated value of more than the t table (2.118 > 1.9705) and a significant value of 0.036 less than 0.05 in accordance with the findings of the hypothesis test. Therefore, it can be said that the financial success of an organization is significantly influenced by tax planning variables.

The agency hypothesis states that there are differences in interests between the government and the business world regarding the payment of taxes in this particular study. To minimize operating income, which can affect financial performance, companies usually try to pay as little tax as possible. The results of this research are in line with other research conducted by Tambun, Sihar (2021), Olabisi et al. (2019), and

Nailufaroh et al. (2022) who also found that tax planning significantly improves financial performance.

### **Effect of Capital Intensity on Financial Performance**

The company's financial performance is significantly positively influenced by the capital intensity variable based on the findings of the hypothesis test. The calculated value ( $2.335 > 1.9705$ ) and significance value (0.021), both less than 0.05, strengthen this conclusion. Therefore, it can be said that the value of the t table is smaller than the CAPINT value. This shows that the organization's financial performance is significantly influenced by the capital intensity variable.

The company's financial performance will increase with capital intensity methods that are well managed and supervised. This can be seen from the low level of taxable income caused by increasing depreciation costs (Dharma & Noviari, 2017). Therefore, large investments in fixed activities can incur large depreciation costs which can reduce a company's tax revenues and improve the financial performance of the business. The findings of this investigation support the findings of Oeta et al. (2019) and Olayiwola, J., & Okoro, S. (2021) who found that capital intensity significantly improves financial performance.

### **Effect of Leverage on Financial Performance**

The company's financial performance is influenced by the leverage variable assessed by LEVRG, based on hypothesis test findings. The results show that the calculated t value is greater than the t table value ( $-2.124 > 1.9705$ ) and the significance value is 0.035 which is less than 0.05. This shows that there is an inverse relationship between a company's financial performance and its LEVRG value. Thus, it can be said that the company's financial performance is significantly influenced by the leverage variable.

Research findings show that the higher the leverage value, the more debt the company uses to support its operations. As a result, the value of the company's financial performance can decrease, resulting in a decrease in ROA. The results of this study are consistent with previous research. According to the findings of Gallemore and Labro (2015) and Enekwe et al. (2014), leverage significantly disrupts financial performance. However, the findings of this study contradict the findings of Ado et al. (2021) and Ogundajo & Onakoya (2016), who found that leverage significantly improves financial performance.

### **Conclusion**

Research findings and analysis show that tax planning significantly increases a company's financial success. Companies can reduce their tax liabilities, increase income, and improve their financial performance by using tax planning. Additionally, capital intensity significantly improves the financial performance of a business. Large investments in fixed assets can incur large depreciation charges, which can reduce a company's taxable income and increase its financial results. Conversely, leverage significantly disrupts the financial performance of an organization. These results show that the greater the leverage a company has, the more debt it uses to finance itself. The



impact is a decrease in the level of return on assets (ROA) for the business which ultimately leads to a decrease in overall financial performance.

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