

# The Effect of Profitability, Capital Intensity Ratio and Leverage on Effective Tax Rates (Empirical Study on Healthcare Sub-Sector Manufacturing Companies Listed on The Indonesia Stock Exchange for the 2017-2020 Period)

Sri Anah Rivalda Ulfi Zihan Wahyu Anggraini  
Universitas Mercu Buana Jakarta

sri.anah@mercubuana.ac.id ulfizhn22@gmail.com, and anggrainiwahyu77@gmail.com

## Abstract

This study was conducted to prove whether profitability, capital intensity ratio and leverage can affect the effective tax rate in the health sector. This study uses a quantitative approach, with data analysis methods using multiple linear regression analysis and tested using SPSS version 25. The population of this study was 24 health sub-sector companies and the sample collected was 60 health sub-sector company data for the 2017 -2020 period using non-probability sampling method with purposive sampling technique. The results of this study are Profitability (Return On Assets) and Capital Intensity Ratio (CIR) has a positive effect on Effective Tax Rates (ETR) and Leverage (Debt To Equity Ratio) has a negative effect on the Effective Tax Rate (ETR).

**Keywords:** Profitability, Capital Intensity Ratio and Leverage on Effective Tax Rates

**DOI:** 10.7176/RJFA/14-8-01

**Publication date:** April 30<sup>th</sup> 2023

## INTRODUCTION

Based on the United States Government Accountability Office, the effective tax rate differs from the applicable tax rate (statutory). The statutory tax rate is the tax rate determined by the rule of law on the basis of a certain imposition. While the effective tax rate proves the effectiveness of a company's tax management and shows the response and impact of the existence of tax incentives on a company (Adieb (2021)).

This research is motivated by the phenomenon where in 2020, the enactment of the Job Creation Law which has an impact on tax rates which causes a decrease in the effective tax rate in Indonesia from 54.50% to 32.50% (News (2021)). And because of the COVID-19 pandemic in 2020, Head of the Central Statistics Agency (BPS) Margo Yuwono said the sector that grew the most during the COVID-19 crisis was health services. This sector grew 11.56% in 2020 (Iswara, (2021)).

On the basis of the above, that the task of a tax manager is to carry out tax management, where the goal is to optimize and minimize the tax burden. Factors that can affect ETR are Profitability, Capital Intensity Ratio and Leverage. These factors can affect ETR because according to Rahmawati and Mildawati (2019) and Ambarukmi and Diana (2017), profitability has a positive effect on the Effective Tax Rate. This is in line with the results of Ariani and Hasymi's research (2018), that profitability has a significant influence on the Effective Tax Rate. This is because the higher the profitability of the company, the higher the ETR will be.

And other factors, namely the *Capital Intensity Ratio*, which according to research by Hanim and Adi (2022) and research by Mesrawati *et al.*, (2020), it is known that the *Capital Intensity Ratio* has no effect on the *Effective Tax Rate*. Likewise in Ahmad's research (2018) (Adisaputro and Anggarini (2017), namely the *Capital Intensity Ratio* has no effect on the *Effective Tax Rate*. This was revealed because fixed assets experienced depreciation, so the depreciation cost reduced the company's income, and affected its tax burden.

Meanwhile, in the research of Khoirunisa *et al.*, (2022) and Sobaya's research (2020), that *Leverage* has a negative effect on the *Effective Tax Rate*. Likewise in the research of Rahmawati and Mildawati (2019), that *Leverage* has a negative effect on the Effective Tax Rate. This can be caused when the company chooses to pay off its obligations with debt, there is a debt interest expense that can be used as a deduction for the tax burden. The high interest expense that reduces the company's income can cause a decrease in *ETR*.

## LITERATURE REVIEW

### Agency Theory (Agency Theory)

According to Jensen and Meckling (1976) agency theory is a correlation between agents (company management) and *principals* (company owners). In this correlation, there is a contract in which one or more person (*principal*) orders another person (*agent*) to perform services on behalf of the *principal* and authorizes the agent to make the best decision for the *principal* (Jensen and Meckling, 1972).

Agency theory cannot be separated from two parts, namely the *principal* and the *agent*. Because of this,

according to (Copeland and Weston, 1992), there will be a disparity between the *principal* and the *agent* in terms of position, function, situation, goals, interests, backgrounds, which conflict with each other (Weston and Copeland, 1992). Brigham & Daves (2006) argue that agency theory contains issues of interest in business management between (1) managers and shareholders, (2) company owners or shareholders and creditors (Iswara, 2021).

### Effective Tax Rate

According to Wisanggeni and Suharli (2017:1-3), the effective tax rate is the percentage of the effective rate that can be used to prove the effectiveness of a company's tax management, because the effective tax rate is the implementation of the calculation method in order to achieve the effectiveness and efficiency of the implementation of tax rights and obligations (Suharli, 2017). Next according to Tampubolon (2017:197-198), the effective tax rate is a series of actions and processes aimed at minimizing tax payments. This effective tax rate serves to measure the impact of changes in tax policy on the company's tax burden (Tampubolon, 2017).

From the above understanding, it can be concluded that *ETR* is the tax rate applied to all calculation methods in order to achieve effectiveness and efficiency implementation of tax rights and obligations. If there are options available in fulfilling tax obligations, such as methods, facilities, and regulatory requirements that allow for minimizing tax payments, then these options provide an opportunity to fulfill tax obligations at the least cost. That way, companies can use tax facilities such as the use of effective tax rates.

According to Al-Ahsan and Setiawan (2016), Effective Tax Rate is the level of tax rate on a company which is calculated based on income tax expense which is then divided by profit before tax (Setiawan and Sembiring, 2018).

$$ETR = \frac{\text{Income Tax Load}}{\text{Profit Before Tax}} \times 100\%$$

### Profitability (Return on Assets)

According to Hantono (2017:11), the profitability ratio is an index that shows the company's ability to generate profits (Hantono, (2017). Meanwhile, according to Fraser and Ormiston (2018:208), the profitability ratio means the ratio used to measure the efficiency of the company's overall performance (Fraser and Ormiston, 2018). And if according to Kasmir (2019:198), profitability is an index that describes the company's ability to generate profits through all its capabilities and resources, namely from sales activities, use of assets, as well as the use of capital. This ratio is used as a tool to measure the effectiveness of management performance (Cashmere, 2019).

In this study will use the Ratio of Return on Assets (*ROA*) which means that this ratio shows the return on the use of company assets in creating net income. The higher the return on assets, the greater the net profit generated from total assets. The formula for the Ratio of Return on Assets according to Kasmir (2019:201) (Cashmere, 2019):

$$ROA = \frac{\text{Net Profit After Tax}}{\text{Total Assets}} \times 100\%$$

### Capital Intensity Ratio (CIR)

According to Adisaputro and Anggarini (2017: 315), the function of the capital intensity ratio is to show the level of efficiency of the company in using its assets to generate profits from sales made by the company (Adisaputro and Anggarini, 2017).

Meanwhile, according to Ardian (2018:15-16), the capital intensity ratio is used to calculate the level of effectiveness of the company in utilizing its capital in the form of fixed assets to make sales (Ardian, 2018). Then, according to Kasmir (2019: 250), the capital intensity ratio is an investment activity carried out by a company that involves investment in the form of fixed assets (*capital intensity*) (Cashmere, 2019).

The formula used to calculate *the capital intensity ratio* according to Mesrawati *et al.*, (2020) are:

$$CIR = \frac{\text{Total Fixed Assets}}{\text{Total Assets}} \times 100\%$$

### Leverage (Debt to Equity Ratio)

According to Hantono (2017:12), the *leverage ratio* or *solvency* means the ratio used to calculate the company's *leverage*. *Leverage* itself is the level of the company's ability to use its fixed assets or expenses to maximize the wealth of the company's owners (Hantono, 2017).

Furthermore, according to Fraser and Ormiston (2018: 205), the *leverage* ratio is a ratio that measures the company's ability to finance and pay off all its expenses using the company's liabilities or equity. In accordance with the results of this ratio analysis, the company obtains information on matters related to financing, including knowing the company's ability to fulfill all of its obligations (Fraser and Ormiston (2018).

Then if according to Kasmir (2019:152), the *solvency* ratio or *leverage* ratio is a ratio that shows the ability

of a company to fulfill all its obligations. This ratio is used for credit analysis or financial risk analysis (Cashmere, 2019). In this study, the *leverage* ratio used is the *Debt to Equity Ratio (DER)*, which is one of the ratios used to measure the company's *solvency*, which shows the company's ability to meet all of its obligations if the business is liquidated. The formula for *Debt to Equity Ratio (DER)* according to Kasmir (2019:159 (Cashmere, 2019):

$$DER = \frac{\text{Total Liabilities}}{\text{Total Equity}} \times 100\%$$

### Framework of Thought and Hypotheses

#### 1) The Effect of Profitability on Effective Tax Rates

According to agency theory, managers are motivated to increase company profits. When the company earns a large profit, automatically the amount of corporate income tax will also increase in accordance with the increase in company profits. Because companies with a high level of profitability will pay high taxes as well. Therefore, managers make every effort to increase profits and minimize tax rates with various alternatives. According to Rahmawati and Mildawati (2019) and research by Ambarukmi and Diana (2017), profitability has a positive effect on the Effective Tax Rate. This is in line with the results of Ariani and Hasymi's research (2018), that profitability has a significant influence on the Effective Tax Rate. This is because the higher the level of profitability of the company, the higher the *ETR* will be.

**H1:** Profitability has a Positive Effect on Effective Tax Rates

#### 2) Effect of *Capital Intensity Ratio* on Effective Tax Rate

Based on agency theory, when companies use idle profits by investing in fixed assets, managers can use depreciation expense on these fixed assets to reduce the company's tax burden. This is done by managers in order to receive profits in the form of depreciation expense arising from fixed assets which can be used as a deduction from the company's tax burden and produce a low effective tax rate. Research conducted by Hanim and Adi (2022) and research by Mesrawati *et al.*, (2020), it is known that the *Capital Intensity Ratio* has no effect on the *Effective Tax Rate*. This is in line with Ahmad's research (2018), namely the *Capital Intensity Ratio* has no effect on the *Effective Tax Rate*. This was revealed because fixed assets experienced depreciation, so the depreciation cost reduced the company's income, and affected the tax rate.

**H2:** *Capital Intensity Ratio* has a Negative Effect on Effective Tax Rates

#### 3) Effect of *Leverage* on Effective Tax Rate

Based on agency theory, there is a high probability that the manager chooses to use obligations/debt to finance because the debt will generate interest expense. Therefore, interest expense can reduce income so that the tax rate imposed is low. According to Khoirunisa *et al.*, (2022 and Sobaya's (2020) research, and Rahmawati and Mildawati's research (2019), that *Leverage* has a negative effect on the *Effective Tax Rate*. This can be caused when the company chooses financing using debt, there is a debt interest expense that can be used as a deduction from income. The high interest expense that reduces the company's income can cause a decrease in the Effective Tax Rate.

**H3:** *Leverage* has a negative effect on the effective tax rate

## RESEARCH METHODS

### Population and Research Sample

The population in this study were all manufacturing companies in the health sub-sector listed on the Indonesia Stock Exchange, as many as 24 companies. In this study, the sample was drawn using a *non-probability sampling method* with a *purposive sampling technique*, namely the type of non-random sample selection whose information was obtained using certain criteria (Sugiyono, 2020: 128). The sample in this study is a manufacturing company in the health sub-sector listed on the Indonesia Stock Exchange for the 2017-2020 period with a total sample of 60 companies.

### Variable Definition and Operation

The dependent variable in this study is the Effective Tax Rate. According to Al-Ahsan and Setiawan (2016)<sup>[30]</sup>, Effective Tax Rate is the level of tax rate on a company which is calculated based on income tax expense which is then divided by profit before tax.

$$ETR = \frac{\text{Income Tax Load}}{\text{Profit Before Tax}} \times 100\%$$

The independent variables in this study include:

#### 1. Profitability

In this study will use the Ratio of Return on Assets (*ROA*) which means that this ratio shows the return on the

use of company assets in creating net income. The higher the return on assets, the greater the net profit generated from total assets. The formula for the Ratio of Return on Assets (*ROA*) according to Kasmir (2019:201):

$$ROA = \frac{\text{Net Profit After Tax}}{\text{Total Assets}} \times 100\%$$

2. *Capital Intensity Ratio*

The formula used to calculate the *capital intensity ratio* according to Mesrawati *et al.*, (2020) are:

$$CIR = \frac{\text{Total Fixed Assets}}{\text{Total Assets}} \times 100\%$$

3. *Leverage*

In this study, the *leverage ratio* used is the *Debt to Equity Ratio (DER)*, which is one of the ratios used to measure the company's *solvency*, which shows the company's ability to meet all of its obligations if the business is liquidated. The formula for *Debt to Equity Ratio (DER)* according to Kasmir (2019:159):

$$DER = \frac{\text{Total Liabilities}}{\text{Total Equity}} \times 100\%$$

**Data analysis method**

The data analysis method used in this research is multiple linear regression analysis which includes the following analysis:

1. Descriptive Statistical Test;
2. Classical Assumption Test consisting of Normality Test, Multicollinearity Test, Heteroscedasticity Test and Autocorrelation Test;
3. Model Suitability Test consisting of Simultaneous Regression Coefficient Test (F Test) and Coefficient of Determination Test ( $R^2$ );
4. Multiple Linear Regression Analysis;
5. Hypothesis Testing with Individual Parameter Significance Test (t-test).

**Descriptive statistics**

Table 1. Descriptive Statistics Test Results

	N	Minimum	Maximum	mean	Std. Deviation
ETR (%)	60	19	72	28.75	10,759
ROA (%)	60	1	31	10.17	6,712
CIR (%)	60	2	81	32.17	16.075
DER(%)	60	7	423	73.03	85,924
Valid N (listwise)	60				

Source: data processed with SPSS version 25

**RESULTS AND DISCUSSION**

From the results of the descriptive statistical analysis test outputs presented in table 4.1, it can be explained as follows:

1. *Effective Tax Rate*. The results of the calculation of the effective tax rate as the dependent variable as measured by income tax expense divided by profit before tax show a minimum value of 19% for PT Mitra Keluarga Karya Sehat Tbk in 2017 and a maximum value of 72% for PT Kimia Farma Tbk in 2017. 2020. The mean value of ETR is 28.75% and the standard deviation is 10,759%.
2. *Profitability (Return on Assets)*. The results of the profitability calculation as measured by *return on assets* show a minimum value of 1% found at PT Millennium Pharmacon International Tbk in 2017, 2019 and 2020. The maximum value is 31% at PT Merck Tbk in 2018. The mean value is 10.17% and the standard is the deviation is 6.712%.
3. *Capital Intensity Ratio*. Based on the data in the table above, the minimum *capital intensity ratio* of 2% contained in PT Millennium Pharmacon International Tbk in 2017-2020. The maximum value is 81% at PT Royal Prima Tbk in 2017. The mean value is 32.17% and the standard deviation is 16.075%.
4. *Leverage (Debt to Equity Ratio)*. The results of the calculation of leverage as measured by the *debt to equity ratio* show a minimum value of 7% contained in PT Royal Prima Tbk in 2018-2020. The maximum value is 423% at PT Millenium Pharmacon International Tbk in 2019. The mean or average value is 73.03% and the standard deviation is 85.924%.

### Classic assumption test

#### Normality Test (Not Normal Distributed)

Table 2. One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		60
Normal Parameters <sup>a,b</sup>	mean	.0000000
	Std. Deviation	9.08932926
Most Extreme Differences	Absolute	.264
	Positive	.264
	negative	-.171
Test Statistics		.24
asymp. Sig. (2-tailed)		.000 <sup>c</sup>

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

Source: Secondary data processed in SPSS 25

Based on the *One-Sample Kolmogorov-Smirnov Test* in the table above, the *Asymp value is obtained. Sig.* of 0.00. Because the value of *Asymp. Sig.* < 0.05, it can be concluded that the data is not normally distributed, meaning that the data used in this study will be cured by using outliers to normalize the data. The number of samples obtained previously was 60, after the outlier the number of samples became 50.

#### Normality Test (Already Normal Distributed)

Table 3. One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		50
Normal Parameters <sup>a,b</sup>	mean	.0000000
	Std. Deviation	2.62846863
Most Extreme Differences	Absolute	.083
	Positive	.083
	negative	-.058
Test Statistics		.083
asymp. Sig. (2-tailed)		.200 <sup>c,d</sup>

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

d. This is a lower bound of the true significance.

Source: Secondary data processed in SPSS 25

The results of the *One-Sample Kolmogorov-Smirnov Test* in the table above obtained the *Asymp value. Sig.* of 0.200. Because the value of *Asymp. Sig.* greater than 0.05, it can be concluded that the data is normally distributed.

### Multicollarity test

Table 4. Multicollinearity Test Results

Model		Collinearity Statistics	
		Tolerance	VIF
1	ROA (%)	.880	1,136
	CIR (%)	.879	1.137
	DER(%)	.791	1,264

a. Dependent Variable: ETR (%)

Source: Secondary data processed in SPSS 25

The results of the Multicollinearity Test of the three variables, namely *ROA*, *CIR*, and *DER* are 1,136; 1.137, and 1264. From this value, it shows a number smaller than 10 ( $VIF < 10$ ) and a *tolerance value* greater than 0.10 ( $tolerance > 0.10$ ), so it can be concluded that there is no symptom of multicollinearity between the independent variables.

## Heteroscedasticity Test

Table 5. Heteroscedasticity Test Results

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.307	.994		1.314	.195
	ROA (%)	.029	.038	.117	.776	.442
	CIR (%)	-.007	.017	-.064	-.421	.676
	DER(%)	.014	.008	.265	1,664	.103

a. Dependent Variable: ABS\_HETEROS

Source: Secondary data processed in SPSS 25

From the table data above, the significance value of *ROA*, *CIR*, and *DER* is 0.442; 0.676 and 0.103. The significance value of the three variables shows the number  $> 0.05$ , it can be concluded that this study does not have heteroscedasticity problems.

## Autocorrelation Test (Autocorrelation Occurs)

Table 6. Autocorrelation Test Results

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.609 <sup>a</sup>	.370	.329	2,713	1.383

a. Predictors: (Constant), DER (%), ROA (%), CIR (%)

b. Dependent Variable: ETR (%)

Source: Secondary data processed in SPSS 25

From the test results above, it is known that  $k = 3$ ;  $dL = 1.4206$ ;  $d = 1.383$ ;  $dU = 1.6739$ , and  $4 - dU = 2.3261$  with a total of 50 data. The condition for no autocorrelation is  $dU < d < 4 - dU$ . And judging by the results of the Durbin-Watson test ( $1.6739 > 1.383 < 2.3261$ ), then there is an autocorrelation and healing must be done.

## Autocorrelation Test (No Autocorrelation Occurs)

Table 7. Autocorrelation Test Results

Model	R	R Square	Adjusted R Square	R Std. Error of the Estimate	Durbin-Watson
1	.569 <sup>a</sup>	.324	.278	2.53848	1,710

a. Predictors: (Constant), LAG\_DER, LAG\_ROA, LAG\_CIR

b. Dependent Variable: LAG\_ETR

Source: Secondary data processed in SPSS 25

Based on the results of the Durbin-Watson test after healing with the *Cochrane Orcutt method*, a DW value of 1.710 was obtained, so there was no autocorrelation symptom or it could be said that the autocorrelation assumption was met because the value of  $dU < d < 4 - dU$  ( $1.6739 < 1.710 < 2.3261$ ).

## Model Fit Test

### Simultaneous Regression Coefficient Test (F Test)

Table 8. F Statistical Test Results

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	138,674	3	46.225	7.173	.000 <sup>b</sup>
	Residual	289,975	45	6.444		
	Total	428,649	48			

a. Dependent Variable: LAG\_ETR

b. Predictors: (Constant), LAG\_DER, LAG\_ROA, LAG\_CIR

Source: Secondary data processed in SPSS 25

The F test results have a significant value of 0.000 ( $0.000 < 0.05$ ) and the calculated F value is 7.173, so that *ROA*, *CIR* and *DER* significant effect on *ETR*, which means that the independent variables together have a significant effect on the dependent variable.

### Coefficient of Determination Test ( $R^2$ )

Table 9. Results Of The Coefficient Of Determination

Model	R	R Square	Adjusted Square	R Std. Error of the Estimate	Durbin-Watson
1	.569 <sup>a</sup>	.324	.278	2.53848	1,710

a. Predictors: (Constant), LAG\_DER, LAG\_ROA, LAG\_CIR

b. Dependent Variable: LAG\_ETR

Source: Secondary data processed in SPSS 25

From the results of the SPSS test, it can be interpreted that the variation of all independent variables can affect changes in the dependent variable by 0.324 (32.4%). While 67.6% is influenced by other variables outside the study. So Profitability, *Capital Intensity Ratio* and *Leverage* simultaneously (together) can affect the Effective Tax Rate of 32.4%.

### Multiple Linear Regression Analysis

Table 10. Multiple Linear Regression Analysis Test Results

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig
1	(Constant)	16,606	1.185		14,011	.000
	LAG_DER	-.140	.065	-.279	-2.173	.035
	LAG_CIR	.020	.029	.091	.695	.490
	LAG_ROA	.047	.014	.441	3.235	.002

a. Dependent Variable: LAG\_ETR

Source: Secondary data processed in SPSS 25

1. The constant has a positive value of 16.606%, this shows that if the *ROA*, *CIR*, and *DER* variables are considered constant (0), then the *ETR* value in manufacturing companies in the health sub-sector for the 2017-2020 period is 16.606% or 16.6%.
2. *ROA* variable has a positive value of 0.047, this indicates that each increase in one unit of *ROA* will increase the *ETR* value in the health sub-sector manufacturing companies for the 2017-2020 period by 0.047 assuming other independent variables are fixed or constant.
3. *CIR* variable is positive at 0.020, this indicates that every increase in one unit of *CIR* will increase the *ETR* value in the health sub-sector manufacturing company for the 2017-2020 period by 0.020 with the assumption that the other independent variables are fixed or constant.
4. *DER* variable is negative at -0.140, this shows that every increase in one unit of *DER* will decrease the *ETR* value in manufacturing companies in the health sub-sector for the 2017-2020 period by -0.140 assuming the other independent variables are fixed or constant.

### Hypothesis testing

Individual Parameter Significance Test (t Test)

Table 11. t Test results

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig
1	(Constant)	16,606	1.185		14,011	.000
	LAG_DER	-.140	.065	-.279	-2.173	.035
	LAG_CIR	.020	.029	.091	.695	.490
	LAG_ROA	.047	.014	.441	3.235	.002

a. Dependent Variable: LAG\_ETR

Source: Secondary data processed in SPSS 25

1. Based on the results of the t test, it is known that the Profitability (*ROA*) variable has a significance value of  $0.035 < 0.05$ . This shows that H1 is accepted, meaning that Profitability (*ROA*) has a positive effect on Effective Tax Rates in manufacturing companies in the health sub-sector for the 2017-2020 period. This is in line with the hypothesis which states that an increase in the profitability of a company will increase the company's effective tax rate. So the greater the *ROA* of a company, the higher the *ETR* it has. The results of this study are in line with the research of Rahmawati and Mildawati (2019), and the results of Ariani and Hasyimi's research (2018).
2. The variable *Capital Intensity Ratio* (*CIR*) has a significance value of  $0.490 > 0.05$ . This shows that H2 is rejected, meaning that *CIR* has a positive effect on Effective Tax Rates in manufacturing companies in the health sub-sector for the 2017-2020 period. This is not in line with the hypothesis which states that an increase

in *CIR* in a company will reduce the company's effective tax rate. The results of this study are in line with the results of research conducted by Khoirunisa et. al. (2022), Utami and Mahpudin (2021), and research by Rahmawati and Mildawati (2019).

3. *Leverage* variable (*DER*) has a significance value of  $0.002 < 0.05$ . This shows that H3 is accepted, meaning that *DER* has a negative effect on Effective Tax Rates for manufacturing companies in the health sub-sector for the 2017-2020 period. This is in line with the hypothesis which states that an increase in *DER* in a company will reduce the company's effective tax rate. The results of this study are in line with the research of Khoirunisa et al., (2022), then in Sobaya's research (2020), and similarly in the research of Rahmawati and Mildawati (2019).

## CONCLUSION

This study was conducted to see whether Profitability (*ROA*), *Capital Intensity Ratio (CIR)* and *Leverage (DER)* can affect the Effective Tax Rate (*ETR*) in manufacturing companies in the health sub-sector listed on the Indonesia Stock Exchange for the 2017-2020 period. Based on the introduction, theoretical studies and data processing as well as the discussions that have been carried out in the previous chapter, the following conclusions can be drawn:

1. Profitability (*ROA*) has an effect on the Effective Tax Rate (*ETR*) in the health sub-sector manufacturing companies listed on the Indonesia Stock Exchange for the 2017-2020 period.
2. *The Capital Intensity Ratio (CIR)* has an effect on the Effective Tax Rate (*ETR*) on manufacturing companies in the health sub-sector listed on the Indonesia Stock Exchange for the 2017-2020 period.
3. *Leverage (DER)* has an effect on the Effective Tax Rate (*ETR*) on manufacturing companies in the health sub-sector listed on the Indonesia Stock Exchange for the 2017-2020 period.

## Suggestion

Based on the conclusions of the research results, suggestions that can be given to improve further research include:

1. As has been explained, this research was only conducted in the health sub-sector for the period 2017 to 2020. So, further research is expected to be able to expand research by conducting research not only on manufacturing companies in the health sub-sector but also on other sector manufacturing companies listed on the Indonesia Stock Exchange and extending the research period, so that broader research results will be obtained.
2. In this study, researchers only use three factors that can affect Effective Tax Rates, namely Profitability, *Capital Intensity Ratio* and *Leverage* and are tested with SPSS Version 25 statistics. And researchers hope that further research can add other independent variables that affect Tax Rates Effective and can test data using other analytical methods.
3. Manufacturing companies in the health sub-sector are expected to pay more attention to the *ROA* and *CIR* variables because they can increase the Effective Tax Rate (*ETR*) and also pay attention to the use of *Leverage (DER)* because it can reduce the Effective Tax Rate (*ETR*).

## REFERENCES

- Adieb, M. (2021). *These are the 4 Industries that are Severely Affected by the Corona Virus*. <https://glints.com/id/lowongan/industri-yang-terdampak-virus-corona/#.YOIQsOgzBIU>
- Adisaputro, G., & Anggarini, Y. (2017). *Business Budgets: Profit Analysis, Planning, and Control* (Issue 1). UPP STIM YKPN.
- Ahmad, EF (2018). Effect of Profitability, Capital Intensity, and Inventory Intensity on Effective Tax Rate. *Faculty of Economics and Business, Majalengka University*.
- Ambarukmi, KT, & Diana, N. (2017). The Effect of Size, Leverage, Profitability, Capital Intensity Ratio and Activity Ratio on the Effective Tax Rate (ETR) (Empirical Study on LQ-45 Companies Listed on the IDX During the Period 2011-2015). *Faculty of Economics, Islamic University of Malang*, 06 (17), 13–26.
- Ambarukmi, KT, & Diana, N. (2017). Effect of Size, Leverage, Profitability, Capital Intensity Ratio and Activity Ratio on Effective Tax Rate (ETR) (Empirical Study on LQ-45 Companies Listed on the IDX During the Period 2011-2015). *Scientific Journal of Accounting Research*, 6.
- Ardian, DE (2018). *Become a Billionaire With a Loan Capital Business* (Tiwi (ed.); Edition 1). Like.
- Arian, M., & Mhd. Hashim. (2018). Perbanas Institute Jakarta. *Scientific Communication And Tax Accounting*, 11 (3), 452–463.
- Brigham, EF, & Daves, PR (2006). *Intermediate Financial Management* (9th ed.). Elm Street Publishing Services, Inc.
- Damayanti, T., & Gazali, M. (2019). The effect of capital intensity ratio, leverage, profitability, and size on the effective tax rate of construction and building companies listed on the Indonesia Stock Exchange in 2014-2017. *Proceedings of the National Seminar*, 2 (2), 1–7. <https://trijurnal.lemlit.trisakti.ac.id/pakar/article/view/4244>
- Darussalam. (2017). *Effective Tax Rates in Several ASEAN Countries*. December 13th.



- [https://news.ddtc.co.id/tarif-pajak-effective-di-several-negara-asean-11331?page\\_y=1140](https://news.ddtc.co.id/tarif-pajak-effective-di-several-negara-asean-11331?page_y=1140)
- Fraser, LM, & Ormiston, A. (2018). *Understanding Financial Statements* (B. Sarwiji (ed.); Edition 9). Jakarta Index.
- Ghozali, I. (2018). *Application of Multivariate Analysis With SPSS 25 Program* (9th Edition). Diponegoro University.
- Hanim, F., & Adi, SW (2022). The Effect Of Size, Profitability, Leverage, Capital Intensity And Independent Commissioners On Effective Tax Rate In Manufacturing Companies In Indonesia 2016-2019. *Eqien-Journal of Economics and Business*, 9 (1), 337-347.
- Hantono. (2017). *Concept of Financial Statement Analysis with Ratio Approach and SPSS* (Issue 1). Depublish.
- Idx.co.id. (nd). *List of Manufacturing Companies in the Health Sub-Sector*. <https://www.idx.co.id/data-pasar/data-saham/List-saham/>
- Idx.co.id. (nd). *Annual Financial Report*. <https://www.idx.co.id/enterprise-tercatat/laporan-keuangan-dan-tahunan/>
- Indra, IM, & Cahyaningrum, I. (2019). *Easy Ways to Understand Research Methodology*. Depublish.
- Iswara, MA (2021). *How Much have Health Sector Companies Profit from COVID-19?* July 24. <https://tirto.id/seberapa-besar-untung-corporate-sector-kesehatan-dari-covid-19-ghYm>
- I., & Suharli, M. (2017). *Tax Management: Obeying Taxes Efficiently* (1st Edition). Media Discourse Partners.
- Jensen, MC, & Meckling, WH (1972). Theory of The Firm : Managerial Behavior, Agency Costs and Ownership Structure. *Human Relations*, 72 (10), 1671–1696. <https://doi.org/10.1177/0018726718812602>
- Juliani, J. (2018). The Effect Of Company Size, Profitability, Leverage And Capital Intensity Towards Effective Tax Rate On Manufacturing Companies Listed On The Indonesia Stock Exchange In The 2014-2016 Period, *Disertation* (Doctoral Faculty of Economics, University of Tarusergaratation).
- Cashmere. (2019). *Financial Statement Analysis* (Revi Edition). Press Eagle.
- Khoirunisa, FI, Wahono, B., & Rahmawati, R. (2022). The Effect of Profitability, Leverage and Capital Intensity on the Effective Tax Rate (Study on Manufacturing Companies in the Consumer Goods Sector Listed on the Indonesia Stock Exchange in 2018-2020). *Scientific Journal of Management Research*, 11 (01).
- Mesrawati, M., Meiharlina, J., Sherly, S., Syahputra, L., Chintyani, C., & Cicilia, S. (2020). The Effect of Leverage, Profitability and Capital Intensity Ratio on the Effective Tax Rate in Manufacturing Companies in the Basic and Chemical Industry Sector in 2015-2018. *Warta Dharmawangsa*, 14 (4), 697–708. <https://doi.org/10.46576/wdw.v14i4.899>
- News, D. (2021). *Wow, Dividend Exceptions Make Effective Tax Rates More Competitive*. January 09. [https://news.ddtc.co.id/wah-pengeluaran-dividen-bikin-tarif-pajak-effective-more-kompetitif-26854?page\\_y=923](https://news.ddtc.co.id/wah-pengeluaran-dividen-bikin-tarif-pajak-effective-more-kompetitif-26854?page_y=923)
- Prasetyo, A., Masitoh, E., & Wijayanti, A. (2018). The Influence of Good Corporate Governance, Capital Intensity Ratio, and Profitability to Effective Tax Rate. *International Conference on Technology, Education, and Social Science, 2018* (2007), 73–82.
- Primary, CD (2020). *Types of Tax Rates*. November 17th. <https://www.kompas.com/skola/read/2020/11/17/174044169/tipe-tipe-tarif-tajak>
- Pristanti, A., & Harimurti, F. (2020). The Effect of Leverage, Profitability, and Capital Intensity Ratio on the Effective Tax Rate (ETR) (Case Study on Construction and Real Estate Companies Listed on the IDX 2014-2018). *Journal of Accounting And Information Technology Systems*, 16 (1), 41–51.
- Putri, K., Surya, R., & Hanif, R. (2017). Effect of Corporate Governance, Company Size, Debt Ratio and Profitability on Effective Tax Rates (Empirical Study on Banking Companies Listed on the Indonesia Stock Exchange 2013-2015). *Online Journal of Students of the Faculty of Economics, University of Riau*, 4 (1), 1501–1515.
- Rahmawati, V., & Mildawati, T. (2019). Effect of Size, Leverage, Profitability, and Capital Intensity on the Effective Tax Rate (ETR). *Journal of Accounting Science and Research*, 8 (4), 1–19.
- Setiawan, D., & Sembiring, B. (2018). The Effect of Size, Leverage, and Capital Instancy Ratio, on the Effective Tax Rate (Empirical Study on Manufacturing Companies Listed on the Indonesia Stock Exchange 2013-2017).
- Silalahi, U. (2018). *Methodology of Data Analysis and Interpretation of Results for Quantitative Social Research* (NF Atif (ed.); First). PT Refika Aditama.
- Sobaya, S. (2020). Analysis of the Effect of Leverage, Capital Intensity, Inventory Intensity on Effective Tax Rates on Manufacturing Companies Listed on the Sharia Securities List for the 2016-2018 Period.
- Subiyanto, B. (2021). The Effect of Profitability, Company Size, and Size of Independent Commissioners on Effective Tax Rate (Study on Consumer Goods Sub-Sector Companies listed on the Indonesia Stock Exchange 2013-2017). In *Journal of Accounting Science* (Vol. 19, Issue 1, pp. 45–69). <http://journal.unas.ac.id/akunnas/article/view/1085/845>
- Sugiyono. (2020). *Quantitative, Qualitative, and R&D Research Methods* (Second). Alfabet.

- Susilowati, Y., Ratih Widyawati, & Nuraini. (2018). The Influence of Company Size, Leverage, Profitability, Capital Intensity Ratio and Independent Commissioner on Effective Tax Rate. *Proceedings of SENDI\_U 2018 , 2014* , 796–804.
- Tampubolon, K. (2017). *Tax Accounting and How to Deal with Tax Audit* (B. Sarwiji (ed.); Issue 1). Index.
- Utami, R., & Mahpudin, E. (2021). the Effect of Leverage, Capital Intensity, and Inventory Intensity on Effective Tax Rate. *E-Journal of Economics and Business Udayana University*, 10 (01), 1. <https://doi.org/10.24843/eeb.2021.v10.i01.p01>
- Weston, JF, & Copeland, TE (1992). *Financial Management* (AJ Wasana & Kibrandoko (eds.); 8th ed.). Character Building.