The Effect of Capital Intensity and Inventory Intensity on Tax Avoidance at Food and Beverage Subsector Companies Listed on the Indonesia Stock Exchange (IDX)

Eko Wahyu Nugrahadi¹, Muammar Rinaldi²,*

¹ Universitas Negeri Medan
² Eka Prasetya College of Economics
*Corresponding Author. Email: muammar@eka-prasetya.ac.id

ABSTRACT
This study aims to determine whether the significant influence of the Capital Intensity and Inventory Intensity Against Tax Avoidance in the food and beverage sub-sector companies listed on the Indonesia Stock Exchange in the period 2014 - 2018. The population in this study is the food and beverage sub-sector companies listed on the Indonesia Stock Exchange in 2014 - 2018 as many as 18 companies. The research sample in this study as many as 10 companies by purposive sampling technique. The result of the analysis showed that the Capital Intensity has no effect and not significant on Tax Avoidance partially. The result of the analysis showed that the Inventory Intensity has effect and significant on Tax Avoidance partially. The result showed that Capital Intensity and Inventory Intensity have effect and significant on Tax Avoidance simultaneously. The results of this study are supported by the value of R Square which means variable Tax Avoidance can be explained by the variable Capital Intensity and Inventory Intensity, while the remaining is explained by the influence of other factors or variables outside the model such as Corporate Social Responsibility, Leverage and Company Size.

Keywords: Capital Intensity, Inventory Intensity, Tax Avoidance

1. INTRODUCTION

Taxes are a burden for companies that can reduce the net profit of a company, most companies do not volunteer to be happy to pay taxes. Companies pay taxes because they are coercive, if they do not pay they will be subject to sanctions that can harm the company. Companies that establish and develop their businesses in Indonesia certainly have an obligation to pay taxes.

The taxation system used in Indonesia is a self-assessment system, in which the government will authorize taxable entrepreneurs (PKP) without exception, to calculate and then report the taxes themselves. The use of the self-assessment system will provide an opportunity for companies to be able to calculate the lowest taxable income (PKP) owned by the company so that the company's tax burden will change to decrease. However, with the implementation of this, thoughts arise for tax avoidance. Tax Avoidance is legal because nothing is violated in the KUP, but actually, Tax Avoidance is not wanted by the government because it is contrary to the government's interest to get the maximum income possible. Therefore, Tax Avoidance is something that must be given more attention because it involves State income.

Capital Intensity relates to a company's investment in assets. The higher the Capital Intensity of a company, the depreciation expense of the assets will increase, this will cause the company's profits to decrease, so that the company's tax payable will also decrease, which if the company's profits decrease, then the company has a low Cash Effective Tax Rate indicates a higher level of Tax avoidance. This is because companies with large assets tend to do tax planning which causes their Cash Effective Tax Rate to below.

Inventory Intensity is how much the company invests in inventory. The greater the total inventory, the higher the cost of inventory, where the calculation of the cost of inventory can be a reduction in profit so that the
company’s profitability will also decrease, which if profitability decreases, it will be followed by a decrease in the amount of taxes owed by the company so that the Cash Effective Tax Rate is borne the company also experienced a decline. The decrease in CETR indicates that Tax Avoidance is increasing.

2. LITERATURE REVIEW

2.1. Tax Avoidance

Tax Avoidance is the efficiency of the tax burden by avoiding taxation through transactions that are not tax objects [1]. In this research, Tax Avoidance is proxied by Cash Effective Tax Rate. Cash Effective Tax Rate can be calculated using the formula [1]:

\[ CETR = \frac{\text{Payment of taxes}}{\text{Profit before tax}} \]  

(1)

2.2. Capital Intensity

Capital Intensity Ratio is the ratio of fixed assets to total assets of a company [2].

\[ Inv = \frac{\text{Total Inventory}}{\text{Total Asset}} \]  

(2)

2.3. Inventory Intensity

Inventory Intensity or Inventory Intensity is a measure of how much inventory is invested in the company [3].

The following is testing the research hypothesis:

H1. It is suspected that Capital Intensity has a significant effect on Tax Avoidance in the Food and Beverage Sub-Sector Companies listed on the Indonesia Stock Exchange (IDX) for the 2014-2018 period.

H2. It is suspected that Inventory Intensity has a significant effect on Tax Avoidance in the Food and Beverage Sub-Sector Companies listed on the Indonesia Stock Exchange (IDX) for the 2014-2018 period.

H3. It is suspected that Capital Intensity and Inventory Intensity have a significant effect on Tax Avoidance in Food and Beverage Sub-Sector Companies listed on the Indonesia Stock Exchange (IDX) for the 2014-2018 period.

The framework in this study will explain the relationship between each variable which can be seen in the figure below:

![Figure 1. Framework of Mind](image)

3. RESEARCH METHODOLOGY

The type of data in this research is quantitative data [4]. Quantitative data is data in the form of numbers, for example, capital intensity, inventory intensity, and tax avoidance. The research population that will be used in this study are all food and beverage sub-sector companies listed on the Indonesia Stock Exchange (IDX).

Based on the purposive sampling technique, the sample of this study studied was 50 company data consisting of 10 food and beverage sub-sector companies listed on the Indonesia Stock Exchange (IDX) for 5 periods, namely the 2014-2018 period.

The data collection technique used in this research was carried out by using a literature study and documentation. Literature study, which is done by reading books or theses in the library where there are references related to research. Documentation, namely collecting, recording, and reviewing documents about financial data on food and beverage sub-sector manufacturing companies for the period 2014-2018 obtained from the Indonesia Stock Exchange, namely [https://www.idx.co.id](https://www.idx.co.id).

3.1. Data Analysis Technique

The data analysis model used in this research is the multiple regression analysis models. Researchers use multiple linear regression because this model is useful for looking for the effect of two or more independent variables (free) on the dependent variable (bound). The multiple linear regression equation models are:

\[ Y = a + b_1X_1 + b_2X_2 + e \]  

(3)

4. RESULTS

The data collected from each variable (Tax Avoidance which is proxied by Cash Effective Tax Rate, Capital Intensity, and Inventory Intensity) which has been processed will be displayed in this section with descriptive statistics that can provide an overview of the minimum, maximum, average values, and the standard deviation of each variable. The following are the results of descriptive statistical testing:
Table 1. Descriptive Statistic

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Std.Error</th>
<th>Std.Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statistic</td>
<td></td>
<td>Statistic</td>
<td>Statistic</td>
<td>Statistic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tax Avoidance</td>
<td>50</td>
<td>-.340</td>
<td>-.098</td>
<td>-.24682</td>
<td>.007697</td>
<td>.054423</td>
</tr>
<tr>
<td>Capital Intensity</td>
<td>50</td>
<td>.059</td>
<td>.784</td>
<td>.33444</td>
<td>.022531</td>
<td>.159318</td>
</tr>
<tr>
<td>Inventory Intensity</td>
<td>50</td>
<td>.011</td>
<td>.390</td>
<td>.13730</td>
<td>.011477</td>
<td>.081153</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>50</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Based on Table 1 the results of the descriptive statistical test, it can be explained that:

1) The amount of data used is 50 consisting of 10 samples with data from the company's financial statements for 5 years, namely 2014-2018.

2) The Tax Avoidance variable has a minimum value of -0.349, a maximum value of -0.098, an average value of -0.24682, and a standard deviation value of 0.054423.

3) The Capital Intensity variable has a minimum value of 0.059, a maximum value of 0.784, an average value of 0.33444, and a standard deviation value of 0.159318.

4) The Inventory Intensity variable has a minimum value of 0.011, a maximum value of 0.390, an average value of 0.13730, and a standard deviation value of 0.081153.

4.1. Classic Assumption Test

4.1.1. Normality Test

The normality test aims to test whether in the regression model the dependent variable and the independent variable have a normal distribution or not. A good regression model is to have a normal or near-normal data distribution.

![Figure 2. Normality Test](image)

Based on the Figure above, it can be explained that the data spreads out following a diagonal line. The results of this test indicate that the data is normally distributed.

4.1.2. Heteroscedasticity Test

The test result using Scatterplot Chart are as follows:

![Figure 3. Scatter Plot](image)

Based on the Figure above, it can be explained that the points resulting from data processing spread below or above the origin point (number 0) on the Y-axis and do not have a regular pattern. The results of these observations indicate that there is no heteroscedasticity or homoscedasticity.

4.1.3. Multicolinearity Test

Based on the table above, it can be seen that the correlation value for the Capital Intensity and Inventory Intensity variables has a tolerance value of 0.783 > 0.1 and a VIF value of 1.277 <10. So, it can conclude that the Capital Intensity and Inventory Intensity variables do not have any multicollinearity symptoms.

Table 2. Multicollinearity Test

<table>
<thead>
<tr>
<th>Coefficients</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>Tolerance</td>
</tr>
<tr>
<td>1 (Constant)</td>
<td></td>
</tr>
<tr>
<td>Capital Intensity</td>
<td>.783</td>
</tr>
<tr>
<td>Inventory Intensity</td>
<td>.783</td>
</tr>
</tbody>
</table>

Based on the table above, it can be seen that the correlation value for the Capital Intensity and Inventory Intensity variables has a tolerance value of 0.783 > 0.1 and a VIF value of 1.277 <10. So, it can conclude that the Capital Intensity and Inventory Intensity variables do not have any multicollinearity symptoms.
4.1.4. Multiple Linear Regression Analysis

The results for testing multiple linear regression analysis can be seen in the following table 3.

Table 3. Multiple Linear Regression Analysis

<table>
<thead>
<tr>
<th>Coefficientsa</th>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>B</td>
<td>Std.Error</td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>.325</td>
<td>.027</td>
<td></td>
</tr>
<tr>
<td>Capital Intensity</td>
<td>.051</td>
<td>.048</td>
<td>.150</td>
</tr>
<tr>
<td>Inventory Intensity</td>
<td>.388</td>
<td>.094</td>
<td>.579</td>
</tr>
</tbody>
</table>

The multiple linear regression equation is obtained where the dependent variable (Y), namely Tax Avoidance, has a value of 0. Then Tax Avoidance has decreased by 0.325. Every increase in Capital Intensity (X1) by 1 unit, then Tax Avoidance will increase by 0.05. Every increase in Inventory Intensity (X2) by 1 unit, then Tax Avoidance will increase by 0.388.

4.1.5 Hypothesis Testing

Table 4. Partial Test

<table>
<thead>
<tr>
<th>Coefficientsa</th>
<th>Model</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(Constant)</td>
<td>-11.938</td>
<td>.000</td>
</tr>
<tr>
<td>Capital Intensity</td>
<td>1.067</td>
<td>.291</td>
<td></td>
</tr>
<tr>
<td>Inventory Intensity</td>
<td>4.126</td>
<td>.000</td>
<td></td>
</tr>
</tbody>
</table>

The variable Capital Intensity (X1) has a count of 1.067 < t table 2.01063 with a significant value of 0.291 > 0.05, so it can be concluded that partially Capital Intensity has no considerable effect on Tax Avoidance in the food and beverage sub-sector companies listed on the Stock Exchange, Indonesian Stock Exchange (IDX) for the period 2014-2018.

The Inventory Intensity variable (X2) has a count of 4.126 > t table 2.01063 with a significant value of 0.000 <0.05, so it can be concluded that partially Inventory Intensity has a substantial and significant effect on Tax Avoidance in food and beverage sub-sector companies listed on the Stock Exchange Indonesia (IDX) 2014-2018 period.

Table 5. F Test

<table>
<thead>
<tr>
<th>ANOVAa</th>
<th>Model</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Regression</td>
<td>8.977</td>
<td>.000b</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Based on the table above, it can be seen that the value of F-count 8.977> F-table 3.20 with a significant value of 0.000 <0.05, so it can be concluded that simultaneously Capital Intensity and Inventory Intensity have a substantial and significant effect on Tax Avoidance in the food and beverage sub-sector companies listed in Indonesia Stock Exchange (IDX) 2014-2018 period.

5. DISCUSSION

5.1 The Effect of Capital Intensity on Tax Avoidance

Based on the results of partial hypothesis testing using the t-test, it can be seen that the Capital Intensity variable has no and insignificant effect on Tax Avoidance in the food and beverage sub-sector companies listed on the Indonesia Stock Exchange (IDX) for the 2014-2018 period. This study's results are in line with Basuki's [5] research, which states that Capital Intensity has no significant effect on Tax Avoidance [5].

5.2 Effect of Inventory Intensity on Tax Avoidance

Based on the results of partial hypothesis testing using the t-test, it can be seen that the Inventory Intensity variable has a significant and significant effect on Tax Avoidance in the food and beverage sub-sector companies listed on the Indonesia Stock Exchange (BEI) for the 2014-2018 period. This study's results are in line with the research of [6], which states that Inventory Intensity has a significant effect on Tax Avoidance [6].

5.3 Influence of Capital Intensity and Inventory Intensity on Tax Avoidance

The Capital Intensity has a significant effect on Tax Avoidance, [6] who in their research stated that Capital Intensity and Inventory Intensity affected significant against Tax Avoidance.

6. CONCLUSION

Based on the results of the analysis and discussion that has been described previously, it can conclude that the results of this study indicate the effect of Capital Intensity and Inventory Intensity on Tax Avoidance, which is shown from the results of multiple linear regression analysis, which means that any increase in the variables Capital Intensity and Inventory Intensity then Tax Avoidance which is proxied by Cash Effective Tax Rate will decrease. The results of partial hypothesis testing show no and insignificant effect of Capital Intensity on Tax Avoidance in the Food and Beverage Sub-Sector company for the 2014–2018 period. The results of partial hypothesis testing show a significant and significant effect of Inventory Intensity on Tax Avoidance in the Food and Beverage Sub-Sector companies for the 2014–2018 period. The results of simultaneous hypothesis testing show a significant and significant effect of Capital Intensity and Inventory Intensity on Tax Avoidance in the Food and Beverage
Sub-Sector companies for the 2014–2018 period. Based on the coefficient of determination results, it is known that Capital Intensity and Inventory Intensity can explain the relationship with Tax Avoidance in the Food and Beverage Sub-Sector company for the 2014–2018 period.

REFERENCES


