The Influence of Interest-to-EBITDA on Interest Deductibility Limitation as a Measure to Prevent Tax Avoidance (Empirical Study on Companies Listed on the IDX Quality 30 Index of the Indonesia Stock Exchange)

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Abstract:
This study aims to determine the effect of interest-to-EBITDA ratio on interest expense restrictions. This type of research is quantitative research using secondary data, namely financial statements obtained from the official website of the Indonesia Stock Exchange (IDX). The population in this study is the IDX Quality Index 30 and there are 20 companies as research samples. The sampling technique uses nonprobability sampling technique with Purposive Sampling method. The data analysis method in this study uses simple linear analysis using Excel and SPSS 20 applications. The results of this study show that the interest-to-EBITDA ratio has no effect on tax avoidance.
INTRODUCTION

Generally, taxpayers are reluctant to pay taxes, leading them to seek ways to minimize their tax liability as much as possible. Efforts to minimize the amount of tax liability can be undertaken through tax avoidance, which constitutes a component of tax planning strategies. Tax avoidance is classified as a corporate action aimed at reducing taxes through transactions that do not fall within the taxable object category. Tax avoidance is considered the most effective strategy and is frequently employed by companies in tax planning (Arieftiara, Utama, Wardhani, 2019). One highly common technique used by taxpayers to reduce their tax liability is through thin capitalization (Afifah & Prastiwi, 2019).

Thin capitalization involves structuring the capital of a company by relying predominantly on debt compared to the company's equity. Therefore, the larger the ratio of debt to equity, the higher the level of thin capitalization of that company (Andawiyah et al., 2019). In thin capitalization, taxpayers aim to incur higher interest expenses since, according to Article 6 of Law No. 36 of 2008 concerning Income Tax, interest expenses fall under deductible expenses, a category of expenses that constitutes a reduction factor in calculating taxable income. Thus, if a company incurs significant interest expenses, it will yield lower operational profit and also reduce the amount of tax liability (Kurniawan, 2018).

To safeguard against excessive interest expenses incurred by taxpayers, the Indonesian government introduced a policy through Regulation No. 169/PMK.010/2015 regarding Debt-to-Equity Ratio (DER), which calculates the ratio of debt to a company's equity, comparing the total debt to the total equity of the company (Prabowo & Sutanto, 2019). This regulation also stipulates the permissible ratio between debt and equity as 4:1 (Pakhan, 2015). However, the implementation of DER has a vulnerability that companies may exploit for tax avoidance. If a company has debt exceeding the allowed ratio in the DER, it can manipulate its equity value by increasing the company's capital, ensuring that the ratio of debt to equity still falls within the permissible range according to DER. Companies can obtain loans not only from banks but also from shareholders who are taxpayers or entities. This practice is often employed, especially by companies operating within the same business line or having affiliates that will benefit from the interest income, which is also part of the parent company or its subsidiaries.

Due to the numerous loopholes available to multinational corporations with overseas business networks or affiliations with companies subject to relatively low tax rates in Indonesia (tax havens), as in the case mentioned above, the OECD recommends implementing the interest-to-EBITDA ratio. This ratio is anticipated to impose limitations on companies engaged in tax avoidance. The interest-to-EBITDA ratio is an indicator that can assess whether a company faces challenges in meeting its obligations by depicting the value of the company's solvency and profitability. When profitability is high and stable, the risk of insolvency for the company is low, and vice versa (Bachriansyah, 2019).
LITERATURE REVIEW

Trade Off Theory

The Trade Off Theory posits that there is an optimal balance between debt and equity for an entity, where the costs and benefits are equitably distributed. This theory also suggests that utilizing debt carries tax advantages, prompting companies to employ debt up to a certain level to maximize their corporate value. Within the capital structure, one of the objectives of this trade-off theory is to strike a balance between the advantages and disadvantages arising from debt utilization.

Tax Avoidance

Tax avoidance entails efforts to reduce tax imposition by exploiting gaps in tax regulations without violating the laws stipulated in tax legislation. As such, it remains classified as a legal form of tax avoidance. The avenues used involve leveraging the "grey area" in tax provisions. In the realm of taxation, the term "grey area" refers to general provisions related to Income Tax, Value Added Tax (VAT), and General Tax Provisions (KUP). It also pertains to events, circumstances, or transactions anticipated to be affected by tax regulations, yet presently lack applicable tax laws. Regulations characterized as grey area carry inherent risks in their application, contingent upon the strength of one's understanding of existing tax rules. However, by applying the grey area in tax avoidance, it is possible to minimize the tax burden incurred.

BEPS ACTION 4

Base Erosion and Profit Shifting (BEPS) is a tax avoidance strategy that exploits loopholes in tax laws to artificially or unnaturally shift profits to jurisdictions with minimal tax rates. The OECD also employs best practices to curb tax base erosion, which encompasses financial payments, including interest expenses. Two common rules limiting interest expenses within this framework are the fixed ratio rule and the group ratio rule. The goal is to diminish the tax base by restricting the total value of interest costs (OECD 2015b, 71).

The OECD recommends the prioritized implementation of these core rules to encompass all characteristics of financial payment transactions, including the utilization of interest expenses as a tax-deductible component. Specifically, the OECD advocates the adoption of the fixed ratio rule, which functions as a constraint on entities utilizing interest costs as a tax-deductible element, limited to a specific percentage of EBITDA. These general rules are applicable exclusively to entities operating under multinational corporate groups. A Multinational Corporation (MNC), or Multinational Corporate, refers to a large-scale enterprise that has established branches or subsidiaries in significant countries across the globe. Typically, multinational corporations possess factories, office assets, and various other facilities in various countries.

Thin Capitalization

Thin capitalization refers to a situation in which a company relies more on debt as a source of capital than equity (OECD, 2012). The emergence of thin
capitalization is consistently associated with the differing treatment between financing through debt and equity. Interest expenses, which are still in the form of debt, are permitted by tax regulations as deductions from taxable profits and are considered as expenses. As a company's debt level increases, so do the interest expenses, which in turn reduce its taxable profits (OECD, 2012). However, when a company uses equity, dividend payments in return cannot be included as deductions in the calculation of taxable profits. In previous research, Taylor & Richardson (2013) stated that thin capitalization has a significant impact on tax avoidance practices.

**Thin Capitalization Rules with Interest-to-EBITDA Approach**

In BEPS Action 4, the OECD recommends the use of interest limitation rules employing the Interest-to-EBITDA approach. The OECD also provides general guidelines for these limitations, suggesting the application of rates between 10 to 30 percent, which can be adjusted according to the circumstances of each country. Under these rules, the income measure used in this ratio is EBITDA, which stands for earnings before tax, depreciation, and amortization. However, in the fixed ratio approach, EBIT, meaning earnings before tax and tax, can also be used (OECD 2015b, 44).

In addition to indicating challenges in meeting obligations, the interest-to-EBITDA ratio reflects the solvency and profitability of a company. Consequently, if a company's profitability is high and stable, its solvency risk is low. Conversely, if profitability is low and unstable, the solvency risk is high. The following outlines the research framework for this study:

![Figure 1. Conceptual Framework](image)

The following is the hypothesis for this research:

H0: The Interest-to-EBITDA approach has no significant impact on tax avoidance.

**METHODOLOGY**

This study employs a quantitative research method, utilizing secondary data sourced from the financial reports of sample companies for the period spanning from 2020 to 2022. These reports were obtained from the official website www.idx.co.id, which serves as the authoritative platform of the Indonesia Stock Exchange (BEI), as well as from the official websites of the respective sampled companies.

The research population consists of all companies listed in the IDX Quality 30 of the Indonesia Stock Exchange (IDX) for the years 2020 to 2022, totalling 30 companies. The sampling technique utilized is nonprobability sampling with the purposive sampling method. The selection criteria for the sample are as follows:
1. Companies listed in the IDX Quality 30 of the Indonesia Stock Exchange (IDX) for the year 2022.
2. Companies that remained consistent in the IDX Quality 30 during the period of 2020 to 2022.
3. Companies that did not utilize final Income Tax during the period of 2020 to 2022.

RESULT AND DISCUSSION

Overview of the Research Object

The overview of the research object outlines the procedures for sample selection and the research population. In this study, the purposive sampling method was employed to select the sample. Purposive sampling is a technique used to select samples based on specific criteria, with the aim of ensuring that the chosen sample effectively represents the research being conducted. The analytical method employed in this research is quantitative analysis, facilitated by software tools such as Microsoft Excel 2019 and SPSS version 22 for data testing. The purpose of this data analysis is to extract relevant information from the research data and address the research questions based on the findings obtained from this analysis. Table 1 below presents the acquired sample based on the predetermined criteria in line with the requirements of this study.

<table>
<thead>
<tr>
<th>No.</th>
<th>Criteria</th>
<th>Number of Companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Companies listed in IDX Quality 30 of Indonesia Stock Exchange (BEI) in 2022</td>
<td>30</td>
</tr>
<tr>
<td>2</td>
<td>Companies not consistent in IDX Quality 30 during 2020-2022</td>
<td>(9)</td>
</tr>
<tr>
<td>3</td>
<td>Companies utilizing final Income Tax</td>
<td>(1)</td>
</tr>
<tr>
<td></td>
<td>Total Samples</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Total Years (Each Company)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Total Observational Data Points</td>
<td>60</td>
</tr>
</tbody>
</table>

Research Findings

In this study, the hypothesis was tested using a simple regression model. The purpose of conducting this test is to gain insights into the influence of the independent variable, namely Interest-to-EBITDA, on the dependent variable, which is tax avoidance. The results of this research can be depicted through the values obtained from hypothesis testing, and the extent of the influence of the independent variable on the dependent variable can be assessed through the Coefficient of Determination ($R^2$) test.

Results of Descriptive Statistical Analysis

Descriptive analysis is a method that utilizes all data relevant to this examination, which is subsequently grouped for further objective analysis and
interpretation. This is achieved by comparing the minimum, maximum, standard deviation, and mean values of the research sample.

Table 2. Descriptive Statistical Analysis

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>CETR</td>
<td>57</td>
<td>.00668</td>
<td>.37491</td>
<td>2.238942</td>
<td>.0729960</td>
</tr>
<tr>
<td>ITE</td>
<td>57</td>
<td>.00724</td>
<td>2.35419</td>
<td>2.540593</td>
<td>.8967448</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>57</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Based on Table 2, it is observed that among the total processed data (N) of 57 observational data, companies practicing tax avoidance exhibit values ranging from a minimum of 0.006 to a maximum of 0.374. The mean value for this variable is 0.223, indicating the average tax avoidance for companies listed on the IDX Quality 30 Index, with a standard deviation of 0.072, signifying the average tax avoidance's variability among these companies.

Regarding the Interest-to-EBITDA variable, it reveals that the Interest-to-EBITDA levels within the dataset (N = 57) vary from a minimum of 0.007 to a maximum of 9.773. The mean value, representing the average Interest-to-EBITDA level among companies listed on the IDX Quality 30 Index, is 0.253, with a standard deviation of 0.389. The smaller standard deviation compared to the mean suggests that there is relatively less data dispersion around the mean value.

Classic Assumption Tests

In this research, three classic assumption tests are conducted to determine whether the data used in the study can yield valid results and be useful in drawing conclusions. The following are the results of the three classic assumption tests:

Normality Test Results

The normality test is used in this study to determine whether the residual values or disturbance values used are normally distributed.

Table 3. Normality Test

<table>
<thead>
<tr>
<th></th>
<th>Unstandardized Residual</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>57</td>
</tr>
<tr>
<td>Normal Parameters</td>
<td></td>
</tr>
<tr>
<td>Normal Parameters a,b</td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>0E-7</td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>.07220442</td>
</tr>
<tr>
<td>Most Extreme Differences</td>
<td></td>
</tr>
<tr>
<td>Absolute</td>
<td>.125</td>
</tr>
<tr>
<td>Positive</td>
<td>.067</td>
</tr>
<tr>
<td>Negative</td>
<td>- .125</td>
</tr>
<tr>
<td>Kolmogorov-Smirnov Z</td>
<td>.942</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>.337</td>
</tr>
</tbody>
</table>

a. Test distribution is Normal.
b. Calculated from data.
Based on Table 3, from the normality test results using the one-sample Kolmogorov-Smirnov test, it can be observed that the value of Asymp sig. (2-tailed) is 0.337, which is greater than the constant value of 0.05. This aligns with the criteria for normally distributed data.

**Heteroscedasticity Test Results**

Heteroscedasticity test is conducted to determine whether there is unequal variance and residuals in the regression model. A good regression model implies that if the significance value of the variable is greater than 0.05, it can be concluded that the data is homogeneous, indicating the absence of heteroscedasticity.

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>0.052</td>
<td>0.009</td>
<td>6.025</td>
<td>0.000</td>
</tr>
<tr>
<td>ITC</td>
<td>-0.004</td>
<td>0.025</td>
<td>-0.022</td>
<td>0.162</td>
</tr>
</tbody>
</table>

Based on Table 4, which displays the results of the Glejser test, it is evident that the significance value of the independent variable, interest-to-EBITDA, with respect to the absolute residual is 0.872, exceeding 0.05. Therefore, it can be concluded that the variables in this regression model are free from heteroscedasticity, meeting the requirements for regression analysis.

**Autocorrelation Test Results**

The autocorrelation test is conducted to determine whether there is autocorrelation in the regression model, meaning whether the error terms (residuals) in one time period (t) are correlated with those in the previous time period (t-1). To detect autocorrelation, the Durbin-Watson (DW) test can be employed by comparing the DW value with the critical D value from the Durbin-Watson table (Ghozali, 2016).

<table>
<thead>
<tr>
<th>Model Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>1</td>
</tr>
</tbody>
</table>

Based on Table 5, the autocorrelation test results indicate that the DW value is 1.962. Therefore, the value of dU < DW < (4-dU) which is 1.4107 < 1.962 < 2.7985. The results demonstrate that there is no autocorrelation in this study, allowing the hypothesis test to proceed.
Based on Table 6, from the simple linear regression test, the equation for simple linear regression in this study is as follows:

\[ Y = a + bX + e \] ........................................(1)

\[ Y = 0.221 + 0.010X \] .............................(2)

The equation can be interpreted as follows:
1. The constant value, 0.221, represents the baseline value of the dependent variable when the independent variable (Interest-to-EBITDA) is zero.
2. The regression coefficient of X, 0.010, indicates that for every 1% increase in the value of Interest-to-EBITDA, the value of the dependent variable (CETR) is expected to decrease by 0.010 units.

Hypothesis Testing Results

The results of the hypothesis testing include the determination coefficient \((R^2)\), which is applied in this study to assess the extent to which the independent variable (Interest-to-EBITDA) can explain the dependent variable (Tax Avoidance). The coefficient of determination helps evaluate the explanatory power of the independent variable in relation to the dependent variable.

Based on Table 7, it can be observed that the companies in the IDX Quality 30 index have a correlation coefficient (R) of 5.1. This implies that the variable Interest-to-EBITDA does not have a significant influence on the variable Tax Avoidance (CETR).

Simultaneous Parameter Significance Test Results (F-Statistic Test)

The F-test is applied to determine the overall impact of all independent variables on the dependent variable. If the significant value of F is less than 0.05, it can be interpreted that the independent variables collectively and simultaneously affect the dependent variable, and vice versa (Ghozali, 2016).
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Table 8. Simultaneous Parameter Significance Test (F-Statistic Test)

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>.001</td>
<td>1</td>
<td>.001</td>
<td>1.45</td>
<td>.705</td>
</tr>
<tr>
<td>Residual</td>
<td>.292</td>
<td>55</td>
<td>.005</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>.293</td>
<td>56</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: CETR
b. Predictors: (Constant), ITE

Based on Table 8, the calculated F-value is 0.145, the critical F-value is 4.381, and the significance value is 0.705, which is greater than the chosen significance level of 0.05. This implies that the independent variables, taken together, do not have a significant impact on the dependent variable.

Partial Test Results (T-Test)

The partial test is conducted to determine the level of significance needed to make a decision about whether the research hypothesis can be accepted or not. The significance values in the coefficient table can be used to assess the significance of hypothesis testing. Based on the regression test, this study is conducted with a confidence level of 95 percent or a significance level of 5 percent ($\alpha = 0.05$).

Table 9. Partial Test (T-Test)

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>221.0</td>
<td>.012</td>
<td>19.174</td>
<td>.000</td>
</tr>
<tr>
<td>ITE</td>
<td>0.010</td>
<td>.025</td>
<td>.981</td>
<td>.381</td>
</tr>
</tbody>
</table>

a. Dependent Variable: CETR

Based on Table 9 above, the following decisions can be made regarding the hypotheses:

1. There is a possibility that the variable Interest-to-EBITDA affects the variable Tax Avoidance because the significance value from Table 1.9 is 0.00, which is smaller than the probability of 0.05.

2. Based on the t-value from Table 1.9, the calculated t-value is -4.127, which is smaller than the tabulated t-value of 1.729. Therefore, it can be concluded that the variable Interest-to-EBITDA has a significant impact on the variable Tax Avoidance.

The criteria for $H_0$ state that if the calculated t-value is greater than the tabulated t-value or if the calculated t-value is smaller than the tabulated t-value, then $H_a$ is rejected. The test results indicate that 0.381 is greater than 1.729, so it can be concluded that $H_0$ is accepted, and $H_a$ is rejected. In other words, the dependent variable Tax Avoidance is not significantly influenced by the independent variable Interest-to-EBITDA.
CONCLUSION AND RECOMMENDATIONS

As there is no strong evidence to suggest that companies listed in the IDX Quality 30 index of the Indonesia Stock Exchange utilize the interest-to-EBITDA ratio to restrict interest expenses in order to avoid taxes, it can be concluded that this ratio does not influence the limitation of interest expenses in efforts to prevent tax avoidance. The research findings also indicate that the trade-off theory may not fully apply in explaining the relationship between the interest-to-EBITDA ratio and tax avoidance. This suggests that other factors beyond the scope of this study may play a more significant role in determining the policy of limiting interest expenses to prevent tax avoidance in companies listed in the IDX Quality 30 index of the Indonesia Stock Exchange. However, the research findings may not be applicable to companies in other indices; the results are specific to companies listed in the Quality 30 index of the Indonesia Stock Exchange. Therefore, the hypothesis stating that Interest-to-EBITDA positively impacts tax avoidance is rejected, and the null hypothesis is accepted.

ADVANCED RESEARCH

Based on the discussions and conclusions mentioned in this research regarding the "Influence of Interest-to-EBITDA on Limiting Interest Expenses as an Effort to Prevent Tax Avoidance," a suggestion for future researchers is to incorporate another Thin Capitalization variable, namely Debt-to-Equity Ratio (DER), which is currently being applied in Indonesia. This would enable a comparison of the most effective approach to be implemented in Indonesia between the interest-to-EBITDA ratio and DER.

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