The Effect Of Capital Structure On Profitability In The Registered Financial Services Industry On The Indonesian Stock Exchange (Bei)

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Abstract

Capital structure is an important issue that companies must pay attention to because capital structure is expected to increase profitability, which is the goal of every company. This research aims to determine the effect of capital structure on profitability in financial services industry companies listed on the Indonesia Stock Exchange (BEI). This research uses quantitative methods with explanatory research. The sampling technique in this research is purposive sampling. The data analysis technique in this research uses multiple linear regression analysis. The results of this research show that capital structure as measured by the Debt to Asset Ratio (DAR) has a significant positive effect on profitability (Return On Assets) and the Debt to Equity Ratio (DER) has a significant negative effect on profitability (Return On Assets).

Keywords: Debt to Asset Ratio (DAR), Debt to Equity Ratio (DER), Return On Assets (ROA).

INTRODUCTION

The ever-changing economy and rapidly increasing business competition allow managers to continue to increase company profits or profitability by establishing and running their businesses. Therefore, the company requires substantial resources to expand its profitability, and this demand will grow in line with the various expansions carried out by the company. Financial needs come from the company's internal and external assets. Internal assets refer to capital that comes from within the company, while external assets refer to sources of capital from outside the company which are often known as loan capital. Capital structure is the main element that must be managed and utilized properly to increase the profitability of the company's business (Wahyuni Putri, 2021).

The financial services industry has an important role in the Indonesian economy. As the main pillar in supporting economic growth, this sector is responsible for collecting and distributing funds, as well as providing various financial services to the community and companies. The capital market, represented by the Indonesian Stock Exchange (BEI), is the main platform for financial services companies to obtain capital. Therefore, it is important to understand the factors that influence the financial performance of companies in this sector. One aspect that plays an important role in a company's financial performance is capital structure. This capital structure refers to the mix of capital used, such as debt and equity. Decisions around capital structure have a major impact on a company's risk and profitability. There are various approaches to determining the optimal capital structure, such as the trade-off theory between borrowing costs and equity costs, as well as signaling theory related to investor confidence.

Capital structure refers to the combination of long-term funding of a company consisting of loans, preferred shares and ordinary shares (Hanifa Putri et al., 2023). In general,
Companies have a variety of choices regarding capital structure. For example, a company may use methods such as leasing with warrants, issuing convertible bonds, engaging in futures contracts, or trading bond swaps. Companies also have the ability to issue various types of securities in various combinations to maximize their total market value (Nur Azrina & Hariri, 2022).

Companies can use equity or debt capital to finance their assets, but a combination of the two is often the best option. When interest is not included in tax deductions, company owners will not have a clear preference between using debt or equity in financing. However, when interest is considered a tax deduction, they tend to maximize company value by using funding entirely through debt (Arviana et al., 2023).

Debt is related to capital structure. Debt to Asset Ratio and Debt to Equity Ratio are tools for measuring capital structure. A company's assets financed by total debt are used as a measuring tool for the Debt to Asset Ratio. A high DAR means more company debt to pay for company assets and generate profits. A company can be said to be viable if it has assets that enable it to pay off its debts (Wahyuni Putri, 2021). On the other hand, the ratio used to measure debt and equity of a company is called the Debt to Equity Ratio (Kasmir, 2018).

One of the keys to measuring a company's prospects is looking at the growth of the company's profitability. The ratio to measure a company's ability to earn income is called the profitability ratio, and provides the degree of effectiveness of a company's management (Masyitah et al., 2019). In this research, the profitability ratio is changed to be measured through Return On Assets (ROA). The reason for using ROA is because it is used to measure the rate of return generated from all assets owned by the company, without taking into account capital structure or share ownership. The higher the ROA ratio, the more efficient the company is in using its assets to generate profits. The indicator that investors often use before investing in a company is Return On Assets (ROA). Investors need this ratio to assess whether the company uses its assets efficiently to generate profits before deciding to invest. ROA also helps investors find potential problems in asset management that may not be directly visible from the company's financial reports (Hasan & Rizaldi, 2023).

Based on a number of studies, there are variations in the influence of certain variables on profitability, but the results are still contradictory. For example, research conducted by (Zatira et al., 2021) revealed that the Debt to Asset Ratio and Debt to Equity Ratio do not have a significant influence on profitability. This result is different from the findings made by (Hutasuhut, 2020) where his research stated that Debt to Asset Ratio and Debt to Equity Ratio jointly influenced Return On Equity. On the other hand (Ajrina et al., 2023) concluded that the Debt to Asset Ratio and Debt to Equity Ratio have a significant impact on Return On Equity when considering the company's capital structure and liquidity.

The difference between this research and previous research lies in the object and previous time span. Where previous research focused on Real Estate and Property companies listed on the Indonesia Stock Exchange (BEI) 2009-2011. This research uses the object, namely the financial services industry listed on the Indonesian Stock Exchange, by observing the financial reporting period 2020 - 2022. The reason underlying the researchers in choosing to conduct this research is because the financial services industry is the backbone of a country's economy. Financial sectors such as banks, insurance and capital markets play a key role in facilitating the flow of funds and investment, as well as driving economic growth. This industry as a guardian of financial stability, health and performance of the financial services industry has a direct
impact on the stability and growth of the national economy. Profitability is important in the financial sector because it shows a company's ability to generate profits, attract investors, maintain financial stability, and meet regulatory requirements. The financial services industry is now listed on the stock market, allowing researchers to easily access and analyze a company's financial position and financial performance. Several researchers have previously examined the relationship between capital structure and profitability. However, based on previous studies there is no consistent agreement regarding the impact of capital structure on profitability.

RESEARCH METHODS

A. Type of Research
This research uses a quantitative method with an explanatory approach which aims to analyze the relationship between variables or how one variable influences another. Quantitative research involves collecting substantial data, interpreting the data, and presenting the results (Sugiyono, 2017). The aim of this research is to identify cause and effect relationships between the variables being studied.

B. Location and Time of Research
The research was conducted at the Investment Gallery Office of the Indonesian Stock Exchange (BEI) Muhammadiyah University Makassar Jl. Sultan Alauddin no.259 Makassar, Rappocini District, Makassar City. The researcher chose this research location because the Indonesian Stock Exchange is a forum that provides data that the researcher examines, namely the financial reports of the financial services industry listed on the Indonesian Stock Exchange (BEI). The time for this research is around two months (March-April) in 2024.

C. Data types and sources
In this research, the data used is secondary data, namely data obtained by research from existing sources in several financial reports and annual reports of financial services industry companies in 2020-2022 obtained from the official website of the Indonesia Stock Exchange (BEI) www.idx.co.id

D. Population and Sample
1. Population
Population refers to a generalized area that includes objects or subjects with special characteristics that are recognized in the research context to be investigated and then analyzed to produce conclusions (Sugiyono, 2017). The population in this study consists of 94 financial services industry companies listed on the Indonesia Stock Exchange during the 2020-2022 period which have been indexed on the Indonesia Stock Exchange.

2. Sample
The sample is part of the overall population. Population can be the population in an area, the number of workers in a company, the number of teachers and students in a university, and so on. In this research, the sampling technique used is purposive sampling, where the researcher
selects samples that meet certain criteria in accordance with the research objectives. The sample selection criteria in this research are:


b. Non-bank financial industry listed on the Indonesian Stock Exchange (financial institutions, securities companies, insurance, & others) for the 2020-2022 period.

c. Companies that publish annual financial reports during the observation period from 2020 to 2022.

d. Financial reports can be accessed and have complete data according to the research variables.

e. Financial services industry companies that do not experience losses.

Table 3.1 Sampling Criteria

<table>
<thead>
<tr>
<th>Number</th>
<th>Sample Criteria</th>
<th>Total Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Financial services industry companies listed on the IDX consecutively starting in 2020-2022</td>
<td>94</td>
</tr>
<tr>
<td>2</td>
<td>Bank financial industry listed on the IDX for the 2020-2022 period</td>
<td>(45)</td>
</tr>
<tr>
<td>3</td>
<td>Companies that do not publish annual financial reports during the observation period from 2020 to 2022.</td>
<td>(3)</td>
</tr>
<tr>
<td>4</td>
<td>Financial reports can be accessed and have complete data according to the research variables</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>Financial services industry companies that experience losses</td>
<td>(15)</td>
</tr>
</tbody>
</table>

Total Sample 31
Total data sample (31 x 3) 93

Based on the criteria above, the sample obtained was 46 financial services industry companies listed on the Indonesia Stock Exchange with details of the selected companies as follows:

Table 3.2 Sample List

<table>
<thead>
<tr>
<th>Number</th>
<th>Code</th>
<th>Company</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ADMF</td>
<td>Adira Dinamika Multi Finance Tbk</td>
</tr>
<tr>
<td>2</td>
<td>BBLD</td>
<td>Buana Finance Tbk</td>
</tr>
<tr>
<td>3</td>
<td>BFIN</td>
<td>BFI Finance Indonesia Tbk</td>
</tr>
<tr>
<td>4</td>
<td>BPFI</td>
<td>Batavia Prosperindo Finance Tbk</td>
</tr>
<tr>
<td>5</td>
<td>CFIN</td>
<td>Clipan Finance Indonesia Tbk</td>
</tr>
<tr>
<td>6</td>
<td>FUJI</td>
<td>Fuji Finance Indonesia Tbk</td>
</tr>
<tr>
<td>7</td>
<td>MFIN</td>
<td>Mandala Multifinance Tbk</td>
</tr>
<tr>
<td>8</td>
<td>TIFA</td>
<td>KDB Tifa Finance Tbk</td>
</tr>
<tr>
<td>9</td>
<td>TRUS</td>
<td>Trust Finance Indonesia Tbk</td>
</tr>
<tr>
<td>10</td>
<td>WOMF</td>
<td>Wahana Ottomitra Multiartha Tbk</td>
</tr>
<tr>
<td>11</td>
<td>AMOR</td>
<td>Ashmore Asset Management Indonesia Tbk</td>
</tr>
<tr>
<td>12</td>
<td>PANS</td>
<td>Panin Sekuritas Tbk</td>
</tr>
<tr>
<td>13</td>
<td>RELI</td>
<td>Reliance Sekuritas Indonesia Tbk</td>
</tr>
<tr>
<td>14</td>
<td>TRIM</td>
<td>Trimegah Sekuritas Indonesia Tbk</td>
</tr>
</tbody>
</table>
E. Method of collecting data

This research uses a data collection method in the form of documentary data obtained from various sources, including data recorded on the Indonesia Stock Exchange (www.idx.co.id), literature, journals and other sources relevant to the research problem. This approach is used to collect data for each variable that will be analyzed, tested, and then analyzed through the necessary hypothesis testing process.

F. Operational Definition and Measurement

In the context of research, variables must be specified, explained, and limited to suit the research objectives. (Sugiyono, 2017) defines research variables as all elements determined by research in various forms which will become the focus of the study to obtain relevant information and then formulate conclusions. The variables used in this research are:

1. Independent Variable (Free)

Independent variables, which are also known as independent variables, have the ability to influence or cause changes in the dependent or bound variable (Sugiyono, 2017). In this research, the variable used is capital structure which is measured using the Debt to Asset Ratio (DAR) and Debt to Equity Ratio (DER).

a. Debt to Asset Ratio (X1)

Debt to Asset Ratio is a measure that shows the extent to which a company's assets are supported by debt or how big the impact of debt is on asset management. The higher the DAR value, the greater the proportion of company asset financing comes from loans. A high DAR value can reflect high risk because the company may have difficulty paying debts with the assets it owns and may also face difficulties in obtaining new loans (Kasmir, 2019). DAR is calculated using the following formula:

\[ Debt \ to \ Asset \ Ratio = \frac{Total \ liabilities}{Total \ asset} \]
b. Debt to Equity Ratio (X2)
Debt to Equity Ratio is a ratio that measures how much debt a company uses compared to its
equity (Kasmir, 2019). This ratio provides an overview of the proportion of funds provided by
creditors compared to company owners. The higher the DER value, the greater the risk of
failure the company may experience, and conversely the lower the DER value, the lower the
level of failure risk the company faces. DER is calculated using the formula:

\[
Debt to Asset Ratio = \frac{Total liabilities}{Total asset}
\]

2. Dependent Variable (Dependent)
The dependent variable or often called the dependent variable is a variable that is affected or
affected by the independent variable (Sugiyono, 2017). In this research, the dependent variable
used is profitability which is measured through Return On Assets (ROA).

a. Return On Assets (ROA)
Return on assets is defined as a financial ratio that measures the extent to which a company can
generate net profits from the assets it owns. This ratio shows how much the company’s ability
to generate profits available to ordinary shareholders with all the assets it owns. The higher the
ROA, the more efficient the company is in using its assets to generate profits. ROA is
calculated using the formula:

\[
ROA = \frac{Net \ After \ Tax}{Total \ asset}
\]

<table>
<thead>
<tr>
<th>Variable</th>
<th>Variable Concept</th>
<th>Indicator</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAR (X1)</td>
<td>The ratio is to see how capable the debt-financed assets of a company are</td>
<td>( DAR = \frac{Total \ Liabilities}{Total \ asset} )</td>
<td>Rasio</td>
</tr>
<tr>
<td>DER (X2)</td>
<td>Ratio to measure the availability of creditor funds to borrow from company owners</td>
<td>( DER = \frac{Total \ Liabilities}{Total \ ekuitas} )</td>
<td>Rasio</td>
</tr>
<tr>
<td>ROA (Y)</td>
<td>This ratio shows how much the company’s ability to generate profits available to ordinary shareholders with all the assets it owns</td>
<td>( ROA = \frac{Net \ After \ Tax}{Total \ asset} )</td>
<td>Rasio</td>
</tr>
</tbody>
</table>
G. Data analysis method

1. Descriptive Statistical Analysis
   Descriptive statistical analysis is data analysis that uses real research data without drawing conclusions that apply to the general public. Descriptive statistical testing will describe the maximum, minimum, mean and standard deviation values for each research variable (Sugiyono, 2017).

2. Classic Assumption Test
   The classical assumption test is needed to evaluate whether there is a violation of the basic assumptions underlying the use of multiple regression equations. This involves a series of tests, including normality tests, heteroscedasticity tests, multicollinearity tests, and autocorrelation tests which aim to find out whether these assumptions are met or not.
   a. Normality test
      The normality test is a test carried out with the aim of assessing the distribution of data in a group of data or variables, whether the data distribution is normally distributed or not. This normality test aims to check whether in the regression method the disturbing or residual variables are normally distributed (Ghozali, 2018). To test the normality of the data in this study, the one-sample Kolmogorov-Smirnov test was used. The basis for decision making to detect normality of data can be based on the following probabilities:
      1). If the significant value or probability is greater than 0.05 then the distribution of the regression model is declared normal.
      2). If the significant value or probability is smaller than 0.05 then the distribution of the regression model is declared not normal.
   b. Multicollinearity Test
      The multicollinearity test is used to determine whether or not there is a relationship or influence between independent variables in the regression model (Ghozali, 2018). The tolerance value and variance inflation factor (VIF) value can be used to determine whether there is or whether there is multicollinearity in the regression model. The decision criteria for the multicollinearity test are as follows:
      1). If the correlation coefficient of each independent variable or independent variable is greater than 0.10, it is stated that multicollinearity has occurred.
      2). If the correlation coefficient of each independent variable is less than 0.10 then it is stated that multicollinearity does not occur.
   c. Heteroscedasticity Test
      According to (Ghozali, 2018), heteroscedasticity is a regression model testing tool used to determine the inequality of residual variance from one observation to another. If the variants are different then it is said to be heteroscedastic, if the variants are the same then it is said to be homoscedastic.
      Scatterplot or predicted value of the dependent variable (Y) called SRESID with residual error ZPRED can be used to determine whether or not there is heteroscedasticity in the multiple linear regression model. There is no heteroscedasticity if there is no particular pattern and it does not propagate above or below zero on the y-axis.

3. Multiple linear regression analysis
   This research uses multiple linear regression analysis. This is because the secondary data used is quantitative and contains more than one independent variable. The following multiple linear
regression equation can be used to determine how much influence the independent variable has on the dependent variable:

$$Y = a + b_1 x_1 + b_2 x_2 + \varepsilon$$

Information:
- $Y$ = Profitability
- $a$ = Constant
- $x_1$ = Debt to Asset Ratio
- $x_2$ = Debt to Equity Ratio
- $b$ = Regression coefficient
- $\varepsilon$ = Error term (residual)

4. Hypothesis Testing
To find out and determine the effect of the independent variable coefficient on the dependent variable, there are several tests in this research, namely:

a. T test
The t test is used to assess the significance of each coefficient, allowing an assessment of how significant the partial influence of DAR and DER is on ROA. In other words, the t test helps in determining how much impact each independent variable individually has on the dependent variable. The statistical t test criteria are as follows:
1. If $t$ count $>$ $t$ table $H_0$ is rejected and $H_a$ is accepted. This means that there is no influence between the independent variable and the dependent variable.
2. If $t$ count $<$ $t$ table $H_0$ is accepted and $H_a$ is rejected. This means that there is an influence between the independent variable and the dependent variable.

Formula:

$$t = \frac{\sqrt{n - 2}}{1 - r^2}$$

Information:
- $t$ = t test
- $r$ = Pearson correlation coefficient
- $r^2$ = Coefficient of determination
- $n$ = Number of samples

b. F test (model test)
The F test is used to assess whether the model that has been created reflects the conditions that exist in the research location, or whether the model can be applied more generally. Assessment of the results of research hypothesis testing is based on the following decision-making criteria:
1. If the $F$-count is less than the $F$-table and the significance value ($sig$) is greater than 0.05 then the null hypothesis ($H_0$) is accepted, meaning the model does not describe the facts.
2. If the $F$-count is greater than the $T$-table value and the significance value ($sg$) is less than 0.05 then the null hypothesis ($H_0$) is rejected, meaning the model describes the facts.

b. Determination Test ($R^2$)
The determination test is used to measure the extent to which the model created reflects the reality at the research site. Calculations are carried out using the coefficient of determination.
formula \((R^2 \times 100\%)\) with the condition \(0 \leq R^2 \leq 1\). The coefficient value ranges from 0-1, where the value reflects how well the model is able to explain the observed phenomenon, where the closer the value to 1 indicates that the model is better at describing existing facts.

RESULTS AND DISCUSSION

Based on the results of the research that has been carried out and described, there is some information that can be explained from the results of this research, namely as follows:

1. **Effect of Debt to Asset Ratio on Return on Assets**

   Based on the results of the t test, it shows that the debt to asset ratio (DAR) variable has a regression coefficient B of 0.359 with a value of Sig. equal to 0.000 which is smaller than \(a = 0.05\), namely 0.000 < 0.05. These results indicate that DAR has a positive and significant effect on profitability (ROA) in financial services industry companies for the 2020-2022 period. This shows that if DAR increases, ROA also increases. The high DAR value is due to the large total debt and large amount of assets supported by the company's good performance in utilizing cash to generate large profits. The results of this research are in accordance with the trade-off theory expressed by Myers, which states that increasing the use of debt can increase profitability. Financial managers are reminded to apply debt only to the extent where the tax savings resulting from tax deductible loan interest are greater than or equal to the cost of financial hardship. Optimal capital structure can be achieved by using the most accurate debt to asset ratio for the company.

   This is in line with research conducted by (Puspitasari, 2021) which found that DAR has a positive and significant effect on ROA. The results of this research are also supported by (Puji Astutik & Novita Angraeny, 2020) that it has a positive and significant effect on ROA.

2. **Effect of Debt to Equity Ratio on Return On Assets**

   Based on the results of the t test, it shows that the Debt to equity Ratio (DER) variable has a B regression coefficient value of -0.574 with a significant value of 0.000 which is smaller than 0.05 and a calculated t value of -12.972 which is smaller than the t table of 1.991. This proves that the Debt to Equity Ratio has a negative and significant effect on Return On Assets in financial services industry companies listed on the Indonesia Stock Exchange for the 2020-2022 period.

   This can be seen in the B regression coefficient for the DER variable, where a negative number (-) in the B coefficient indicates that there is an opposite movement between the Debt to Equity Ratio variable and Return On Assets, where when DER increases, ROA decreases, and vice versa if DER decreases, then ROA will increase. This explanation is in accordance with the theory of Brigham and Houston (2009), the higher the DER, the greater the company's burden on external parties, this will reduce the company's performance due to the level of dependence. with outside parties is getting higher. The high DER value is caused by the company being unable to pay debt, so it has a negative effect on ROA, meaning that a large amount of debt produces little profit so that ROA decreases. The cause of the decline in profits is due to the company's lack of ability to utilize capital and poor company performance.

   The results of this research are in line and in accordance with the research studied by (Cherril et al., 2019) which found that the Debt to Equity Ratio (DER) had a negative and significant
effect on Return On Assets (ROA). The results of this research are also supported by (Puspitasari, 2021) who found that DER has a negative and significant effect on ROA.

**CONCLUSION**

Based on the results of the research and discussion in the previous chapter, it can be concluded as follows:

1. The Debt to Asset Ratio (DAR) variable has a positive and significant effect on Return On Assets (ROA) in financial services industry companies listed on the Indonesia Stock Exchange for the 2020-2022 period, this is shown by the significance value (0.000 < 0.05).
2. The Debt to Equity Ratio (DER) variable has a negative and significant effect on Return On Assets (ROA) in financial services industry companies listed on the Indonesia Stock Exchange for the 2020-2022 period, this is shown by the significance value (0.000 < 0.05).

**REFERENCES**


