The Effect of Company Size and Debt Ratio on Financial Performance of Bank Sub-Sector Companies Listed on The Indonesia Stock Exchange (IDX) in 2020–2023

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ABSTRACT

The main goal of this research is to gather empirical data on how the size and debt levels of companies affect their financial performance in the banking sector of the Indonesia Stock Exchange (IDX) from 2020 to 2023. Regression analysis with a quantitative approach was used as the research method, focusing on company financial statement data. The research sample was deliberately chosen using purposive sampling. 36 banking sub-sector companies that fit the research criteria were selected as the samples for this study. The results suggest that the size of a company has a notable impact on its financial performance, as shown by a t-value of 2.425 exceeding 1.987 and a significance value of 0.017 below 0.05. This indicates that the t-value exceeds the threshold set by the t-table and the significance value is below 0.05. Therefore, hypothesis (H_1) is confirmed, while H_0 is invalidated. In contrast, the level of debt a company holds does not significantly influence financial performance, as evidenced by a t-value of $-1.410 < 1.987$ and a significance value of $0.162 > 0.05$. This means that hypothesis (H_2) is not supported. However, it is noted that both the size of the firm and the debt ratio do have a significant impact on financial performance, with an F-value of 3.612 surpassing 3.103 and a significance value of 0.031 falling below 0.05, leading to the acceptance of hypothesis (H_3). This study proves that the size of a company has a key influence on its financial performance, while the debt ratio alone does not have a noticeable effect. Nevertheless, when tested simultaneously, Firm Size and Debt Ratio jointly have a significant influence on Financial Performance.

Keywords: Firm Size, Debt Ratio, Financial Performance, Banking Sub-sector Companies, Indonesia Stock Exchange

1. INTRODUCTION

The ongoing economic growth in Indonesia has made the banking sector a crucial element in supporting the economy. Banks not only function as providers of capital but also drive the economy through various financial services such as investment financing, consumer credit, and financial transactions. The trust of the public, the stability of the banking sector, and the overall economy of the country are all affected by the performance of banks, making it a crucial issue. One of the factors affecting bank performance is firm size, which reflects the scale of business, assets, as well as the ability to manage risks and operational efficiency. Additionally, the proportion of debt in relation to equity and external funds has an impact on profitability and financial risk.

This research aims to investigate the impact of varying company sizes on the financial success of banking companies listed on the Indonesia Stock Exchange (IDX) between 2020 and 2023; the effect of debt ratio on the financial performance of those firms during the same period; and whether a simultaneous effect of firm size and debt ratio exists on the financial performance of banking sub-sector companies listed on the IDX over the 2020–2023 period.

The purpose of this study is to examine how the size of a company affects the financial performance of banking companies in the sub-sector that are listed on the Indonesia Stock Exchange (IDX) from 2020 to 2023.

Additionally, it aims to analyze how the debt ratio influences the financial performance of these companies during the same period. Furthermore, it seeks to explore the combined influence of both firm size and debt ratio on the financial performance of banking sub-sector companies listed on the Indonesia Stock Exchange (IDX) from 2020 to 2023.

2. LITERATURE REVIEW

Financial statements are one of the branches in the accounting discipline that plays a role in compiling, analyzing, and presenting the financial information of an entity. By undergoing this procedure, the company's financial statements are able to generate a deliverable that outlines its financial health and achievements during a specific timeframe (Nirwana & Ardeski, 2022).

Financial reporting is a type of communication that discloses details regarding a company's financial status and results for a specific time frame. This document contains data that reflects the financial position, cash flow, and operational results that serve as a foundation for decision-making among different entities, including management, investors, and creditors (Ramandhika, 2019).

Financial performance pertains to the outcomes attained by a corporation's leadership in efficiently overseeing assets, resources, and various financial components during a specific timeframe, reflecting how well the company has achieved its set objectives (Donny et al., 2023). Assessing financial performance involves examining how well a company is following financial rules and regulations (Esislahyenti et al., 2023).

A company's success in managing resources to achieve long-term goals is referred to as financial performance. In addition to profit, this performance includes asset, liability, and equity management. According to the Indonesian Institute of Accountants (IAI), a company's financial success depends on how well it handles its resources. Besides being an indicator of success, financial performance helps identify potential issues that may threaten the company's sustainability. Therefore, good financial management is needed to prevent fund imbalances that could lead to bankruptcy (Loho et al., 2021).

Additionally, a company's performance reflects its business condition over time. A method to evaluate the financial performance of a company involves examining its Return on Assets (ROA), which measures the effectiveness of the company in generating profits from its assets. Return on Assets is a metric used to evaluate how efficiently a company is able to make profits. Shareholders pay close attention to this figure as it directly impacts the overall performance of the company (Monika & Hartono, 2023)

Company size is determined based on various indicators, one of which is total assets. Companies with large assets are classified as large companies with better capacity to manage debt, while companies with smaller assets tend to have limitations in obtaining external resources. Therefore, company size affects debt management strategies and financial stability (Mursalini et al., 2022)

One alternative theory suggests that the size of a company can be determined by looking at the average total net sales over a period of one year or multiple years. Measuring this can help in understanding the company's scale, and this can also be evaluated by looking at the overall assets or total revenue of the company (Sigalingging et al., 2016). There are three classifications of company size:

a. Big corporations possess net assets surpassing IDR 10 billion, such as land and buildings, and generate annual revenue exceeding IDR 50 billion.

b. Medium-sized enterprises have net assets ranging from IDR 1 billion to IDR 10 billion, which includes land and buildings, and annual revenue between IDR 1 billion and just under IDR 50 billion.

c. Small businesses have net assets that do not exceed IDR 200 million, not including land and buildings, and generate a minimum annual revenue of IDR 1 billion (Purwanti, 2021).

The debt ratio is a crucial metric that assesses the portion of a company's assets that are funded by borrowing money. This proportion offers important information about how the company's financial setup is and how reliant it is on debt to fund its assets (Muhammad & Roza, 2019).

The ratio of debt indicates the level to which a company relies on borrowed funds to support its projects. Investors can use it to assess the extent of financial risk linked to the company by gaining knowledge of the

relationship between debt and assets. A high debt ratio indicates significant dependence on debt, increasing liquidity risk, while a low ratio indicates a more stable and safer use of equity (Mursalini et al., 2024).

Good debt management is crucial because high debt usage can reduce the profits distributed to investors, as some of the profit is used to repay debt. Debt-related decisions directly influence the company's value fluctuations, so a balanced debt ratio is needed to protect investors' interests and well-being (Puspitaningrum & Hanah, 2024). Below is the framework of thinking used in this study.
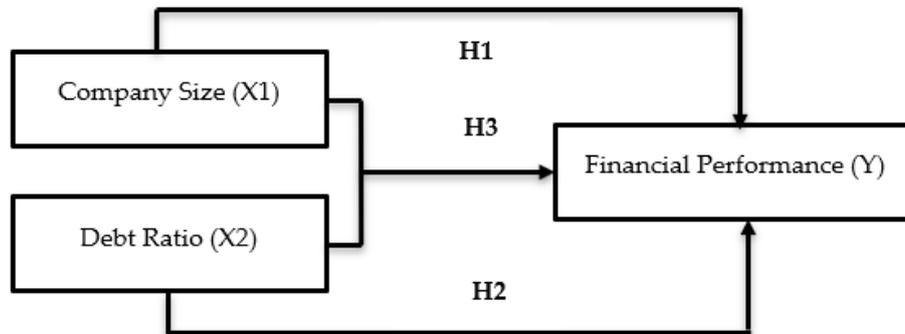

Figure 1. Framework of Thinking

This study presents the following hypothesis:

H1: Company size affects the financial performance of banking sub-sector companies on the IDX (2020–2023).

H2: Debt ratio affects the financial performance of banking sub-sector companies on the IDX (2020–2023).

H3: Company size and debt ratio jointly affect the financial performance of banking sub-sector companies on the IDX (2020–2023).

3. RESEARCH METHODS

This study examines the annual financial statements of banking sub-sector companies listed on the Indonesia Stock Exchange (IDX) from 2020 to 2023. Data were collected online via https://lembarsaham.com/daftar-emiten/klasifikasiindustri-idx and analyzed using a quantitative approach.

The information utilized in this research is derived from secondary sources, specifically gathered by analyzing the yearly financial records of banking companies listed on the IDX from 2020 to 2023, which were accessed via the official IDX website: www.idx.co.id. The method employed for gathering data in this research is through documentation, which includes the retrieval and examination of publicly available annual financial reports of banking companies for the years 2020 to 2023. Data collection was carried out by recording the required data based on the variables studied.

The population refers to the entire group or individuals possessing specific characteristics that are the focus of the research. This research focuses on 40 banking subsector companies that were listed on the IDX between 2020 and 2023.

The example is a carefully chosen portion of the population that accurately represents the entire population. The sampling method utilized is purposeful sampling, where samples are selected based on particular criteria to guarantee suitability for research objectives. The samples for this study were chosen according to the following criteria:

a) The company must be listed on the IDX as part of the banking subsector during the research period (2020–2023).
b) The company must have published and submitted its financial statements to the IDX consecutively from 2020 to 2023 and must have complete data in accordance with the variables studied.

From the 40 banking sub-sector companies listed on the IDX from 2020 to 2023, 36 met the criteria and were selected as the sample, yielding 144 data observations over four years.

4. RESULTS AND DISCUSSION

4.1. Assumption Test

4.1.1. Normality Test

The P_P Plot is utilized in this research to conduct the normality test. If the scatterplot produced from the data points closely aligns with the straight line, the implication is that the regression model conforms to a normal distribution.
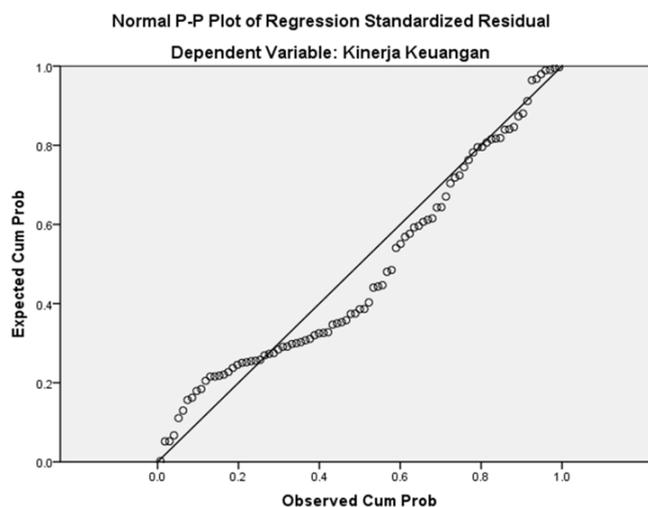

Figure 2. Graph of Normality Test Results
Source: Data Processed Using SPSS Version 19

Referring to the figure 2, the variables Company Size and Debt Ratio appear to exhibit a pattern that aligns with the diagonal line, indicating that these factors have undergone a normality test and merit further investigation in this study. The results are further validated by the one-sample Kolmogorov-Smirnov test for normality, which produced the following outcomes:

Table 1. Kolmogorov-Smirnov Test Results

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		89
Normal parametera[a,b]	Mean	.0000000
	Std.deviation	.00803707
Most extreme differences	Absolute	.132
	Positive	.132
	Negative	-.090
Test statistic		1.243
Asymp. Sig. (2-tailed)		.091
a. Test Distribution is normal		
b. Calculated from data		
c. Lilliefors significance correction		
d. This is a lower bound of the true significance		

Source: Data Processed Using SPSS Version 19

As per the data presented in table 1, the calculated significance level of 0.091 was higher than the usual threshold of 0.05, indicating that the residual values follow a normal distribution and satisfy the requirements for the Normality Test. Before normality testing is carried out, the data has gone through the process of identifying and handling outliers. This step aims to eliminate the influence of extreme values that can disrupt the data distribution and cause the analysis to be invalid.

4.1.2. Multicollinearity Test

The assessment of multicollinearity involves evaluating the Variance Inflation Factor (VIF) for each variable in the model. A variable is considered to be free from multicollinearity if its VIF value is less than 10 and the results of the test do not exceed a value of 10.

Table 2. Multicollinearity Test Results

Coefficients[a]			
Model		**Collinearity Statistics**	
		Tolerance	**VIF**
1	Company Size	.989	1.011
	Debt Ratio	.989	1.011
a. Dependent Variable : Financial Performance			

Source: Data Processed Using SPSS Version 19

According to the data in table 2, the test for multicollinearity indicates that all variables have a tolerance value greater than 0.1 and a VIF value under 10. The Company Size and Debt Ratio variables show a high tolerance value of 0.989 and a VIF value of 1.011. Hence, it can be inferred that there are no issues of multicollinearity present in the regression analysis, making it suitable for research purposes.

4.1.3. Heteroscedasticity Test

A reliable regression model will not exhibit heteroscedasticity, which can be detected by examining the connection between the variables that stand alone and those that depend on them. In cases where the significance level exceeds 0.05, it can be inferred that heteroscedasticity is not present. The process involves creating a visual representation of the relationship between SRESID and ZPRED to detect signs of heteroscedasticity. Below are the findings from the heteroscedasticity assessment conducted in this research:
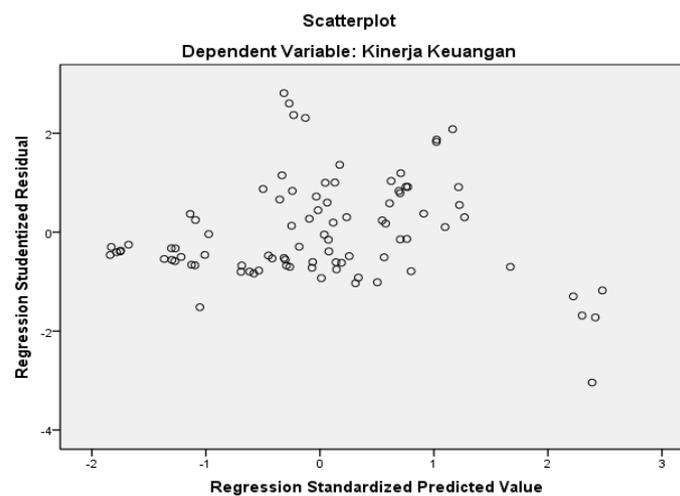

Figure 3. Graph of Heteroscedasticity Test Results

The scatterplot shows a mix of data points scattered in a random and symmetrical way above and below zero on the Y axis, with no distinct grouping or trend. This indicates that there is no variation in the regression model. Thus, the independent variables, namely company size and debt ratio, can be used to predict financial performance.

4.1.4. Autocorrelation Test

The analysis of autocorrelation evaluates the connection between errors that happen in different time periods within a linear regression model. By using the Durbin-Watson (DW) test, autocorrelation can be identified. The results of the autocorrelation examination are detailed in table 3.

Table 3. Durbin Watson Test Results

Model Summary[b]					
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**	**Durbin-Watson**
1	.278[a]	.077	.056	.008130	.634
a. Predictors: (Constant), Debt Ratio, Company Size					
b. Dependent Variable: Financial Performance					

Source: Data Processed Using SPSS Version 19

The Durbin-Watson test results displayed in the table reveal a value of 0.634 falling within the range of -2 to +2, indicating the absence of both positive and negative autocorrelation. This examination indicates that the study shows no evidence of autocorrelation, making the model appropriate for usage.

4.2. Multiple Linear Regression Analysis

The objective of this technique is to forecast the outcome variable's value using the input variables provided. The data in the table below were utilized to calculate the regression equation and correlation coefficient.

Table 4. Multiple Linear Regression Test Results

Coefficients[a]						
Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**T**	**Sig**
		B	**Std. Error**	**Beta**		
1	(Constant)	.004	.015		.298	.767
	Company Size	.001	.000	.253	2.425	.017
	Debt Ratio	.000	.000	-.147	-1.410	.162
a. Dependent Variable: Financial Performance						

Source: Data Processed Using SPSS Version 19

Referring to the information in the table, there is a direct correlation between the size of a company and its financial success, but the amount of debt it holds does not impact its financial performance. The equation for multiple linear regression is provided below.

$$Y = a + b_1X_1 + b_2X_2 + e$$

$$Y = 0.004 + 0.001X_1 + 0.000X_2 + e$$

Explanation:

Y = Financial Performance

a = Constant Value

b_1/b_2 = Regression Coefficients

X_1 = Firm Size

X_2 = Debt Ratio

e = Error term (level of error)

Based on the multiple linear regression equation, the interpretation of the regression coefficients reveals that the constant value (a) of 0.004 implies that when both Firm Size (X_1) and Debt Ratio (X_2) are zero, the Financial Performance (Y) is expected to be 0.004. The regression coefficient for Firm Size (b_1), which is 0.001, indicates a positive relationship; specifically, for every one-unit increase in Firm Size, assuming the Debt Ratio remains unchanged, Financial Performance increases by 0.001. In contrast, the regression coefficient for Debt Ratio (b_2) is 0.000, suggesting that variations in the Debt Ratio have no significant impact on Financial Performance. The value of the coefficient is almost zero, suggesting that a change in the Debt Ratio by one unit will not have a significant impact on Financial Performance.

4.3. Hypothesis Test

4.3.1. Determinant Test (R^2)

The certainty number measures how well a regression model predicts changes in the variable that stands alone. It is represented by a value known as adjusted R^2, ranging from 0 to 1. A decreased adjusted R^2 indicates a stronger relationship between the independent variable (X) and the dependent variable (Y). Refer to the table 5 for further information.

Table 5. Determination Test (R^2) Results

Model Summary[b]				
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
1	.278[a]	.077	.056	.008130
a. Predictors: (Constant), Debt Ratio, Company Size				
b. Dependent Variable: Financial Performance				

Source: Data Processed Using SPSS Version 19

The findings from the analysis performed on the determination test table show a number of important discoveries. With an R value of 0.278, it is apparent that the connection between the Debt Ratio and Company Size with the Financial Performance is weak. This implies that there is only a slight correlation between the factors being studied and the outcome variable in the regression model. Furthermore, the R Square value of 0.077 suggests that only 7.7% of the variations in Financial Performance can be explained by the two variables that were examined, leaving a substantial 92.3% that is impacted by external factors like Capital Structure and Good Corporate Governance (GCG). The adjusted R Square value of 0.056 indicates that as the number of predictors increases, the model's explanatory power slightly decreases. This reduction reinforces the indication that the model may not effectively capture the variation in Financial Performance. Additionally, the standard error of the estimate is found to be 0.008130, indicating a moderate level of predictive accuracy due to its relatively low value. Overall, the regression model demonstrates that Debt Ratio and Company Size have a minimal contribution to explaining the variation in a company's Financial Performance.

4.3.2. T-Test

The objective of hypothesis testing is to establish that the company's size and debt ratio impact the financial performance to some extent. Refer to the table 6 below for further information.

Table 6. T-Test Results

Coefficients[a]						
Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig**
		B	**Std. Error**	**Beta**		
1	(Constant)	.004	.015		.298	.767
	Company Size	.001	.000	.253	2.425	.017
	Debt Ratio	.000	.000	-.147	-1.410	.162
a. Dependent Variable: Financial Performance						

Source: Data Processed Using SPSS Version 19

Referring to the table 6, the subsequent regression model can be elucidated:

1) The t-test results for H1 reveal a t-count of 2.425, surpassing the critical t-value of 1.987 at a significance level of 0.017 (< 0.05). This suggests that Company Size plays a crucial role in influencing Financial Performance, providing support for H1.
2) The t-test findings of H2 demonstrate a t-count of -1.410, which is less than 1.987. Additionally, the significance level is measured to be 0.162, higher than 0.05. This points towards the conclusion that the Debt Ratio does not have a substantial impact on Financial Performance. Consequently, H2 is invalidated.

Hence, it can be inferred that the size of a company greatly influences its financial performance, whereas the level of debt it carries does not have a notable impact on its financial performance.

4.3.3. F-Test

Table 7. Simultaneous Test Results

ANOVA[b]						
Model		**Sum of Squares**	**df**	**Mean Square**	**f**	**Sig.**
1	Regression	.000	2	.000	3.612	.031[a]
	Residual	.006	86	.000		
	Total	.006	88			
a. Predictors: (Constant), Debt Ratio, Company Size						
b. Dependent Variable: Financial Performance						

Source: Data Processed Using SPSS Version 19

According to the data provided in the table 7, the results of the f-test suggest that the f-count value of 3.612 falls below the f-table value of 3.103, indicating a significant difference at a level of 0.031, which surpasses the common threshold of 0.05. The f-count value surpasses f-table, signifying a significance level below 0.05 which shows that company size and debt ratio simultaneously affect financial performance. Thus, the seventh hypothesis (H3) is accepted.

5. CONCLUSIONS

Several inferences can be made from the test results that were carried out. At first, researchers noted that there is a strong correlation between the size of a company and its financial performance in the banking industry from 2020 to 2023. The discovery was supported by a t-value of 2.425, surpassing the critical threshold of 1.987, and having a significance level of 0.017 which was lower than the usual 0.05 threshold. There is a clear relationship between the size of a company and its financial success, indicating that larger companies generally have better financial performance, highlighting the significant impact of Firm Size on Financial Performance. The confirmation of the initial hypothesis (H1) indicates a successful outcome. In contrast, it was discovered that the Debt Ratio (X2) does not greatly influence Financial Performance, as evidenced by a t-value of -1.410 below the critical value of 1.987 and a significance level of 0.162 exceeding 0.05. This implies that changes in the Debt Ratio do not significantly affect the company's financial performance, leading to the rejection of the second hypothesis (H2). Third, The simultaneous consideration of both the size of the company (X1) and its debt ratio (X2) has a notable impact on the financial performance of banking sub-sector companies between 2020 and 2023. Even though the F-value of 3.612 exceeds the critical F-table value of 3.103 and the significance level is 0.031 instead of being below 0.05, the findings still uphold the idea that both variables influence financial performance. Consequently, the third hypothesis (H3) is affirmed, Indicating that both aspects contribute to influencing the fluctuations in financial results.

The recommendations below are derived from the findings and conversation presented earlier. These suggestions are specifically aimed at the leaders of banking institutions, to entice additional investors in the future, it is advisable to enhance and uphold the financial performance of the company. For investors, it is advisable to carefully consider the company's financial performance, including internal and external factors, as it offers a peek into the company's capacity to create extra worth. For future researchers, it is suggested to include additional variables such as Capital Structure and Good Corporate Governance (GCG) to better assess their influence on financial performance and obtain more comprehensive and interesting findings.

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