**The influence of CR, TATO, and DAR on ROA in sharia infrastructure securities companies**

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**Abstract**

This study aims to analyze the influence of financial ratios, specifically the Current Ratio (CR), Total Asset Turnover (TATO), and Debt to Asset Ratio (DAR), on Return on Assets (ROA) in companies, to determine whether different data, time periods, and research objects yield consistent or differing results from prior studies. The primary motivation behind this research is the importance of financial performance evaluation in investment decision-making, where investors rely on financial ratios such as liquidity, activity, solvency, and profitability to assess a company's condition. This study adopts a quantitative research design with a descriptive and verification approach and utilizes multiple regression analysis to test the relationships among variables. The findings indicate that partially, CR does not have a significant effect on ROA, while both TATO and DAR show a significant impact on ROA. Furthermore, the analysis reveals that CR, TATO, and DAR simultaneously influence ROA with a contribution of 77%, suggesting a strong combined effect of the three ratios on profitability. These results support the notion that activity and solvency ratios may serve as more reliable indicators of profitability than liquidity ratios in the context of this research sample. Overall, the study contributes to financial management literature by highlighting the varying influence of financial ratios on profitability across different conditions and can serve as a reference for investors and managers in making informed financial decisions.

**Keywords:** Current Ratio (CR), Total Asset Turnover (TATO), Debt to Asset Ratio (DAR), Return on Asset (ROA)

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1. **Introduction**

Financial performance is a crucial aspect that greatly influences a company's sustainability and growth. Reports on financial performance provide essential insights into potential changes in economic resources and are instrumental for management in controlling and forecasting future conditions. One commonly used approach to measure financial performance is through financial ratios. According to Kasmir (2016), there are four primary categories of financial ratios: liquidity, leverage (solvency), activity, and profitability. This research utilizes four specific financial ratios: the Current Ratio (CR) representing liquidity, the Total Asset Turnover (TATO) representing activity, the Debt to Asset Ratio (DAR) representing leverage, and the Return on Assets (ROA) representing profitability.

According to Fahmi (2018), financial performance is an analysis of the extent to which a company adheres to the principles of sound financial execution. It helps evaluate the level of profitability, liquidity, solvency, and business stability. Hutabarat (2020) also emphasizes that understanding financial performance allows stakeholders to assess a company’s ability to generate profits, meet short-term and long-term obligations, and remain stable in operations.

Financial statements—consisting of the balance sheet, income statement, capital change report, cash flow statement, and notes to financial statements—are vital tools for decision-making. As noted by Kasmir (2019), these statements should be carefully analyzed to present accurate financial information, which serves as a key reference in strategic decisions and investment considerations.

Financial ratios are critical in this analysis. The Current Ratio, as stated by Gitman & Zutter (2010), is a measure of a company’s liquidity, calculated by dividing current assets by current liabilities. A high Current Ratio reflects a stronger ability to cover short-term obligations (Sartono, 2012). The Debt to Asset Ratio (DAR), a leverage measure, indicates how much of a company’s assets are financed through debt. A higher DAR suggests increased financial risk (Kasmir, 2017; Hery, 2016). The Total Asset Turnover (TATO), an activity ratio, shows how effectively a company uses its assets to generate sales (Prastowo, 2014). Lastly, Return on Assets (ROA) measures how efficiently a company utilizes its assets to generate net income (Sutrisno, 2013; Hery, 2016).

The telecommunication industry plays a strategic role in fulfilling social and economic needs, especially during the COVID-19 pandemic in 2020, when communication shifted significantly to digital platforms. In Indonesia, the major telecommunication companies include PT Telkom Indonesia (Persero) Tbk, PT XL Axiata Tbk, and PT Indosat Tbk. These companies compete not only in terms of service quality but also financial performance, particularly to attract investor trust.

This research focuses on the financial performance of these three telecommunication companies, specifically those categorized under sharia securities in the infrastructure sector and registered with the Financial Services Authority for the period 2014–2023. Using the CR, TATO, and DAR as independent variables and ROA as the dependent variable, the study aims to determine whether these financial ratios significantly affect profitability.

Previous research supports the relevance of these variables. Saragih et al. (2015) found a positive influence of the Current Ratio on ROA in companies listed on the Indonesia Stock Exchange. Conversely, Novitta & Juwanda (2023), studying PT Pindad (Persero), found that Total Asset Turnover did not significantly affect ROA. Meanwhile, Anggraeni & Nasution (2022) concluded that DAR partially influenced ROA.

This study differs from prior research by focusing on different data sets, time periods, and company objects within the same industry, thus offering updated insights. The goal is to assess whether variations in financial ratio performance among telecommunications companies significantly impact their profitability, especially in the context of sharia-compliant firms.

Sahir (2021) consider a hypothesis as an initial prediction of how the free variable and the bound variable interact. The hypothesis that the author made in this research is as follows: 1) there is an influence of the Current Ratio on Return on Assets, 2) there is an influence of total asset turnover on return on assets; and, 3) there is an influence of the debt to asset ratio on return on assets in infrastructure sector sharia securities companies registered with the financial services authority for the 2014-2023 Period.

1. **Research Design and Method**

This research uses quantitative analysis with a descriptive and verification approach. (Tukiran, 2016) stated that quantitative research is a type of research method that uses data in the form of numbers.   
According to (Nazir, 2011), the descriptive research method is a method of researching a group of people, objects, set of conditions, thought systems, or classes of current events. The purpose of this descriptive method is to create a systematic, factual, and accurate description, picture, or painting of the facts, properties, and relationships between the phenomena being investigated. Meanwhile, according to (Nazir, 2011), the verifiable method is a research method that aims to determine the quality relationship between variables through hypothesis testing with statistical calculations. This method produces results that show whether the hypothesis is accepted or rejected. The variables tested in this research are Current Ratio, Total Asset Turnover, Debt To Asset Ratio as the independent variable (X) and Return On Assets as the dependent variable (Y). The data used in this research is secondary data, namely the Annual Report from PT Telkom Indonesia (Persero), PT XL Axiata Tbk and PT Indosat Tbk as research objects. The research sample chosen was 10 years from each company, namely the 2014-2023 period. Data were analyzed using descriptive methods such as minimum, maximum and average values, as well as verification methods, namely classical assumption tests (normality test, multicollinearity test, heteroscedasticity test and autocorrelation test). To find out whether there is an influence between the independent variable (X) on the dependent variable (Y), the multiple regression analysis method (partial T test and simultaneous F test) is used, and the coefficient of determination is to find out how big the influence is. The following is a multiple regression equation that can be described in this research:

Y = a + bX1 + bX2 + bX3

Explanation:

Y = Return on Assets

a = constant

b = coefficient

X1 = Current Ratio

X2 = Total Asset Turnover

X3 = Debt to Asset Ratio

1. **Results and Discussion**

***Descriptive Analysis***

Paramita et al., 2021) said that descriptive analysis is a way to describe data by calculating the variables selected according to the researcher's needs. The following are the results of descriptive analysis in this research:

**Table 1. Descriptive Statistics**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | N | Minimum | Maximum | Mean | Std. Deviation |
| X1 | 30 | 33.56 | 135.29 | 62.7837 | 27.65318 |
| X2 | 30 | 33.42 | 64.77 | 48.2640 | 9.97653 |
| X3 | 30 | 38.87 | 83.75 | 63.3373 | 14.23112 |
| Y | 30 | -5.72 | 16.48 | 5.0107 | 6.72322 |
| Valid N (listwise) | 30 |  |  |  |  |

Source: SPSS Version 27 output, data processed by the author (2025)

Based on Table 1, the resulting data distribution can be interpreted as follows. The average value of the Current Ratio (X1) is 62.7837, this shows that the company's ability to fulfill its current obligations is very high. The maximum value of 135.29 and standard deviation of 27.65318 shows that there is very significant variation between samples, with some companies having a very high Current Ratio. The minimum value of the Current Ratio variable is 33.56.

The maximum and minimum values of the Total Asset Turnover (X2) variable are 33.42 and 64.77. The average value of Total Asset Turnover is 48.2640, indicating that the company can generate income from the use of its total assets. The relatively small standard deviation, namely 9.97653, shows that the distribution of Total Asset Turnover values between companies is more concentrated around the average.

The maximum and minimum values of the Debt to Asset Ratio (X3) variable are 38.87 and 83.75. The average value of the Debt to Asset Ratio is 63.3373, indicating that around 63.3373% of the company's assets are financed by debt. The standard deviation value of 14.23112 indicates that there is moderate variation in the proportion of debt to assets between samples.

The average value of Return on Assets is 5.0107, indicating that in general the company has a positive rate of return on its assets, although this value is relatively low. The minimum value of -5.72 indicates that several companies experienced losses, for the maximum value of 16.48. With a standard deviation of 6.72322, it indicates that the distribution of profitability between companies is quite varied.

***Verification Analysis***

To find out how much influence the independent variable (X) has on the dependent variable (Y), verification analysis is used. The following results of the verification analysis can be presented:

Classic Assumption Test

Normality Test

**Table 2. Normality Test Results, One-Sample Kolmogorov-Smirnov Test**

|  |  |  |  |
| --- | --- | --- | --- |
|  | | | **Unstandardized Residual** |
| N | | | 30 |
| Normal Parametersa,b | Mean | | .0000000 |
| Std. Deviation | | 3.22226557 |
| Most Extreme Differences | Absolute | | .138 |
| Positive | | .138 |
| Negative | | -.088 |
| Test Statistic | | | .138 |
| Asymp. Sig. (2-tailed)c | | | .153 |
| Monte Carlo Sig. (2-tailed)d | Sig. | | .170 |
| 95% Confidence Interval | Lower Bound | .096 |
| Upper Bound | .244 |

Source: SPSS Version 27 output, data processed by the author (2025)

Based on Table 2 the Asymp Sig (2-tailed) value is 0.2. Because the Asymp Sig (2-Tailed) value of 0.2 is greater than the significance used, namely 0.05, it can be concluded that the data is normally distributed.

Multicollinearity Test

**Table 3. Multicollinearity Test Results**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Model** | | **Unstandardized Coefficients** | | **Standardized Coefficients** | **t** | **Sig.** | **Collinearity Statistics** | |
| **B** | **Std. Error** | **Beta** | **Tolerance** | **VIF** |
| 1 | (Constant) | 2.770 | 8.757 |  | .316 | .754 |  |  |
| X1 | .045 | .040 | .186 | 1.129 | .269 | .327 | 3.058 |
| X2 | .243 | .100 | .361 | 2.436 | .022 | .403 | 2.482 |
| X3 | -.195 | .078 | -.412 | -2.497 | .019 | .325 | 3.079 |

Source: SPSS Version 27 output, data processed by the author (2025)

Based on Table 3, the variable Current Ratio (X1) has a VIF value (3.058) and Tolerance (0.327), Total Asset Turnover (X2) has a VIF value (2.482) and Tolerance (0.403), Debt to Asset Ratio (X3) has a VIF value (3.079) and Tolerance (0.325). Thus, because the values of these three variables meet the requirements of the multicollinearity test, namely the VIF value must be less than 10 and Tolerance must be more than 0.1, it can be concluded that multicollinearity was not detected in the data.

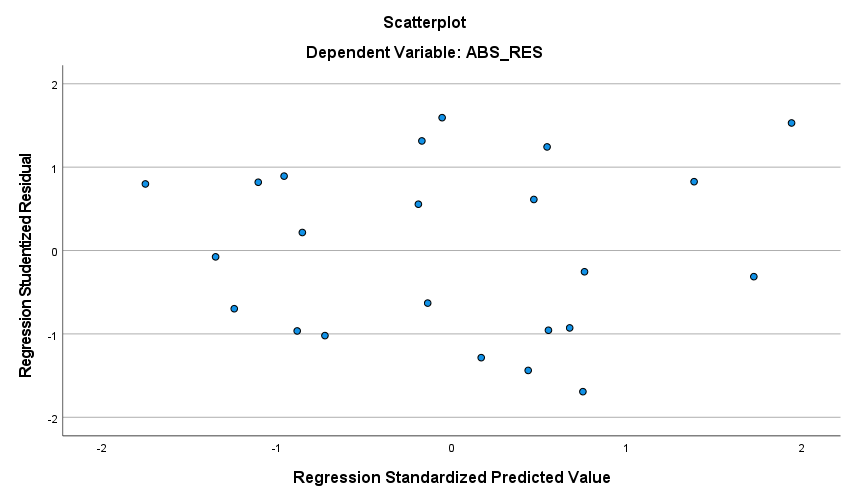
Heteroscedasticity Test

**Table 4. Heteroscedasticity Test Results**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Model** | | **Unstandardized Coefficients** | | **Standardized Coefficients** | **t** | **Sig.** |
| **B** | **Std. Error** | **Beta** |
| 1 | (Constant) | -.241 | 1.034 |  | -.233 | .818 |
| X1 | -.003 | .006 | -.277 | -.577 | .571 |
| X2 | .010 | .012 | .277 | .784 | .443 |
| X3 | .009 | .011 | .334 | .818 | .424 |

Source: SPSS Version 27 output, data processed by the author (2025)

Based on Table 4, the Sig value of the Current Ratio (X1) variable is 0.571, Total Asset Turnover is 0.443 and Debt To Asset Ratio is 0.424. Because the Sig value of the three X variables is greater than the significance value used, namely 0.05, it can be concluded that heteroscedasticity was not detected in the data.



**Figure 1.** **Heteroscedasticity Test Results (Scatterplots)**

Source: SPSS Version 27 output, data processed by the author (2025)

Based on Figure 1, it can be seen that the dots spread out without a pattern, so it can be concluded that heteroscedasticity was not detected in the data.

Autocorrelation Test

Based on Table 5, the calculated Durbin Watson value is 1.837 and the Durbin Watson Table value for the sample is 30 with the independent variable 3 (k=3) having an upper limit (Du) value of 1.6498 and for the 4-Du table it is 2, 3502 so it can be concluded that the calculated Durbin Watson value is greater than the upper limit value of the Durbin Watson table and less than 4 minus the upper limit value of the Durbin Watson table, so it can be concluded that the data was not detected autocorrelation.

**Table 5 Autocorrelation Test Results**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Model** | **R** | **R Square** | **Adjusted R Square** | **Std. Error of the Estimate** | **Durbin-Watson** |
| 1 | .750a | .563 | .510 | 4.78740 | 1.837 |

Source: SPSS Version 27 output, data processed by the author (2025)

Multiple regression analysis

Partial t-test

**Table 6 Partial t-Test Results**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Model** | | **Unstandardized Coefficients** | | **Standardized Coefficients** | **t** | **Sig.** |
| **B** | **Std. Error** | **Beta** |
| 1 | (Constant) | 2.770 | 8.757 |  | .316 | .754 |
| X1 | .045 | .040 | .186 | 1.129 | .269 |
| X2 | .243 | .100 | .361 | 2.436 | .022 |
| X3 | -.195 | .078 | -.412 | -2.497 | .019 |

Source: SPSS Version 27 output, data processed by the author (2025)

Based on Table 6, for each Sig value the Current Ratio variable (X1) is worth 0.269, the Total Asset Turnover variable (X2) is worth 0.022 and the Debt to Asset Ratio (X3) variable is worth 0.019. Because the value of the variable X1 is greater than the significance used, namely 0.05, it can be concluded that the Current Ratio (X1) has no effect on Return on Assets (Y). Meanwhile, the value of the Total Asset Turnover variable (X2) and the Debt to Asset Ratio (X3) variable is smaller than the significance used, namely 0.05, so it can be concluded that the variables X2 (Total Asset Turnover) and X3 (Debt to Asset Ratio) have an effect on Y (Return on Assets).

Simultaneous F-Test

Table 7 Simultaneous F-Test Results

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Model** | | **Sum of Squares** | **df** | **Mean Square** | **F** | **Sig.** |
| 1 | Regression | 1009.742 | 3 | 336.581 | 29.063 | .001b |
| Residual | 301.107 | 26 | 11.581 |  |  |
| Total | 1310.848 | 29 |  |  |  |

Source: SPSS Version 27 output, data processed by the author (2025)

Based on Table 7, the Sig value of Regression is 0.001 is smaller than the significance used, namely 0.05. It can be concluded that variable X (Current Ratio, Total Asset Turnover, and Debt To Asset Ratio) simultaneously influences variable Y (Return On Assets).

Coefficient of Determination

**Table 8 Determination Coefficient Test Results**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Model** | **R** | **R Square** | **Adjusted R Square** | **Std. Error of the Estimate** |
| 1 | .878a | .770 | .744 | 3.40309 |

Source: SPSS Version 27 output, data processed by the author (2025)

Based on the table 8, because the R Square value is 0.770 multiplied by 100, you get a value of 77% so that the influence of the variables Current Ratio (X1), Total Asset Turnover (X2) and Debt to Asset Ratio (DAR) simultaneously on Return on Assets (Y) is 77% while the rest is influenced by other variables outside the analyzed data. The regression equation that can be created based on the results of the analysis above is as follows:

Y = a + bX1 + bX2 + bX3

Y = 2,770 + 0,045X1 + 0,243X2 – 0,195X3

Based on the multiple regression equation above, it can be interpreted as follows. The constant (a) is 2.770, indicating that if the Current Ratio (X1) Total Asset Turnover (X2) and Debt To Asset Ratio (X3) values are 0, then the Return On Asset (Y) value for the three companies (PT Telkom Indonesia (Persero), PT XL Axiata Tbk and PT Indosat Tbk) will have a result of 2.770.

The coefficient (b1) of 0.045 shows a positive result, if the Current Ratio (X1) value increases by one unit of value then the Return On Asset value for the three companies (PT Telkom Indonesia (Persero), PT XL Axiata Tbk and PT Indosat Tbk) will also increase by 0.045.

The coefficient (b2) of 0.243 shows a positive result, if the Total Asset Turnover (X2) value increases by one unit value then the Return On Asset value for the three companies (PT Telkom Indonesia (Persero), PT XL Axiata Tbk and PT Indosat Tbk) will also increase by 0.243.

The coefficient (b3) of 0.195 indicates a negative result, if the Debt To Asset Ratio (X3) value increases by one unit of value then the Return On Asset value for the three companies (PT Telkom Indonesia (Persero), PT XL Axiata Tbk and PT Indosat Tbk) will experience a decrease.

From the coefficient of determination (R Square \* 100) it can be concluded that the influence of the Current Ratio (X1), Total Asset Turnover (X2) and Debt To Asset Ratio (X3) variables on the Return On Asset (Y) variable is 77% while the rest is explained by other variables outside the variables studied.

1. **Conclusions**

Based on the results of research and analysis carried out by the author regarding the Influence of Current Ratio, Total Asset Turnover, and Debt to Asset Ratio on Return on Assets in Sharia Securities Companies in the Infrastructure Sector Registered with the Financial Services Authority for the 2014-2023 period, the following conclusions can be drawn: 1) partially, the Current Ratio (X1) has no effect on Return On Assets (Y); 2) partially, Total Asset Turnover (X2) and Debt To Asset Ratio (X3) influence Y (Return On Assets); 3) simultaneously, Current Ratio, Total Asset Turnover, and Debt To Asset Ratio) influence Return On Assets; and, 4) the magnitude of the influence of the Current Ratio, Total Asset Turnover, and Debt To Asset Ratio on Return On Assets is 77% while the remaining 23% is influenced by other variables not examined in this research.

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