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The Effect of Current Ratio and Debt to Asset Ratio on Tobin's Q with Return on Asset as A Mediation Variable

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ABSTRACT

This study examines the partial effects of the Current Ratio and Debt-to-Asset Ratio on firm value, with Return on Assets (ROA) as a mediating variable, in consumer goods companies listed on the Indonesia Stock Exchange (IDX) from 2021 to 2024. The declining trend of Tobin's Q in this sector suggests the need to evaluate internal financial indicators that may impact firm value. This research aims to determine whether the Current Ratio and Debt to Asset Ratio have significant partial effects on Tobin's Q, and whether ROA serves as a mediating variable in these relationships. A quantitative method was used, involving secondary data from 92 purposively selected companies. The data were analyzed using panel data regression, with fixed and random effect models, as well as t-tests and Sobel tests to evaluate the significance of the mediation. The results show that both the Current Ratio and ROA have a significant partial effect on firm value, while the Debt-to-Asset Ratio does not. In addition, ROA is found to mediate the relationship between the Current Ratio and Tobin's Q. However, this is not the case for the relationship between the Debt-to-Asset Ratio and Tobin's Q. These findings contribute to the understanding of how internal financial ratios relate to firm value, particularly in the consumer goods sector during dynamic economic conditions.

Keywords: Current Ratio, Debt to Asset Ratio, ROA, Tobin's Q.

JEL Code: G31, G32, G33, L6

I. Introduction

The consumer goods sector in Indonesia plays a crucial role in the national economy, primarily because it meets the basic needs of the community, including food, beverages, and daily essentials (Sartika et al., 2024). One part of the manufacturing sector that makes a significant contribution to the national economy is the consumer goods industry. The high demand for products produced by this sector is the primary factor, considering that consumer goods are necessities required in daily activities (Diana & Yudiantoro, 2023). This is also supported by the findings of Simanjuntak et al. (2024), which indicate that the consumer goods sector in Indonesia is highly susceptible to fluctuations in macroeconomic variables, including inflation, exchange rates, and interest rates. These factors not only affect company profits but also create stock price volatility, which can ultimately impact the company's value as reflected in Tobin's Q.



The Tobin's Q graph of consumer goods industry companies from 2021 to 2024 shows a downward trend in company value from year to year. In 2021, Tobin's Q was recorded at 1.96, then decreased to 1.72 in 2022. This decline continued with a value of 1.65 in 2023 and reached 1.61 in 2024. This condition indicates that the company is experiencing a decline in market performance, which affects investor perceptions of the company's value. In fact, Tobin's Q is one of the key indicators of company value and serves as a benchmark for investors in assessing investment prospects. A high Tobin's Q indicates a positive market perception of management performance and the company's potential to generate future profits. Theoretically, the Company's Value (Tobin's Q) does not stand alone, but is influenced by various internal factors that reflect the company's financial performance, such as the Current ratio as a measure of the Company's liquidity), Liquidity measured through the Current Ratio (CR) shows the company's ability to meet its short-term obligations (Indah & Tyas, 2020). This difference suggests that the company's ability to maintain liquidity does not always respond positively to market conditions, necessitating further study, particularly in specific industrial sectors such as Consumer goods.

Likewise, according to Susanti et al. (2022), capital structure refers to the combination of long-term debt and equity used to fund a company's operations. Regarding the capital structure related to the value of the Company, the Debt-to-Asset Ratio (DAR) is a measure of capital structure that reflects the proportion of debt used in financing company assets (Widarti et al., 2021). One of the variables thought to clarify the relationship between the Current ratio, debt-to-assets ratio, and company value (Tobin's Q) is Return on Assets (ROA). ROA serves as an important indicator in measuring the effectiveness of management in utilizing assets to generate profits, as well as acting as a mediating variable that explains how the Current Ratio and Debt-to-Asset Ratio affect company value (Tobin's Q). As one of the primary profitability indicators, ROA is often directly associated with a company's value. According to Ningrum (2022), ROA reflects the level of efficiency of a company's management in generating profits from its total assets. The higher the ROA, the better the company's performance in utilizing assets to create profits, which can ultimately attract investor interest. Therefore, testing the mediating role of ROA in the relationship between Current Ratio, Debt-to-Asset Ratio, and Tobin's Q is important, especially in industrial sectors with specific characteristics, such as the Consumer Goods sector. Based on the background that has been explained, this study aims to analyze "The Effect of Current Ratio and Debt to Asset Ratio on Tobin's Q with Return on Asset as a Mediating Variable in Consumer Goods Companies Listed on the Indonesia Stock Exchange (IDX) for the 2021-2024 Period". This study will investigate how changes in the Current Ratio and Debt-to-Asset Ratio impact Tobin's Q in fluctuating economic conditions. In addition, this study will also investigate whether Return on Asset can act as a mediating variable in the relationship, thereby providing a clearer understanding of the factors that determine company value.

II. Literature Review and Hypothesis Development

2.1. Theoretical Studies

This theoretical study examines the theories selected by researchers in this study, specifically signal theory, Tobin's Q, Return on Assets, Debt-to-Asset Ratio, and Current Ratio. Signal theory can be described as a theory that examines management actions in providing signals or instructions to investors about the company's prospects. When a company exhibits good financial performance, it sends a signal to external parties (Spence, 1973). The relationship between signaling theory and company value is that good company value can be a positive signal, and vice versa; bad company value can be a negative signal. Tobin's Q is a company value benchmark for shareholders (investors) regarding the level of success related to the company's stock price (Sujoko & Soebiantoro, 2007). One of the measures of a company's value is Tobin's Q, a ratio used to assess a company's value. In addition, Tobin's Q is also an indicator that measures a company's effectiveness and efficiency in utilizing its owned assets (Dzahabiyya et al., 2020). In practice, Tobin's Q is difficult to calculate

accurately because estimating the replacement cost of a company's assets is a challenging task (Margaretha, 2014).

Meanwhile, Return on Assets, according to Munawir (2010) in Ningrum (2022), is a ratio that indicates a company's ability to generate profit during a specific period. Profitability can be measured by return on assets (ROA), which is defined as the ratio of profit generated from a company's assets. This return on assets (ROA) is one of the primary attractions for investors, as it reflects the company's effective asset management. Companies with high ROA are in higher demand among investors, which can lead to increased demand for company shares and, consequently, a rise in the company's value. Furthermore, the Debt to Asset Ratio (DAR) which is a financial ratio that measures the amount of company assets funded by external funds or debt, this ratio can be measured by comparing the amount of assets with the amount of debt (Andhani, 2019) and the Current Ratio is also stated by Sarif et al., (2023) which is one of the liquidity ratios used to measure the company's ability to meet short-term obligations or debts that will mature within a period of one year.

2.2. Conceptual Framework

In the conceptual framework, the researcher posits that Return on Assets serves as a mediating variable to test the correlation between the Current Ratio and Tobin's Q, as well as the Debt to Asset Ratio and Tobin's Q. In this study, the conceptual framework is described as follows:

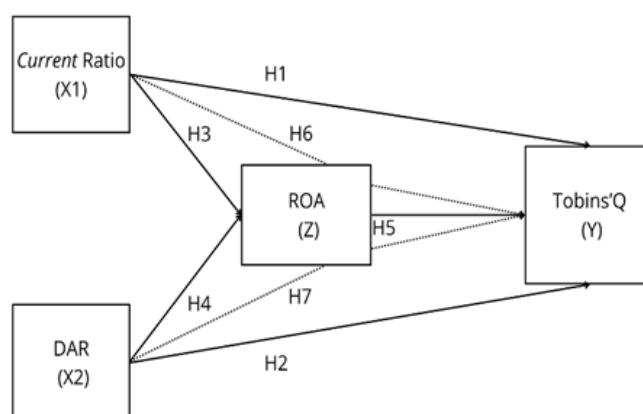


Figure 1. Conceptual Framework

2.3. Research Hypothesis

The hypothesis in this study is: The Effect of the Current Ratio on Tobin's Q. Research conducted by Hutaaruk (2024) also states that the Current ratio has a significant positive effect on Tobin's Q. Iman et al. (2021) in their research also stated that the Current ratio has a significant positive effect on Tobin's Q. Rismaya & Kasir (2024) in their research also found consistent results, namely that the Current ratio has a significant positive effect on Tobin's Q, The Effect of Debt to Asset Ratio on Tobin's Q, and the relationship between Debt to Asset Ratio (DAR) and Tobin's Q can be explained through signaling theory. According to this theory, companies send signals to the market through the financial decisions they make, including their use of debt.

Meanwhile, the Effect of the Current Ratio on Return on Assets, based on previous research by Wulandari et al. (2022), showed results where the Current ratio has a significant positive effect on ROA. Melfia & Mike Kusuma Dewi (2023) also explained the same thing, namely that the Current ratio has a significant positive effect on ROA. The effect of the Debt-to-Asset Ratio (DAR) on Return on Assets, as observed in research conducted by Astutik & Anggraeny (2019) and Luckieta et al. (2021), indicates that DAR has a

significant positive impact on ROA. However, Pangestika et al. (2021) found in their research that DAR has a significant adverse effect on ROA. The Influence of Return on Assets on Tobins, a high Return on Assets (ROA) indicates that the company's financial condition is stable and can control the management of its assets so that efficient and effective potential is realized, so that it can later affect Tobins as the company's value (Anggadini et al., 2022).

The effect of the current ratio on Tobin's Q through ROA is an indicator used to measure a company's ability to meet its short-term obligations that are due soon, utilizing its total current assets. This ratio reflects the adequacy of the company's current assets in meeting its near-term obligations. High cash capacity in the company will have an impact on the company's ability to meet its short-term obligations, which will have a positive impact on Tobins'Q as an indicator of the company's value (Iman et al., 2021) and finally regarding the Effect of DAR on Tobins'Q through ROA DAR has an important role in evaluating the company's ability to meet long-term obligations or its solvency ratio used to assess the company's value, which reflects the combination of the value of tangible assets and intangible assets owned by the Company.

III. Research Method

The type and approach of this study employ quantitative research, as this method focuses on objectivity, measurement, and the generalization of research results. There are 4 (four) research variables studied, namely: two independent variables, namely Current ratio (X_1) and Debt to Asset ratio (X_2), then there is an intervening variable, namely Return on Asset (Z), and also the last one, which is the dependent variable, namely Tobins (Y). The object of this study is Consumer goods companies listed on the Indonesian Stock Exchange for the period 2021-2024. While the population and sample are defined, the population in this study consists of 155 Consumer goods companies listed on the Indonesia Stock Exchange for the period 2021-2024, and the sample comprises 92 Consumer goods companies listed on the Indonesia Stock Exchange for the same period. The type of data used in this study with secondary data that can utilize various sources to obtain secondary data, such as journal articles, government publication sites, books, internal records of a company/organization, and other sources while the data in this study the data taken comes from the financial reports of Consumer goods companies for the period 2021-2024 listed on the Indonesia Stock Exchange (IDX) which can be accessed via www.idx.com, to find out the related variables, namely; Current ratio, Debt to asset ratio, Return on asset, and Tobins' Q. In the sampling technique, the researcher used purposive sampling. The sample determination criteria used in this study included listed consumer goods sector companies (IPOs) that also recorded their financial reports on the Indonesia Stock Exchange (IDX) during the 2021-2024 period, as well as profitable consumer goods sector companies during the same period.

In the data collection technique using documentation techniques because the data used is financial report data from companies that have been listed on the Indonesia Stock Exchange, data analysis used in this study with the Current ratio and Debt to Asset ratio, intervening variables namely Return on Assets, against the dependent variable namely Tobins'Q in Consumer goods Sector companies listed on the Indonesia Stock Exchange in 2021-2024. By using the E-views software tool with a panel data regression analysis model. The data analysis employs quantitative research with a descriptive approach, utilizing panel data regression analysis as the primary analysis tool. The purpose of the panel data regression model is to measure the extent of the relationship between two or more variables and determine the direction of the influence of the independent variable on the dependent variable. The determination of the panel data regression estimation model in this study utilizes the Common Effect model, the Fixed Effect model, the Chow test, the Hausman test, the Lagrange Multiplier test, classical assumption tests (including normality, autocorrelation, and heteroscedasticity tests), and a Multicollinearity test. At the same time, the hypothesis test uses the T-test and the Sobel test.

IV. Results and Discussion

4.1. Overview of the research object

The study focuses on Consumer Goods companies listed on the IDX from 2021 to 2024, a sector sensitive to monetary policy and market volatility. It examines the effect of Current Ratio and Debt-to-Asset Ratio on firm value (Tobin's Q), with Return on Assets as a mediator. Of the 155 firms, 92 that met the criteria were selected as the research sample.

4.2. Overview of research variables

a. Current Ratio

It can be seen that the average Current ratio for the companies in the research sample during the 2021-2024 period is presented in the following figure.

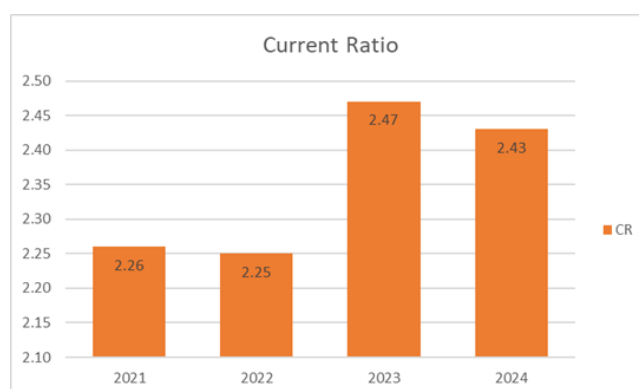


Figure 2. Movement Current Ratio Sample Companies 2021-2024

The graph illustrates the evolution of the Current Ratio in sample companies from 2021 to 2024. In 2021, the CR value was at 2.26 and decreased slightly to 2.25 the following year. However, in 2023, there was a significant spike to 2.47. In 2024, the CR value again decreased slightly to 2.43. Overall, the movement of the Current Ratio shows a trend that tends to fluctuate with a relatively sharp increase in 2023.

b. Debt to Asset Ratio

The average debt-to-asset ratio of companies in the research sample during the 2021-2024 period is presented in the following figure.

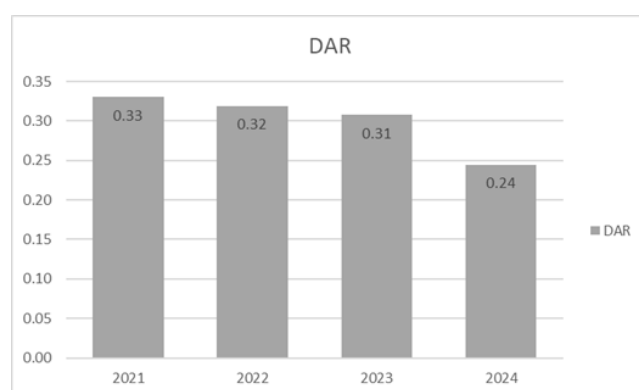


Figure 3. DAR Movement of Sample Companies 2021-2024

The movement of the Debt-to-Asset Ratio from 2021 to 2024 shows a gradual downward trend. In 2021, the DAR was recorded at 0.33, then dropped slightly to 0.32 in 2022. In 2023, the DAR value continued to decline, reaching its lowest figure of 0.31 in 2024, at 0.24.

c. Tobins'Q

The average Tobin's Q for the companies in the research sample during the 2021-2024 period is presented in the following figure.

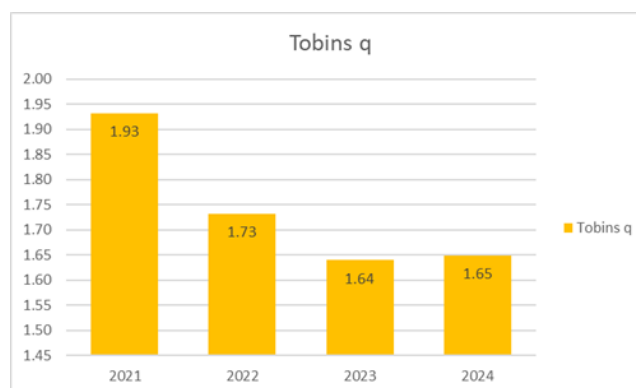


Figure 4. Tobin's Q Movement of Sample Companies 2021-2024

The Tobin's Q chart shows a decline in the company's value from 2021 to 2023. At the beginning of the period, in 2021, Tobin's Q was at 1.93; it then dropped to 1.73 in 2022 and reached its lowest value of 1.64 in 2023. However, in 2024, Tobin's Q increased slightly to 1.65.

d. Return on Asset

The average Return on Assets of the companies in the research sample during the 2021-2024 period is presented in the following figure.

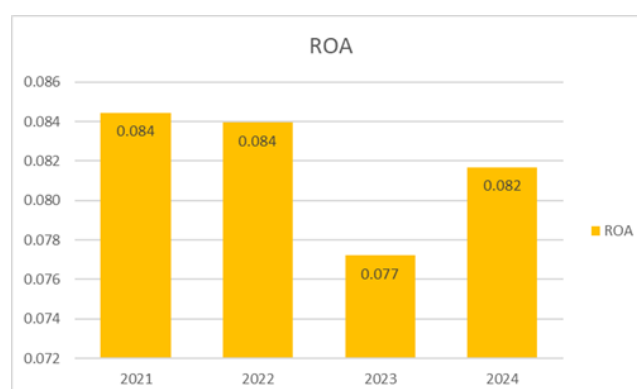


Figure 5. Tobins ' Q Movement of Sample Companies 2021-2024

The graph illustrates the movement of Return on Assets (ROA), which experienced fluctuations from 2021 to 2024. In 2021, the ROA was recorded at 0.084 and remained stable at this figure in 2022. However, in 2023, the ROA decreased to 0.077, reflecting a decline in the efficiency of asset utilization in generating profits. In 2024, the ROA value rose again to 0.082, indicating an improvement in the Company's performance.

4.3. Descriptive Analysis

Descriptive analysis was conducted to provide an overview of the data distribution of each variable in this study. The variables analyzed include the Current Ratio (X₁), Debt-to-Asset Ratio (X₂), Tobin's Q (Y), and Return on Assets (Z). Descriptive statistics include the average value (mean), maximum value, minimum value, median value, and standard deviation for each variable.

Table 1. Descriptive Statistics Results

	X ₁	X ₂	Y	Z
Mean	2.672698	0.292534	1.722698	0.084709
Median	1.900000	0.280000	1.160000	0.070000
Maximum	15.44000	0.960000	10.57000	0.350000
Minimum	0.310000	0.010000	0.230000	0.000200
Std. Dev.	2.179306	0.170574	1.445343	0.066556

The results of the analysis show an average Current Ratio of 2.672698, indicating that, in general, the companies in the sample have a pretty good ability to meet their short-term obligations. Meanwhile, the results of the analysis show an average DAR value of 0.2925, which means that on average, the companies in the sample fund around 29.25% of their assets using debt. The highest (maximum) DAR value is 0.96, indicating the presence of companies with a very high proportion of debt to assets, almost reaching 100%. After that, the average Tobin's Q value of 1.7227 indicates that in general, the companies in the sample have a higher market value compared to their book value, reflecting market optimism about the Company's prospects and the results of the analysis show an average ROA value of 0.0847 or around 8.47%, which indicates the level of the company's ability to generate profits against the total assets owned.

4.4. Panel Data Regression Analysis

a. Regression Model Selection

In panel data regression analysis, three standard models are often used: the common effect, fixed effect, and random effect models. To determine the model in panel data regression analysis, several tests can be performed to identify the most suitable model for the study. The test results are presented as follows:

Table 2. Chow Model 1 Test Results

Effects Test	Statistic	Prob.	Information
Cross-section Chi-square	430.939287	0.0000	Fixed Effect

Based on the results of the Chow Test on Model 1 of this study, the Chi-square Cross-section value was obtained as 430.939287 with a probability value of 0.0000. When compared to the significance level of 0.05, this probability value is smaller than 0.05 (0.0000 < 0.05). This indicates that there are significant differences between individuals or cross-sections in the panel data used. In other words, each company in the study sample has unique characteristics that significantly affect the model. The next step is to conduct a Hausman test to determine whether the Fixed Effect model remains the right choice or whether the Random Effect Model (REM) is more appropriate, depending on whether or not there is a relationship between the individual effects and the independent variables in the model.

Table 3. Hausman Model 1 Test Results

Test Summary	Chi-Sq. Statistic	Prob.	Information
Cross-section random	22.889778	0.0000	Fixed Effect

Based on the results of the Hausman test above, the value obtained for the Chi-Square Cross-section random is 22.889778 with a probability value of 0.0000. When compared to a significance level of 0.05, this probability value is smaller than 0.05 ($0.0000 < 0.05$). These results suggest that the Fixed Effect model is more suitable for use than the Random Effect model. Thus, it can be concluded that there is a significant relationship between individual effects (cross-section) and independent variables in this study. Therefore, the Fixed Effect model is used as the best model for this study, and the Lagrange Multiplier (LM) Test is not necessary because the model has been determined through the Hausman test.

Table 4. Panel Data Regression Results Fixed Effect Model 1

Variable	Coefficient	Prob.	Information
X1	-0.010324	0.0000	Significant
X2	-0.174706	0.0000	Significant

The results of the panel data regression with the Fixed Effects model show that the Current Ratio variable (X1) has a regression coefficient of -0.010324 with a p-value of 0.0000. Meanwhile, the Debt-to-Asset Ratio variable (X2) has a regression coefficient of -0.174706 with a p-value of 0.0000. This negative regression coefficient indicates that the debt-to-asset ratio also hurts ROA. Because the probability value is less than 0.05 ($0.0000 < 0.05$), the effect of the Debt to Asset Ratio on ROA is also stated to be statistically significant. This means that the higher the Debt-to-Asset Ratio, the lower the ROA tends to be, which is likely due to the high debt burden that the company must bear.

Table 5. Results of Chow Model 2 Test

Effects Test	Statistic	Prob.	Information
Cross-section Chi-square	428.095220	0.0000	Fixed Effect

Based on the results of the Chow Test in Model 2, the probability value of the Cross-section Chi-square test is 0.0000. When compared to the significance level of 0.05, this probability value is smaller than 0.05 ($0.0000 < 0.05$). These results indicate significant differences between individuals or cross-sections in the panel data used. After establishing the Fixed Effects model, the next step is to conduct a Hausman test to determine whether this model remains the most appropriate choice or whether the Random Effects Model (REM) is more suitable, depending on the relationship between individual effects and independent variables.

Table 6. Hausman Model 2 Test Results

Test Summary	Chi-Sq. Statistic	Prob.	Information
Cross-section random	4.883754	0.1805	Random Effect

Based on the results of the Hausman test on Model 2, the probability value in the Chi-Square Cross-section random test is 0.1805. When compared to the significance level of 0.05, this probability value is greater than 0.05 ($0.1805 > 0.05$). These results indicate that there is no significant relationship between the individual effect (cross-section) and the independent variable in the model being tested. Therefore, the more appropriate model to use is the Random Effect Model (REM). The selection of this Random Effect model allows the research results to be more general and can be generalized to the entire population.

Table 7. Results of Random Effect Panel Data Regression Model 2

Variable	Coefficient	Prob.	Information
X1	-0.088311	0.0073	Significant
X2	0.294845	0.4849	Not significant
Z	12.07740	0.0000	significant

Based on the table above, the Current Ratio variable (X_1) has a regression coefficient of -0.088311 with a probability value of 0.0073 . This negative regression coefficient indicates that the Current Ratio hurts Tobin's Q. This means that when the Current Ratio increases, Tobin's Q is expected to decrease by 0.088311 , assuming all other variables remain constant.

4.5. Panel Data Regression Analysis

a. Regression Model Selection

In panel data regression analysis, three standard models are often used: the common effect, fixed effect, and random effect models. The test results are presented as follows:

Table 8. Chow Model 1 Test Results

Effects Test	Statistic	Prob.	Information
Cross-section Chi-square	430.939287	0.0000	Fixed Effect

Based on the results of the Chow Test in Model 1 of this study, the obtained value was a Chi-square of 430.939287 with a corresponding probability value of 0.0000 . When compared to the significance level of 0.05 , this probability value is smaller than 0.05 ($0.0000 < 0.05$). Therefore, the Fixed Effect Model (FEM) was chosen as the most appropriate model for this study. The next step is to conduct a Hausman test to determine whether the Fixed Effects model remains the best choice or whether the Random Effects Model (REM) is more appropriate, depending on whether there is a relationship between the individual effects and the independent variables in the model.

Table 9. Hausman Model 1 Test Results

Test Summary	Chi-Sq. Statistic	Prob.	Information
Cross-section random	22.889778	0.0000	Fixed Effect

Based on the results of the Hausman test above, the value obtained for the Chi-Square Cross-section random is 22.889778 with a probability value of 0.0000 . When compared to a significance level of 0.05 , this probability value is smaller than 0.05 ($0.0000 < 0.05$). These results suggest that the Fixed Effect model is more suitable for use than the Random Effect model. Therefore, the Fixed Effect model was used as the best model for this research, and the Uji Lagrange Multiplier (LM) is not necessary because the model has been determined through the Hausman test.

Table 10. Panel Data Regression Results Fixed Effect Model 1

Variable	Coefficient	Prob.	Information
X_1	-0.010324	0.0000	Significant
X_2	-0.174706	0.0000	Significant

Panel data regression results with the model Fixed Effects show that the variable Current Ratio (X_1) has a regression coefficient of -0.010324 with a p-value of 0.0000 . This negative regression coefficient indicates that Current Ratio hurts ROA. Meanwhile, the variable Debt to Asset Ratio (X_2) has a regression coefficient of -0.174706 with a probability value of 0.0000 . The debt-to-asset ratio on ROA is also stated to be statistically significant. This means that the higher the Debt-to-Asset Ratio, the lower the ROA tends to be, which is likely caused by the high debt burden that the company must bear.

Table 11. Chow Model 2 Test Results

Effects Test	Statistic	Prob.	Information
Cross-section Chi-square	428.095220	0.0000	Fixed Effect

Based on the results of the Chow Test on Model 2, the probability value of the Chi-square Cross-section test is 0.0000. When compared to the significance level of 0.05, this probability value is smaller than 0.05 ($0.0000 < 0.05$). These results indicate a significant difference between individuals or cross-sections in the panel data used. The next step is to conduct a Hausman test to determine whether this model remains the most appropriate choice. Random Effect Model (REM) is more appropriate, depending on the relationship between the individual effects and the independent variables.

Table 12. Hausman Model 2 Test Results

Test Summary	Chi-Sq. Statistic	Prob.	Information
Cross-section random	4.883754	0.1805	Random Effect

Based on the results of the Hausman test in Model 2, the probability value in the Chi-Square Cross-section random test is 0.1805. When compared to the significance level of 0.05, this probability value is greater than 0.05 ($0.1805 > 0.05$). These results indicate that there is no significant relationship between the individual effect (cross-section) and the independent variable in the model being tested. The selection of this Random Effect model allows the research results to be more general and can be generalized to the entire population.

Table 13. Results of Panel Data Regression Random Effect Model 2

Variable	Coefficient	Prob.	Information
X1	-0.088311	0.0073	Significant
X2	0.294845	0.4849	Not significant
Z	12.07740	0.0000	significant

Based on the table above, the variable Current Ratio (X1) has a regression coefficient of -0.088311 with a p-value of 0.0073. This negative regression coefficient indicates that the Current Ratio has a negative influence on Tobin's Q. This means that when the Current Ratio increases, Tobin's Q is estimated to decrease by 0.088311, assuming other variables remain constant.

4.6. Classical Assumption Test

a. Multicollinearity Test

This test is conducted to determine whether there is a high correlation between independent variables that can interfere with the regression results.

Table 14. Multicollinearity Test Model 1

	X1	X2	Information
X1	1	-0.4440003218801043	Not affected by Multicollinearity
X2	-0.4440003218801043	1	

Based on the results of the correlation matrix between the independent variables X1 (Current Ratio) and X2 (Debt-to-Asset Ratio) in Model 1, a correlation value of -0.4440 was obtained. This correlation value indicates a weak negative relationship between the two variables. Both variables can be used simultaneously in the regression model without interfering with the estimation results.

Table 15. Multicollinearity Test Model 2

	X1	X2	Z	Information
X1	1	-0.4440003218801043	0.2449084820873018	Not affected by Multicollinearity
X2	-0.4440003218801043	1	-0.3953244140760681	
Z	0.2449084820873018	-0.3953244140760681	1	

Based on the results of the multicollinearity test obtained from the correlation matrix between the independent variables in Model 2, it can be seen that the correlation value between variables X₁ (Current Ratio) and X₂ (Debt-to-Asset Ratio) is -0.4440. In other words, the relationship between independent variables is not strong enough to cause disturbances to the stability and reliability of the regression estimation results.

b. Heteroscedasticity Test

The heteroscedasticity test is used to detect whether there is inequality in error variance from one observation to another.

Table 16. Heteroscedasticity Test Results for Model 1

Variable	Prob.	Information
X ₁	0.0670	Free from Heteroscedasticity
X ₂	0.0566	Free from Heteroscedasticity

Based on the results of the heteroscedasticity test carried out using the regression method on the squared residual value, a probability value (p-value) was obtained for variable X₁. (Current Ratio) of 0.0670 and for variable X₂(Debt to Asset Ratio) of 0.0566. Both probability values are greater than the significance level of 0.05, which means that there is no significant relationship between the independent variables and the residual variance. The absence of heteroscedasticity symptoms also increases the reliability of the regression analysis results used in the study.

Table 17. Results of Heteroscedasticity Test for Model 2

Variable	Prob.	Information
X ₁	0.1382	Free from Heteroscedasticity
X ₂	0.1684	Free from Heteroscedasticity
Z	0.0000	Affected by Heteroscedasticity

Based on the results of the heteroscedasticity test carried out using the regression method using the squared residual value as the dependent variable, a probability value (p-value) was obtained for variable X₁. (Current Ratio) of 0.1382, variable X₂(Debt to Asset Ratio) of 0.1684, and the variable Z (Return on Asset) of 0.0000. The probability values for variables X₁ and X₂ are greater than the significance level of 0.05, which indicates that there is no significant relationship between these variables and the residual variance.

Table 18. Heteroscedasticity Healing Model 2

Variable	Prob.	Information
X ₁	0.1770	Free from Heteroscedasticity
X ₂	0.9790	Free from Heteroscedasticity
LOG(Z)	0.1889	Free from Heteroscedasticity

Based on the results of the heteroscedasticity test after treating the symptoms of heteroscedasticity, a probability value (p-value) was obtained for variable X₁. (Current Ratio) of 0.1770, variable X₂(Debt to Asset Ratio) of 0.9790, and the LOG(Z) variable (Return on Asset) of 0.1889. All probability values are above the 0.05 significance level. This indicates that no independent variables significantly affect the residual variance after logarithmic transformation on the Z variable (ROA).

4.7. Hypothesis Testing

a. Uji T

The t-test is used to determine the extent to which one independent variable influences the dependent variable, assuming that the other independent variables remain constant (Ghozali & Ratmono, 2017).

Table 19. T-Test Results for Model 1

Variable	Coefficient	t-Statistic	Prob.	Information
X1	-0.010324	-4.941515	0.0000	Influential
X2	-0.174706	-7.305196	0.0000	Influential

The variables Current Ratio (X1) have a regression coefficient of -0.010324, a t-statistic value of -4.941515, and a probability value (p-value) of 0.0000. Because the p-value is smaller than the significance level of 0.05 ($0.0000 < 0.05$), the alternative hypothesis (H_a) is accepted. The null hypothesis (H_0) is rejected. The results of the t-test show that the variable Debt to Asset Ratio (X2) has a regression coefficient of -0.174706, a t-statistic value of -7.305196, and a probability value (p-value) of 0.0000. Because the p-value is less than 0.05 ($0.0000 < 0.05$), H_0 is rejected and H_1 is accepted.

Table 20. T-Test Results for Model 2

Variable	Coefficient	t-Statistic	Prob.	Information
X1	-0.088311	-2.696809	0.0073	Influential
X2	0.294845	0.699234	0.4849	No effect
Z	12.07740	12.50268	0.0000	influential

Variables Current Ratio (X1) has a regression coefficient of -0.088311, a t-statistic value of -2.696809, and a probability value (p-value) of 0.0073. In contrast, the variable Debt-to-Asset Ratio (X2) has a regression coefficient of 0.294845, a t-statistic value of 0.699234, and a p-value of 0.4849. Because the p-value is greater than 0.05 ($0.4849 > 0.05$), the null hypothesis is accepted. Variable Return on Assets (Z) has a regression coefficient of 12.07740, a t-statistic value of 12.50268, and a p-value of 0.0000.

b. Sobel test

The Sobel test aims to measure and test the strength of the indirect influence between the independent variable (X) and the dependent variable (Y), which occurs due to the presence of the dependent variable mediation (Z), which acts as a liaison.

Table 21. Sobel Test Results 1

Variable	Coefficient	Std. Error
X1	-0.088311	0.032746
Z	12.07740	0.965985

Based on the results of the Sobel Test, a p-value of 0.00838359 was obtained. The Sobel Test is used to determine whether the ROA (Z) variable significantly mediates the influence of the Current ratio (X1) on Tobin's Q (Y). With a significance level of 0.05, it can be seen that the p-value is smaller than 0.05 ($0.00838359 < 0.05$).

Table 22. Sobel Test Results 2

Variable	Coefficient	Std. Error
X2	0.294845	0.421669
Z	12.07740	0.965985

Based on the results of the Sobel Test, a p-value of 0.4850882 was obtained. This Sobel test is used to determine whether the ROA variable (Z) significantly mediates the effect of DAR (X₂) on Tobin's Q (Y). With a significance level of 0.05, it can be seen that the p-value is greater than 0.05 (0.4850882 > 0.05). The influence in this study is in the form of the effect of the Current ratio on Tobin's Q, which has a statistically significant relationship between the company's liquidity level (CR) and its value, as represented by Tobin's Q. In the context of signal theory, companies with a high Current Ratio tend to give a positive signal to investors that the company has a good ability to meet its short-term obligations.

Then the influence of DAR on Tobin's Q that the Debt to Asset Ratio (DAR) variable does not have a significant effect on the company's value as measured using Tobin's Q regression which is shown to be negative, the relationship is not statistically significant, so empirically it does not support the hypothesis that capital structure through DAR affects Tobin's Q, after that the influence of the Current ratio on ROA Current Ratio affects the level of profitability of companies in the Consumer Goods sector listed on the Indonesia Stock Exchange (IDX) during the 2021-2024 period. The influence of DAR on ROA shows that, partially, the company's capital structure, as reflected in the proportion of debt to total assets, influences the company's ability to generate returns on its assets.

The influence of ROA on Tobin's Q suggests that, to some extent, the company's profitability level significantly contributes to its value. Thus, the higher the ROA achieved by the company, the greater the likelihood that Tobin's Q will also increase. Then, the influence of the Current ratio on Tobin's Q is examined through Return on Asset (ROA), where ROA is found to be statistically able to mediate the influence of the Current Ratio on Tobin's Q in Consumer Goods sector companies for the period 2021-2024. This means that the influence of the Current Ratio on company value is not only direct, but also indirect, as it affects the Company's profitability. The influence of DAR on Tobin's Q through ROA, although DAR and ROA each have their own relationship with Tobin's Q, the indirect relationship through ROA is not strong enough to explain the variation in company value as measured by Tobin's Q in the Consumer Goods sector during the period 2021-2024.

V. Conclusion

Based on the results of the study on the Effect of Current Ratio and Debt to Asset Ratio on Tobin's Q with Return on Asset as a Mediating Variable in Consumer goods sector companies for the period 2021-2024, which was carried out through panel data regression tests, t-tests, and Sobel tests, namely the Current Ratio has a significant partial effect on Tobin's Q, as evidenced by a probability value of 0.0073. This indicates that the Current Ratio has a statistically significant influence on the company's value, as measured by Tobin's Q. The Debt-to-Asset Ratio, however, does not have a significant partial effect on Tobin's Q, with a probability value of 0.4849. This suggests that, within the context of this study, the Debt-to-Asset Ratio does not exhibit a sufficiently strong statistical relationship with Tobin's Q. In contrast, ROA has a significant partial effect on Tobin's Q, with a probability value of 0.0000. This shows that profitability has a statistically significant effect on company value.

The debt-to-asset ratio has a partial and significant effect on ROA, as indicated by a probability value of 0.0000. This result indicates a statistically significant relationship between DAR and company profitability (ROA). ROA mediates the effect of Current Ratio on Tobin's Q significantly, as evidenced by the results of the Sobel test, which produces a probability value of 0.0083. In this study, Return on Asset is proven to be a significant mediating variable in the relationship between Current Ratio and Tobin's Q, and ROA does not mediate the effect of Debt to Asset Ratio on Tobin's Q significantly, because the probability value of the Sobel test of 0.4850 is greater than the significance level used. This indicates that the effect of the Debt-to-Asset Ratio on Tobin's Q is not mediated by Return on Assets in the context of this study.

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