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The Effect of Capital Structure, Business Risk, and Asset Structure on Financial Performance: An Empirical Study of Automotive Companies Listed on the Indonesia Stock Exchange for the 2019–2023 Period

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Abstrack: This study aims to analyze the effect of capital structure (Debt-to-Equity Ratio/DER), business risk (Beta), and asset structure (Current Asset to Total Asset Ratio/CATA) on the financial performance (Return on Assets/ROA) of automotive companies listed on the Indonesia Stock Exchange during the 2019–2023 period. This research employs a quantitative approach utilizing secondary data. The population consists of all automotive companies listed on the Indonesia Stock Exchange from 2019 to 2023, with purposive sampling used to select the sample. The study applies Descriptive Statistical Analysis, Classical Assumption Tests, Multiple Linear Regression Analysis, t-test, F-test, and the Coefficient of Determination (R^2). The results show that Beta and CATA have a positive and significant effect on the ROA of automotive companies in Indonesia, while DER does not have a significant effect. Simultaneously, the three independent variables (DER, Beta, and CATA) have a significant effect on ROA, with an Adjusted R^2 of 86.23%, reflecting the model's ability to explain the variability in financial performance. This study is original as it integrates the analysis of capital structure, business risk, and asset structure to provide a comprehensive assessment of financial performance in the automotive sector, while also updating the analysis period through 2023.

Keyword: Capital Structure, Business Risk, Net Profit, and Asset Structure

INTRODUCTION

The automotive industry is one of the key sectors in Indonesia's economy due to its role as a driver of economic growth, a provider of employment opportunities, and a contributor to exports. In recent years, Indonesia's automotive sector has faced complex dynamics influenced by various domestic and global factors. The COVID-19 pandemic, which has affected the world since 2020, has had a significant impact, leading to a decline in vehicle production and sales, disruptions in supply chains, and pressure on the financial performance of companies.

Firms within this sector are confronted with multifaceted challenges, including the need for efficient financial management to ensure business continuity and competitiveness. Capital structure, business risk, and asset structure are key factors that influence the performance of financing companies. Therefore, this study aims to analyze the effect of capital structure, business risk, and asset structure on the financial performance of automotive financing companies listed on the Indonesia Stock Exchange (IDX) during the 2019–2023 period.

Capital structure, often measured by the Debt to Equity Ratio (DER), reflects the proportion of debt used relative to a company's equity. DER is a crucial indicator as suboptimal debt usage can increase the risk of bankruptcy, while proper leverage can enhance profitability. Business risk, measured through stock beta, indicates a company's stock price sensitivity to market fluctuations. This risk is essential to assess, considering the automotive industry's vulnerability to global economic changes and domestic regulatory shifts. Asset structure, represented by the Current Asset to Total Asset Ratio (CATA), illustrates the extent to which a company relies on current assets to support its operations. Additionally, this study measures financial performance using Return on Assets (ROA), which reflects a company's efficiency in generating profits from its total assets. ROA is selected for its ability to provide a comprehensive overview of a company's operational effectiveness.

Previous studies have extensively explored the relationship between capital structure and financial performance. For instance, Rahmawati (2020) found that DER significantly affects ROA. However, this study did not include business risk as an independent variable. Additionally, Setiawan (2019) demonstrated that asset structure significantly influences capital structure but did not directly link it to financial performance. Thus, this study aims to fill these gaps by integrating capital structure, business risk, and asset structure variables to comprehensively analyze the financial performance of automotive companies. Furthermore, this research updates the analysis period through 2023 to provide an up-to-date overview of financial dynamics in the automotive sector. Accordingly, the findings of this study are expected to offer new contributions to financial management practices within the automotive industry.

METHOD

This study employs a quantitative approach using the explanatory method. This approach is chosen to examine the causal relationship between the independent variables—capital structure, business risk, and asset structure and the dependent variable, namely financial performance. The explanatory method enables the researcher to identify and analyze both the direct and indirect effects of the independent variables on the dependent variable. The data used in this study are secondary data obtained from the financial statements of automotive companies listed on the Indonesia Stock Exchange (IDX) for the period 2019 to 2023.

The population in this study includes all automotive companies listed on the Indonesia Stock Exchange (IDX) during the 2019–2023 period. The automotive sector in this context encompasses companies engaged in car manufacturing, automotive components production, and other supporting industries directly related to the automotive supply chain. To obtain a relevant sample aligned with the research objectives, a purposive sampling method was employed. The sample selection criteria are based on the availability of complete financial statement data throughout the study period and the consistency of financial reporting to ensure the validity and reliability of the data analyzed.

The data analysis techniques used in this study include descriptive analysis to describe the characteristics of the data, classical assumption tests to ensure that the data meet the prerequisites for regression analysis, and multiple linear regression analysis to examine the effect of independent variables on the dependent variable. In addition, t-tests are conducted to assess the significance of the partial effects of each independent variable, while F-tests are used

to evaluate the significance of the simultaneous effects of the independent variables on financial performance. The determination of the coefficient of determination (R^2) is employed to measure the proportion of the dependent variable that can be explained by the independent variables in the regression model used.

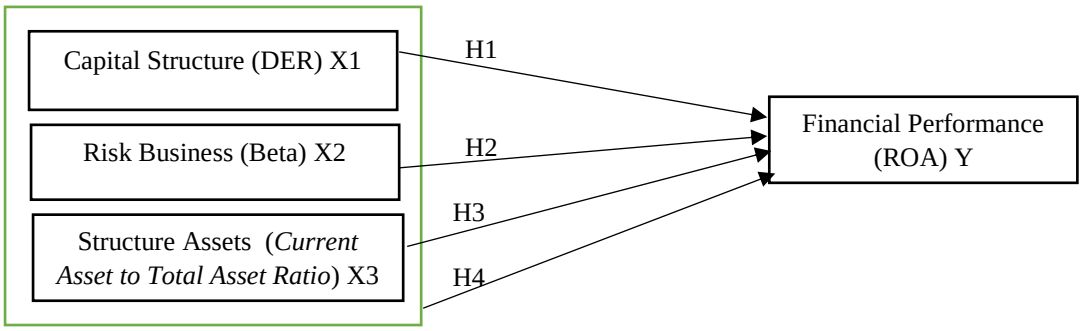

Figure 1 : Theoretical Framework (Source: Research Results)

The theoretical framework of this study is based on the relationship between capital structure, business risk, asset structure, and financial performance. Capital structure, often measured by the Debt to Equity Ratio (DER), reflects the proportion of debt used relative to equity in financing a company's operations, where an optimal capital structure can enhance profitability through leverage, while excessive debt may increase financial distress risk. Business risk, represented by the beta coefficient, indicates the sensitivity of a company's returns to market fluctuations, with higher business risk potentially leading to unstable financial performance due to external factors such as economic conditions, industry trends, and regulatory changes. Asset structure, measured by the Current Asset to Total Asset Ratio (CATA), shows the proportion of current assets in relation to total assets, where a well-managed asset structure ensures liquidity and operational efficiency, positively impacting the company's profitability. Financial performance, as the dependent variable, is assessed using Return on Assets (ROA), which reflects the company's efficiency in generating profits from its total assets. This study assumes that capital structure, business risk, and asset structure influence ROA either partially or simultaneously, with the relationships among these variables tested using multiple linear regression analysis to determine the extent to which capital structure (DER), business risk (Beta), and asset structure (CATA) affect financial performance (ROA) in automotive financing companies listed on the Indonesia Stock Exchange (IDX) during the 2019–2023 period.

Based on Figure 1, the hypothesis of this study is as follows:

H1: Capital Structure (Debt to Equity Ratio - DER) has a positive effect on Finansial Performance (Return on Assets - ROA).
H2: Business Risk (Beta) has a negative effect on Financial Performance (ROA).
H3: Asset Structure (Current Asset to Total Asset Ratio - CATA) has a positive effect on Financial Performance (ROA).
H4: Overall, the variables DER, Beta, and CATA simultaneously have a significant effect on Financial Performance (ROA).

RESULTS AND DISCUSSION

Table 1: Research Sample

No.	Company Code	Company Name
1.	ASII	PT. Astra International Tbk
2.	GDYR	PT. Goodyear Indonesia Tbk
3.	BOLT	PT Garuda Metalindo Tbk

4.	BRAM	PT. Indo Kordsa Tbk
5.	GTJL	PT. Gajah Tunggal Tbk
6.	AUTO	PT.Astra Otoparts Tbk
7.	INDS	PT. Indospring Tbk
8.	SMS	PT. Selamat Sempurna Tbk
9.	IMAS	PT. Indomobil Sukses Internasional Tbk
10.	MASA	PT. Multistrada Arah Sarana Tbk

Source: Processed Data

Table 1 presents the results of the selected company samples. The purposive sampling method was used to collect the selected samples, with the following criteria outlined in Table 1: During the study period (2019–2023), companies must be listed on the Indonesia Stock Exchange (IDX) and publish complete, audited financial statements annually. Throughout the research period, companies must have core business activities related to the manufacturing or distribution of motor vehicles or their components. Furthermore, companies must have relevant, available, and accessible data to analyze variables such as capital structure (Debt to Equity Ratio - DER), business risk (Beta), asset structure (Current Asset to Total Asset Ratio - CATA), and financial performance (Return on Assets - ROA). Companies must not undergo delisting during the research period. Companies that are inactive or delisted from the IDX during the study period will be excluded from the sample.

1. Descriptive Statistical Test

The descriptive statistical test is conducted to identify the characteristics of the data, including the mean, median, maximum, minimum, and standard deviation for the variables DER, Beta, CATA, and ROA. Descriptive statistics provide an overview of the distribution and variation of data among automotive companies during the 2019–2023 period.

Table 2: Descriptive Statistical Test

	Y	X1	X2	X3
Mean	0.052400	0.576600	1.326000	0.434000
Median	0.048000	0.305000	1.300000	0.420000
Maximum	0.206000	3.700000	1.700000	0.720000
Minimum	-0.061000	0.000000	1.050000	0.290000
Std. Dev.	0.060592	0.893680	0.158191	0.097604
Skewness	0.705104	2.324490	0.510235	1.651558
Kurtosis	3.266431	7.270529	2.505344	5.452866
Jarque-Bera	4.290978	83.02172	2.679254	35.26484
Probability	0.117011	0.000000	0.261943	0.000000
Sum	2.620000	28.83000	66.30000	21.70000
Sum Sq. Dev.	0.179896	39.13452	1.226200	0.466800
Observations	50	50	50	50

Source: Processed Data using EViews 12

Table 2 presents the results of the descriptive statistics, showing the mean values of DER at 0.576, Beta at 1.32, CATA at 0.43, and ROA at 0.052 from a total sample of 50. The standard deviations are 0.893 for X1 (DER), 0.158 for X2 (Beta), 0.097 for X3 (CATA), and 0.060 for Y (ROA). In this context, the average (mean) ROA is 0.052 with a standard deviation of 0.060.

2. Model Selection Test Results

a. Chow Test (Common Effect Model vs. Fixed Effect Model)

The Chow Test is used to determine the most appropriate regression model, either the Pooled Least Squares or the Fixed Effect Model (FEM). The steps involved are as follows:

1. Estimate the Pooled Least Squares model.
2. Estimate the Fixed Effect Model.

The decision criteria are based on the p-value:

- **p**-value < 0.05: Select the Fixed Effect Model (FEM).
- p-value > 0.05: Select the Pooled Least Squares Model.

Table 3 : Chow Test (Common Effect Model vs. Fixed Effect Model)

Redundant Fixed Effects Tests
Equation: Untitled
Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	7.668700	(9,37)	0.0000
Cross-section Chi-square	52.634692	9	0.0000

Source: Processed Data using EViews 12

Table 3 shows that the probability value is < 0.05. Based on the Chow Test, the Fixed Effect Model (FEM) is more appropriate to use than the Pooled Least Squares (PLS) model for this research data. This indicates the presence of significant differences in characteristics among companies (cross-section effect), making the FEM more effective in capturing these variations.

b. Hausman Test

The Hausman Test is used to choose between the Fixed Effect Model (FEM) and the Random Effect Model (REM). The procedure involves estimating both the FEM and REM. If the p-value is less than 0.05, the FEM will be selected, whereas if the p-value is greater than 0.05, the REM will be chosen.

Tabel 4: Hausman Test

Correlated Random Effects - Hausman Test
Equation: Untitled
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	11.985429	3	0.0074

Source: Processed Data using EViews 12

Table 4 shows that the probability value is < 0.05, indicating that the Fixed Effect Model (FEM) is selected. Based on both analyses, the selection of the FEM is confirmed and can be used in the classical assumption testing for this study.

3. Classical Assumption Test Results

The classical assumption test is a crucial step in regression analysis to ensure that the model used meets the requirements for producing valid and reliable estimates. This test is conducted to determine whether a model is suitable or unsuitable for use in the study. The classical assumption tests applied in this research are as follows:

a. Normality Test

This test is used to ensure that the distribution of the residual data is normal.

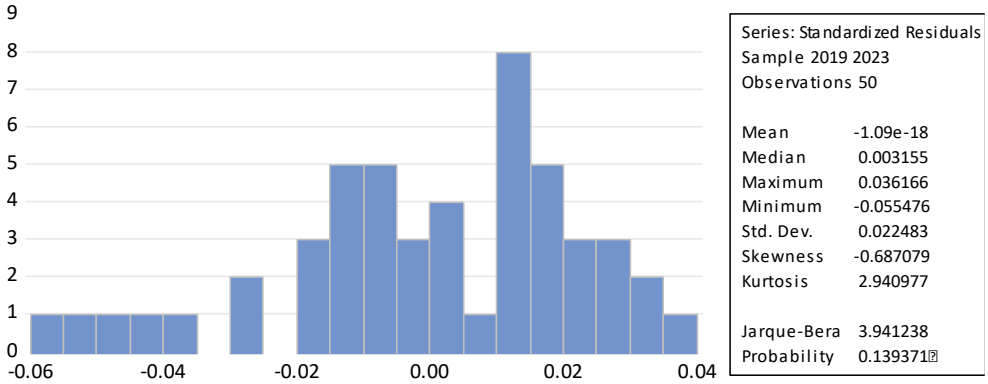

Figure 2: Normality Test

Figure 2 shows that the mean value of the residuals is close to zero (-1.09e-18), indicating that the regression model is unbiased. The Jarque-Bera value is 3.94 with a probability of 0.139 (greater than 0.05), which means that the residuals are normally distributed, or in other words, the residual distribution meets the normality assumption.

b. Multicollinearity Test

This test is conducted to ensure the absence of strong linear relationships among the independent variables. The method used involves examining the correlation between variables and the Variance Inflation Factor (VIF). A VIF value of less than 10 indicates no multicollinearity, while a higher VIF value suggests the presence of multicollinearity.

Table 5: Multicollinearity Test

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	0.003967	128.0704	NA
DER_X1	9.67E-05	3.481672	2.443664
BETA_X2	0.002949	169.7403	2.334928
CURRENT_ASSET_...	0.004131	26.36456	1.253636

Source: Processed Data using EViews 12

Table 5 shows that all three independent variables have VIF values of less than 10. A VIF < 10 indicates the absence of multicollinearity.

c. Heteroskedasticity Test

The heteroskedasticity test is used to ensure that the error variance in the regression model is constant (homoskedasticity). If this assumption is violated, the regression estimation results become unreliable as it breaches the basic assumptions of the Ordinary Least Squares (OLS) method. In this study, the heteroskedasticity test was conducted using the Glejser test, where a p-value > 0.05 indicates the absence of heteroskedasticity, while a p-value < 0.05 indicates the presence of heteroskedasticity.

Table 6: Heteroskedasticity Test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.015572	0.041896	0.371680	0.7123
X1	0.029546	0.009864	2.995248	0.0049
X2	0.010131	0.033837	0.299423	0.7663
X3	-0.064701	0.045002	-1.437734	0.1589

Source: Processed Data using EViews 12

Table 6 shows the results indicating a probability value of 0.7123, which means that p > 0.05, indicating the absence of heteroskedasticity.

4. Panel Data Regression Equation

a. Obtained Results:

$$Y = -0,39 - 0,04\ X1 + 0,25\ X2 + 0,31\ X3$$

b. Regression Equation Analysis

1) The obtained constant value is -0.39, which indicates that if the independent variables increase by an average of one unit, the dependent variable will have a value of -0.39.
2) The regression coefficient of variable X1 has a negative value (-) of 0.04, meaning that if variable X1 increases, the dependent variable Y will decrease by 0.04, and vice versa.
3) The regression coefficient of variable X2 has a positive (+) value of 0.25, indicating that variable Y will increase by 0.25 if variable X2 increases, and vice versa.
4) The regression coefficient of variable X3 has a positive (+) value of 0.31, meaning that variable Y will increase by 0.31 if variable X3 increases, and vice versa.

5. Hypothesis Testing

a. t-Test Results

The t-test is used to examine the significance of the influence of each independent variable on the dependent variable. The interpretation is as follows: if the p-value < 0.05, it indicates that the independent variable is significant. Conversely, if the p-value > 0.05, it indicates that the independent variable is not significant.

Tabel 7: t-Test Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.395319	0.103407	-3.822964	0.0005
X1	-0.040407	0.024347	-1.659667	0.1054
X2	0.253553	0.083514	3.036055	0.0044
X3	0.310617	0.111071	2.796552	0.0081

Source: Processed Data using EViews 12

The partial influence of independent variables on the dependent variable is as follows:

1) The t-test result for the DER (X1) variable shows a t-value of -1.65, which is less than the t-table value of 2.010635, and a significance value (p-value) of 0.1054 > 0.05. Therefore, Ha is rejected and H0 is accepted, indicating that the DER variable has no significant effect on ROA.
2) The t-test result for the Beta (X2) variable shows a t-value of 3.036055, which is greater than the t-table value of 2.010635, and a significance value (p-value) of 0.0044 < 0.05. Thus, H0 is rejected and Ha is accepted, meaning that the Beta variable has a significant effect on ROA.
3) The t-test result for the CATA (X3) variable shows a t-value of 2.796552, which is greater than the t-table value of 2.010635, and a significance value (p-value) of 0.0081 < 0.05. Hence, H0 is rejected and Ha is accepted, indicating that the CATA variable has a significant effect on ROA.

Capital structure refers to the mix of permanent funding sources, consisting of both debt (long-term and short-term) and the company's equity. By utilizing debt and equity, the capital structure forms the basis of a company's long-term financing. It comprises a combination of

permanent funding sources, including long-term and short-term debt. Companies with a balanced capital structure between debt and equity tend to have better financial stability and are more capable of attracting investors. Proper management of capital structure can also reduce the risk of bankruptcy and enhance the company's financial flexibility in facing uncertain economic conditions (Saputri et al., 2023). Capital structure is often measured using the Debt to Equity Ratio (DER), which indicates the proportion of debt to equity in financing the company's assets. Rahmawati's (2020) research shows that DER has a significant effect on Return on Assets (ROA) in manufacturing sector companies. Another study by Susanti and Hidayat (2021) emphasizes that an optimal capital structure can improve financial performance through the efficient use of resources. DER is selected in this study because it provides a clear picture of how companies utilize debt in their operations. According to the Modigliani and Miller (1958) Capital Structure Theory, capital structure influences firm value through the optimization of the cost of capital. In this context, DER reflects the company's choices in managing its financing through debt and equity.

Business Risk refers to the uncertainty regarding a company's future returns or profits. The variability of business income or profit impacts the level of foreign capital utilization, as it can be used as collateral to meet debt principal and interest obligations. Business risk is measured using the stock beta, which reflects the sensitivity of a company's stock price to market fluctuations. Pratama (2021) found that stock beta has a significant effect on financial performance, especially in sectors sensitive to market fluctuations, such as the automotive industry. Stock beta is chosen because it is relevant in illustrating external risk factors faced by companies in competitive industries. The Modern Portfolio Theory by Markowitz (1952) explains how systematic risks, such as stock beta, influence corporate investment and financial performance. According to Mochammad and Raden (2024), their research results indicate that business risk and firm size significantly affect capital structure in general, while sales growth does not have a significant impact on capital structure.

Asset Structure reflects the composition of current and fixed assets within a company. Firms utilize current assets to support their operational activities. When a significant portion of capital is invested in current assets, companies tend to prioritize the use of internal funds and external financing as a complementary source. Companies with a higher proportion of current assets are more likely to rely on short-term debt. Therefore, a company's capital structure has a positive correlation with the level of asset structure, specifically the ratio between current assets and fixed assets (Alya et al., 2023). Asset structure is represented by the Current Asset to Total Asset Ratio (CATA), which indicates the proportion of current assets relative to total assets. Setiawan (2019) found that asset structure significantly influences a company's liquidity and operational efficiency. Similarly, Kusuma and Widjaja (2022) support the notion that firms with a high level of current assets possess greater financial flexibility. This ratio is chosen because it reflects the company's ability to support short-term operational activities. The Baumol-Tobin Liquidity Theory (1952) states that asset structure represents corporate decisions in managing liquidity to meet short-term operational and investment needs. According to Alya et al. (2023), their research shows that asset structure does not have a significant effect on capital structure in general; however, firm size significantly influences capital structure. Overall, capital structure is simultaneously influenced by both firm size and asset structure.

Financial Performance is measured using the Return on Assets (ROA), which reflects a company's ability to generate profits from its total assets. Nugroho (2020) found that ROA is the most relevant indicator for evaluating asset management efficiency in automotive companies. Another study by Lestari (2022) demonstrated that ROA has a positive correlation with effective capital structure management and controlled business risk. ROA is chosen because it provides a comprehensive overview of a company's operational efficiency. The

Agency Theory proposed by Jensen and Meckling (1976) suggests that asset management efficiency, as measured by ROA, reflects a company's ability to reduce agency conflicts and enhance shareholder value. According to Octavian et al. (2022) in Amilia et al. (2024), companies with strong financial performance can increase stakeholder trust. Conversely, companies with poor financial performance may experience a decline in stakeholder confidence. A high level of financial and asset control, along with transparent information disclosed in annual reports, fosters greater stakeholder trust. The more stakeholders place their trust in a company, the greater the positive impact on the company's overall performance.

6. Relationship Between Variables

a. Capital Structure and Financial Performance

Capital structure influences financial performance through leverage efficiency. Optimal debt utilization can enhance profitability, while excessive debt may increase the risk of bankruptcy (Rahmawati, 2020). Capital structure has a significant impact on financial performance, as evidenced by numerous recent studies. Putri and Santoso (2021) found that capital structure, measured by the Debt-to-Equity Ratio (DER), significantly affects Return on Assets (ROA) in the manufacturing sector. Effective debt management can improve capital utilization efficiency, thereby supporting profitability. On the other hand, Arifin and Hidayat (2022) demonstrated that an excessively high DER can deteriorate financial performance due to the heavy interest burden. Similarly, Yuliana and Suryadi (2023) showed that in the transportation and logistics sectors, capital structure significantly affects ROA, with leverage efficiency being optimal only within certain debt ratio thresholds. Furthermore, Saputra et al. (2023) in their study on the property and real estate sectors revealed a non-linear relationship between DER and financial performance, where excessive leverage tends to reduce ROA.
Therefore, the first hypothesis is:

H1: Capital structure (DER) has a positive effect on financial performance (ROA).

b. Business Risk and Financial Performance

Business risk reflects the stability of a company's revenue. The higher the stock beta, the greater the risk faced by the company, which can lead to a decline in financial performance (Pratama, 2021). Business risk is one of the key factors influencing a company's financial performance. Prasetyo and Widodo (2021) demonstrated that stock beta has a negative relationship with Return on Assets (ROA) in the energy sector, where higher risk suppresses profitability. This finding is consistent with the research of Gunawan and Lestari (2022), which revealed that companies with high stock beta tend to have lower ROA due to greater market fluctuations. Meanwhile, Setiawan and Handayani (2023) noted that business risk in the automotive sector increased during the COVID-19 pandemic, leading to a decline in financial performance due to market uncertainty. Amalia et al. (2023) also found that companies with effective risk mitigation strategies can reduce the impact of stock beta on ROA, although the sensitivity of stock prices to market conditions remains significant. Therefore, the second hypothesis is:

H2: Business risk (Beta) has a negative effect on financial performance (ROA).

c. Asset Structure and Financial Performance

An asset structure dominated by current assets reflects a company's ability to meet its short-term obligations. Good liquidity supports smooth operations and financial efficiency (Kusuma & Widjaja, 2022). A more liquid asset structure can have a positive impact on financial performance, as highlighted by Wibowo and Rahmawati (2020). Their study in the

manufacturing sector shows that companies with a higher Current Asset to Total Asset (CATA) ratio exhibit better operational efficiency, thereby enhancing Return on Assets (ROA). Similarly, Sari and Nugroho (2021) found that in the banking sector, an asset structure dominated by current assets improves a company's ability to meet short-term obligations, ultimately supporting profitability. This is further supported by Permatasari et al. (2022), who found that a more liquid asset structure reduces liquidity risk in automotive companies, thus enhancing financial efficiency. In addition, Rahman and Kartika (2023) revealed that the dominance of current assets within the asset structure supports operational flexibility in responding to market changes, which positively impacts overall ROA.
Therefore, the third hypothesis is:

H3: Asset structure (Current Asset to Total Asset Ratio) has a positive effect on financial performance (ROA).

7. F-Test Results

The F-test is a statistical method used to assess the significance of the impact of independent variables on the dependent variable, both simultaneously (overall) and in other tests such as variance comparisons between groups. The F-test is employed to evaluate the simultaneous significance of the effect of independent variables on the dependent variable. If the p-value is less than 0.05, the model is considered significant, whereas if the p-value is greater than 0.05, the model is deemed not significant.

Tabel 8: F-Test Results

R-squared	0.862315	Mean dependent var	0.052400
Adjusted R-squared	0.817661	S.D. dependent var	0.060592
S.E. of regression	0.025873	Akaike info criterion	-4.252311
Sum squared resid	0.024769	Schwarz criterion	-3.755185
Log likelihood	119.3078	Hannan-Quinn criter.	-4.063003
F-statistic	19.31082	Durbin-Watson stat	2.723088
Prob(F-statistic)	0.000000		

Source: Processed Data using EViews 12

Table 8 presents the results of the F-test, where the calculated F-value is 19.31082, which is greater than the F-table value of 2.806845, and the significance value (p-value) is 0.00000, which is less than 0.005. Therefore, H_0 is rejected and H_a is accepted, indicating that the variables DER, Beta, and CATA have a significant influence on ROA.

9. Determination of Coefficient Test

Table 9: Determination of Coefficient Test

Effects Specification			
Cross-section fixed (dummy variables)			
R-squared	0.862315	Mean dependent var	0.052400
Adjusted R-squared	0.817661	S.D. dependent var	0.060592
S.E. of regression	0.025873	Akaike info criterion	-4.252311
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F-statistic	19.31082	Durbin-Watson stat	2.723088
Prob(F-statistic)	0.000000		

Source: Processed Data using EViews 12

Table 9 shows the coefficient of determination and the adjusted R-squared value of 0.862315 or 86.23%, indicating that the independent variables, consisting of DER, Beta, and CATA, are able to explain 86.23% of the ROA variable in the Indonesian automotive industry. Other variables not included in this research model contribute 13.77%.

CONCLUSION

The results of the panel regression analysis indicate that the DER variable (X1) does not have a significant effect on the return on assets (ROA) of automotive companies in Indonesia. The Beta variable (X2) has a positive and significant effect on ROA, indicating that business risk contributes to financial performance. The CATA variable (X3) also has a positive and significant effect on ROA, suggesting that an effective asset structure can enhance profitability. Companies should closely monitor business risk (Beta) as this variable significantly influences ROA. Strategies such as portfolio diversification or market risk mitigation should be implemented, and optimizing the Current Asset to Total Asset Ratio (CATA) is crucial for improving operational efficiency, ultimately supporting profitability. Although DER is not significant, debt management should still be considered to maintain the company's sustainability.

This study focuses solely on three independent variables—Debt to Equity Ratio (DER), Beta, and Current Assets to Total Assets (CATA)—thereby excluding other potentially influential factors such as managerial efficiency, technological innovation, and marketing strategies that may also have a significant impact on Return on Assets (ROA). The exclusion of these variables may limit the scope of the analysis, potentially overlooking critical dynamics that contribute to financial performance. Furthermore, the study is confined to the period from 2019 to 2023, which may not fully capture long-term trends or the effects of economic cycles. Expanding the research to include a broader range of variables and extending the time frame could provide more robust, comprehensive insights, offering a deeper understanding of the factors influencing ROA over time.

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