



The Effect of Cash to Current Asset Ratio (CCAR) and Ebitda Interest Coverage Ratio (EICR) on Return on Capital Employed (ROCE) at PT Pertamina (PERSERO) for the 2014-2024 Period

Aisyah Nurintan Riswadi¹, Arif Surahman²

¹² Program Studi Manajemen Fakultas Ekonomi Dan Bisnis Universitas Pamulang Tangerang Selatan

*Corresponding Author e-mail: aisyahriswadi@gmail.com, dosen01176@unpam.ac.id

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Abstract: *This study examines the association of the Cash to Current Assets Ratio (CCAR) and EBITDA Interest Coverage Ratio (EICR) with Return on Capital Employed (ROCE) at PT Pertamina (Persero) during the 2014–2024 period. A quantitative approach with an associative design was employed using secondary data from the company's annual reports. The study covered 11 annual observations selected through saturated sampling. Data were analyzed using multiple linear regression with SPSS, including classical assumption tests, partial t-tests, a simultaneous F-test, and the coefficient of determination. The results indicate that CCAR is not significantly associated with ROCE ($t = -0.430$, $p = 0.677$). In contrast, EICR has a statistically significant negative association with ROCE ($t = -10.485$, $p < 0.001$). Simultaneously, CCAR and EICR are significantly associated with ROCE ($F = 48.860$, $p < 0.001$). The model has an unadjusted (R^2) of 0.924, indicating that the two independent variables account for 92.4% of the observed variation in ROCE within the sample. The adjusted (R^2) is 0.905, accounting for the number of predictors and sample size. These findings indicate that EICR is negatively associated with ROCE, whereas CCAR does not show a statistically significant individual association. Given the observational design and the limited 11-year dataset from a single company, the findings should be interpreted as statistical associations rather than evidence of causation..*

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Introduction

The development of the business world in the era of globalization has created an increasingly competitive environment, requiring companies to strengthen their financial foundations to survive and grow sustainably. Changes in global economic conditions, industrial competition, and fluctuations in

commodity prices in international markets can impact the quality of a company's financial performance from one period to the next. Under these conditions, companies are required not only to generate high profits but also to maintain a balance between profitability, liquidity, and financial stability, as all three are mutually supportive in maintaining the company's financial health. Failure to maintain this balance can undermine the trust of investors, creditors, and all stakeholders in the company (Hermawan & Wilda, 2025). Therefore, sound financial management is a crucial factor in determining a company's ability to create sustainable value and avoid financial risks that could threaten business continuity (Salamah, 2023). One key indicator for assessing the effectiveness of a company's capital utilization is the profitability obtained from the capital used in operational activities. According to (Brigham & Houston, 2019), a company's ability to generate profits from all capital used not only reflects operational success but also illustrates the level of management efficiency in utilizing each unit of capital to support the company's strategic objectives.

These conditions are increasingly relevant for energy sector companies, which have significant capital requirements, are dependent on fluctuations in global oil and commodity prices, and face evolving government regulations. These characteristics make the energy sector a dynamic sector with a high level of risk. This situation was further stressed when the COVID-19 pandemic in 2020 caused a drastic decline in energy demand and put pressure on energy sector companies' revenues. Meanwhile, companies with strong financial conditions were able to survive and improve their performance amidst difficult conditions (Azzahra et al., 2025). In the Indonesian context, state-owned energy companies also have a responsibility to maintain national energy security, so their financial management is not only related to profit achievement but also relates to economic and societal interests. PT Pertamina (Persero), as a state-owned enterprise operating in the energy sector, plays a strategic role in the national economy and carries out business activities spanning various segments, from upstream activities, processing, distribution, gas, petrochemicals, to renewable energy development. Organizational restructuring through the formation of subholdings in 2020 was carried out to improve operational efficiency and performance accountability. With total assets reaching more than IDR 1,400 trillion in 2024, PT Pertamina is required to consistently maintain effective capital management in order to achieve optimal financial performance according to the targets set by the government as a shareholder (Labetubun et al., 2024; Pangestu, 2023).

The research problem is seen from the fluctuations in the effectiveness of PT Pertamina's capital utilization during the period 2014 to 2024. Azra et al.'s (2024) research on PT Pertamina's financial performance before and after fluctuations in fuel prices found that even though the company faced pressure due to changes in fuel prices, PT Pertamina's financial ratios did not show significant differences. However, this condition does not fully describe the development of PT Pertamina's capital utilization effectiveness during the period 2014–2024 because Return On Capital Employed (ROCE) still fluctuates. The company's EBIT was around IDR 40 trillion in 2014 and increased to around IDR 90 trillion in 2022–2023, before declining to around IDR 70 trillion in 2024. At the same time, total assets increased from around IDR 620 trillion in 2014 to more than IDR 1,400 trillion in 2024, while current liabilities also experienced changes from around IDR 160 trillion in 2014 to around IDR 320 trillion in 2022 before declining again in 2024. The difference between the rapid increase in assets and the still fluctuating EBIT indicates that business development has not fully resulted in a proportional increase in profitability, so further assessment of the factors affecting ROCE is needed.

The next issue relates to liquidity, which in this study is measured using the Cash to Current Assets Ratio (CCAR), which is the ratio of cash to total current assets. During the 2014–2024 period, PT Pertamina's cash and cash equivalents increased from approximately IDR 45 trillion in 2014 to over IDR 300 trillion in 2023. Meanwhile, based on an analysis of PT Pertamina's financial performance, the company's current ratio reached its lowest point of 181% in 2021 before increasing to 227% in 2024, indicating healthier liquidity (Ingsyira et al., 2025). However, this increase in cash holdings does not always align with an increase in ROCE. In some periods, the increase in the proportion of cash in current assets coincided with stagnation or a decrease in ROCE, leading to suspicions that some cash has not been utilized productively and has the potential to become idle cash, reducing capital efficiency. This condition also indicates a difference in the findings of previous studies. Purwasih et al., (2025), Diva & Isyanto, (2025), Haristiyadi & Surahman, (2025), Nashrullah & Fadli, (2025), and Eldiani & Lailasarry, (2024) showed that liquidity variables did not have a significant effect on financial



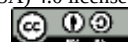
performance, while Sitorus et al., (2025) and Marchelina et al., (2025) found that liquidity had a negative effect on both performance and firm value. This difference shows that the relationship between liquidity and the effectiveness of capital use still does not show a consistent direction. In addition to liquidity, the research problem is also related to PT Pertamina's ability to meet its interest obligations as measured using the EBITDA Interest Coverage Ratio (EICR). PT Pertamina's EBITDA increased from around IDR 52 trillion in 2014 to around IDR 141 trillion in 2023, but during the same period interest expenses also increased from around IDR 6 trillion to more than IDR 20 trillion. A significant increase in interest expense has the potential to reduce the portion of profits that can be used to improve capital efficiency. This phenomenon is relevant to the findings of Sarpta et al. (2024), who stated that a company's ability to cover its interest expenses influences performance, but the direction of the influence is not always positive and is highly dependent on the industry context and research period. Meanwhile, research on energy issuers found that solvency does not significantly impact company value in the energy sector (Samudra & Sianipar, 2026). This difference indicates that the relationship between a company's ability to meet interest obligations and company performance still requires further testing. Previous research also shows differences, as Abotsi et al.,(2025) found that the Interest Coverage Ratio had no effect on Return On Capital Employed, while Abigael et al., (2026) and Fauzan et al., (2025) found that the Interest Coverage Ratio had a positive and significant effect on the company's profitability and Return On Equity.

Based on these phenomena and problems, this study aims to determine and analyze the effect of Cash to Current Assets Ratio (CCAR) on Return On Capital Employed (ROCE), analyze the effect of EBITDA Interest Coverage Ratio (EICR) on Return On Capital Employed (ROCE), and analyze the effect of CCAR and EICR simultaneously on ROCE at PT Pertamina (Persero) for the period 2014–2024. The urgency of this research lies in the importance of understanding factors related to the effectiveness of capital use in large-scale state-owned energy companies that have a strategic role in the economy and national energy security. The novelty of this study lies in testing the combination of Cash to Current Assets Ratio (CCAR) and EBITDA Interest Coverage Ratio (EICR) as predictors of Return On Capital Employed (ROCE) at one large-scale state-owned energy company, namely PT Pertamina, using data for 11 years in the period 2014–2024. The combination of variables and objects is still very rarely studied in the financial management literature in Indonesia, so this research is expected to fill the research gap and provide a meaningful empirical contribution.

Research methods

This study uses a quantitative approach with an associative method. The quantitative approach is used because the study utilizes numerical data obtained from the financial statements of PT Pertamina (Persero) and is then analyzed using statistical methods. According to Sugiyono (2023), the quantitative research method is a research method based on the philosophy of positivism, used to study a specific population or sample, with data collection using quantitative or statistical research instruments and data analysis to test predetermined hypotheses. The associative approach is used because this study aims to determine the relationship and influence between two independent variables, namely the Cash to Current Assets Ratio (CCAR) and the EBITDA Interest Coverage Ratio (EICR), on one dependent variable, namely Return on Capital Employed (ROCE). The research data is in the form of time series data for 11 years, namely the period 2014 to 2024, sourced from the financial statements of PT Pertamina (Persero).

The research instrument used is secondary data sourced from the annual financial reports of PT Pertamina (Persero) for the period 2014 to 2024. The research variables consist of CCAR as the first independent variable, EICR as the second independent variable, and ROCE as the dependent variable. CCAR is calculated by comparing cash and cash equivalents with total current assets, according to the definition of Gokulakrishnan (2025). EICR is calculated by comparing EBITDA with interest expense, as used in Abigael et al. (2026), while ROCE is calculated by comparing EBIT with total assets minus current liabilities, as used by Aishwarya et al. (2020) as an indicator of profitability.



The data analysis technique was carried out quantitatively using the IBM Statistical Package for Social Sciences (SPSS) version 27. The analysis began with descriptive statistics to describe the minimum, maximum, mean, and standard deviation values of CCAR, EICR, and ROCE. Next, classical assumption tests were conducted, including normality tests using the Kolmogorov-Smirnov and Normal Probability Plot (PP Plot), multicollinearity tests using Tolerance and Variance Inflation Factor (VIF) values, autocorrelation tests using the Durbin-Watson test, and heteroscedasticity tests using the Glejser test and Scatterplot. These tests were conducted to ensure that the regression model met the basic assumptions before the regression analysis was conducted (Ghozali, 2021). After that, the analysis continued with multiple linear regression to determine the effect of CCAR and EICR on ROCE, correlation coefficient analysis to determine the level of closeness of the relationship between variables, and coefficient of determination analysis to determine the contribution of the independent variables in explaining the dependent variable.

Hypothesis testing was conducted through partial tests or t-tests and simultaneous tests or F-tests with a significance level of 0.05. The t-test was used to determine the effect of CCAR and EICR on ROCE individually, while the F-test was used to determine the effect of CCAR and EICR on ROCE together. Multiple linear regression analysis used the equation $Y = a + b_1X_1 + b_2X_2 + \epsilon$, with Y as ROCE, X1 as CCAR, and X2 as EICR. Hypothesis testing was conducted based on a comparison of statistical values with table values and significance values at the 0.05 level (Sugiyono, 2023; Ghozali, 2021).

The population in this study is all annual financial reports of PT Pertamina (Persero) for the period 2014 to 2024. According to Sugiyono (2023), a population is a generalization area consisting of objects or subjects that have certain quantities and characteristics that researchers determine to be studied and then conclusions drawn. The research sample was determined using a saturated sampling technique, namely a sampling technique by using all members of the population as samples. Thus, the sample of this study is all financial reports of PT Pertamina (Persero) for the period 2014 to 2024. The use of the entire period allows the study to analyze the development of CCAR, EICR, and ROCE sequentially for 11 years.

The research procedure was conducted in stages and systematically. The first stage was to observe and identify information related to the financial condition of PT Pertamina (Persero). The second stage was carried out by collecting PT Pertamina (Persero)'s annual financial reports for the period 2014 to 2024 as a source of research data. Next, the data was compiled and separated according to the needs of the research variables, namely CCAR, EICR, and ROCE. Financial data presented in United States Dollars were converted into Rupiah using the middle exchange rate, which is the average of Bank Indonesia's selling and buying rates on December 31 of each observation year. The conversion was carried out consistently on all data components used in the ratio calculations.

The next stage is to calculate each variable based on the indicators and formulas that have been determined, then process the data using SPSS version 27. The processed data is analyzed through descriptive statistics and classical assumption tests, then continued with multiple linear regression, correlation coefficient, determination coefficient, and hypothesis testing through t-test and F-test. The final stage is to interpret the results of the analysis to answer the problem formulation, draw conclusions based on the test results, and compile the research results. The research stages in the document include observation, data collection, proposal preparation, proposal revision, data preparation and separation, data processing, data analysis, conclusion drawing, and preparation for the trial.

Results and Discussion

Calculation of Cash to Current Assets Ratio (CCAR)

Table 1. Development of Cash to Current Assets Ratio of PT Pertamina (Persero) for the period 2014-2024

(Expressed in Rupiah)

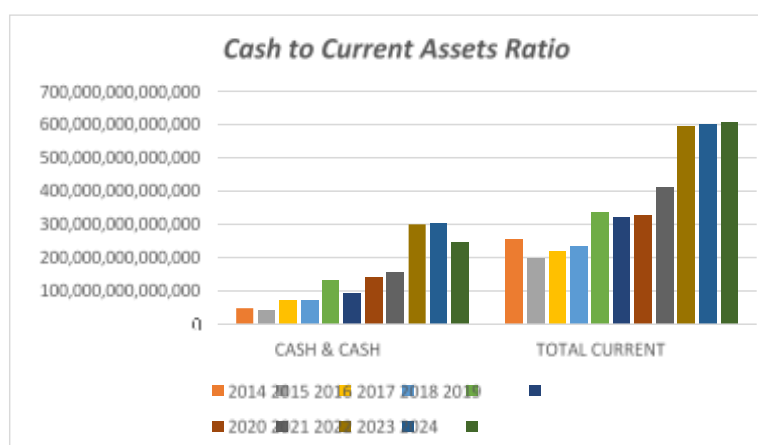
	CASH & CASH EQUIVALENTS	TOTAL CURRENT ASSETS	CCAR
2014	47,618,175,000,000	254,721,937,500,000	18.69
2015	42,932,710,800,000	197,749,294,200,000	21.71
2016	70,727,174,700,000	218,441,275,150,000	32.38



2017	70,816,798,600,000	234,236,221,300,000	30.23
2018	132,128,524,000,000	335,735,958,000,000	39.35
2019	94,047,027,840,000	321,285,097,920,000	29.27
2020	140,907,113,760,000	327,254,477,100,000	43.06
2021	157,213,771,000,000	410,655,316,500,000	38.28
2022	299,964,404,660,000	593,880,556,920,000	50.51
2023	303,480,613,045,000	601,686,947,005,000	50.44
2024	246,725,691,720,000	607,340,323,680,000	40.62
AVERAGE			35.87

Source: Processed data, PT Pertamina (Persero)

Based on Table 1 and Figure 2, PT Pertamina's Cash to Current Assets Ratio (CCAR) value fluctuated for the 2014–2024 period. The lowest value occurred in 2014 at 18.69%, while the highest value occurred in 2022 at 50.51%. The average Cash to Current Assets Ratio (CCAR) value during the study period was 35.87%. The CCAR value increased in 2022, then decreased to 50.44% in 2023 and decreased again to 40.62% in 2024. This condition indicates that the ratio of cash and cash equivalents to the company's total current assets has changed during the study period.



Source: Processed data, PT Pertamina (Persero)

Figure 2. Cash to Current Assets Ratio Development Graph

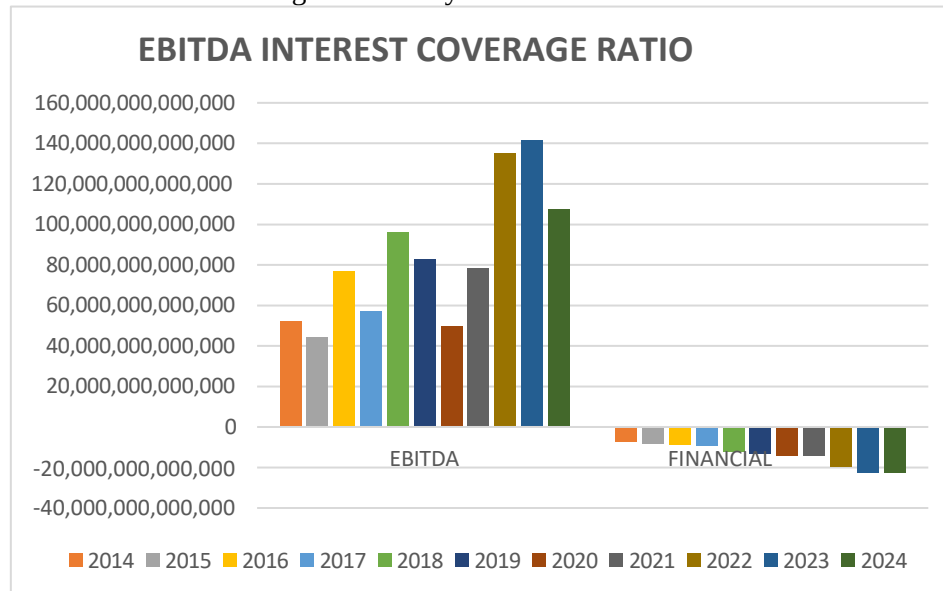
Calculation of EBITDA Interest Coverage Ratio (EICR)

Table 2. Development of EBITDA Interest Coverage Ratio of PT Pertamina (Persero) for the 2014-2024 Period

(Expressed in Rupiah)			
YEAR	EBITDA	FINANCIAL BURDEN	EICR
2014	52,226,162,500,000	-7,332,962,500,000	- 7.12
2015	44,280,004,800,000	-8,338,208,400,000	- 5.31
2016	76,647,165,300,000	-8,574,778,500,000	- 8.94
2017	57,335,158,350,000	-9,079,990,500,000	- 6.31
2018	96,326,733,500,000	-12,110,951,000,000	- 7.95
2019	82,895,284,320,000	-13,436,836,800,000	- 6.17
2020	49,908,353,400,000	-14,015,696,340,000	- 3.56
2021	78,197,578,720,000	-14,242,428,200,000	- 5.49
2022	134,881,348,640,000	-19,454,514,080,000	- 6.93
2023	141,290,946,260,000	-22,640,339,275,000	- 6.24
2024	107,344,073,400,000	-22,381,612,380,000	- 4.80
AVERAGE			- 6.26

Source: Processed data, PT Pertamina (Persero)

Based on Table 2 and Figure 2, PT Pertamina's EBITDA Interest Coverage Ratio (EICR) fluctuated from 2014 to 2024. The lowest value was -8.94 in 2016, while the highest value was -3.56 in 2020. The average EBITDA Interest Coverage Ratio (EICR) during the study period was -6.26. This fluctuation indicates changes in the company's ability to meet financial obligations, influenced by changes in EBITDA and financial obligations each year.



Source: Processed data, PT Pertamina (Persero)

Figure 2. EBITDA Interest Coverage Ratio Development Graph

Return on Capital Employed (ROCE) Calculation

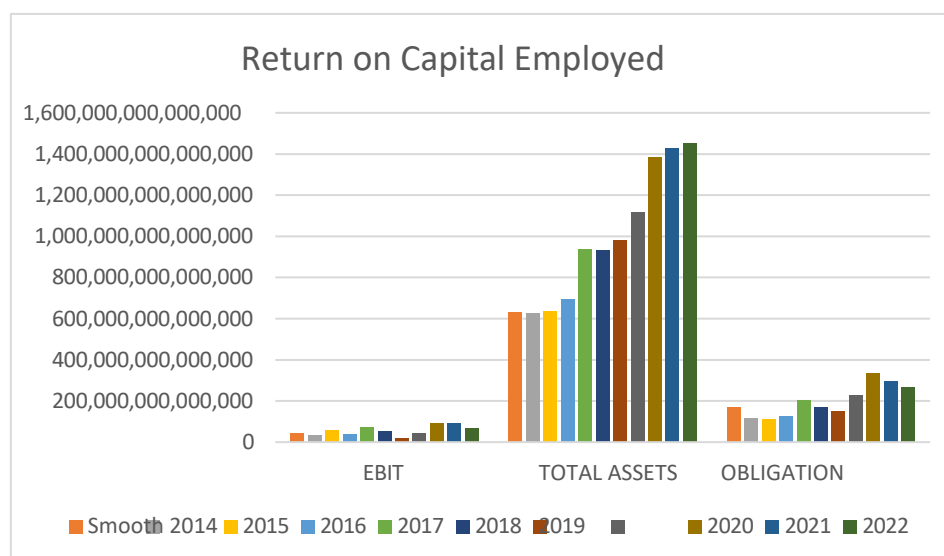
Table 3. Development of Return on Capital Employed at PT Pertamina (Persero) for the 2014-2024 Period

(Expressed in Rupiah)

YEAR	EBIT	TOTAL ASSETS	CURRENT LIABILITIES	TA & KL	ROCE
2014	41,152,237,500,000	629,099,000,000,000	167,775,975,000,000	461,323,025,000,000	8.92
2015	33,161,676,000,000	628,160,861,400,000	117,942,928,200,000	510,217,933,200,000	6.50
2016	57,940,205,900,000	635,286,620,700,000	109,041,248,200,000	526,245,372,500,000	11.01
2017	39,369,525,000,000	693,943,873,500,000	127,600,200,950,000	566,343,672,550,000	6.95
2018	70,968,191,000,000	938,417,554,000,000	202,606,789,000,000	735,810,765,000,000	9.64
2019	54,506,390,880,000	933,842,799,360,000	169,313,804,160,000	764,528,995,200,000	7.13
2020	17,999,085,220,000	980,458,644,420,000	151,617,820,780,000	828,840,823,640,000	2.17
2021	42,884,684,700,000	1,116,125,667,800,000	227,227,200,200,000	888,898,467,600,000	4.82
2022	90,701,954,620,000	1,382,145,124,260,000	333,723,729,800,000	1,048,421,394,460,000	8.65
2023	92,825,649,335,000	1,426,540,083,240,000	294,351,885,100,000	1,132,188,198,140,000	8.20
2024	64,938,612,120,000	1,450,183,664,460,000	267,241,746,060,000	1,182,941,918,400,000	5.49
AVERAGE					7.23

Source: Processed data, PT Pertamina (Persero)

Based on Table 3 and Figure 3, PT Pertamina's Return on Capital Employed (ROCE) value fluctuated from 2014 to 2024. The lowest value occurred in 2020 at 2.17%, while the highest value occurred in 2016 at 11.01%. The average Return on Capital Employed (ROCE) value during the study period was 7.23%. This indicates that the company's effectiveness in generating profits from its capital employed varies from year to year.



Source: Processed data, PT Pertamina (Persero)

Figure 3. Graph of Return on Capital Employed Development

Data analysis techniques

1. Descriptive Analysis

Table 4.Descriptive Analysis Statistical Test Results

Descriptive Statistics				
	N	Minimum	Maximum	Mean
Cash to Current Assets	11	1869	5051	3586.73
Ebitda Interest Coverage Ratio	11	-894	-356	-625.64
Return on Capital Employed	11	217	1101	722.55
Valid N (listwise)	11			

Source: Processed data, SPSS 27

Based on the table above, the Cash to Current Assets Ratio has an average of 35.87% with a minimum achievement of 18.69% and a maximum achievement of 50.51% with a standard deviation of 10.50%.

Furthermore, the EBITDA Interest Coverage Ratio has an average of -6.26% with a minimum achievement of -8.94% and a maximum achievement of -3.56% with a standard deviation of 1.49%.

Then Return On Capital Employed has an average of 7.23% with a minimum achievement of 2.17% and a maximum achievement of 11.01% with a standard deviation of 2.47%.

2. Classical Assumption Test

A. Normality Test

**Table 5.Results of Normality Test with Kolmogorov-Smirnov Test
One-Sample Kolmogorov-Smirnov Test**

		Unstandardize d Residual
N		11
Normal Parameters ^{a,b}	Mean	.0000000
	Standard Deviation	67.92441910
Most Extreme Differences	Absolute	.135
	Positive	.118



	Negative		-.135
Test Statistics			.135
Asymp. Sig. (2-tailed) ^c			.200 ^d
Monte Carlo Sig. (2-tailed) ^e	Sig.		.831
	99% Confidence Interval	Lower Bound	.821
		Upper Bound	.841

a. Test distribution is Normal.

b. Calculated from data.

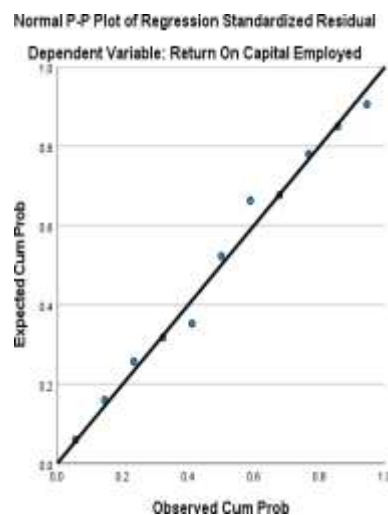
c. Lilliefors Significance Correction.

d. This is a lower bound of the true significance.

e. Lilliefors' method based on 10000 Monte Carlo samples with starting seed 2000000.

Source: Processed data, SPSS 27

Based on the table above, it can be seen that the Asymp. Sig. (2-tailed) value is $0.200 > 0.05$, so it can be stated that the data from the population is normally distributed and can be carried out to the next stage of analysis. Normality test is also carried out using a probability plot graph where the residual variable can be detected by looking at the distribution of residual points following the



direction of the diagonal line, and this is in accordance with the results of the distribution diagram processed with SPSS Version 27 as in the image below:

Source: Processed data, SPSS 27

Figure 4. Normality Test P-Plot Graph

The image above shows that the normal probability plot graph exhibits a normal pattern. This is evident from the points being spread around the diagonal line and following the diagonal line. Therefore, it can be concluded that the regression model meets the assumption of normality.

B. Multicollinearity Test

Table 6. Multicollinearity Test Results

	Tolerance	VIF
(Constant)		
Cash to Current Assets	.978	1,022
Ebitda Interest Coverage Ratio	.978	1,022

a. Dependent Variable: Return On Capital Employed

Source: Processed data, SPSS 27

Based on the results of the multicollinearity test in the table above, the tolerance value of the Cash to Current Assets Ratio variable is 0.978 and the Ebitda Interest Coverage Ratio is 0.978, where both values are > 0.10 , and the Variance Inflation Factor (VIF) value of the Cash to Current Assets Ratio variable is 1.022 and the Ebitda Interest Coverage Ratio is 1.022 where the value is < 10 . Therefore, it can be concluded that there are no symptoms of multicollinearity.

C. Autocorrelation Test

Table 7. Autocorrelation Test Guidelines with Durbin-Watson (DW Test)

Criteria	Information
< 1,000	There is autocorrelation interference
1,100 – 1,550	Without conclusion
1,550 – 2,460	There is no autocorrelation interference
2,460 – 2,900	Without conclusion
> 2,900	There is autocorrelation interference

Source: Ghozali, (2021)

Table 8. Durbin-Watson Autocorrelation Test Results

Model Summary					Durbin-Watson
Model	R	R Square	Adjusted R Square	Standard Error of the Estimate	
1	.961a	.924	.905	75,942	1,247

a. Predictors: (Constant), EBITDA Interest Coverage Ratio, Cash to Current Assets Ratio

b. Dependent Variable: Return On Capital Employed

Source: Processed data, SPSS 27

Based on the test results in the table above, the Durbin-Watson value of 1.247 is within the 1.100-1.550 criterion, placing the test in the inconclusive category. Therefore, based on these criteria, the Durbin-Watson test cannot definitively determine whether the regression exhibits autocorrelation. Therefore, further testing is needed to obtain a more accurate decision using the Run Test. "The Run Test, as part of non-parametric statistics, can also be used to test for high correlation between residuals. The Run Test is used to determine whether the residual data occurs randomly or not (systematically)" Ghozali, (2021). The Run Test is conducted by formulating a basic hypothesis, namely:

- H_0 : The data is random, so there is no autocorrelation.
- H_a : The data is not random (non-random), so autocorrelation occurs.

According to Ghozali, (2021) the basic statistical approach to the Run Test is as follows:

- If the significance value (Sig.) > 0.05, then H_0 accepted and H_a rejected, so that the residual data is random or there is no autocorrelation.
- If the significance value (Sig.) < 0.05, then H_0 rejected and H_a accepted, so that the residual data is not random (non-random) or autocorrelation occurs.

The results of the Run Test are as follows:

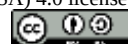
Table 9. Autocorrelation Test Results With Run Test

Runs Test	
	Unstandardized Residual
Test Value ^a	4.32586
Cases < Test Value	5
Cases >= Test Value	6
Total Cases	11
Number of Runs	5
Z	-.612
Asymp. Sig. (2-tailed)	.540

a. Median

Source: Processed data, SPSS 27

Based on the Run Test results in the table above, the significance value (Sig.) obtained is 0.540 > 0.05 so that H_0 accepted and H_a rejected. These results indicate that there are no signs of



autocorrelation. This result confirms the previous test, confirming that there are no autocorrelation problems in the study.

D. Heteroscedasticity Test

Table 10. Results of Heteroscedasticity Test with Glejser Test

Model	Unstandardized Coefficients		Standardized Coefficients		t	Sig.
	B	Std. Error	Beta			
1 (Constant)	84,221	61,802			1,363	.210
Cash to Current AssetsRatio	.008	.010	.250		.810	.442
Ebitda Interest Coverage Ratio	.092	.071	.400		1,295	.231

a. Dependent Variable: AbsRes

Source: Processed data, SPSS 27

Based on the test results in the table above, the Glejser test model on the Cash to Current Assets Ratio variable (X1) obtained a significance probability value (Sig.) of 0.442 and Ebitda Interest Coverage Ratio (X2) obtained a significance probability value (Sig.) of 0.231 where both significance values (Sig.) > 0.05. Thus, the regression model on this data does not have heteroscedasticity interference, so this regression model is suitable for use as research data.

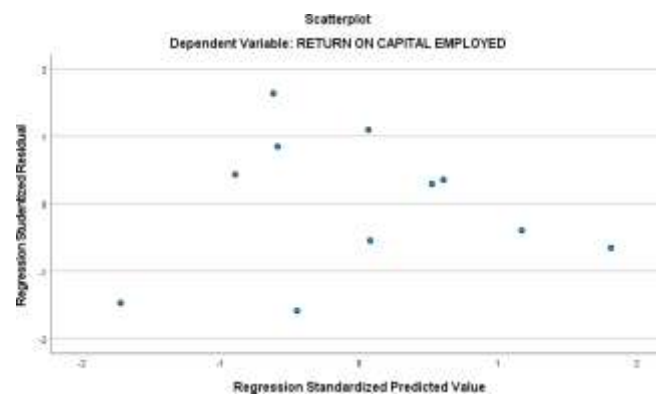


Figure 5. Scatter Plot Graph of Heteroscedasticity Test Results

Source: Processed data, SPSS 27

Based on the results of the image above, the points on the scatterplot graph do not have a clear distribution pattern or do not form certain patterns, thus there is no heteroscedasticity interference in the regression model so that this regression model is suitable for use.

3. Quantitative Analysis

A. Multiple Linear Regression Analysis

Table 11. Results of Multiple Linear Test of Cash to Current Assets Ratio (X1) and EBITDA Interest Coverage Ratio (X2) on Return on Capital Employed (Y)

Model	Unstandardized Coefficients		Standardized Coefficients		t	Sig.
	B	Std. Error	Beta			
1 (Constant)	-275,907	142,611			-1,935	.089
Cash to Current Assets Ratio	.000	.023	.001		.006	.995
Ebitda Interest Coverage Ratio	-1,595	.163	-.962		-9,777	.000

a. Dependent Variable: Return On Capital Employed

Source: Processed data, SPSS 27

Based on the results of the regression calculation analysis in the table above, the regression equation $Y = -275.907 + 0.000X_1 - 1,595X_2$ can be obtained. From the equation above, the following conclusions can be drawn:

- The constant value of -275.907 means that if the Cash to Current Assets Ratio variable (X1) and EBITDA Interest Coverage Ratio (X2) is worth 0 (zero), then Return on Capital Employed (Y) will be worth -275.907.
- The regression coefficient value of Cash to Current Assets Ratio (X1) of 0.000 (positive sign) means that the constant remains the same and there is no change in the EBITDA Interest Coverage Ratio variable (X2), then the change in the Cash to Current Assets Ratio variable (X1) does not result in a significant change in Return On Capital Employed (Y), considering the coefficient value is close to zero and is not statistically significant (Sig=0.995).
- The regression coefficient value of EBITDA Interest Coverage Ratio (X2) of -1.595 (negative sign) means that the constant remains the same and there is no change in the Cash to Current Assets Ratio variable (X1), then every one unit increase in the EBITDA Interest Coverage Ratio variable (X2) will result in a decrease in Return on Capital Employed (Y) of 1.595, considering that the effect is statistically significant (Sig = 0.000).

B. Correlation Coefficient Analysis

Table 12. Correlation Coefficient Interpretation Guidelines

Correlation Coefficient Value Interval	Relationship Level
0.000 to 0.199	Very Low
0.200 to 0.399	Low
0.400 to 0.599	Currently
0.600 to 0.799	Strong
0,800 to 1,000	Very strong

Source: Sugiyono (2023)

The results of data processing are as follows:

Table 13. Results of the Simultaneous Correlation Coefficient Test of Cash to Current Assets Ratio and EBITDA Interest Coverage Ratio Against Return on Capital Employed

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.961a	.924	.905	75,942	.924	48,860	2	8	.000

a. Predictors: (Constant), Ebitda Interest Coverage Ratio, Cash to Current Assets

Based on the test results in the table above, the multiple correlation coefficient (R) value was obtained at 0.961. This value indicates a very strong relationship between the Cash to Current Assets Ratio (CCAR) and EBITDA Interest Coverage Ratio (EICR) variables on Return on Capital Employed (ROCE). The R value is close to 1 and falls within the correlation coefficient interval category of 0.800-1.000 (very strong).

C. Analysis of the Coefficient of Determination

Table 14. Results of Simultaneous Determination Coefficient Test of Cash to Current Assets Ratio (X1) and EBITDA Interest Coverage Ratio (X2) on Return on Capital Employed (Y)

Model Summary				
Model	R	R Square	Adjusted R Square	Standard Error of the Estimate
1	.961a	.924	.905	75,942

a. Predictors: (Constant), Ebitda Interest Coverage Ratio, Cash to Current Assets Ratio

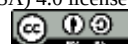
Source: Processed data, SPSS 27

Based on the test results in the table above, the Adjusted R Square value was obtained at

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0.905. It can be concluded that the Cash to Current Assets Ratio (CAR) variable (X_1) and EBITDA Interest Coverage Ratio (X_2) simultaneously influences Return On Capital Employed (Y) by 90.5%, while the remainder of $(100-90.5\%) = 9.5\%$ is influenced by other factors not studied.

D. Hypothesis Testing

a. Partial Test (T)

Table 15. Hypothesis Test Results (T-Test) Cash to Current Assets Ratio (X_1) against Return on Capital Employed (Y)

Coefficients ^a					
Model		Unstandardized Coefficients		Standardized Coefficients	t Sig.
		B	Std. Error	Beta	
1	(Constant)	842,309	289,007		2,914 .017
	Cash to Current Assets Ratio	-.033	.078	-.142	-.430 .677

a. Dependent Variable: Return On Capital Employed

Source: Processed data, SPSS 27

Based on the results of the t-test, the calculated t-value was -0.430, which was smaller than the t-table of 2.306 and the significance value was $0.677 > 0.05$, so H_0 accepted and H_1 rejected. Thus, it can be concluded that the Cash to Current Assets Ratio variable does not have a significant effect on Return on Capital Employed at PT Pertamina (Persero).

b. The Influence of EBITDA Interest Coverage Ratio (X_2) Against Return On Capital Employed (Y)

Table 16. Hypothesis Test Results (T-Test) of EBITDA Interest Coverage Ratio (X_2) against Return on Capital Employed (Y)

Coefficients ^a					
Model		Unstandardized Coefficients		Standardized Coefficients	t Sig.
		B	Std. Error	Beta	
1	(Constant)	-275,292	97,586		-2,821 .020
	Ebitda Interest Coverage Ratio	-1,595	.152	-.961	-10,485 .000

a. Dependent Variable: Return On Capital Employed

Source: Processed data, SPSS 27

Based on the test results above, the calculated t value is -10.485, which is smaller than the t table of 2.306 and the significance value is $0.000 < 0.05$, so H_0 accepted and H_a rejected, so it can be concluded that the EBITDA Interest Coverage Ratio variable does not have a significant effect on Return On Capital Employed at Pertamina (Persero).

E. Simultaneous Test (F)

Table 17. Results of Simultaneous Hypothesis Test (F Test) of Cash to Current Assets Ratio (X_1) and EBITDA Interest Coverage Ratio (X_2) on Return on Capital Employed (Y)

ANOVA					
Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	563565.460	2	281782.730	48,860	.000b
Residual	46137.267	8	5767.158		
Total	609702.727	10			

a. Dependent Variable: Return On Capital Employed

b. Predictors: (Constant), Ebitda Interest Coverage Ratio, Cash to Current Assets Ratio

Source: data processed by SPSS 27



Based on the results of the F test, the F value was obtained. The calculated value of 48.860 is greater than $F_{table} 4.46$ and the significance value is $0.000 < 0.05$, then H_0 rejected and H_3 accepted. This shows that the Cash to Current Assets Ratio and EBITDA Interest Coverage Ratio variables simultaneously have a significant effect on Return on Capital Employed at PT Pertamina (Persero).

Discussion of Research Results

1. The Partial Effect of Cash to Current Assets Ratio (CCAR) on Return on Capital Employed (ROCE).

The findings of the partial test show that the calculated t value of the Cash to Current Assets Ratio is -0.430, which is smaller than the t table of 2.306 and the significance value is $0.677 > 0.05$, so H_0 accepted and H_1 rejected. Therefore, it can be concluded that the Cash to Current Assets Ratio variable does not have a significant effect on Return on Capital Employed at PT Pertamina (Persero) for the 2014-2024 period.

These results indicate that a company's large cash holdings do not necessarily increase its return on capital employed. According to Brigham and Houston (2019), high liquidity indicates a company's ability to meet short-term obligations. However, if cash holdings are excessive and not utilized productively, it can create idle cash, thus hindering the company's profitability, including its Return on Capital Employed (ROCE).

Based on previous research, the results of this study are supported by research by Purwasih et al., (2025), Diva & Isyanto, (2025), Haristiyadi & Surahman, (2025), Nashrullah & Fadli, (2025), Eldiani & Lailasarry, (2024) which show that liquidity variables (Current Ratio and Cash Ratio) do not significantly influence the company's financial performance (Return on Capital Employed). However, the results of this study are not in line with the research of Sitorus et al., (2025) and Marchelina et al., (2025) which found that liquidity (Current Ratio and Cash Ratio) negatively influence the company's performance and value.

2. The Partial Effect of EBITDA Interest Coverage Ratio (EICR) on Return on Capital Employed (ROCE).

The partial test findings show that the calculated t value of EBITDA Interest Coverage Ratio of -10.485 is smaller than the t table of 2.306 and the significance value is $0.000 < 0.05$, so H_0 accepted and H_2 rejected, so it can be concluded that the EBITDA Interest Coverage Ratio variable does not have a significant effect on Return On Capital Employed at Pertamina (Persero).

These results indicate that an increase in a company's ability to cover interest expenses using EBITDA does not necessarily translate into an increase in the company's capital utilization effectiveness. According to Brigham & Houston (2019), the interest-paying ratio (ROI) reflects a company's ability to meet interest obligations from operating profit. However, if increased EBITDA is used more to meet financial obligations than to increase capital productivity, Return on Capital Employed (ROI) may decline.

Based on previous research, this study aligns with the research of Abotsi et al. (2025), which showed that the Interest Coverage Ratio had no effect on Return on Capital Employed in multinational companies in Nigeria. However, this study's results contrast with those of Abigael et al. (2026) and Fauzan et al. (2025), which found that the Interest Coverage Ratio had a positive and significant effect on both profitability and Return on Equity.

3. The Effect of Cash to Current Assets Ratio (CCAR) and EBITDA Interest Coverage Ratio (EICR) Simultaneously on Return on Capital Employed (ROCE).

Based on the research results, it shows that the Cash to Current Assets Ratio (X_1) does not affect Return On Capital Employed and EBITDA Interest Coverage Ratio (X_2) has a negative effect on Return on Capital Employed with the regression equation $Y = -275.907 + 0.000X_1 - 1.595X_2$. The correlation coefficient, or influence value, between the independent and dependent variables was 0.961, indicating a very strong relationship. The coefficient of determination, or



simultaneous influence contribution, was 90.5%, while the remaining 9.5% was influenced by other factors. The hypothesis test yielded a calculated F value of 48.860, greater than the F table of 4.46. Therefore, H_0 rejected and H_3 accepted. This shows that the Cash to Current Assets Ratio and EBITDA Interest Coverage Ratio variables simultaneously have a significant effect on Return on Capital Employed at PT Pertamina (Persero).

The results of this study indicate that although partially the Cash to Current Assets Ratio does not significantly influence Return on Capital Employed, when analyzed together with the EBITDA Interest Coverage Ratio, both variables are able to provide a significant influence on Return on Capital Employed. This indicates that the level of liquidity and the company's ability to meet interest expenses can simultaneously explain changes in the rate of return on capital employed by the company.

The results of the simultaneous test of this study strengthen the picture that the combination of liquidity and solvency ratios together is more capable of explaining changes in profitability compared to separate tests, this study is in line with Purwasih et al., (2025) which shows that liquidity together with other financial variables simultaneously contributes to the company's financial performance even though the partial effect is not always significant.

Conclusion

This study shows that the Cash-to-Current-Assets Ratio (CCAR) does not have a significant partial effect on Return on Capital Employed (ROCE) at PT Pertamina (Persero) for the period from 2014 to 2024. The EBITDA Interest Coverage Ratio (EICR) also shows no significant effect on ROCE when considered individually. Simultaneously, CCAR and EICR have a significant effect on ROCE with an F-value of 48.860 and a coefficient of determination of 90.5%, meaning that together, these two variables can explain most of the variation in ROCE.

The limitations of this study lie in the use of a single research subject, an observation period covering only 11 years, and the inclusion of only two independent variables; consequently, the results cannot yet be widely generalized. Future research is recommended to expand the sample, extend the observation period, and include additional variables such as the Debt-to-Equity Ratio, Net Profit Margin, or Asset Turnover. From a practical standpoint, PT Pertamina needs to optimize cash management to avoid idle cash and improve operational efficiency to maintain its ability to meet interest obligations and enhance the effectiveness of capital utilization.

Bibliography

- Abigael, B., Hutabarat, F., & Sitompul, G. O. (2026). Moderasi *Interest Coverage Ratio* dalam pengaruh kinerja keberlanjutan terhadap profitabilitas perusahaan indeks LQ45. *EKOMA: Jurnal Ekonomi, Manajemen, Akuntansi*, 5(3), 3847–3862.
- Abotsi, L., Ofoegbu, G., Manasseh, C., Nkiri, J., Ogar-Abang, J. O., Umagu, U. B., Ayanbeshishie, S. A., & Aferokhe, E. (2025). Thin capitalization and firm's financial performance: Are older firms at an advantage? *SSRN Electronic Journal*, 31(2), 358–370.
- Aishwarya, P., Sudharani, R., & Suresh, N. (2020). A study on impact of capital structure on profitability of companies listed in Indian stock exchange with respect to automobile industry. *Journal of Seybold Report*, 15(7), 1560–1574.
- Azra, F., Putri, A. M., & Azmi, Z. (2024). Kinerja keuangan pada PT Pertamina sebelum dan sesudah fluktuasi harga BBM. *Jurnal Akuntansi*, 14(2), 1–11. <https://doi.org/10.37859/jae.v14i2.8737>
- Azzahra, S., Hutagalung, G., Rizka, S. A., Sembiring, D. V. B., Sembiring, A. H. B., Purba, G. B., Putri, N., & Nasution, A. P. (2025). Analysis of PT Pertamina's 2020–2024 financial ratios: Liquidity, solvency, activity, and profitability. *EDUCTUM: Journal Research*, 4(6), 250–255.
- Brigham, E. F., & Houston, J. F. (2019). *Fundamentals of financial management*. Cengage Learning.
- Diva, Z. H., & Isyanto, P. (2025). Pengaruh likuiditas, solvabilitas, dan aktivitas terhadap kinerja keuangan PT Unilever Indonesia Tbk yang terdaftar di BEI periode 2020–2024. *Jurnal Ilmiah Ekonomi dan Manajemen*, 3(7), 153–161. <https://doi.org/10.61722/jiem.v3i7.5835>
- Eldiani, N., & Lailasarry, T. (2024). The effect of cash ratio on return on asset (ROA) at PERUMDA BPR Garut. *Golden Ratio of Data in Summary*, 4(1), 189–195.



- Fauzan, Munandar, A., & Juwani. (2025). Analisis pengaruh *Interest Coverage Ratio* dan *Debt to Equity Ratio* terhadap *Return On Equity Ratio* pada perusahaan subsektor farmasi. *EKOMA: Jurnal Ekonomi, Manajemen, Akuntansi*, 4(6), 9232–9245.
- Ghozali, I. (2021). *Aplikasi analisis multivariate dengan program IBM SPSS 26* (10th ed.). Badan Penerbit Universitas Diponegoro.
- Gokulakrishnan. (2025). A study on cash management in relation to Rane Brakes Lining Limited. *International Journal of Research and Analytical Reviews (IJRAR)*, 12(1), 743–792.
- Haristiyadi, & Surahman, A. (2025). Pengaruh *Current Ratio* dan *Debt to Equity Ratio* terhadap *Return On Equity* pada PT Aneka Tambang Tbk. periode 2010–2020. *JORAPI: Journal of Research and Publication Innovation*, 3(1), 2718–2730. <https://doi.org/10.55182/jnp.v2i2.181>
- Ingsyira, Z., Rahmatillah, P., Yasyifa, I., Purwati, A. T., & Hanifah, L. (2025). Analisis kinerja keuangan PT Pertamina (Persero) berdasarkan rasio keuangan periode 2020–2024. *Journal of Management, Accounting and Administration*, 2(2), 113–120.
- Labetubun, M. A. H., Pidada, A. I. B., Wiraguna, A. S., Huda, M., Ahyani, H., Bagus, L. S., Awaludin, T. D., & Zuliarti, O. W. (2024). *Hukum perusahaan* (Vol. 2).
- Marchelina, D., Sanusi, F., & Purbasari, I. (2025). The effect of profitability and liquidity on firm value with dividend policy as an intervening variable: Empirical study on non-cyclical consumer sector companies listed on the Indonesia Stock Exchange period 2018–2023. *Journal of Governance, Taxation and Auditing (JGTA)*, 3(4), 323–344.
- Nashrullah, & Fadli, A. A. F. (2025). Pengaruh *Current Ratio* (CR) dan *Debt to Equity Ratio* (DER) terhadap *Return On Asset* (ROA) pada PT Gudang Garam Tbk periode 2013–2023. *RIGGS: Journal of Artificial Intelligence and Digital Business*, 3(1), 1644–1654. <https://doi.org/10.31004/riggs.v4i4.3274>
- Pangestu, R. A. (2023). Analysis of dynamics and restructuring of PT Pertamina (Persero). *JKMP (Jurnal Kebijakan dan Manajemen Publik)*, 11(2), 120–128. <https://doi.org/10.21070/jkmp.v11i2.1740>
- Purwasih, R., Suhardi, & Makrus, M. (2025). The effect of capital structure, liquidity, and profitability on corporate financial performance. *MANDAR: Management Development and Applied Research Journal*, 7(2), 113–123. <https://doi.org/10.31605/mandar.v7i2.5135>
- Samudra, A., & Sianipar, F. M. (2026). Dampak likuiditas, solvabilitas, dan profitabilitas terhadap nilai perusahaan pada emiten energi tahun 2021–2024. *PERMANA: Jurnal Perpajakan, Manajemen, dan Akuntansi*, 18(1), 179–193.
- Salamah, S. N. (2023). Financial management strategies to improve business performance. *Journal of Contemporary Administration and Management (ADMAN)*, 1(1), 9–12. <https://doi.org/10.61100/adman.v1i1.3>
- Sarpta, V. T., Syaipudin, U., Prasetyo, T. J., & Azhar, R. (2024). Pengaruh *Interest Coverage Ratio*, profitabilitas, *Dividend Payout Ratio*, dan *Debt to Asset Ratio* terhadap nilai perusahaan. *Jurnal Ekonomi dan Pembangunan Indonesia*, 2(3), 201–217.
- Sitorus, J. S., Marginingsih, R., & Yulianti, W. R. (2025). Pengaruh rasio profitabilitas dan rasio likuiditas terhadap kinerja keuangan pada subsektor ritel yang terdaftar di Bursa Efek Indonesia (BEI) periode 2021–2024. *Indonesia Economic Journal*, 1(2), 1425–1436.
- Sugiyono. (2023). *Metode penelitian kuantitatif, kualitatif dan R&D*. Alfabeta.

