



Analysis of the Effect of Financial Ratios on Financial Performance at PT PLN (Persero)

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Abstract

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This study aims to analyze the effect of financial ratios on the financial performance of PT. PLN (Persero) during the 2010–2024 period using semiannual data. The financial ratios examined include Liquidity (Quick Ratio), Solvency (Debt to Equity Ratio), Activity (Receivable Turnover), and Profitability (Return on Equity). The company's financial performance is proxied by Return on Assets (ROA). A quantitative approach is applied using secondary data obtained from PT. PLN (Persero)'s financial reports, analyzed with multiple linear regression using Eviews 12 software. The results show that simultaneously, the four financial ratios significantly affect ROA. Partially, only Receivable Turnover and Return on Equity have a positive and significant effect on financial performance, while Quick Ratio and Debt to Equity Ratio show no significant influence. These findings indicate that the efficiency of receivables management and the utilization of equity capital play a dominant role in improving the financial performance of PT. PLN (Persero).

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INTRODUCTION

PT Perusahaan Listrik Negara (Persero), known as PT PLN, is Indonesia's sole state-owned enterprise responsible for national electricity provision. As a public utility, PLN is tasked with ensuring equitable electricity access while maintaining financial sustainability. Between 2010 and 2024, the company faced significant challenges, including rising operational costs, reliance on fossil fuels, and exchange rate volatility due to foreign currency-denominated debt. The COVID-19 pandemic exacerbated these issues, reducing industrial electricity demand while increasing residential consumption,

impacting revenue structure and profitability. Given these conditions, analyzing financial ratios becomes crucial to assess PLN's financial health and management efficiency. This study investigates how liquidity, solvency, activity, and profitability ratios affect PLN's financial performance using semiannual data from 2010–2024. The results provide insights for financial management optimization in state-owned enterprises.

LITERATURE REVIEW

Agency Theory

Agency Theory (Jensen & Meckling, 1976) describes the relationship between principals (owners) and agents (managers) in resource management, emphasizing accountability and efficiency. In the case of PT PLN (Persero), the government acts as the principal, and company management as the agent, responsible for operating efficiently while fulfilling public service obligations.

Signaling Theory

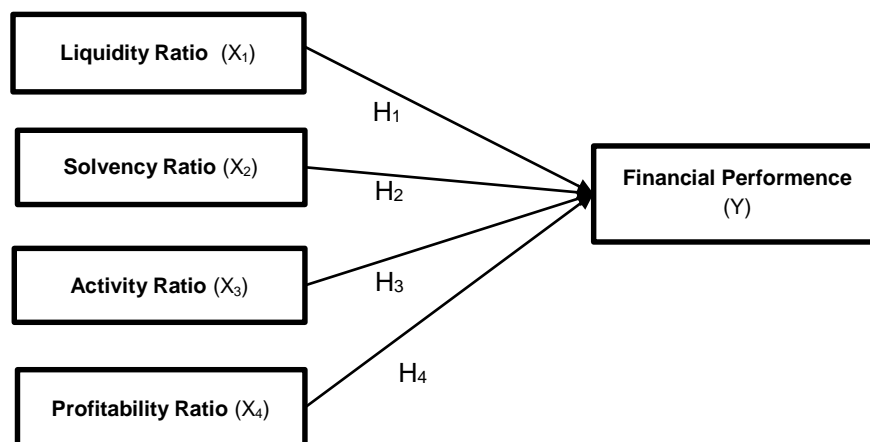
Signaling theory highlights how companies convey relevant information to external parties to reduce information asymmetry (Brigham & Houston, 2011). Financial statements and ratios serve as credible signals reflecting the firm's condition and managerial effectiveness.

Financial Ratios and Financial Performance

Financial ratios serve as signals of performance, managerial effectiveness, and financial stability. Previous studies indicate that financial ratios are reliable indicators of performance (Fahmi, 2020; Hery, 2023; Kasmir, 2020). Liquidity ratios reflect short-term solvency, solvency ratios indicate capital structure risk, activity ratios measure operational efficiency, and profitability ratios capture return generation capability. Based on theory and prior research, the following hypotheses were developed: liquidity, solvency, activity, and profitability ratios significantly affect financial performance.

Conceptual Framework

Figure 1. Conceptual Framework



Source: Processed Data (2025)

METHODS

This research adopts a quantitative approach using secondary data derived from PT PLN (Persero)'s semiannual financial reports between 2010 and 2024. The dependent variable is financial performance, proxied by Return on Assets (ROA). Independent variables include Quick Ratio (liquidity), Debt to Equity Ratio (solvency), Receivable Turnover (activity), and Return on Equity (profitability). Data analysis was conducted using multiple linear regression with Eviews 12. Classical assumption tests, including normality, multicollinearity, heteroskedasticity, and autocorrelation, were performed to ensure model validity. The F-test evaluated simultaneous effects, the t-test examined partial effects, and the coefficient of determination (R^2) measured the model's explanatory power. Samples were selected using a purposive sampling technique based on the following criteria:

Table 1. Criteria for Sample Selection

No	Description	Number
1.	The financial statements consist of semi-annual reports and annual reports (2010–2024) of PT. PLN (Persero), which have been audited.	30
2.	The data covers complete financial information for all ratio variables to be analyzed.	30
3.	The financial statements have been published and can be accessed through the official website of PT. PLN (Persero).	30
4.	The financial statements are prepared in accordance with the applicable financial accounting standards to ensure consistency and comparability.	30

Source: Processed Data (2025)

RESULT AND DISCUSSION

Result

Descriptive Statistics

Descriptive statistics were conducted to provide a general summary of the characteristics of each variable in this study, serving as an initial step to gain a comprehensive understanding of the data. The analysis involved one dependent variable, Financial Performance (Y), proxied by Return on Assets (ROA), and four independent variables: Liquidity Ratio (X^1) measured by Quick Ratio (QR), Solvency Ratio (X^2) measured by Debt to Equity Ratio (DER), Activity Ratio (X^3) measured by Receivable Turnover (RTO), and Profitability Ratio (X^4) measured by Return on Equity (ROE). The study utilized 30 observations from semi-annual financial statements of PT. PLN (Persero) for the period 2010 to 2024.

Table 2. Result Descriptive statistics

Variabel	Observations	Mean	Median	Maximum	Minimum	St. Dev
X1_QR	30	0.7115 91	0.698908	0.954713	0.515346	0.119166
X2_DER	30	1.2579 66	0.675491	3.741625	0.448291	0.970215
X3_RTO	30	5.5515 06	4.746521	12.87416	1.841529	2.832484
X4_ROE	30	0.0107 79	0.010880	0.084168	-0.174519	0.044969
Y_ROA	30	0.0057 16	0.006168	0.027294	-0.044451	0.012382

Source: Data processed using Eviews 12 (2025)

The results indicate that the average liquidity ratio, as measured by the Quick Ratio, is 0.7116, which means that on average, 71.16% of current assets excluding inventory are sufficient to cover current liabilities. The minimum Quick Ratio observed was 0.5153 in the second semester of 2021, while the maximum reached 0.9547 in the first semester of 2020. Solvency, measured by the Debt to Equity Ratio, shows an average value of 1.258, reflecting that total debt constitutes approximately 125.8% of total equity on average, with a minimum of 0.4483 in the second semester of 2016 and a maximum of 3.7416 in the first semester of 2015. The activity ratio, indicated by Receivable Turnover, has an average value of 5.5515, suggesting that sales were on average 5.55 times the average receivables, ranging from a minimum of 1.8415 in the first semester of 2020 to a maximum of 12.8742 in the second semester of 2021.

Profitability, as measured by Return on Equity, has a mean of 0.0108 (1.08%), showing that net income accounted for 1.08% of total equity on average, with the lowest value recorded at -17.45% in the second semester of 2013 and the highest at 8.42% in the first semester of 2014. Financial performance, measured by ROA, yielded an average of 0.0057 (0.57%), indicating that net income represents 0.57% of total assets on average, with a minimum of -4.44% in the second semester of 2013 and a maximum of 2.73% in the second semester of 2010. Overall, these descriptive statistics provide a preliminary overview of PT. PLN (Persero)'s financial conditions during the 2010–2024 period, highlighting variations and trends across liquidity, solvency, activity, and profitability indicators.

Classical Assumption Tests

One of the prerequisites for applying multiple linear regression is the fulfillment of classical assumptions, which aims to ensure that the constructed regression model meets all fundamental requirements of classical linear regression. The classical assumption tests in this study include evaluations of normality, multicollinearity, autocorrelation, and heteroscedasticity.

a. Normality Test

Tabel 4. Normality Test

Series: Residuals	
Sample	2010S1 2024S2
Observations	30
Mean	-1.29e-18
Median	-0.000442
Maximum	0.017790
Minimum	-0.022839
Std. Dev.	0.008345
Skewness	-0.273916
Kurtosis	4.291654
Jarque-Bera	2.378591
Probability	0.304436

Source: Data processed using Eviews 12 (2025)

The normality test was conducted to determine whether the regression data for both the independent and dependent variables are normally distributed. Based on the Jarque-Bera (JB) test results presented in Table 5, the probability value is 0.3044, which is higher than the significance level of 0.05. This indicates that the data in this study are normally distributed. With the normality assumption fulfilled, the analysis can proceed to the next stage of testing.

b. Multicollinearity Test

Tabel 5. Multicollinearity Test

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	1.23E-05	52.83105	NA
X1_QR	2.00E-05	44.51821	1.175017
X2_DER	2.90E-07	3.095624	1.130160
X3_RTO	3.26E-08	5.396997	1.085078
X4_ROE	0.000123	1.088443	1.027379

Source: Data processed using Eviews 12 (2025)

The results show that the VIF values for all independent variables are well below 10. Specifically, Liquidity (X1), measured by Quick Ratio, has a VIF of 1.1750; Solvency (X2), measured by Debt to Equity Ratio, has a VIF of 1.1302; Activity (X3), measured by Receivable Turnover, has a VIF of 1.0851; and Profitability (X4), measured by Return on Equity, has a VIF of 1.0274. These results indicate that there is no multicollinearity issue in the regression model, and the independent variables can reliably be used in further analysis.

c. Heteroskedasticity Test

Tabel 6. Heteroskedasticity Test

F-statistic	0.369732	Prob. F(4,25)	0.8279
Obs*R-squared	1.675589	Prob. Chi-Square(4)	0.7951
Scaled explained SS	1.929898	Prob. Chi-Square(4)	0.7487

Source: Data processed using Eviews 12 (2025)

The Breusch-Pagan-Godfrey test was used, and the results show that the Chi-Square probability value for Obs*R-Squared is 0.7951, which is greater than the significance level of 0.05. This indicates that the data do not experience heteroscedasticity, meaning the variance of the residuals is constant, and the regression model is reliable for further analysis.

d. Autocorrelation Test

Tabel 7. Autocorrelation Test

R-squared	0.960642	Mean dependent var	0.005716
Adjusted R-squared	0.954345	S.D. dependent var	0.012382
S.E. of regression	0.002646	Akaike info criterion	-8.880765
Sum squared resid	0.000175	Schwarz criterion	-8.647232
Log likelihood	138.2115	Hannan-Quinn criter.	-8.806055
F-statistic	152.5497	Durbin-Watson stat	2.047392
Prob(F-statistic)	0.000000		

Source: Data processed using Eviews 12 (2025)

The Durbin-Watson statistic was used, and the result shows a value of 2.0474. Referring to the Durbin-Watson distribution table, the lower bound (dL) is 1.0706, the upper bound (dU) is 1.8326, and 4-dU is 2.1674. Since the Durbin-Watson value falls within the range of $dU < d < 4-dU$ ($1.8326 < 2.0474 < 2.1674$), it can be concluded that there is no autocorrelation problem in the regression model.

Hypothesis Testing

F-Test and R² Test

Tabel 8. F-Test and R² Test

R-squared	0.960642	Mean dependent var	0.005716
Adjusted R-squared	0.954345	S.D. dependent var	0.012382
S.E. of regression	0.002646	Akaike info criterion	-8.880765
Sum squared resid	0.000175	Schwarz criterion	-8.647232
Log likelihood	138.2115	Hannan-Quinn criter.	-8.806055
F-statistic	152.5497	Durbin-Watson stat	2.047392
Prob(F-statistic)	0.000000		

Source: Data processed using Eviews 12 (2025)

The results show that the Adjusted R² is 0.9543, indicating that 95.43% of the variation in Financial Performance can be explained by the four independent variables, while the remaining 4.57% is influenced by other factors not included in this study. In addition, the simultaneous significance of the independent variables was tested using the

F-statistic to determine whether they jointly have a significant effect on Financial Performance. The F-test results indicate a probability value (p-value) of 0.0000, which is below the significance level of 0.05. This demonstrates that Liquidity, Solvency, Activity, and Profitability simultaneously have a significant impact on Financial Performance, confirming that the regression model is valid and fit for further analysis.

Partial Test (t-Test)

Tabel 9. Partial Test (t-Test)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.002024	0.003511	0.576568	0.5694
X1_QR	-0.000513	0.004469	-0.114893	0.9094
X2_DER	-0.000702	0.000538	-1.304440	0.2040
X3_RTO	0.000374	0.000181	2.072134	0.0487
X4_ROE	0.265554	0.011074	23.98059	0.0000

Source: Data processed using Eviews 12 (2025)

The results show that Liquidity, measured by Quick Ratio (X^1), has a probability value of 0.9094, which is higher than the significance level of 0.05, indicating a negative but statistically insignificant effect on Financial Performance. Similarly, Solvency, measured by Debt to Equity Ratio (X^2), has a probability value of 0.2040, also higher than 0.05, indicating a negative but insignificant effect. On the other hand, Activity, measured by Receivable Turnover (X^3), has a probability value of 0.0487, which is below 0.05, demonstrating a positive and significant effect on Financial Performance. Finally, Profitability, measured by Return on Equity (X^4), has a probability value of 0.0000, indicating a positive and highly significant effect on Financial Performance. These results suggest that while Liquidity and Solvency do not significantly influence Financial Performance individually, Activity and Profitability contribute positively and significantly to the financial outcomes of PT. PLN (Persero).

Discussion

The Effect of Liquidity Ratio on Financial Performance

Liquidity reflects a company's ability to meet its short-term obligations using current assets (Siswanto, 2021; Brigham & Houston, 2021). In this study, liquidity is proxied by the Quick Ratio. For PT. PLN (Persero), a state-owned electricity company with strategic public service functions and government-backed financing, the Quick Ratio shows a negative but statistically insignificant effect on financial performance measured by Return on Assets. This indicates that short-term liquidity does not directly influence the company's financial performance. The company's operations rely on long-term funding for large infrastructure projects and stable, regulated revenues supported by government subsidies, making conventional liquidity ratios less relevant as performance indicators. These findings align with Pipit Novila Sari et al. (2023), who found that liquidity ratios do not significantly affect corporate financial performance. From a signaling theory perspective, Quick Ratio does not serve as a primary signal to investors due to the monopoly and government-backed nature of the company, while agency theory suggests that management prioritizes long-term mandates and public service stability over short-term liquidity metrics.

The Effect of Solvency Ratio on Financial Performance

Solvency reflects a company's capacity to meet long-term obligations using total assets. In this study, solvency is measured by Debt to Equity Ratio (DER). The results indicate a negative but insignificant effect of solvency on financial performance. High DER values are common for PT. PLN (Persero), given the capital-intensive nature of infrastructure investments and reliance on long-term financing from banks, bonds, and government support. Despite appearing as financial leverage, these debts are manageable due to stable revenue streams and government-backed tariffs. While previous studies, such as Puspita Ayu Laras Shinta (2022), found a positive effect of solvency on performance, in the context of PT. PLN (Persero), high DER functions as a positive signal under signaling theory, demonstrating government commitment to strategic infrastructure projects, while agency theory highlights the alignment of interests between government (principal) and management (agent) in executing long-term infrastructure mandates.

The Effect of Activity Ratio on Financial Performance

Activity ratios indicate how efficiently a company utilizes its resources to support operational activities (Fahmi et al., 2022). Measured by Receivable Turnover, the activity ratio shows a positive and significant effect on financial performance. This demonstrates that efficient receivables management directly enhances profitability. The findings are consistent with Rika Regita Cahyani et al. (2025), who found a positive effect of activity on financial performance. Signaling theory suggests that high Receivable Turnover communicates operational efficiency to principals and investors, reducing information asymmetry. Agency theory indicates that effective receivables management aligns the interests of management and the government, minimizing agency costs while enhancing financial performance.

The Effect of Profitability Ratio on Financial Performance

Profitability measures a company's ability to generate earnings from its operations (Widarti et al., 2021). In this study, profitability is proxied by Return on Equity (ROE) and shows a positive and significant effect on financial performance. ROE reflects the efficiency of equity utilization and overall financial outcomes, which is particularly relevant for a state-owned enterprise managing large assets and long-term financing. While some studies, such as Yuridilla Khalnaya et al. (2025), report negative effects, for PT. PLN (Persero) ROE serves as a strong positive signal of operational efficiency, government accountability, and alignment of interests between management and the government. This indicates that profitability not only measures financial efficiency but also validates effective management in balancing public service obligations with sustainable financial performance.

CONCLUSION

Based on the results of the study on the effect of Liquidity, Solvency, Activity, and Profitability on the Financial Performance of PT. PLN (Persero) during the 2010–2024 period, the following conclusions can be drawn:

1. Liquidity (Quick Ratio) does not have a significant effect on financial performance due to the operational characteristics of this state-owned utility company, which relies on long-term financing and stable revenue streams.

2. Solvency (Debt to Equity Ratio) does not have a significant effect on financial performance; the high debt structure is supported by government funding and regulated tariffs, which do not hinder the company's performance.
3. Activity (Receivable Turnover) has a positive and significant effect on financial performance, indicating that efficient receivables management directly contributes to profitability.
4. Profitability (Return on Equity) has a positive and significant effect on financial performance, showing that effective management of equity capital is a key factor in enhancing performance while reflecting accountability in managing state-owned capital.

The findings of this study are expected to serve as a strategic reference for the management of PT. PLN (Persero) to optimize the management of funding structure and capital efficiency to enhance financial performance. For the government, as the main shareholder and regulator of the electricity sector, these results provide valuable insights into how tariff policies, subsidies, and strategic project funding impact the company's overall financial performance. Future researchers are encouraged to expand the study by using cross-sectional data across multiple companies and considering additional variables beyond the four main financial ratios to achieve a more comprehensive analysis of the factors affecting corporate financial performance.

REFERENCES

- Abdillah, D., & Ali, H. (2024). Pengaruh Likuiditas, Struktur Modal dan Profitabilitas terhadap Nilai Perusahaan. *Jurnal Manajemen Pendidikan Dan Ilmu Sosial (JMPIS)*, 5(4). <https://doi.org/10.38035/jmpis.v5i4>
- Ambarita, N. E., Simarmata, E. N. S., Manalu, E. T. M., & Siallagan, H. (2025). Analisis Rasio Keuangan Untuk Menilai Kinerja Keuangan Pada PT PLN (Persero). *J-CEKI : Jurnal Cendekia Ilmiah*, Vol.4(2).
- Ardyansyah, R. W., Aslah, T., & Dameria N, R. (2022). ANALISIS LAPORAN KEUANGAN UNTUK MENGUKUR KINERJA KEUANGAN (STUDI KASUS PADA PT. MAYORA INDAH TBK TAHUN 2018-2021). *Jurnal Manajemen Dan Bisnis Jayakarta*, 4(1).
- Ayu, W. N., & Anggarini, D. R. (2025). Pengaruh Rasio Likuiditas, Solvabilitas dan Aktivitas Terhadap Kinerja Keuangan Perusahaan Asuransi Yang Terdaftar di BEI 2019 -2023. *JAMBURA ECONOMIC EDUCATION JOURNAL*, 7(4). <https://ejurnal.ung.ac.id/index.php/jej/index>
- Cahyani, R. R., Insani, H., & Sriwiyanti, E. (2025). Analisis Rasio Aktivitas Untuk Mengukur Kinerja Keuangan PT PLN Persero Periode 2021 – 2023. *Inisiatif: Jurnal Ekonomi, Akuntansi Dan Manajemen*, 4(2), 50–62.
- Fahmi, Irham. 2020. *Analisis Kinerja Keuangan*. Bandung: Alfabeta.

- Ghozali, I. (2021). Aplikasi Analisis Multivariate dengan Program IBM SPSS 26 Edisi 10. Semarang: Badan penerbit Universitas Diponegoro. Variabel Pemoderasi. *E-Jurnal Akuntansi Universitas Udayana*, 23 (2), 1470, 1494
- Gnawali, Y. P. (2022). *Ganeshman Darpan Use of Mathematics in Quantitative Research*. Ganeshman Darpan, 7(1), 1.
- Gunawan, C. (2020). *Mahir Menguasai SPSS Panduan Praktis Mengolah Data Penelitian*. Deepublish.
- Hasibuan, N., Handayani, L., Bangun, A. S., & Dwilita, H. (2025). Analisis Rasio Likuiditas, Rasio Profitabilitas dan Rasio Solvabilitas Pada Laporan Keuangan PT. Bank Rakyat Indonesia (Persero) Tbk Periode 2019-2023. *Jurnal Ilmiah Ekonomi Dan Manajemen*, Vol.3(No.2), Hal 533-546. <https://doi.org/10.61722/jiem.v3i2.3906>
- Hery S.E., M.Si., CRP., RSA. (2023). *Analisis Laporan Keuangan*. Jakarta: PT Grasindo.
- Hidayatullah, H., Tindage, J., & Rosaria, D. (2024). Evaluasi Kinerja Keuangan PT PLN (Persero) dalam Satu Dekade: Pendekatan Deskriptif dan Naratif (Evaluation of the Financial Performance of PT PLN (Persero) over a Decade: A Descriptive and Narrative Approach). *Studi Akuntansi, Keuangan, Dan Manajemen*, Vol 4(1), 105–120.
- Husna, A., Nazariah, & Arjuniadi. (2023). ANALISIS RASIO KEUANGAN TERHADAP KINERJA KEUANGAN PADA SEKTOR KEUANGAN YANG TERDAFTAR DI BEI PERIODE 2017-2021. *JURNAL MAFEBIS*, 1(1).
- IMPROVING SKILLS FOR THE ELECTRICITY SECTOR IN INDONESIA*. (2021). Asian Development Bank (Adb). <https://www.adb.org/sites/default/files/publication/752891/improving-skills-electricity-sector-indonesia.pdf>
- Jumangan (2020), *Analisis Laporan Keuangan*, Jakarta: Bumi Aksara.
- Kasmir (2020), *Analisis Laporan Keuangan*, Jakarta: Rajawali Pers.
- Lesmono, B., & Siregar, S. (2021). Studi Literatur Tentang Agency Theory. *Ekonomi, Keuangan, Investasi Dan Syariah (EKUITAS)*, Vol 3, No 2, Hal 203–210. <https://doi.org/10.47065/ekuitas.v3i2.1128>
- Maharani, D. D., Salih, L. B. J., Alfonsia, Y., & Fauziyah, A. R. (2025). Analisis Rasio Keuangan pada PT. Bank BCA, PT. Bank BNI, PT. Bank Mega, PT. Bank BRI di Indonesia Periode Tahun 2019-2023. *Jurnal Mutiara Ilmu Akuntansi*, Volume 3(Nomor 1), 205–231. <https://doi.org/10.55606/jumia.v3i1.3565>
- Mansuri. (2016). *Modul Praktikum Eviews 9*. Jakarta: Fakultas Ekonomi Universitas Borobudur.

- Musyrtari. (2025). PERKEMBANGAN PEREKONOMIAN INDONESIA PASCA PANDEMI COVID-19. *Jurnal Manajemen, Akuntansi, Dan Ekonomi*, 21(7), 121–130. <https://doi.org/10.2324/5admjr72>
- Nihayah, ana Zahrotun. (2020). *Pengelolaan Data Penelitian Menggunakan Software SPSS 23*: UIN Walisongo Semarang.
- Rahmawan, D. Y. (2025). PENGARUH RASIO LIKUIDITAS DAN PROFITABILITAS TERHADAP PERTUMBUHAN LABA (Studi empiris pada perusahaan subsektor makanan dan minuman yang terdaftar di BEI pada periode 2020-2023). *DIPONEGORO JOURNAL OF ACCOUNTING*, Volume 14(Nomor 2), 1–13
- Sholikhah, A. (2020). STATISTIK DESKRIPTIF DALAM PENELITIAN KUALITATIF. *KOMUNIKA*, Vol. 10(No. 2).
- Sugiyono. (2021). *Metode Penelitian Kuantitatif, Kualitatif Dan R&D*. Bandung: PT. Alfabet.
- Ulfah, M., Elma, Alpani, F., Joni Hendra, & Hendra, J. (2025). ANALISIS TEORITIS RASIO AKTIVITAS INVESTASI SEBAGAI INDIKATOR EFISIENSI KINERJA KEUANGAN PERUSAHAAN. *Jurnal Review Pendidikan Dan Pengajaran*, Volume 8(2).
- Usmar, D. (2020). PENGARUH PROFITABILITAS DAN SOLVABILITAS TERHADAP PERTUMBUHAN LABA. *JAWARA: Jurnal Wawasan Dan Riset Akuntansi*, Vol. 3, No. 1, hal. 1-10.
- Zaman, M. R., & Suedy, S. W. A. (2020). Pemanfaatan Batubara Kalori Rendah pada IGCC (Integrated Gasification Combined Cycle). *JEBT: Jurnal Energi Baru & Terbarukan*, Vol. 1, No. 1, pp 35 – 44. <https://doi.org/10.14710/jebt.2020.11156>