





## The Impact of Capital Adequacy Ratio (CAR), Non-Performing Loans (NPL), Return on Assets (ROA), And Loan to Deposit Ratio (LDR) on Financial Sustainability of Bank Pasar Kulon Progo (2018-2023)

Eva Farida<sup>\*1</sup> , Bangun Putra Prasetya<sup>2</sup> 

<sup>1</sup>Management Department, Universitas Widya Mataram, 55132, Indonesia

\*Corresponding Author: [evafarida2007@gmail.com](mailto:evafarida2007@gmail.com)

---

### ARTICLE INFO

#### Article history:

Received: 3 June 2024

Revised: 17 August 2024

Accepted: 3 September 2024

Available online: 30 September 2024

E-ISSN: 2776-6276

P-ISSN: -

#### How to cite:

Farida, E., Prasetya, B.P, "The Impact of Capital Adequacy Ratio (CAR), Non-Performing Loans (NPL), Return on Assets (ROA), And Loan to Deposit Ratio (LDR) on Financial Sustainability of Bank Pasar Kulon Progo (2018-2023)," Journal of Management Analytical and Solution (JoMAS), Vol. 4, No. 3, Sep. 2024, doi: [doi.org/10.32734/jomas.v4i3.17458](https://doi.org/10.32734/jomas.v4i3.17458)

---

### ABSTRACT

Bank Pasar Kulon Progo plays a key role in promoting regional economic growth and improving welfare. To maintain financial stability, it is essential to assess factors influencing financial sustainability. This study examines the impact of Capital Adequacy Ratio (CAR), Non-Performing Loans (NPL), Return on Assets (ROA), and Loan to Deposit Ratio (LDR) on the Financial Sustainability Ratio (FSR) of Bank Pasar Kulon Progo from 2018 to 2023. A quantitative approach was used, analyzing financial report data with purposive sampling. Multiple linear regression was applied to assess the relationships between the variables. The results show that CAR, NPL, ROA, and LDR have a significant impact on FSR, collectively explaining 79.5% of its variation ( $R^2 = 0.795$ ). The remaining 20.5% is influenced by other factors outside the model. These findings suggest that effective management of CAR, NPL, ROA, and LDR is crucial for ensuring the financial sustainability of Bank Pasar Kulon Progo.

**Keywords:** Capital Adequacy Ratio (CAR), Non-Performing Loan (NPL), Return on Assets (ROA), Loan to Deposit Ratio (LDR), Financial Sustainability Ratio (FSR)



This work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International.

<http://doi.org/10.32734/jomas.v4i3.17458>

---

## 1. INTRODUCTION

Infrastructure development in a country can be used as a benchmark to determine the extent of a country's economic progress, both macro and micro. Apart from that, industry can also be used as evidence and readiness of a country to welcome a civilization that is easy and fast in every activity [1]–[3].

Meanwhile, Public Policy Observer Faisal Baasir said that looking at current conditions, the industrial potential still promises to be further developed, in line with the current development of the Indonesian economy. Meanwhile, UI Economic Analyst Avilliani said that infrastructure development will have an impact on economic development. Therefore, according to him, before a region wants to build infrastructure, the most important thing is that economic activity in that region must be increased so that it can contribute to the project so that it does not suffer losses [4]–[6]. The Government's plan to build infrastructure can be an alternative solution to one of the transportation problems in Indonesia which is currently ineffective and inefficient, especially in the Yogyakarta area. Infrastructure in this case is one of the YIA Airports in Kulon Progo Regency [7]–[9].

The construction of Yogyakarta International Airport is a concrete manifestation of the integrated sectoral development agenda which is centered on the South Coast region and aims to increase economic growth, develop regional infrastructure and develop the social life of the community (Yogyakarta Regional Development Work Plan: 2016). Development activities will definitely have an impact as a result of airport construction. The existence of airports has a big influence on economic growth and the regional growth rate is relatively faster [10], [11]. Based on data from the Kulon Progo Central Statistics Agency, economic growth in Kulon Progo in 2020 decreased by 3.45 percent, in 2021 it rose to 4.37 percent, and in 2022 it amounted to 6.57 percent. Kulon Progo poverty line Rp. 381,666 per capita per month. The poverty line shows the minimum ability to fulfill the economy, both fulfilling basic food and non-food needs. National average poverty line Rp. 505,469 while in DIY it is Rp. 521,673. So, it can be concluded that Kulon Progo Regency experiences quite high levels of poverty in DIY [12], [13].

Therefore, to reduce the poverty rate in Kulon Progo Regency, the Regional Government formed Bank Kulon Progo to strengthen the capital structure and adapt it to the Regional financial capabilities. In accordance with Kulon Progo Regency Regional Regulation Number 5 of 2021 article 3, the aim of establishing Kulon Progo Bank is to increase paid-in capital until the established basic capital is fulfilled; improve services to customers and the community; improving community welfare; and support an increase in regional original income [14]–[16]. To achieve the goals of Bank Kulon Progo, the Regional Government must think about how to maintain financial sustainability at Bank Kulon Progo. Financial sustainability itself is defined as a company's consistency in producing positive results that not only cover costs, but also accelerate company growth. In the global economy, defining and establishing financial sustainability has become a challenge for all sizes and types of organizations [17].

*Financial sustainability* Local government can be influenced by economic or non-economic factors. Wallstedt *et al.* (2014) identified regional financial difficulties that would hinder financial sustainability, which could be caused by internal, external, economic or even political factors. Therefore, it is necessary to know what factors can influence financial conditions, especially regional financial sustainability, so that regional governments can make the right decisions to improve services to the community. Suci Nurhikmah *et al.* (2021) explained that the factors that influence financial sustainability include Capital Adequacy Ratio (CAR) Non-Performing Loans (NPL), Operational Costs to Operating Income (BOPO), Loan to Deposit Ratio (LDR), Inflation, Company Size (Size) and Return On Assets (ROA). Capital Adequacy Ratio (CAR) has a negative and insignificant effect, then Non-Performing Loans (NPL) and Loan to Deposit Ratio (LDR) have a positive and insignificant effect. Meanwhile, Return on Assets (ROA) is the only variable that has a positive and significant influence on the Financial Sustainability Ratio (FSR). This is also supported by Hidayatul Arief *et al.* (2019) explaining that the factors that influence financial sustainability include CAR, FDR, ROA, ROE, NOM and BOPO. The results of the analysis show that partially the FDR and ROA variables have a significant influence on increasing reach, while the other variables have an insignificant effect on the reach of Sharia BPR in West Sumatra Province. Financial Sustainability has a significant influence simultaneously on the reach of Sharia BPR in West Sumatra Province. The relationship between previous research that has been explained previously is a guideline for conducting this research, and in this research, we use Capital Adequacy Ratio (CAR), Non-Performing Loans (NPL), Return on Assets (ROA), and Loan to Deposit Ratio (LDR) as dependent variable.

## 2. METHODS

### 2.1. Sustainability

Sustainability refers to the ability to maintain or preserve resources, systems, or conditions over the long term. In the context of finance and economics, sustainability involves managing resources (such as capital, assets, and natural resources) in a way that ensures continuous operation and growth without depleting those resources or causing long-term harm. For financial institutions, this means balancing profitability with social responsibility and environmental stewardship to ensure long-term viability and success. Hutton & Cox (2005) highlight that sustainability requires a balance between economic, social, and environmental systems. Their findings emphasize the importance of integrating these aspects to achieve long-term growth and stability, particularly for financial institutions. They argue that strategic planning should address not only economic performance but also social and environmental challenges. Stankeviciene & Nikonorova (2014) build on this concept by applying it specifically to the banking industry. They explore how sustainability can create both challenges and opportunities for banks. Their research shows that focusing on sustainable practices such as improving social responsibility and environmental impact can enhance economic performance while fulfilling the bank's core obligations of providing financial services. The connection between these two findings lies in their shared emphasis on the interconnectedness of economic, social, and environmental factors. Both sets of

authors argue that long-term growth and stability are achieved when financial institutions adopt sustainability strategies that balance these three dimensions. Stankeviciene & Nikonorova extend Hutton & Cox's theoretical framework into practical applications for the banking sector, showing how sustainability can be a pathway to greater profitability and resilience.

## 2.2. Financial Sustainability

*Financial Sustainability* is defined as the company's ability to generate value for owners and provide operational continuity (a concept that refers to the principles of survival accounting) in the long term, by combining optimal investment and financing sources (Zabolotny & Wasilewski, 2019). To be able to assess the company's financial condition and achievements, several financial analysis benchmarks are needed (Purwanti, 2020). Bank financial sustainability can be measured using the financial sustainability ratio which consists of two components, namely expenses and income.

## 2.3. Capital Adequacy Ratio (CAR)

Wardiah (2013:295) "CAR is the bank's capital adequacy ratio or the bank's ability to use existing capital to cover possible losses in credit or securities trading. The CAR ratio shows the ability of capital to cover possible losses on credit provided as well as losses on investments in securities. CAR according to SBI (Bank for International Settlements) standards is a minimum of 8%.

## 2.4. Non-Performing Loans (NPL)

According to Pandia (2012:22) Non-Performing Loans (NPL) is a ratio that compares the total non-performing loans to the total loans disbursed in percentage form. The lower the NPL ratio, the lower the level of problem loans that occur. This means that the better the condition of a bank and vice versa, the higher the NPL ratio, the greater the credit risk borne by the bank (Kartika, 2017).

## 2.5. Return on Assets (ROA)

ROA is a financial ratio to assess the condition of a company with a certain scale or measurement of whether the assets owned by the company are maximal in gaining profits. The higher (larger) the ROA value of a company, the more effective the company is in using its assets (Sitanggang et al., 2022). One indicator of the health of a company's profitability is that the higher the ROA (>1.5%), the healthier the company can be said to be. A high ROA indicates that the bank is making more profits.

## 2.6. Loan to Deposit Ratio (LDR).

According to Ismail (2018:42) LDR is a ratio used to measure a bank's ability to repay its obligations to customers who collect funds channeled through credits given to debtors. LDR functions as a determining factor in the size of the minimum statutory reserve (GWM) as well as an indicator of bank intermediation. According to PBI No. 15/7/PBI/2013 Article 10 The size of a healthy LDR ratio is between 78% and 92%.

The research method used in this research is a quantitative method which aims to test the hypothesis that has been established. In this research, the population used is Bank Pasar Kulon Progo financial report data for 2018-2023. The technique used for sampling in this research was purposive sampling technique.

This research uses secondary data. The secondary data used is quarterly financial report data sourced from the website [www.ojk.go.id](http://www.ojk.go.id) which has been published from 2018-2023. The data collection method used is the documentation method. The documentation method is carried out by collecting documents in the form of financial reports, library studies or literature in the form of books, journals, articles, internet sites and other related data needed in this research. The data analysis used is multiple linear regression analysis. Previously, a classical assumption test was carried out followed by a hypothesis test. If these conditions are met then the analytical model is suitable for use.

## 3. RESULT AND DISCUSSIONS

### 3.1. RESULT

The t test is used to test the significance of the influence of independent variables X1 (CAR), X2 (NPL), X3 (ROA), and X4 (LDR), on the dependent variable Y (Financial Sustainability Ratio) in the resulting regression model. So the t test is used to test each independent variable against the dependent variable (Gulla et al., 2015). To determine the criteria for testing research hypotheses:

- 1) The hypothesis is accepted if t is significant < 0.05
- 2) The hypothesis is rejected if t is significant > 0.05

Table 1. t test results

Model	t-count	Sig.	Information
(Constant)	-0.825	0.419	
CAR	2,885	0.009	Influential
NPLs	0.946	0.016	Influential
ROA	0.772	0.032	Influential
LDR	-0.445	0.042	Influential

The table presents the results of a t-test conducted to evaluate the significance of four financial variables Capital Adequacy Ratio (CAR), Non-Performing Loans (NPLs), Return on Assets (ROA), and Loan to Deposit Ratio (LDR) on the Financial Sustainability Ratio (FSR). Each variable's t-count and significance (Sig.) values are provided. CAR, NPLs, ROA, and LDR all have significance values below 0.05, indicating that each variable has a statistically significant influence on the Financial Sustainability Ratio. Specifically, CAR shows the strongest effect with a t-count of 2.885 and a significance of 0.009, followed by NPLs (t-count = 0.946, Sig. = 0.016), ROA (t-count = 0.772, Sig. = 0.032), and LDR (t-count = -0.445, Sig. = 0.042). The constant in the model, however, is not significant (Sig. = 0.419), suggesting it does not contribute significantly to explaining variations in FSR.

Based on the t test results above, then:

1. First Hypothesis Test

$H_1$  = Capital Adequacy Ratio (CAR) has a significant effect on Financial Sustainability at Regionally Owned Enterprises (BUMD) Bank Pasar Kulon Progo.

Based on table 1, the t test results for the CAR variable have a calculated t of 2.885 with a significance of 0.009. A significance value of less than 0.05 indicates that the CAR variable has a significant effect on the Financial Sustainability Ratio (FSR). This is in accordance with the hypothesis which states that CAR has a significant effect on the Financial Sustainability Ratio (FSR), so the first hypothesis is accepted.

2. Second Hypothesis Test

$H_2$  = Non Performing Loans (NPL) have a significant effect on Financial Sustainability at Regionally Owned Enterprises (BUMD) Bank Pasar Kulon Progo.

Based on table 1, the t test results for the NPL variable have a calculated t of 0.946 with a significance of 0.016. A significance value of less than 0.05 indicates that the NPL variable has a significant effect on the Financial Sustainability Ratio (FSR). This is in accordance with the hypothesis which states that NPL has a significant effect on the Financial Sustainability Ratio (FSR), so the second hypothesis is accepted.

3. Third Hypothesis Test

$H_3$  = Return On Assets (ROA) has a significant effect on Financial Sustainability at Regionally Owned Enterprises (BUMD) Bank Pasar Kulon Progo.

Based on table 1, the results of the t test for the ROA variable have a calculated t of 0.772 with a significance of 0.032. A significance value of less than 0.05 indicates that the ROA variable has a positive and significant effect on the Financial Sustainability Ratio (FSR). This is in accordance with the hypothesis which states that ROA has a significant effect on the Financial Sustainability Ratio (FSR), so the third hypothesis is accepted.

4. Fourth Hypothesis Test

$H_4$  = Loan to Deposit Ratio (LDR) has a significant effect on Financial Sustainability at Regionally Owned Enterprises (BUMD) Bank Pasar Kulon Progo.

Based on table 5.9, the t test results for the LDR variable have a calculated t of -0.445 with a significance of 0.042. A significance value of less than 0.05 indicates that the LDR variable has a significant effect on the Financial Sustainability Ratio (FSR). This is in accordance with the hypothesis which states that LDR has a significant effect on the Financial Sustainability Ratio (FSR), so the fourth hypothesis is accepted.

The calculated F test is intended to test the regression model on the influence of all independent variables simultaneously on the dependent variable. This test can be seen in the F-test value. The F value in this study uses a significance level of 0.05, if the significance value of  $F < 0.05$  then the regression model meets, whereas

if the significance of  $F > 0.05$  then the regression model does not meet. The test results using the F test can be seen in table 2 below:

Table 2. F Test Results

ANOVA			
Model	F	Sig,	Conclusion
Regression	4,647	0.009	Significant

From this table, the calculated F is 4.647 and the significance is 0.009. It can be seen that the significance value is smaller than 0.05. This shows the influence of Capital Adequacy Ratio (CAR), Non-Performing Loans (NPL), Return On Assets (ROA), and Loan to Deposit Ratio (LDR) together have a significant effect on Regional Owned Enterprises (BUMD) Bank Pasar Kulon Progo.

### 3.2. DISCUSSIONS

Based on the results of the t test on variables CAR has a calculated t of 2.885 with a significance of 0.009. A significance value of less than 0.05 indicates that the CAR variable has a significant effect on the Financial Sustainability Ratio (FSR). NPL has a t of 0.946 with a significance of 0.016. .05 indicates that the NPL variable has a significant effect on the Financial Sustainability Ratio (FSR), ROA has a calculated t of 0.772 with a significance of 0.032, a significance value of less than 0.05 indicates that the ROA variable has a significant effect on the Financial Sustainability Ratio (FSR), and The LDR variable has a calculated t of -0.445 with a significance of 0.042. A significance value of less than 0.05 indicates that the LDR variable has a significant effect on the Financial Sustainability Ratio (FSR). And the results of the F test show that the significance of the calculated F is 0.009. This value means it is smaller than 0.05 so that the model can be used to predict Capital Adequacy Ratio (CAR), Non-Performing Loans (NPL), Return on Assets (ROA), and Loan to Deposit Ratio (LDR) to Financial Sustainability Ratio (FSR) at Regional Owned Enterprises (BUMD) Bank Pasar Kulon Progo.

### 4. CONCLUSIONS

Based on the results of the analysis and discussion previously explained, a conclusion was obtained based on the results of the F test, the variables Capital Adequacy Ratio (CAR), Non-Performing Loans (NPL), Return On Assets (ROA), and Loan to Deposit Ratio (LDR) had an effect together with the Financial Sustainability Ratio. This is shown from the test results obtained by F count of 4.647 and a significance of 0.009. Based on the results of the t test, the variables that influence the Financial Sustainability Ratio are Capital Adequacy Ratio (CAR), Non-Performing Loans (NPL), Return on Assets (ROA), and Loan to Deposit Ratio (LDR) with the results of testing the significance of Capital Adequacy Ratio (CAR). ) 0.009, Non-Performing Loans (NPL) 0.016, Return on Assets (ROA) 0.032, and Loan to Deposit Ratio (LDR) 0.042 so it shows the results that these variables work together has a significant effect on the Financial Sustainability Ratio.

### 5. REFERENCES

- [1] Tulus, J. L. Marpaung, T. J. Marpaung, and Suriati, "Computational analysis of heat transfer in three types of motorcycle exhaust materials," *J. Phys. Conf. Ser.*, vol. 1542, no. 1, 2020, doi: 10.1088/1742-6596/1542/1/012034.
- [2] S. Sy, K. A. Sugeng, R. Simanjuntak, and J. L. Marpaung, "Fibonacci Noise Modification on Data Encryption," *Kexue Tongbao/Chinese Sci. Bull.*, vol. 69, no. 05, pp. 2145–2155, 2024, [Online]. Available: <https://www.kexuetongbao-csb.com/article/fibonacci-noise-modification-on-data-encryption>.
- [3] A. Manurung, Y. Batara, P. Siriongoringo, and J. L. Marpaung, "Satisfaction Analysis of The Establishment of a Website-Based Rank System Using Customer Satisfaction Index ( CSI ) And Importance Performance Analysis ( IPA ) Methods," *Sink. J. dan Penelit. Tek. Inform.*, vol. 8, no. 2, pp. 1233–1240, 2024, doi: <https://doi.org/10.33395/sinkron.v8i2.13599>.

- [4] Tulus, S. Sy, K. A. Sugeng, R. Simanjuntak, and J. L. Marpaung, "Improving data security with the utilization of matrix columnar transposition techniques," *E3S Web Conf.*, vol. 501, 2024, doi: 10.1051/e3sconf/202450102004.
- [5] Tulus, M. M. Rahman, Sutarman, M. R. Syahputra, T. J. Marpaung, and J. L. Marpaung, "Computational Assessment of Wave Stability Against Submerged Permeable Breakwaters: A Hybrid Finite Element Method Approach," *Math. Model. Eng. Probl.*, vol. 10, no. 6, pp. 1977–1986, 2023, doi: 10.18280/mmep.100607.
- [6] Tulus, T. J. Marpaung, and J. L. Marpaung, "Computational Analysis for Dam Stability Against Water Flow Pressure," *J. Phys. Conf. Ser.*, vol. 2421, no. 1, 2023, doi: 10.1088/1742-6596/2421/1/012013.
- [7] Tulus, Sutarman, M. R. Syahputra, and T. J. Marpaung, "Computational analysis of stability of wave propagation against submerged permeable breakwater using hybrid finite element method," *AIP Conf. Proc.*, vol. 3029, no. 1, pp. 1–3, 2024, doi: 10.1063/5.0192099.
- [8] F. R. Sofiyah, A. Dilham, A. Q. Hutagalung, Y. Yulinda, A. S. Lubis, and J. L. Marpaung, "The chatbot artificial intelligence as the alternative customer services strategic to improve the customer relationship management in real-time responses," *Int. J. Econ. Bus. Res.*, vol. 27, no. 5, pp. 45–58, 2024, doi: 10.1504/IJEER.2024.139810.
- [9] Erwin, C. D. Hasibuan, D. A. S. Siahaan, A. Manurung, and J. L. Marpaung, "Stability Analysis of Spread of Infectious Diseases COVID-19 Using SEIAR-V1V2Q Model for Asymptomatic Condition with Runge-Kutta Order 4," *Math. Model. Eng. Probl.*, vol. 11, no. 5, pp. 1348–1354, 2024, doi: 10.18280/mmep.110526.
- [10] Tulus, Sutarman, M. R. Syahputra, and T. J. Marpaung, "Computational analysis of stability of wave propagation against submerged permeable breakwater using hybrid finite element method," *AIP Conf. Proc.*, vol. 3029, no. 1, 2024, doi: 10.1063/5.0192099.
- [11] P. Gultom, E. Sorta, M. Nababan, and J. L. Marpaung, "Mathematical Modelling of Engineering Problems Balancing Sustainability and Decision Maker Preferences in Regional Development Location Selection : A Multi-criteria Approach Using AHP and Fuzzy Goal Programming," vol. 11, no. 7, pp. 1802–1812, 2024.
- [12] P. Gultom, E. S. M. Nababan, J. L. Marpaung, and V. R. Agung, "Balancing Sustainability and Decision Maker Preferences in the Palm Oil Supply Chain : A Multi-Criteria Supplier Selection Approach with Analytical Hierarchy Process and Fuzzy Goal Programming," *Kexue Tongbao/Chinese Sci. Bull.*, vol. 69, no. 05, pp. 2079–2095, 2024, [Online]. Available: <https://www.kexuetongbao-csb.com/article/balancing-sustainability-and-decision-maker-preferences-in-the-palm-oil-supply-chain-a-multi-criteria-supplier-selection-approach-with-analytical-hierarchy-process-and-fuzzy-goal-programming>.
- [13] Tulus, Semin, M. R. Syahputra, T. J. Marpaung, and J. L. Marpaung, "Mathematical Study Simulating Hydroelectric Power as a Renewable Green Energy Alternative," *Math. Model. Eng. Probl.*, vol. 11, no. 7, pp. 1877–1884, 2024, doi: 10.18280/mmep.110717.
- [14] A. S. Silalahi, A. S. Lubis, and P. Gultom, "International Journal of Energy Production and Management Impacts of PT Pertamina Geothermal Sibayak ' s Exploration on Economic , Social , and Environmental Aspects : A Case Study in Semangat Gunung Village , Karo District," vol. 9, no. 3, pp. 161–170, 2024.
- [15] S. Sinulingga, J. L. Marpaung, and H. S. Sibarani, "International Journal of Sustainable Development and Planning Sustainable Tourism Development in Lake Toba : A Comprehensive Analysis of Economic , Environmental , and Cultural Impacts," vol. 19, no. 8, pp. 2907–2917, 2024, [Online]. Available: <https://www.iieta.org/journals/ijstdp/paper/10.18280/ijstdp.190809>.
- [16] F. R. Sofiyah, A. Dilham, and A. S. Lubis, "Mathematical Modelling of Engineering Problems The Impact of Artificial Intelligence Chatbot Implementation on Customer Satisfaction in Padangsidempuan : Study with Structural Equation Modelling Approach," vol. 11, no. 8, pp. 2127–2135, 2024, [Online]. Available: <https://iieta.org/journals/mmep/paper/10.18280/mmep.110814>.
- [17] A. S. Lubis and Alfi Amalia, "Employee Performance Assessment with Human Resources Scorecard And AHP Method (Case Study: PT PLN (PERSERO) North Sumatra Generation)," *J. Manag. Anal. Solut.*, vol. 1, no. 2, pp. 72–79, 2021, doi: 10.32734/jomas.v1i2.6287.
- [18] Claessens, S., & Van Horen, N. (2015). The impact of the global financial crisis on banking globalization. *IMF Economic Review*, 63(4), 868-918.
- [19] Eny Boedi Oerbawat & Retno Rusdijjati (2021). *Regional Innovation Window Journal*, E-ISSN: 2621-8739, Vol.IV No.2. Pg.48-65.
- [20] <https://ojk.go.id/id/pages/keuangan-berkepanjangan.asp>

- [21] Ismail. 2018. *Banking Management: From Theory to Application*. Jakarta: Prenadamedia Group.
- [22] Nurhikmah & Rahim. (2021). The Influence of Financial and Non-Financial Factors, *Journal of Management and Business Review*, 18 (1), 2021, 25-47
- [23] Pandia, Frianto. 2012. *Fund Management and Bank Health*. Jakarta: Rineka Cipta
- [24] Purwanti. (2020). The Influence of ROA, ROE, and NIM on Share Prices in Banking Sector Companies Listed on the IDX for the 2015-2019 Period. *Journal of Management, Economics and Business Applications*. ISSN 2541-1438; E-ISSN 2550-0783, 5(1), 77–86.
- [25] Stankeviciene, J., & Nikonorova, M. (2014). Sustainable Value Creation in Commercial Banks during the Financial Crisis. *Procedia - Social and Behavioral Sciences*, 110, 1197–1208. <https://doi.org/10.1016/j.sbspro.2013.12.96>
- [26] Wardiah, Mia Lasmi (2013). *Banking Basics*. Bandung: Pustaka Publishers
- [27] Zabolotnyy, S., & Wasilewski, M. (2019). The Concept of Financial Sustainability Measurement: A Case of Food Companies from Northern Europe. 1–16. <https://doi.org/doi:10.3390/su11185139>