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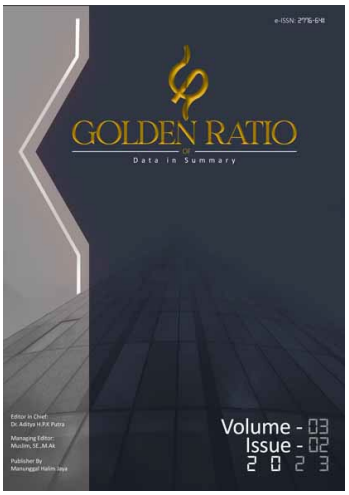

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DESCRIPTIVE OF QUANTITATIVE DATA | SUPPLEMENTARY

The Role of Non-Performing Loan in Affecting Return on Assets at Perumda BPR Garut

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Abstract: Perumda BPR Garut as a microfinance institution has a big challenge in managing non-performing loans (NPL), which can affect their financial performance. This study aims to analyse the effect of NPL on Return on Assets (ROA) at Perumda BPR Garut. The type of research used is quantitative research with a descriptive approach and simple regression analysis. The population of this study is the financial data of Perumda BPR Garut in the period 2018-2023, with samples taken using purposive sampling technique, consisting of six years of financial data. This research was conducted at Perumda BPR Garut, focusing on the relationship between NPL and ROA. The results show that NPL has a negative effect on ROA, which indicates that an increase in the number of non-performing loans will reduce the level of bank profitability. On the other hand, total assets are found to have a positive effect on ROA, which indicates that larger assets can improve the bank's financial performance. This study provides important implications regarding credit risk management, where a reduction in NPLs can improve ROA, which in turn contributes to better financial performance.

Keywords: Non-Performing Loan, Return on Assets.

1. INTRODUCTION

In the era of the Industrial Revolution 4.0, the development of information technology has brought significant changes to various sectors, including the banking sector. The banking industry in Indonesia faces great challenges in facing increasingly fierce competition and risks arising from changes in technology and customer behaviour patterns. In this context, bank profitability is an important indicator that describes the bank's ability to manage and utilise resources to generate profits. One of the factors that affect profitability is the quality of loans, where Non-Performing Loan (NPL) is one of the main variables that can affect the level of bank profitability, especially Return on Assets (ROA). This research needs to be conducted to identify the relationship between NPL and ROA in Garut Rural Banks (BPR) in order to provide a deeper understanding of the impact of non-performing loans on the bank's financial performance, which in turn will contribute to improving banking management in Indonesia (Junaedi, 2024; Rosita, NR, & Junaedi, 2024).

The selection of the research object at Perumda BPR Garut has a strong basis, because this bank is a financial institution owned by the Garut Regency local government and supervised by the Financial Services Authority (OJK). With its registered and supervised status, Perumda BPR Garut operates in accordance with applicable regulations in Indonesia, making it the right object to study. BPR Garut differs from other commercial banks in that its main focus is on lending to communities in the Garut area, which is directly related to the local economy. This uniqueness provides added value in this study because the results can provide insight for the management of non-performing loans in accordance with regional banking conditions (Eldiani, 2024; Rosita, 2024).

This study will examine the relationship between Non-Performing Loan (NPL) and Return on Assets (ROA) at Perumda BPR Garut. NPL describes non-performing loans that can affect the financial health of the bank, while ROA measures how effective the bank is in generating profits from its total assets. The higher the NPL, the greater the risk of loss borne by the bank, which can reduce ROA. Conversely, the lower the NPL, the higher the bank's profit potential, which is reflected in an increase in ROA. The relationship between these two variables is very important to understand,

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because it can help bank management formulate better credit policies to increase profitability (Junaedi, 2022; Rosita, 2021).

Several previous studies, such as those conducted by Darmawan, Laksana and Danisworo (2020) and Satiawati and Munandar (2020), have discussed the effect of Non-Performing Loan (NPL) on Return on Assets (ROA). However, these studies tend to focus on large banks or commercial banks, while this study will fill the gap by looking at the effect of NPLs on ROA at BPRs, especially Perumda BPR Garut, which is a local government-owned bank with different operational characteristics. This study will also involve more recent data (2023), which provides a more relevant picture of current conditions (Nuridha, 2020; Eldiani, 2024).

This research offers novelty by focusing on the effect of Non-Performing Loan (NPL) on Return on Assets (ROA) at Perumda BPR Garut, a regional bank that has different operational characteristics from commercial banks in general. The benefit of this research is to provide a deeper understanding for bank management in managing non-performing loan risk and maximising profitability. The purpose of this study is to determine how NPL affects ROA, as well as to provide useful recommendations in managing credit risk to improve the bank's financial performance, which in turn will support regional economic growth (Eldiani, 2021; Khaeryyah, 2023).

2. RESEARCH DESIGN AND METHOD

The research method used in this research is quantitative method. According to Sugiyono (2019), this method is based on the philosophy of positivism and is used to research certain populations or samples, with data collection using research instruments, and quantitative / statistical data analysis to test hypotheses. Duli (2019) explains that quantitative research involves collecting, processing, analysing, and presenting number-based data objectively to solve problems or test hypotheses.

The approach used in this research is descriptive and associative. Kurniawan and Puspitaningtyas (2016) explain that descriptive research aims to determine the value of a variable without making comparisons or relationships between variables. Meanwhile, associative research aims to determine the relationship between two or more variables.

A. Population and Sample

The population in this study is the annual financial report of Perumda BPR Garut during the period 2012-2023, which is available through the official website of the Financial Services Authority (OJK). The research sample was taken using purposive sampling, which is a nonprobability sampling technique that prioritises certain considerations. The sample taken is the financial statements and other information attachments from Perumda BPR Garut for the period 2018-2023.

B. Data Analysis Techniques and Hypothesis Testing

1) Descriptive Data Analysis: Used to describe the development of NPL and ROA from year to year, without aiming to draw generalised conclusions (Sugiyono, 2019: 106).
2) Statistical Analysis: Using SPSS version 26 to analyse the relationship between NPL and ROA. Before the analysis, a classical assumption test was carried out to ensure that the data was normally distributed (Machali, 2021).
3) Simple Regression Test: Used to see the effect of NPL on ROA. According to Yakin (2023), simple regression is used to predict the value of the dependent variable based on the independent variable.
4) Product Moment Correlation Test: Used to measure the strength of the relationship between two variables (Sugiyono, 2017).
5) Determination Coefficient Test: Measures how well the model explains variation in the dependent variable. A high R^2 value indicates a good model (Paramita, 2015).
6) Hypothesis testing is done using the t test to determine the effect of NPL on ROA partially. According to Sujarweni (2019), the t test is used to test the relationship between variables. The hypothesis is accepted if the sig value < α 0.05 and the regression coefficient is in accordance with the proposed hypothesis.

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3. RESULTS

A. Descriptive Analysis

Table 1. Data on Non-Performing Loan Groups of Perumda BPR Garut Period 2018-2023 (in thousands)

Year	KL	D	M	Total	%
2018	1.552.709	1.678.968	12.109.409	15.341.086	11.93%
2019	2.201.345	2.624.773	11.742.492	16.568.610	12.88%
2020	2.466.880	5.790.882	16.052.059	24.309.821	18.91%
2021	1.391.890	2.935.069	19.212.260	23.539.219	18.31%
2022	1.322.279	1.386.164	19.367.502	22.075.945	17.17%
2023	858.269	3.313.459	22.539.392	26.711.120	20.77%

This table shows the development of non-performing loans at Perumda BPR Garut during the period 2018 to 2023. Non-performing loan classes consist of Substandard Loans (KL), Doubtful Loans (D), and Bad Loans (M). From this table, it can be seen that the total non-performing loans in 2020 experienced a large spike (18.91%) compared to the previous year, mainly due to the increase in Doubtful Loans and Bad Loans. However, in 2021 and 2022, the number of non-performing loans began to fall, and in 2023 it again experienced a significant increase, especially in Bad Loans.

Table 2. Development of Non-Performing Loans of Perumda BPR Garut Period 2018-2023 (in thousands)

Year	Non-performing Loans	Progress	Description
2018	15.341.086	-	-
2019	16.568.610	1.227.524	Up
2020	24.309.821	7.741.211	Up
2021	23.539.219	(770.602)	Down
2022	22.075.945	(1.463.274)	Down
2023	26.711.120	4.635.175	Up

This table shows the nominal and percentage development of non-performing loans from 2018 to 2023. In 2020, there was the largest spike in the number of non-performing loans, at 46.72%. After that, in 2021 and 2022, there was a decline, although not significant. The year 2023 showed another increase of 20.99%. Overall, non-performing loans tend to fluctuate, with the largest increase in 2020.

Table 3. Development of Total Credit of Perumda BPR Garut Period 2018-2023 (in thousands)

Year	Total Credit	Progress	Description
2018	170.030.053	-	-
2019	180.500.220	10.470.167	Up
2020	173.055.901	(7.444.319)	Down
2021	185.923.157	12.867.256	Up
2022	199.721.195	13.798.038	Up
2023	242.641.635	42.920.440	Up

This table presents data on the development of total loans granted by Perumda BPR Garut during the 2018-2023 period. In general, total loans increased every year, except in 2020 which decreased by 4.12%. The year 2023 recorded the largest increase in total loans granted of 21.49%, reflecting significant growth at the end of the period.

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Table 4. Development of Non-Performing Loan (NPL) Perumda BPR Garut Period 2018-2023 (in thousands)

Year	Non-performing Loans	Total Credit	NPL	Progress	Description
2018	15.341.086	170.030.053	3.66%	-	-
2019	16.568.610	180.500.220	1.96%	(1.7%)	Down
2020	24.309.821	173.055.901	3.86%	1.9%	Up
2021	23.539.219	185.923.157	2.75%	(1.11%)	Down
2022	22.075.945	199.721.195	2.90%	0.15%	Up
2023	26.711.120	242.641.635	3.39%	0.49%	Up

This table illustrates the development of NPLs, which are calculated by comparing non-performing loans to total loans. NPLs in 2020 reached 3.86%, which was the highest during the period, and in 2023 saw a slight increase to 3.39%. In 2019, NPLs saw a significant drop to 1.96%. Overall, despite fluctuations, NPLs tend to increase in certain years, as non-performing loans rise.

Table 5. Development of Net Income of Perumda BPR Garut Period 2018-2023 (in thousands)

Year	Net Profit	Progress	Description
2018	4.715.996	-	-
2019	6.092.166	1.376.170	Up
2020	5.857.515	(234.651)	Down
2021	6.932.403	1.074.888	Up
2022	7.485.235	552.832	Up
2023	8.478.924	993.689	Up

This table shows the development of net profit earned by Perumda BPR Garut from 2018 to 2023. Net profit has increased every year, except in 2020 which has decreased by 3.85%. 2019 recorded the largest increase of 29.18%. Overall, net profit showed a positive trend despite a slight decrease in 2020.

Table 6. Development of Total Assets of Perumda BPR Garut Period 2018-2023 (in thousands)

Year	Total Assets	Progress	Description
2018	245.315.312	-	-
2019	263.853.512	18.538.200	Up
2020	268.956.955	5.103.443	Up
2021	283.828.350	14.871.395	Up
2022	295.558.304	11.729.954	Up
2023	330.219.128	34.660.825	Up

This table shows the total assets owned by Perumda BPR Garut during the 2018-2023 period. Total assets show an increase every year, with the largest increase occurring in 2023 by 11.72%. The years 2020 to 2022 experienced a more moderate increase, but still showed consistent growth, reflecting good asset management by the company.

Table 7. Development of Return on Assets (ROA) Perumda BPR Garut Period 2018-2023 (in thousands)

Year	Net Profit	Total Assets	ROA	Progress	Description
2018	4.715.996	245.315.312	2.69%	-	-
2019	6.092.166	263.853.512	3.23%	0.54%	Up
2020	5.857.515	268.956.955	2.90%	(0.33%)	Down
2021	6.932.403	283.828.350	3.31%	0.41%	Up
2022	7.485.235	295.558.304	3.44%	0.13%	Up
2023	8.478.924	330.219.128	3.57%	0.13%	Up

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This table presents data on Return on Assets (ROA), which is calculated by comparing net profit with total assets. The ROA value shows a positive trend, with a significant increase in 2019 of 0.54%. However, in 2020 there was a decrease of (0.33%) reflecting the negative impact of the decline in net profit. Despite the temporary decline, ROA continued to increase in subsequent years, albeit with smaller increases.

B. Statistical Analysis

Classical Assumption Test: NPL and ROA data are normally distributed based on Kolmogorov-Smirnov and Shapiro-Wilk normality tests.

1) Simple Regression Test:

Regression equation: Y = 0.039 - 0.217X. Every 1% increase in NPL reduces ROA by 0.217%. The negative regression coefficient indicates a negative relationship between NPL and ROA.

Table 8. Simple Linear Regression Test Results

Model	Unstandardised Coefficients	Standardised Coefficients	t	Sig.
	B	Std. Error	Beta	
Constant)	0.039	0.007		5.744
NPL	-0.217	0.213	-0.453	-1.016

This table shows the results of the normality test conducted to check the distribution of the data. The significance value for both variables, NPL and ROA, is 0.200 (greater than 0.05), which indicates that the data of both variables are normally distributed. Thus, the normality assumption in the regression model has been met.

2) Product Moment Correlation Test:

The correlation between NPL and ROA is -0.453, which indicates a moderate negative relationship.

Table 9. Product Moment Correlation Test Results

	NPL	ROA
NPL	1	-0.453
ROA	-0.453	1

This table presents the results of the simple regression test between NPL and ROA. The resulting regression equation is Y = 0.039 - 0.217X, which indicates that every 1% increase in NPL will lead to a 0.217% decrease in ROA. The negative regression coefficient indicates a negative relationship between NPL and ROA.

3) Determination Coefficient Test

The value of R^2 = 0.205 indicates that NPL only explains 20.5% of the variance in ROA, while 79.5% is influenced by other factors.

Table 10. Test Results of the Coefficient of Determination

Model	R	R^2	Adjusted R^2	Std. Error of Estimate
1	0.453	0.205	0.007	0.00333

This table shows the coefficient of determination (R^2) value of 0.205, which means that NPL can only explain 20.5% of the variation in ROA. The rest (79.5%) is influenced by other factors not examined in this study.

4) Hypothesis Test

tcount = -1.016 < ttable = 2.776, and a significance value of 0.367 > 0.05, which means Ho is accepted and Ha is rejected, so NPL has no significant effect on ROA.

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Table 11. Hypothesis Test Results

Model	Unstandardised Coefficients	Standardised Coefficients	t	Sig.
(Constant)	0.039	0.007		5.744
NPL	-0.217	0.213	-0.453	-1.016

This table shows the t-test results to test the effect of NPL on ROA. The value of tcount = -1.016 is smaller than ttable = 2.776, and the significance value of 0.367 is greater than 0.05. This means that the alternative hypothesis (Ha) is rejected, which indicates that NPL has no significant effect on ROA at Perumda BPR Garut.

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