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ANALYSIS OF LOAN TO DEPOSIT RATIO AND NON-PERFORMING LOAN ON PROFITABILITY ON PROFITABILITY PT BPR DANA NAGOYA

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Abstract

The bank aims to obtain income in the form of dividends or benefit from the increase in the price of shares owned. The amount of credit disbursed by a bank will determine the bank's profit, profitability is the net result of a number of policies and decisions of the company. The profitability ratio measures how much the company is capable of making a profit. Profitability is a factor that should receive important attention because it is to be able to carry out the life of a company. This study aims to test the Loan to Deposit Ratio and NonPerforming Loan against profitability. The population in this study was PT BPR Dana Nagoya. The data used in this study is in the form of financial statements of PT BPR Dana Nagoya. In this study, researchers used descriptive statistical data analysis methods, classical assumption tests, normality tests, auto correlation tests, multicorrelarity tests, Heteroskedasticity tests, Hypothesis Tests, Multiple Linear Regression Analysis, and Coefficients of Determination. Based on the results of the t test, it shows that the calculated t value of 2,731 < t table is 1,687.3 and the significance value of t is 0.499 > 0.05, it can be concluded that the Variable Loan to Deposit Ratio (LDR) has a significant positive effect on profitability. Likewise, with the Non Performing Loan (NPL) variable with a calculated t value > t table of 6,151 <1/687 and a significance value of t of 0,000 < 0.05, it can be concluded that the Non Performing Loan (NPL) variable has a negative effect on profitability. Meanwhile, in the F test, the two independent variables jointly influenced profitability by showing a calculated F value of 21,072 > F of table 3.25 and an F significance value of 0.000 < 0.05.

Keywords:

LDR,NPL, Profitability, Bank.

Introduction

The economic balance is influenced by various aspects, one of which is that the banking sector, especially in the economic world, will not be complete if there is no banking sector, the banking industry itself is divided by various parts of one of which is the People's Credit Bank (BPR). People's Credit Bank or usually known as BPR also carries out business activities conventionally or based on sharia principles, which in its activities do not provide services in payment traffic. BPR activities are prohibited from receiving current account deposits, foreign exchange activities, and insurance (Drs. Ismail, 2013).One of the BPRs that has been established in Batam City since 2006 is the Head Office, PT. BPR Dana Nagoya located in Lubuk Baja District, then PT. BPR Dana Nagoya is determined to become one of the RURAL BANKS that supports the economy of Batam City so that PT. BPR Dana Nagoya opened a Branch Office for the first time in 2010 located in Bengkong District and the addition of a Second Branch Office in 2014 located in Batam

City District. Until now PT. BPR Dana Nagoya is still running smoothly and continues to support the economic growth of Batam City (Dr. Kasmir, 2016).The fundamental goal of banking is to obtain normal profits, one of the things that must be done is to perform services to local residents. The owner of the company giving capital to the bank has the intention of obtaining a profit which is more often referred to as a dividend or profit generated from the price of the shares owned.Trust from customers is one of the paths to facilitate cross-finance which plays a very important role in economic growth in a country where banks play a major role as the main support for economic activities so that banks must have good performance to make it easier to gain the trust of customers (Octaviani & Andriyani, 2018). Profability is an Indicator to measure the work performance of a bank. The comparison of profitability ratios (ROA) can be used as a measurement between the already draped part in the financial iaporan, especially in the balance sheet financial system and the profit loss iaporan. The balance can be maintained for part of the period of operation. The purpose of this is to be able to see the development of the company in a certain period, the balance of the company's profits fluctuates, along with looking for changes in the problem of change (Siregar & Ompusunggu, 2022).The bank management must be professional and implement the precautionary principle in providing its credit to reduce the level of credit risk so as to develop profitability, but the bank must also choose to provide credit to the people so as to reduce non-current credit and conversely profitability can increase due to the profit generated from bank credit interest (Rahman et al., 2017). To increase profitability, the bank's model and the funds that have been collected must be carried out with the benefits of mediation, namely by providing credit with a smaller credit interest and supported by interest on the account of the office and additional profits from the branch office, updating the LImu TeknoIogi and smart labor (Wardiah, Mia Lasmi, S.P., 2013). The purpose of providing small credit interest is so that RURAL BANKS can make a profit in lending to the public which will certainly increase the total of credit interest accrual by account or nominally. In terms of providing credit to local people, banks must continue to prioritize the principle of prudence and maintain accuracy in terms of expenditure burden (Korri & Baskara, 2019).Loan to Deposit Ratio (LDR) is a value that is used as the basis for calculating how much credit value has been distributed to third party funds that have been accommodated and own capital that has been used. The greater the value of the LDR ratio, the higher the credit value that has been given to the community (Cahyono, 2018). Non-Performing Loan (NPL) is a ratio that describes the level of a bank's ability to manage the risk of failure to return capital that has been provided in the form of credit by the debtor. Failed credit can be explained as a risk associated with the possibility of not returning capital that has been channeled through consumer credit that pays its obligations or the risk that the debtor cannot return the debt that has been given by the bank in accordance with the agreement he has agreed to (Saputra et al., 2019). The high value of NPLs, the risk that will be handled by the bank will be higher so that the reliability that will be received will also be reduced because the principal and interest that should have been biased to be received becomes unbiased to be accepted because the uncollectible capital that has been given can be seen based on the quality of ongoing credit (Rahman et al., 2017). The greater the value of the NPL, the more risks the interest rate on loans will increase. The value of credit interest rates that are too large will reduce the demand for local residents to submit credit applications that should be distributed to the community to be constrained. In addition, the high value of NPLs also hinders interest income that should be acceptable to be unacceptable (Hasibuan, 2015). This assessment uses two important ratios that have an impact on the level of bank profitability, namely the Non-Performing Loan (NPL) Loan to Deposit Ratio (LDR), as has been done by (Cahyono, 2018), (Rahman et al., 2017), (Saputra et al., 2019), (Korri & Baskara, 2019), (Octaviani & Andriyani, 2018), (Ambarawati & Abundanti, 2018), (Martono & Rahmawati, 2020), (Purba & Triaryati, 2018).Based on the results of research according to (Octaviani & Andriyani, 2018) (Purba & Triaryati, 2018), LDR and NPL have a significant influence on profitability. According to (Korri & Baskara, 2019) (Ambarawati & Abundanti, 2018) LDR has a positive and significant effect and NPL has a negative and significant effect on profitability. Meanwhile, based on research (Saputra et al., 2019) LDR and NPL do not have a significant effect on profitability according to (Cahyono, 2018) LDR does not have a significant effect on profitability.

Research Methods

Research Design

Research design is a research procedure or planning that is used as a technique in conducting research. The research design aims to be able to support and provide research results. This study aims to test the effect of Non-Performing Loan and Loan to Deposit Ratio on profitability in PT. BPR Nagoya Fund. According to (Prof. Dr. Sugiyono, 2012) the components and process of research, namely every research always departs from problems / phenomena. As for the design in this study:

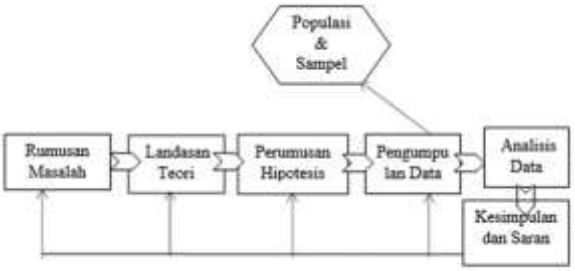

Figure 1. Research Design
Source: Prof. Dr. Sugiyono (2012)

Population and Sample

The population in this study was PT. BPR Dana Nagoya in Batam. The sample determination method used is a non-probability sampling method with saturated sample technique. So that the sample used is the financial statements of PT. BPR Dana Nagoya for the period 2012-2021 with quarterly data.

Types and Sources of Data Collection

The author has used this type of quantitative data in this study because the data obtained are in the form of numbers which will then be further analyzed in data analysis. This study consists of three variables, namely Non-Performing Loan (NPL), Loan to Deposit Ratio (LDR), and profitability.The data source used in this study is secondary data obtained by researchers from existing sources. The data is in the form of financial statements published by PT BPR Dana Nagoya which can be obtained through the www.ojk.go.id website which is the official website of the Financial Services Authority and reports collected from research objects.The data collection technique used in this study is documentation. Documentation comes from the word document which means written goods. In this study, it is intended to obtain data by means of documentation, namely by studying documents related to all the data needed in this study.The instrument used in this study is a financial report related to the variables studied, namely other information reports containing the company's financial ratios.

Data Analysis Methods

In quantitative research, data analysis is an activity after data from all respondents are collected. Activities in data analysis are: grouping data based on variables and types of respondents, tabulating data based on variables from all respondents, presenting data on each variable studied, making calculations to answer problem formulations, and making calculations to test hypotheses that have been proposed (Prof. Dr. Sugiyono, 2012). There are two types of data analysis in quantitative research, namely descriptive statistics and parametric statistics. The data analysis methods used in this study are descriptive statistics, classical assumption tests in the form of normality tests, autocorrelation tests, multicholinearity tests, heterochedasticity tests. Test the hypothesis design using the t test and F test, multiple regression analysis and coefficient of determination.

- **Descriptive Statistics**

According to (Prof. Dr. Sugiyono, 2012) , descriptive statistics are statistics used to analyze data by describing or describing the data that has been collected as it is without intending to make conclusions that apply to the public or generalizations. Descriptive statistics are used when the researcher only wants to describe the sample data, and does not want to make conclusions that apply to the population in which the sample was taken.

- **Classical Assumption Test**

The classical assumptions in this study include normality test, autocorrelation test, multicholinearity test, and heteroskedasticity test.

- **Normality Test**

This test is carried out to find out whether the residual value (existing difference) studied has a normal or abnormal distribution. The normally distributed residual value will form a curve which, if depicted, will be bell-shaped curve. The normality test can be performed with a standardized residual regression histogram and kolmogorov- Smirnov values. The data is said to be normal if the probability sig (2 tailed) value > α ; sig > 0.05 (Wibowo, 2012).

- **Autocorrelation Test**

The autocorrelation test is used for a purpose, namely knowing whether there is a correlation between members of a series of data observed and analyzed according to space or according to time, cross section or time series (Wibowo, 2012). The most commonly used method is the Durbin- Watson method. The presence or absence of autocorrelation is based on : if the Durbin-Watson value > 0.05 means that no autocorrelation occurred.

- **Multicholinearity Test**

Inside the regression equation there should be no multicholinearity, meaning that there should be no perfect or near-perfect correlation or relationship between the free variables that make up the equation (Wibowo, 2012). Symptoms of multicholinearity can be identified through a test that can detect and test whether the equation

formed occurs symptoms of multicholinearity by looking at the test tool called the Tolerance (TOL) and Variance Inflation Factor (VIF) values. If the VIF value < 10 and the TOL value > 0.10 then the model has no symptoms of multicholinearity, meaning that there is no relationship between the free variables.

- **Heteroskedasticity**

Heteroskedasticity test tests the occurrence of residual variance differences of one observation period to another observation period (Sujarweni, 2016). How to predict the presence or absence of heteroskedasticity in a model can be seen by the Scatterplot image pattern, regression does not occur heteroskedasticity if :

1. The data points are spread above and below or around the number 0.
2. Data points do not collect only above or below.
3. The spread of data points should not form a wavy pattern of widening then narrowing and widening again.
4. The spread of data points is not patterned.

- **Hypothesis**

Test The hypothesis design test in this study includes the t test, F test, multiple linear analysis, and coefficient of determination.

- **T-test**

The t test is carried out on partial hypothesis testing, to determine whether there is an influence of individual independent variables on dependent variables. According to (Sujarweni, 2016)decision making of the results of the t test if:

a. Sig > 0.05 then Ho accepted.
b. Sig < 0.05 then Ho was rejected.

Or

c. t count < t table then Ho accepted.
d. t count > t table then Ho is rejected.

- **Test F**

Test F shows whether all the independent variables entered in the model have a joint influence on the dependent variables. According to (Sujarweni, 2016), decision making of F test results if:

a. Sig > 0.05 then Ho accepted.
b. Sig < 0.05 then Ho was rejected.

Or

c. F count < F table then Ho accepted.
d. F count > F table then Ho is rejected.

- **Multiple Linear Regression**

Analysis Multiple linear regression analysis is basically an analysis that has almost the same technical patterns and substance as simple linear analysis. The multiple linear regression model by itself expresses a form of linear relationship between two or more independent variables and their dependent variables.
The model of the regression equation used can be formulated, as follows:

$$Y = a + b_1X_1 + b_2X_2$$

Information:
Y: Profitability
a : Constant
b : Regression coefficient
X1: Loan to Deposits Ratio (LDR)
X2: Non-Performing Loan (NPL)

- **Coefficient of Determination**

This analysis is used in conjunction to determine the number or percentage of contributions of the influence of free variables in regression models that simultaneously or jointly exert an influence on bound variables. So the number coefficient is shown to show the extent to which the model formed can explain the actual conditions (Sujarweni, 2016).

Results and Discussion

The use of the method in this study is to use a descriptive method in the form of secondary data that is quantitative and the use of population in this study is the financial statements of PT BPR Dana Nagoya during 2012 to 2021. The sample method used as the object of this study is the saturated sample technique.Descriptive statistical analysis is carried out to provide an overview of the data used. The variables used in the study were loan to deposit ratio (X1_LDR) and non-performing loan (X2_NPL) as independent variables and profitability (Y_ROA) as dependent variables. Research variables are interpreted in maximum, minimum, mean, and standard deviation values. The number of observations in the study was 40 data which is data on PT BPR Dana Nagoya for the 2012-2021 period. The descriptive statistical results are presented in the following table:

Table 1. Descriptive Statistics

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Y_ROA	40	.26	13.77	3.1380	2.66524
X1_LDR	40	59.61	88.74	75.3907	8.47366
X2_NPL	40	1.62	13.50	5.0230	3.03678
Valid N (listwise)	40				

Source: Data processed with SPSS 26, 2022

The description of each variable based on such tables, namely:

- **Dependent variable profitability (Y_ROA)**
  The lowest profitability at PT BPR Dana Nagoya of 0.26 occurred in March 2019 and the highest profitability of 13.77 occurred in March 2016. Mean values and standard deviations of profitability variables amounted to 3.14 and 2.67.
- **The independent variable loan to deposit ratio (X1_LDR)**
  Loan to deposit ratio at PT BPR Dana Nagoya had the lowest value of 59.61 occurred in March 2018 and the highest loan to deposit ratio of 88.74 occurred in June 2021. The mean value and standard deviation of the loan to deposit ratio variables were 75.39 and 8.47.
- **Independent variable non-performing loans (X2_NPL)**
  Non-performing loans at PT BPR Dana Nagoya had the lowest value of 1.62 occurred in December 2012 and the highest non-performing loan of 13.50 occurred in June 2020. The mean value and standard deviation of non-performing loan variables were 5.02 and 3.04.

Test of Classical Assumptions

Normality Test

The Normality Test is used to test whether in a regression model, the disruptive or residual variable or its dependent and independent variables have a normal distribution. The normality test in the study using graph analysis was detected by looking at the distribution of data (points) on the diagonal connection of the graph or the histrogram of the residual. The results of the normality test with histogram and P-plot chart analysis can be seen in the figure below.

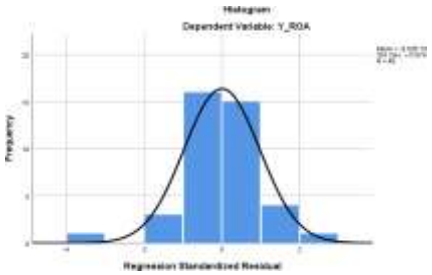

Figure 2. Histogram Chart

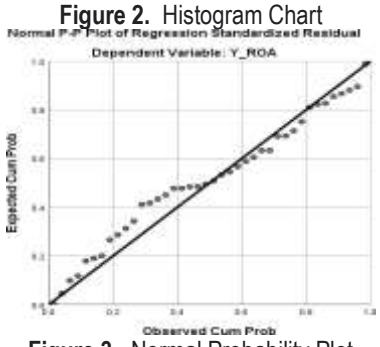

Figure 3. Normal Probability Plot

Figures 2 and 3 show a histogram graph and a plot graph, where the histogram graph gives a distribution pattern that goes off the right which means the data is normally distributed. The P-plot image looks at the dots that follow and spread around the diagonal line and follow the direction of the diagonal line so that the conclusion is reached that the regression model meets the assumption of normality. The normality test in the study was also carried out using the Kolmogrov-Smirnov One-sample test with the test criteria being:

- The data is normally distributed, if the sig value > the alpha level of 0.05 or the data is not normally distributed, if the sig value is < the alpha level is 0.05.

The One-sample Kolmogrov-Smirnov test can be seen in the following table:

Table 2. One-sampel Kolmogrov-Smirnov

N		40
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	.22821797
Most Extreme Differences	Absolute	.134
	Positive	.074
	Negative	-.134
Test Statistic		.134
Asymp. Sig. (2-tailed)		.068[c]

Source : Data processed with SPSS 26, 2022

a.Test distribution is Normal.
b.Calculated from data.
c.Lilliefors Significance Correction.

The results of the normality test in Table 2 show that the asymp value. Sig. (2-tailed) of 0.068 > 0.05 so that the conclusion is reached that the residual has been distributed normally which means that the basic assumptions of normalcy have been met.

Multicollinearity Test

The Multicholinearity Test is used to test for correlations between independent variables and other independent variables. Multicholinearity test in the study using Variance Inflatin Factor (VIF) and Tolerance values with the following decision-making criteria:

a.The data does not occur multicollinearity problems, if the VIP value< 10 and the tolerance value > 0.1 or
b.The data has a multicollinearity problem, if the VIP value > 10 and the tolerance value < 0.1

The following are presented the results of the multicollinearity test in the study:

Table 3. Multicolonierity Test

Model		Collinearity Statistics	
		Tolerance	VIF
1	X1_LDR	.998	1.002
	X2_NPL	.998	1.002

a. Dependent Variable: Y_ROA
Source : Data processed with SPSS 26, 2022

The results of the multicollinearity test in table 3, show that the VIF value in the independent variable loan to deposit ratio and non-performing loan has a value smaller than 10 and has a tolerance value (TOL) of not less than 0.1, so it is concluded that the two independent variables, namely the loan to deposit ratio and non-performing loan do not experience multicollinearity problems.

Heteoskedasticity Test

The Heteroskedasticity test aims to find out whether in the regression model there is an inequality of variance from the residual of one observation to another. Heteroskedasticity testing in the study was carried out by looking at a scatter plot graph between the predicted value of the bound variable (ZPRED) and its residual value (SRESID). If the points form a certain pattern that is as regular as a large wave widens, then narrows then heteroskedasticity has

occurred. If the dots spread above and below the number 0 on the Y axis without forming a certain pattern, then heteroskedasticity does not occur. The results of the heteroskedasticity test can be seen in the following figure.

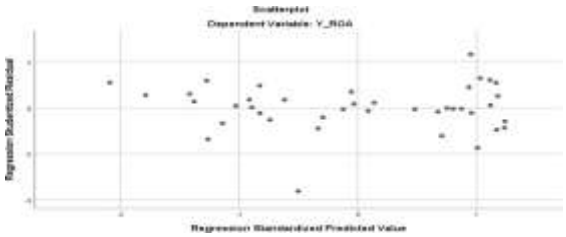

Figure 4. Scatter Chart Plot Heteroskedasticity Test

The Scatter Plot test image shows that the data points are scattered above and below or around the number 0. The dots do not collect only above or below and the spread of the data points does not form a wavy pattern widening then narrowing down again. So it can be concluded that the data do not undergo heteroskedasticity. Heteroskedasticity testing in the study was also carried out using the Glejser test with the test criteria being: a. The data did not occur heteroskedasticity problems, if the sig value > an alpha level of 0.05 orb. The data experienced heteroskedasticity problems, if the sig value < an alpha level of 0.05.
The results of the heteroskedasticity test are presented in the following table:

Table 4. Heteroskedasticity Test

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.055	.242		.229	.820
	X1_LDR	.001	.003	.075	.456	.651
	X2_NPL	-.001	.009	-.026	-.159	.874

Source : Data processed with SPSS 26, 2022

a. Dependent Variable: res2

Heteroskedasticity test results in Table 4. , indicating that the significance values of independent variables of loan to deposit ratio and non-performing loans have values of > alpha 0.05 of 0.651 and 0.874 respectively which indicates that the data are homoskedasticity or do not experience heteroskedasticity problems.

Autocoleration Test

The autocorrelation test aims to test whether in a linear regression model there is a correlation between the disruptor error in the t period and the error of the t-1 period (previous). The method used in this study is the Durbin-Watson test method with the following criteria used:
- Autocorrelation occurs, if the value of du > d < 4 - two
- No autocorrelation occurs, if the value of du < d < 4 - du

The results of the autocorrelation test can be presented in the following table:

Table 5. Autocorrelation Test

Model Summary[b]

Model	Durbin-Watson
1	1.689[a]

Source : Data processed with SPSS 26, 2022

a. Predictors: (Constant), X2_NPL, X1_LDR
b. Dependent Variable: Y_ROA

The autocorrelation test results in Table 5, show that the dw value of 1,689 will be compared with the du value in the durbin watson table. The du and dl values in the durbin watson table were 1,600 and 1,390, so a comparison of 1,600 < 1,689 > 2,311 (4 – 1,689) means that the data in the study did not experience autocorrelation problems.

Multiple Linear Regression Analysis Multiple

linear regression tests are used to calculate estimation parameters and to see whether or not there is a relationship between those variables. The relationship between loan to deposit ratio and non-performing loans to profitability at PT BPR Dana Nagoya for the 2012-2021 period was analyzed using multiple regression analysis with a level of 0.05 or 5%. The results of regression in the study are presented in the following table:

Table 6. Multiple Linear Regression

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	-.036	.339		-.106	.916
	X1_LDR	.011	.004	.267	2.371	.023
	X2_NPL	-.076	.012	-.692	-6.151	.000

Source : Data processed with SPSS 26, 2022

a. Dependent Variable: Y_ROA

Based on the regression results in Table 6, the regression equation model can be formulated as follows:

Y = a + b1X1 + b2X2 + e

Profitabilitas = -0.036 + 0.011 Loan to deposit ratio - 0.076 Non performing loan

The above equation means that:

1. Constant a of -0.036, meaning that if the independent variable loan to deposit ratio and non-performing loan have a value of 0 (no change in up or down), then the profitability at PT BPR Dana Nagoya in 2012-2021 is -0.036.
2. The loan-to-deposit ratio regression coefficient of 0.011 indicates a positive direction. This shows that the loan to deposit ratio has a positive relationship with profitability, where if the loan to deposit ratio increases by 1 percent while other variables are fixed (unchanged) then profitability at PT BPR Dana Nagoya in 2012-2021 will increase by 1.1 percent.
3. The non-performing loan regression coefficient of -0.076 indicates a negative direction. This shows that non-performing loans have a negative relationship with profitability, where if non-performing loans decrease by 1 percent while other variables are fixed (not subject to change) then profitability at PT BPR Dana Nagoya in 2012-2021 will increase by 7.6 percent.

Hypothesis

Test Hypothesis testing is used to determine the correlation of the three variables studied and how much influence between the independent variables affects the dependent variables. Hypothesis testing carried out includes a partial t-test, a simultaneous f-test and a coefficient of determination.

Partial t Test

The t test basically aims to show whether the variable loan to deposit ratio and non-performing loan have a partial / individual effect on profitability at PT BPR Dana Nagoya in 2012-2021. Acceptance and rejection of the hypothesis will be carried out with the following criteria :

a. If the sig value ≤ α (0.05) and t count > t of the table, then the hypothesis is accepted.

b. If the sig value ≥ α (0.05) and t count < t of the table, then the hypothesis is rejected.

The value of t of the table at significance level of 0.05 and the free degree (df) is df = n-k- 1= 40-2-1 = 37, so the table t value of 1.687 is obtained. The results of the multiple regression partial t-test can be seen in the table below:

Table 7. Partial t-test

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	T	Sig.
1	(Constant)	-.036	.339		-.106	.916
	X1_LDR	.011	.004	.267	2.371	.023
	X2_NPL	-.076	.012	-.692	-6.151	.000

Source : Data processed with SPSS 26, 2022

a. Dependent Variable: Y_ROA

Based on the results of the t test above, it is known that:

1. Hypothesis 1 = Loan to deposit ratio affects profitability at PT BPR Dana Nagoya in 2012-2021 The results of the study in Table 4.8, show the sig value. the variable loan to deposit ratio < a critical probability value (α = 5%) of 0.023 < 0.05 and a calculated t value > t table of 2,371 > 1,687, this shows that the loan to deposit ratio has an effect on profitability. A regression coefficient of 0.011 indicates a positive direction. This means that the loan to deposit ratio has a positive effect on the profitability of PT BPR Dana Nagoya in 2012-2021. Based on the results of these statistics, the first hypothesis proposed by the author is declared accepted.
2. Hypothesis 2 = Non-performing loans affect profitability at PT BPR Dana Nagoya in 2012-2021 Sig value. the variable non performing loan < a critical probability value (α = 5%) of 0.000 < 0.05 and a calculated t value > t table of 6,151 > 1,687, this indicates that non-performing loans have an effect on profitability. A regression coefficient of -0.076 indicates a negative direction. This means that non-performing loans have a negative effect on the profitability of PT BPR Dana Nagoya in 2012-2021. Based on these statistical results, the second hypothesis proposed by the author is declared accepted.

Test F Simultaneous

Test F is used to prove whether together / simultaneously all independent variables, namely loan to deposit ratio and non-performing loans, affect profitability at PT BPR Dana Nagoya in 2012-2021. The terms of receiving or refusing a hypothesis are as follows:

a. If the probability value (F-statistic) > 0.05 and f calculates < f table, then H0 is received, namely loan to deposit ratio and non-performing loan simultaneously has no effect on profitability at PT BPR Dana Nagoya in 2012-2021.
b. If the probability value (F-statistic) ≤ 0.05 and f calculates > f table, then H3 is received, namely loan to deposit ratio and non-performing loan simultaneously affects the profitability of PT BPR Dana Nagoya in 2012-2021.

The F value of the table at significance level 0.05 is df = n-k-1 = 40–2-1 = 37, so the table f is obtained by 3.25. The results of the F test in this study can be seen in the following table:

Table 8. Statistical Test Results F

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.314	2	1.157	21.072	.000[b]
	Residual	2.031	37	.055		
	Total	4.345	39			

Source : Data processed with SPSS 26, 2022

a.Dependent Variable: Y_ROA
b.Predictors: (Constant), X2_NPL, X1_LDR

Based on the results of the F test in table 8, the sig value is known. F (Statistics) of 0.000 is less than the significance level of 0.05 and f counts > f of the table of 21,072 > 3.25. This shows that the loan to deposit ratio and non-performing loan simultaneously / simultaneously affect the profitability of PT BPR Dana Nagoya in 2012-2021. Based on these statistical results, the third hypothesis proposed by the author is declared accepted.

The Coefficient of Determination

coefficient of determination (R2) test is carried out to measure the magnitude of the influence of independent variables on dependent variables in regression models. If the value of R2 is high or close to 1, it means that the ability of the independent variable to influence the dependent variable is getting bigger. However, if R2 is low or close to 0, it means that the ability of the independent variable to affect the dependent variable is getting lower and lower. The results of the coefficient of determination of multiple regression can be seen in the following table:

Table 9. Coefficient of Determination(R2)

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.730[a]	.532	.507	.23430

Source : Data processed with SPSS 26, 2022

a.Predictors: (Constant), X2_NPL, X1_LDR
b.Dependent Variable: Y_ROA

The results of the coefficient of determination in table 4.10, show that the adjusted value of r square is 0.507 which shows that the loan to deposit ratio and non-performing loans have a fairly strong relationship with profitability at PT BPR Dana Nagoya in 2012-2021. The proportion of the effect of loan to deposit ratio and non-performing loans on profitability at PT BPR Dana Nagoya in 2012-2021 was 50.7 percent while the remaining 49.3 percent (100 - 50.7 percent) was influenced by other variables that were not studied in the study.

Discussion

The purpose of this study is to analyze the influence on independent variables, namely loan to deposit ratio and non-performing loans on dependent variables, namely profitability. The object of this study is a company engaged in banking by presenting secondary data in the period from 2012 to 2022. Here are the hypothesis results from SPSS testing version 26:

- **Effect of Loan to Deposit Ratio on Profitabilit**

  Based on the results of the t test, in the first hypothesis it was shown that Ha was received which means that the loan to deposit ratio partially has a positive and significant effect between the variable loan to deposit ratio to the profitability of PT BPR Dana Nagoya, this hypothesis is seen from the results of a significance value that exceeds 0.05, which is 0.023 and a table t value of 1,687 greater than t count of 2,371.The results of this study are in line with research conducted by (Ambarawati & Abundanti, 2018) which states that the loan to deposit ratio partially has a positive and significant effect on profitability, as well as the one studied by (Korri & Baskara, 2019) which states that the loan to deposit ratio partially has a positive and also significant effect on profitability.This can happen due to the high

loan to deposit ratio but the credit given is not too sharp so that a lot of funds are deposited so that the interest expense paid will be more and the interest income that should be obtained is not balanced with the third party funds that are accommodated.

- **The Effect of Non Perfoming Loans on Profitability**

  The hypothesis results of this t-test show that Ha is accepted, which means that the non-performing loan variable partially has a negative effect and has a significant relationship with the profitability of PT BPR Dana Nagoya. The conclusion of this t-test can be seen from the results of a significance value of 0.000 which is not greater than 0.05 and at a calculated t value of 6.151 greater than the table t value of 1.687.There is a similar study by (Korri & Baskara, 2019) with the results of a study that states that non-performing loans partially have a negative and significant influence on profitability. There is another study conducted by (Ambarawati & Abundanti, 2018) which states that partially non-performing loans have a negative and significant effect on profitability.

- **Effect of Loan to Deposit Ratio and Non-Perfoming Loan on Profitability**

  Based on the results of the F test, there was a significance value of 0.005 not exceeding the value of 0.05 and in the F calculation it produced a value of 21,072 which can be seen to have a greater value of the F calculation result than F table, which is 3.25, so this shows that Ha is accepted, then the conclusion is that simultaneously there is a significant influence between the variable loan to deposit ratio and non-perfominh loan on the profitability of PT BPR Dana Nagoya.There are similar results of research conducted by (Amin, 2018) which provides a statement that the loan to deposit ratio and non-perfoming loans simultaneously have a positive and significant effect on profitability. Similarly, the results of research conducted by (Octaviani & Andriyani, 2018), which provide a statement that the loan to deposit ratio and non-perfoming loan simultaneously have a positive and significant effect on profitability.

Conclusions and Suggestions

Conclusion

The purpose of this study is to determine whether the loan to deposit ratio and non-performing loans affect the profitability of PT BPR Dana Nagoya. Based on the discussion of the test results in the previous chapter, there are conclusions obtained in this study, namely:

- Based on data analysis, it is proven that the loan to deposit ratio partially has a positive and significant effect on the profitability of PT BPR Dana Nagoya.
- Based on data analysis, it is proven that partially non-perfoming loans have a negative and significant effect on the profitability of PT BPR Dana Nagoya.
- Based on data analysis, it is proven that simultaneously the loan to deposit ratio and non-performing loans have a positive and significant effect on the profitability collection of PT BPR Dana Nagoya.

Suggestion

After concluding the results of the research by the researcher, there are several suggestions from researchers that can be used as input or consideration in the future, namely:

- For Companies

  In this study, it is hoped that PT BPR Dana Nagoya can be more creative in making ideas in raising funds and better apply the principle of prudence in terms of lending so that it can minimize interest expenses and losses in the future in order to get a good profitability value. This is intended so that people will be more interested in saving so that they can further increase the amount of Loan to Deposit Ratio and reduce the number of Non-Performing Loans at PT BPR Dana Nagoya.

- For Future Researchers

In this study, the researcher only examined the effect of loan to deposit ratio and non-performing loans on the profitability of PT BPR Dana Nagoya, so it is hoped that subsequent researchers can add other free variables that affect Profitability (ROA) and can also multiply samples in the study by multiplying the objects studied or increasing the observation period

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