INTERNAL FACTOR ANALYSIS OF NON-PERFORMING LOANS USING MULTIPLE LINEAR REGRESSION METHOD

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Abstract

Loans are the largest source of income from banks compared to other sources of income. To ensure bank continuity, Bank income must exist from interest on loans, reaching almost 95% of all bank activities. For companies and banks that apply loan differences, loans are receivables which are cash that is delayed in receipt. Having problem loans can weaken a bank's financial condition. In general, two factors cause problems with loans, namely internal and external factors of the bank. Bank internal factors can be controlled by banks, compared to external factors, to prevent problem loans. Therefore, in this study, an analysis of internal factors affecting problem loans was carried out. The internal factors analyzed are the things that become the process and the essential part of the loan process, which includes loan supervision, acceptance procedures, and loan guarantees. This analysis is carried out to minimize the risk of non-performing loans caused by the inner side of the organization. The method used for analysis is using multiple linear regression analysis. Multiple linear regression analysis analyzed the relationship between the three independent variables (loan monitoring, acceptance procedures, and loan guarantees) and one dependent variable (non-performing loans). Multiple linear regression analysis provides predictions of the value of the dependent variable if the value of the independent variable increases or decreases and describes the direction of the relationship between the independent variable and the dependent variable, whether each independent variable is positively or negatively related. Based on the analysis results, the influence of loan monitoring factors, acceptance procedures, and loan guarantees on problem loans can be concluded that there is an influence between loan supervision and acceptance procedures on problem loans. At the same time, there is no effect between loan guarantees on problem loans.

Keywords: Internal factors; Non-Performing Loans; Multiple Linear Regression.

Abstrak

Pinjaman merupakan sumber pendapatan yang terbesar dari bank dibandingkan sumber pendapatan lainnya. Pendapatan bank harus ada untuk menjamin kontinuitas bank, pendapatan bank dari bunga pinjaman mencapai hampir 95% dari seluruh aktifitas bank. Bagi perusahaan maupun perbankan yang menerapkan selisih pinjaman, pinjaman merupakan piutang yang merupakan kas yang tertunda penerimaannya. Dengan adanya pinjaman bermasalah dapat membuat lemahnya kondisi keuangan suatu bank. Secara umum ada dua faktor yang menyebabkan pinjaman bermasalah, yaitu faktor internal dan faktor eksternal bank. Faktor internal bank merupakan faktor yang dapat dikendalikan oleh bank, dibandingkan dengan eksternal, untuk mencegah terjadinya pinjaman bermasalah. Oleh sebab itu pada penelitian ini dilakukan analisa faktor internal yang mempengaruhi pinjaman bermasalah. Faktor internal yang dianalisa merupakan hal-hal yang menjadi proses dan bagian terpenting dalam proses pinjaman, yaitu meliputi pengawasan pinjaman, prosedur penerimaan, dan jaminan pinjaman. Analisa ini dilakukan agar dapat meminimalkan resiko terjadinya pinjaman bermasalah yang disebabkan dari sisi internal organisasi. Metode yang digunakan untuk analisa yaitu menggunakan analisis regresi linier berganda. Analisis regresi linier berganda dilakukan dengan menganalisis hubungan antara tiga variabel bebas (pengawasan pinjaman, prosedur penerimaan, dan jaminan pinjaman) dan dengan satu variabel terikat (pinjaman bermasalah). Analisis regresi linier berganda memberikan prediksi nilai dari variabel terikat apabila nilai variabel bebas mengalami kenaikan atau penurunan serta menggambarkan arah hubungan antara variabel bebas dengan variabel terikat apakah masing-masing variabel bebas berhubungan positif atau negatif. Berdasarkan hasil analisis, pengaruh faktor pengawasan pinjaman, prosedur penerimaan, dan jaminan pinjaman terhadap pinjaman bermasalah disimpulkan terdapat pengaruh antara pengawasan pinjaman dan prosedur
INTRODUCTION

Banks are the most important financial institutions that influence the economy both on a micro and macro basis. In its operational activities, the bank collects funds from the public through savings and distributes them back to the public in the form of loans (Nursyahriana et al., 2017).

Loans are the largest source of income from banks compared to other sources of income. To ensure the bank's continuity, bank income must exist, and loan interest income reaches almost 95% of all bank activities (Kasmir, 2014). For companies and banks that apply for loan gaps, the loan is a receivable which is cash that is delayed in receipt, so the existence of a non-performing loan is a factor that can weaken a bank's financial condition (Nursyahriana et al., 2017).

BRI (Persero) Tbk Cengkareng Timur Unit is one of the work units of Bank Rakyat Indonesia, which provides loans and loans to prospective customers according to the terms and conditions agreed by both parties. If there are one or several debtors who do not comply with these rules, it can have an impact on the future. Namely, the kupedes given are not by the set time, or the payment will be in arrears. The existence of Covid-19 also had an impact on the number of non-performing loans (Kavirathne et al., 2022).

The impact of the influence of the Covid-19 pandemic on non-performing loans (NPL) at Rural Banks also shows a significant influence and a positive relationship to non-performing loans (NPL), which causes entrepreneurs, workers, and other economic sectors to lose income and profits, thus causing the inability of borrowers consisting of entrepreneurs to return funds to BPRs in Indonesia (Kavirathne et al., 2022, Nursyahriana et al., 2017).

According to Kasmir (Kasmir, 2014), two factors generally cause problem loans: internal and external factors. Internal factors include inaccurate analysis, collusion between officials who handle loans and customers, limited knowledge of officials regarding the type of debtor's business, too much interference from related parties, and weaknesses in coaching and monitoring the debtor's loan.

In addition to internal factors, non-performing loan problems are also caused by external factors. According to Kasmir (Kasmir, 2014), external factors can be caused by the debtor's business, such as security conditions that do not support the running of the debtor's business or also unsupportive natural conditions such as natural disasters and others which, of course, all these conditions will significantly hinder the running of the debtor's business process and of course will have a direct impact on the cooperative because the debtor cannot fulfill all of his obligations to loaners (Serengil et al., 2021).

Of the two types of factors that exist, bank internal factors can be controlled by banks, compared to external factors, to prevent non-performing loans from occurring (Nursyahriana et al., 2017). Therefore, in this study, an analysis of internal factors affecting customer non-performing loans was carried out. The internal factors analyzed are the things that become the process and the essential part of the loan process, which includes loan supervision, acceptance procedures, and loan guarantees. This analysis is carried out to minimize the risk of non-performing loans caused by the inner side of the organization.

Regression analysis is used for analysis (Hui & Pang, 2012). Regression analysis is a method that has a statistical basis for modelling data using the concept of linear equations (Yang, 2021). Regression analysis was performed by analyzing the relationship between two or more independent variables. Independent variables are used to determine the value of the dependent variable. Regression analysis with one variable is often called simple linear regression, while regression with two or more independent variables is called multiple linear regression (Luthfiarta et al., 2020).

Factor analysis was carried out on three independent variables: loan supervision, acceptance procedures, and loan guarantees, and the dependent variable, non-performing loans. Analysis using this method determines whether the variables of loan supervision, acceptance procedures, and loan guarantees affect the non-performing loan variable.

RESEARCH METHODS

This research was conducted to find out that there is an influence of loan monitoring, acceptance procedures, and loan guarantees on customer non-performing loans so that they can...
provide information to the bank about the factors that cause non-performing credit so that they can control problem loans. Therefore this study uses a qualitative research approach, which will explain the interrelationship of the variables studied and the description of the effect of the independent variables on the dependent variable (Sugiyono, 2014; Yani, n.d.). The research was conducted in August 2022 for BRI Bank Cengkareng Timur Unit customers.

**Data Description**

A. Primary Data

Primary data is obtained directly from sources (without going through intermediaries) (Sugiyono, 2014). The primary data obtained and used in this study is data from the questionnaire results from the respondents.

B. Secondary Data

Secondary data is research data obtained indirectly through intermediary media (obtained and recorded by other parties) (Sugiyono, 2014). The secondary data used in this study is the data on the distribution of respondents identified as having problem loans.

C. Research Variable

This study will use two variables, namely the independent variable and the dependent variable.

1. Variabel terikat (Dependent Variable)

   The dependent variable is the variable that is the focus of the researcher’s attention. The nature of a problem is easily seen by recognizing the various dependent variables used in a model (Sugiyono, 2014). This study’s dependent variable is the non-performing loan (Y).

2. Variabel bebas (Independent Variable)

   Independent variables affect the dependent variable positively and negatively (Sugiyono, 2014). Independent variables in this study are loan supervision (X1), loan acceptance procedures (X2), and loan guarantees (X3).

   The population in this study were all customers in the East Cengkareng BRI Unit, totalling 150 customers. The sample is part of the number and characteristics possessed by the population (Sugiyono, 2014). Samples were taken based on random sampling (probability sampling) using a simple random sampling technique.

   Because the population is known in number, to determine the number of samples to be studied using the Slovin formula (Sugiyono, 2014), based on calculations using the Slovin formula, the sample in this study must be taken is 60 East Cengkareng BRI Unit customers.

**Data Analysis Technique**

Data analysis in this study begins with testing the validity and reliability of the research instrument in the form of question items in the questionnaires. The questionnaire uses a Likert scale to measure attitudes, opinions, and perceptions of a person or group of people about social phenomena. With a Likert scale, the variables to be measured are translated into variable indicators. Then these indicators are used as a starting point for compiling instrument items in the form of statements or questions. The answers to each instrument item using a Likert scale have positive or negative gradation. After that, the analysis was continued by using a multiple linear regression test, where the dependent variable (Y) was the non-performing loans of BRI Cengkareng Timur Unit customers, and the independent variables were loan supervision (X1), loan acceptance procedures (X2), and loan guarantees (X3).

In this study, correlation analysis was also carried out, which helps determine a quantity that states how strong the relationship between a variable and another variable is. The symbol for the correlation quantity is r, which is called the correlation coefficient, while the parameter symbol is p (pronounced rho). The correlation test is carried out using the product moment Pearson correlation test formula (Xu et al., 2021) (Kireev et al., 2022):

\[
 r = \frac{n\Sigma XY - (\Sigma X)(\Sigma Y)}{\sqrt{(n\Sigma X^2 - (\Sigma X)^2)(n\Sigma Y^2 - (\Sigma Y)^2)}}
\]  

(1)

**Description:**

r = Correlation Coefficient  
N = Number of Respondents  
X = Amount of Independent Variable Data  
Y = Total Dependent Variable Data

The correlation coefficient can measure the strength of the relationship between X and Y. The value of the correlation coefficient (r) is between -1 to 1.

After the validity and reliability of the data are tested, the next step is to test with multiple regression. Multiple linear regression analysis determines the effect of two or more independent variables with one dependent variable.

In this study, through multiple linear regression analysis, it will also be known which variable among the variables of loan supervision (X1), loan acceptance procedures (X2), and loan guarantees (X3), has the most significant influence on the dependent variable.
guarantees \((X_j)\) has the most influence on non-performing loans \((Y)\). The multiple linear regression equation is \(\text{Setiyorini \\& Frieyadie, 2022)\):

\[
\text{Cap}Y' = a + b_1X_1 + b_2X_2 + b_3X_3 + e \quad \text{- (2)}
\]

Description:
\(Y' = \) predicted dependent variable (non-performing loan)
\(X_1, X_2, X_3 = \) Independent variables (loan acceptance, loan acceptance procedures, and loan guarantees)
\(a = \) Constant value
\(b_1, b_2, b_3 = \) Regression coefficient
\(e = \) Errors

The classic assumption test is a prerequisite for linear regression analysis (Setiyorini \\& Frieyadie, 2022). These tests include the residual normality, multicollinearity, heteroscedasticity, and autocorrelation tests. If these assumptions are violated, for example, the regression model is abnormal, multicollinearity occurs, heteroscedasticity occurs, or autocorrelation occurs. Then the regression analysis results and tests, such as the t-test and F-test, become invalid or biased.

RESULTS AND DISCUSSION

Analysis
The characteristics used to describe the research subjects were 60 respondents who were seen based on the gender, age, and education of the respondents. Of the 60 respondents who became the object of research, it can be seen that the majority were male. Namely, 33 people (55%), and the rest were female respondents, 27 people (45%). Respondents aged 20-30 years amounted to 36 people or 60%, then for respondents aged 31-40 years, there were 18 people or 30%, and for respondents aged 41-50 years, there were six people or 10%. Then from the 60 respondents who became the object of research, it was found that 12 people or 20% had junior high school education, 11 people, or 18.3%, had a high school education, three people had a D1 education, or 5%, 12 people had D3 education or 20%, 17 people with an undergraduate degree or 28.3% have an undergraduate degree. Five people with a master’s degree, or 8.3%, have a master’s degree.

1. Validity Test
It tests the significance of the correlation coefficient at a significance level of 0.05 to determine whether an item is feasible or not to be used. An item is considered valid if it correlates significantly with the total item score (Brilliandy et al., 2022).

Based on the calculation of the validity test, the variable of loan supervision shows that all questions are valid because the \(r_{count}\) value of all questions is greater than the \(r_{table}\) value (0.254). The acceptance procedure variable showed that all questions were valid because the \(r_{count}\) value of all questions was more significant than the \(r_{table}\) value (0.254). The loan guarantee variable obtained the results of most of the valid questions only on question items number 8 and number 10, which were invalid and had been revised so that they were declared valid because the \(r_{count}\) value of all questions was more significant than the \(r_{table}\) value (0.254). Moreover, the non-performing loan variable obtained the results of valid questions because the \(r_{count}\) value of all questions was more significant than the \(r_{table}\) value (0.254).

2. Reliability Test
A measuring device is reliable if the tool for measuring a symptom at different times always shows the same results. A reliable tool consistently delivers results of the same size. The reliability test method that is often used is Cronbach’s Alpha. According Setiyorini (Setiyorini \\& Frieyadie, 2022) states that a measuring instrument can be said to be reliable if the reliability value is > 0.6 (Setiyorini \\& Frieyadie, 2022).

Based on the results of the p reliability test, the output is obtained from the Loan Supervision Variable \((X_i)\) where from the output, it can be seen that the reliability value (Cronbach’s Alpha) is 0.809, so it can be concluded that the measuring instrument in this study is reliable. The reliability test results obtained the output of the acceptance procedure variable \((X_j)\) (Cronbach’s Alpha) of 0.819, so it can be concluded that the measuring instrument in this study is reliable. The loan guarantee variable \((X_k)\) is known to have a reliability value (Cronbach’s Alpha) of 0.756, so it can be concluded that the measuring instrument in this study is reliable. And the reliability test of the Non-performing Loan Variable \((Y)\) is known to have a reliability value (Cronbach’s Alpha) of 0.709, so it can be concluded that the measuring instrument in this study is reliable.

3. Classical Assumption Test
a. Data Normality Test
The normality test is used to test whether the data is usually distributed. The test used to test the data’s normality is using the Kolmogorov Smirnov One Sample test analysis.
Based on the output results in Table 1 above, it can be seen that the significance value (Asymp. Sig 2-tailed) is 0.200. Because the value obtained is 0.374, more significant than 0.05, it can be concluded that the data on this variable is average.

b. Multicollinearity Test

Multicollinearity is a condition with a perfect or near-perfect linear relationship between the independent variables in the regression model. A regression model is said to experience multicollinearity if there is a perfect linear function on some or all of the independent and dependent variables. A good regression model should not correlate with the independent variables (Brilliandy et al., 2022). To determine whether there is multicollinearity in the regression model in this study, look at the VIF (Variance Inflation Factor) and Tolerance values and analyze the correlation matrix of the independent variables.

Based on the results of the multicollinearity test output, that of the three independent variables, it can be seen that the VIF value is less than ten and the Tolerance value is more than 0.1. So it can be concluded that the regression model does not have multicollinearity problems.

### Table 1. One Sample Kolmogorov-Smirnov Test

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Asymp. Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal</td>
<td>.00000000</td>
<td>2.96730258</td>
<td>.200 ^cd</td>
</tr>
</tbody>
</table>

a. Test distribution is Normal.
b. Calculated from data.
c. Lilliefors Significance Correction.
d. This is a lower bound of the true significance.

4. Multiple Regression Analysis

This analysis is carried out to predict the value of the dependent variable if the value of the independent variable increases or decreases, and to determine the direction of the relationship between the independent variable and the dependent variable and whether each independent variable and the dependent variable have a positive or negative relationship. The following is the result of data processing with the help of SPSS software.

If seen from the multiple regression equation above, the constant is 11.471, which means that if loan supervision, acceptance procedures, and loan guarantees have a value of 0, then a non-performing loan will only produce a value of 11.471. The regression coefficient of the loan supervision variable is 0.481, meaning that if the loan supervision variable increases by one, the non-performing loan will also increase by 0.481, assuming the other independent variables have a fixed value. The regression coefficient of the acceptance procedure variable is 0.008, meaning that if the acceptance procedure variable has decreased by one, then non-performing loans will decrease by 0.008, assuming the other independent variables have a fixed value.

### Table 2. Results of Multiple Regression Analysis

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>.2678</td>
<td>.5447</td>
<td>.625</td>
<td></td>
</tr>
<tr>
<td>Loan Supervision</td>
<td>.274</td>
<td>.083</td>
<td>.350</td>
<td>3.307</td>
</tr>
<tr>
<td>Acceptance Procedure</td>
<td>.444</td>
<td>.090</td>
<td>.531</td>
<td>4.924</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Non-performing Loan
Table 3. Results of partial regression analysis Test t

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>2.678</td>
<td>5.447</td>
<td>.492</td>
<td>.625</td>
</tr>
<tr>
<td>Loan Supervision</td>
<td>.274</td>
<td>.083</td>
<td>.350</td>
<td>3.307</td>
</tr>
<tr>
<td>Acceptance</td>
<td>.444</td>
<td>.090</td>
<td>.531</td>
<td>4.924</td>
</tr>
<tr>
<td>Procedure</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Guarantee Loan</td>
<td>.147</td>
<td>.083</td>
<td>.190</td>
<td>1.760</td>
</tr>
</tbody>
</table>

Dependent Variable: Non-performing Loan

Loan Supervision Variable (X1)
Based on the output in Table 3 above, the t\textsubscript{count} for the loan supervision variable (X1) is 3.307. Using the t distribution table searched at α = 5% and a significance of 0.025 (2-tailed test) with df (degree of freedom) 60-3-1 = 56, the results are obtained for a table of 2.000.

H\textsubscript{0} is rejected because the value of t\textsubscript{count} > 2.000 means that there is an influence between loan supervision and non-performing loans.

Acceptance Procedure Variable (X2)
Based on the output in Table 3 above, the t\textsubscript{count} for the acceptance procedure variable (X2) is 4.924. Using the t distribution table searched at α = 5% and a significance of 0.025 (2-tailed test) with df (degrees of freedom) 60-3-1 = 56, the results obtained for the table are 2.000.

H\textsubscript{0} is rejected because the value of t\textsubscript{count} > -2.000, meaning there is an influence between the acceptance procedure for non-performing loans.

Loan Guarantee Variable (X3)
Based on the output in Table 3 above, the t\textsubscript{count} for the loan guarantee variable (X3) is 1.760. Using the t distribution table searched at α = 5% and a significance of 0.025 (2-tailed test) with df (degree of freedom) 60-3-1 = 56, the results are obtained for a table of 2.000.

H\textsubscript{0} is accepted because the value of t\textsubscript{count} < 2.000 means that there is no influence between loan guarantees on non-performing loans.

b. F Test
The F test tests whether the independent variables (loan supervision, acceptance procedures, loan guarantees) simultaneously or jointly affect the dependent variable (non-performing loan). The results of calculating the regression model parameters simultaneously can be seen in Table 4 below:

Table 4. Results of simultaneous regression analysis (Test F)

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>349.445</td>
<td>3</td>
<td>116.482</td>
<td>12.557</td>
<td>.000</td>
</tr>
<tr>
<td>Residual</td>
<td>519.488</td>
<td>56</td>
<td>9.277</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>868.933</td>
<td>59</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Non-performing Loan
b. Predictors: (Constant), loan supervision, acceptance procedures, and loan guarantees

Based on the output in Table 4 above, the F\textsubscript{count} is 12.557. Using a 95% confidence level, α = 5%, df = 60-3-1 = 56, the results obtained for F\textsubscript{table} are 2.0966. Because F\textsubscript{count} > F\textsubscript{table} (12.557 > 2.0966), then H\textsubscript{0} is rejected, which means loan supervision, acceptance procedures, and loan guarantees simultaneously or jointly affect the non-performing loan of BRI Cengkareng Timur Unit customers.

Discussion
The results of hypothesis testing are explained as follows:
1. The Effect of Loan Supervision on Non-performing Loan
The results of testing hypothesis 1 found that the variable of loan supervision partially significantly influences non-performing debts.
2. The effect of acceptance procedures on non-performing loans
   The results of testing hypothesis 2 found that the acceptance procedure variable partially had a significant effect on non-performing loans.
3. The effect of loan guarantees on non-performing loan
   The results of hypothesis 3 testing found that the loan guarantee variable partially has a significant effect on non-performing loans.

Then the results of the F test showed that the simultaneous influence of all independent variables (loan supervision, acceptance procedures, loan guarantees) on non-performing loan results is significant. This is shown from the calculated F value of 12.557 with a significance level 0.000 (less than 0.05).

Meanwhile, from the results of the calculation of the Determination Coefficient, it can be concluded that the independent variables in this study have an Adjusted R Square of 0.467 or 46.7%. This indicates that the percentage of contributions to the influence of the independent variables, namely loan supervision, acceptance procedures, and loan guarantees, can contribute 46.7% to the non-performing loan variable. These results provide other factors specific to essential aspects of the lending process to customers, thereby expanding the internal factors in previous research that affect problem loans.

CONCLUSIONS AND SUGGESTIONS

Conclusion
Based on the analysis of the effect of loan supervision, acceptance procedures, and loan guarantees on loans, it can be concluded that the \( t_{\text{count}} \) obtained for the variable Loan Supervision (\( X_3 \)) is 3.307. Using the t distribution table searched at \( \alpha = 5\% \) and a significance of 0.025 (2-tailed test) with df (degree of freedom) 60-3-1 = 56, the results are obtained for a \( t_{\text{table}} \) of 2.000. Ho is rejected because the value of \( t_{\text{count}} > t_{\text{table}} \) (3.307 > 2.000) means that there is an influence between loan supervision and a non-performing loan.

The \( t_{\text{count}} \) obtained for the acceptance procedure variable (\( X_2 \)) is 4.924. Using the t distribution table searched at \( \alpha = 5\% \) and a significance of 0.025 (2-tailed test) with df (degree of freedom) 60-3-1 = 56, the results are obtained for a \( t_{\text{table}} \) of 2.000. Ho is rejected because the value of \( t_{\text{count}} > t_{\text{table}} \) (4.924 < -2.000) indicates an influence between the acceptance procedure and non-performing loans.

The \( F_{\text{count}} \) obtained for the loan guarantee variable (\( X_1 \)) is 1.760. Using the t distribution table searched at \( \alpha = 5\% \) and a significance of 0.025 (2-tailed test) with df (degree of freedom) 60-3-1 = 56, the results are obtained for a \( F_{\text{table}} \) of 2.000. Ho is accepted because the value of \( t_{\text{count}} > t_{\text{table}} \) (1.760 < 2.000) means that there is no influence between loan guarantees on non-performing loans.

Based on the F test data analysis results, \( F_{\text{count}} \) was obtained at 12.557. Using a 95% confidence level, \( \alpha = 5\% \), df = 60-3-1 = 56, the results obtained for \( F_{\text{table}} \) are 2.0966. Because \( F_{\text{count}} > F_{\text{table}} \) (12.557 > 2.0966) then Ho is rejected, which means loan supervision, acceptance procedures, and loan guarantees simultaneously or jointly affect the non-performing loan of BRI Cengkareng Timur Unit customers.

Suggestion
Based on the conclusions obtained, there are several suggestions for improving future research results. Further research can carry out a more comprehensive analysis of the factors, including external factors, so that the bank knows external factors to watch out for, especially after the Covid-19 pandemic. Then further research can also take on different objects or banks so that the research results can represent many banking institutions.

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