

# THE EFFECT 5C PRINCIPLE ASSESSMENT ON NON-PERFORMING LOANS AT PT BANK PEMBANGUNAN DAERAH BALI TABANAN BRANCH OFFICE

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**Abstract:** Non-performing loans at Bank BPD Bali Tabanan Branch Office have increased from 2019–2021. NPLs occur because of the debtor's failure to fulfill his obligations, but it is not entirely the fault of the debtor. NPL is also caused by ineffective implementation of 5C (character, capacity, capital, condition, and collateral). This study aims to calculate the significant impact of the 5C principle assessment by partially or simultaneously on NPL at Bank BPD Bali Tabanan Branch Office. This study uses causal associative research along with quantitative techniques. The data used in this study is primary data obtained from interviews and questionnaires of 47 respondents. Sampling used the census sampling method. The datasets in this study were analyzed using multiple linear regression analysis with the assistance of the IBM SPSS v25 application. The results partially show that character ( $X_1$ ), capacity ( $X_2$ ), capital ( $X_3$ ), condition ( $X_4$ ), and collateral ( $X_5$ ) have a negative and significant effect on non-performing loans ( $Y$ ). Simultaneously, the results showed that the 5C variable (character, capacity, capital, condition, and collateral) had a significant effect of 72,2% on non-performing loans at Bank BPD Bali Tabanan Branch Office, and the remaining 27,8% was influenced by the other variables outside of this study.

**Keywords:** Character, Capacity, Capital, Condition, Collateral, Non-Performing Loans.

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## Introduction

The economy is currently in a slump due to the COVID-19 pandemic that occurred in 2019. The COVID-19 pandemic that has hit the entire country not only has an impact on the health sector but also on the country's economy and its people. Financial institutions play an important role in the economy of a country. This institution invites the public to make savings in the form of savings, which can then be distributed in the form of loans to other parties and companies in need.

A financial institution, as referred to in Article 1 of Law Number 14 of 1967 concerning Banking Principles, is an institution whose activities are to collect funds from the public, which are then redistributed to the public. The distribution of funds to the public is in the form of credit. Credit provided by banks is disbursed on the basis of trust. The provision of credit to the public is carried out by agreement between the debtor and creditor, so that there is a legal relationship between the two parties.

One of the government agencies that can provide services and credit distribution in Bali is PT Bank Pembangunan Daerah Bali (Bank BPD Bali). Bank BPD Bali is the largest regional bank owned by the Balinese people. It was established on June 5th, 1962, with the deed of establishment no. 131, which was prepared before the Secretary of the Bali Level 1 Region who is also a Notary, namely Ida Bagus Ketut Rurus. Bank BPD Bali already has many branch offices, one of which is PT Bank Pembangunan Daerah Bali Tabanan Branch Office.

Consumer credit, productive credit, and program credit are three kinds of credit that Bank BPD Bali offers. One part of productive credit is working capital credit, which is intended for all productive businesses in all business sectors. The pandemic has an impact on the business sector, resulting in a decrease in income levels. This causes debtors to experience difficulty in paying, which results in an increase in non-performing loans for working capital loans. Based on data obtained from Bank BPD Bali Tabanan Branch Office for the last three years, the distribution of working capital loans is as follows:

**Table 1.** Distribution of Working Capital Loans  
PT Bank Pembangunan Daerah Bali Tabanan Branch Office 2019-2021

Year	Amount of Credit (Rp)	NPL (Rp)	% NPL
2019	161.796.149.502,87	4.566.836.113,00	2,82%
2020	147.336.593.559,85	4.144.666.665,00	2,81%
2021	162.954.375.404,62	6.915.504.431,43	4,24%

Source: Bank BPD Bali Tabanan Branch Office, data processed in 2022

Based on Table 1, the total non-performing working capital loans (NPL) since 2019–2021 has increased. According to Bank Indonesia standards, the maximum percentage of non-performing loans (NPL) is 5%, while at Bank BPD Bali Tabanan Branch Office for working capital loans, there is a limit on the NPL fairness level of 2,5%. If we look at the data for working capital credit distribution in 2019–2021, there are NPL that exceed the standard level of fairness that has been set by Bank BPD Bali Tabanan Branch Office.

The existence of an NPL that exceeds the standard is thought to be caused by the ineffectiveness of the assessment of prospective debtors, so that when a pandemic occurs, such as what is currently happening, it greatly affects the level of NPL. To minimize the risk of non-performing loans, an assessment of prospective debtors is carried out, known as the 5C principle assessment (character, capacity, capital, condition, and collateral) as an assessment of credit applications. Based on this description, it is necessary to ask about the significance of the impact of the 5C principle assessment on non-performing loans at Bank BPD Bali Tabanan Branch Office.

## Method

The type of research used is causal associative research with quantitative techniques. This research was conducted at PT Bank Pembangunan Daerah Bali Tabanan Branch Office, from February to July 2022. The population in this study were all 53 employees of Bank BPD Bali Tabanan Branch Office. Use the census sample method to determine the sample size. This will ensure that all members of the population will be sampled as respondents (Sugiyono, 2017). Data collection techniques used are through interviews and questionnaires. First, the validity and reliability tests were carried out on the questionnaire before it was distributed to all respondents. Then the data analysis technique used is multiple linear regression analysis, but before that, the classical assumption test is carried out, which includes normality test, multicollinearity test, and heteroscedasticity test. Besides that, hypothesis testing is also carried out, which includes a partial test (T test) and a simultaneous test (F test). The last one is the coefficient of determination test, which is used to find out how big the percentage of the influence of the independent variable on the dependent variable is.

## Result and Discussion

### • Description of research results

Data for this study was gathered by distributing questionnaires to employees at the Bank BPD Bali Tabanan Branch Office. The distribution of the questionnaires was carried out directly and through intermediaries to 53 respondents. The number of questionnaires that were not returned was 6 samples, meaning that the questionnaires that were worth analyzing were 47 samples. The questionnaires that were not returned were due to 3 employees taking leave and 3 employees getting assignments out of the office.

### • Research instrument test results

#### - Validity test

A validity test aims to assess a question item in the questionnaire used. An item will be declared valid if  $r_{\text{count}} > r_{\text{table}}$ . In this study, the amount of data (N) is 47 and the level of significance is 5%. To find out the value of  $r_{\text{table}}$  in this study using the formula  $df = (N-2)$  from the Pearson Product Moment table, then the  $r_{\text{table}}$  in this study is  $df = (47-2)$  or  $df = 45$  is 0.294. The results of the validity test in this study show that all questions on the questionnaire are valid.

#### - Reliability test

Reliability test are used to measure the extent to which the results of a measurement can be trusted and are able to produce relatively the same findings when repeated on the same subject. Reliable measurement can be done by using Cronbach's Alpha value, which is useful as a reference in measuring reliability with Cronbach's Alpha criteria  $> 0,60$ . If the value of the instrument exceeds 0,60, then the instrument is declared reliable (Sujarweni, 2015). The test results show that all instruments are reliable.

### • Classic assumption test results

#### - Normality test

In this study, the data was normally distributed. This is caused by the results of the Kolmogorov-Smirnov One Sample test with a probability value (asymptotic significance) of  $0,200 > 0,05$ . The test results can be seen in Table 2.

**Table 2.** Normality Test Results  
*One Sample Kolmogorov Smirnov Test*

		Unstandardized Residual
N		47
Normal Parameters	Mean	0,0000000
	Std. Deviation	1,16408872
Most Extreme Differences	Absolute	0,083
	Positive	0,080
	Negative	-0,083
Test Statistic		0,083
Asymp. Sig. (2-tailed)		0,200

Source: Primary data was processed in 2022

#### - Multicollinearity test

Used to determine whether or not there is a strong relationship between two or more independent variables in a regression model. The results of the multicollinearity test in Table 3 show that there are no symptoms of multicollinearity in the regression model. This is indicated by the *tolerance* value being  $> 0,10$  and the VIF value being  $< 10,00$ .

**Table 3.** Multicollinearity Test Results

Variabel	Tolerance	VIF
Character	0,526	1,900
Capacity	0,671	1,489
Capital	0,624	1,603
Condition	0,582	1,718
Collateral	0,772	1,296

Source: Primary data was processed in 2022

#### - Heteroscedasticity test

Performed to measure the variance of the residual variance from one observation to another observation. The results of the heteroscedasticity test can be seen in Table 4. The test results show significant values for each variable: character, capacity, capital, condition, and collateral, each showing a value that exceeds 0,05. Thus, there is no symptom of heteroscedasticity in this regression model.

**Table 4.** Heteroscedasticity Test Results

Variabel	Sig.
Character	0,750
Capacity	0,305
Capital	0,700
Condition	0,907
Collateral	0,383

Source: Primary data was processed in 2022

#### • Multiple linear regression analysis test results

A multiple linear regression test was conducted to determine the effect of a number of independent variables (X) on the dependent variable (Y) either individually using the T test (partial) or simultaneously using the F test. The test results can be seen in Table 5.

**Table 5.** Multiple Linear Regression Test Results

Model	<i>Coefficients<sup>a</sup></i>				
	Unstandardized Coefficients		Standardized Coefficients		Sig.
	B	Std. Error	Beta	t	
1 (Constant)	45,669	2,536		18,007	0,000
<i>Character</i>	-0,310	0,149	-0,222	-2,077	0,044
<i>Capacity</i>	-0,346	0,129	-0,254	-2,681	0,011
<i>Capital</i>	-0,345	0,132	-0,257	-2,613	0,013
<i>Condition</i>	-0,307	0,139	-0,226	-2,218	0,032
<i>Collateral</i>	-0,261	0,106	-0,218	-2,467	0,018

a. Dependent Variabel: Non-Performing Loans

Source: Primary data was processed in 2022

Based on Table 5, multiple linear regression equations can be arranged as follows:

$$Y = 45,669 - 0,310X_1 - 0,346X_2 - 0,345X_3 - 0,307X_4 - 0,261X_5 + \epsilon$$

From the results of the multiple linear regression equation, it can be explained as follows:

- The constant value is 45,669, meaning that if the variable character, capacity, capital, condition, and collateral value are assumed to be 0, then the value of the dependent variable for non-performing loans is 45,669.
- The regression coefficient value of the character variable is negative -0,310, which means that if there is an increase of 1% of characters, it will result in a decrease in credit problems of -0,310.
- The regression coefficient value of the capacity variable is negative at -0,346, which means that if there is a 1% increase in the capacity variable, it will result in a decrease in non-performing loans of -0,346.
- The regression coefficient value of the capital variable is negative at -0,345, which means that if there is a 1% increase in the capital variable, it will result in a decrease in non-performing loans of -0,345.
- The regression coefficient value for the condition variable is negative at -0,307, which means that if there is a 1% increase in the condition variable, it will result in a decrease in non-performing loans by -0,307.
- The regression coefficient value of the collateral variable is negative at -0,261, which means if there is a 1% increase in the collateral variable, it will result in a decrease in non-performing loans of -0,261.

• **Partial test results (T test)**

The partial test is used to test the extent to which the independent variables influence the dependent variable in describing the contents of the material individually. Based on Table 5, which shows the  $t_{count}$  value and significant value. The  $t_{table}$  value is obtained by means of  $df = N-5$ ,  $47-5 = 42$ , which is 1.681. The test results are as follows:

- Character variable (X1) with a  $t_{count}$  of -2,077, which means  $-t_{count} < -t_{table}$ , that is  $-2,077 < -1,681$  with a significance value of  $0,044 < 0,05$ . This indicates that the character variable (X1) has a negative and significant effect on the non-performing loan variable (Y).
- Capacity variable (X2) with a  $t_{count}$  of -2,681, which means  $-t_{count} < -t_{table}$ , that is  $-2,681 < -1,681$  with a significance value of  $0,011 < 0,05$ . It means that the variable capacity (X2) has a significant negative effect on the non-performing loan variable (Y).
- Capital variable (X3) with a  $t_{count}$  of -2,613, which means  $-t_{count} < -t_{table}$ , that is  $-2,613 < -1,681$  with a significance value of  $0,013 < 0,05$ . This indicates that the capital variable (X3) has a negative and significant effect on the non-performing loan variable (Y).
- Condition variable (X4) with a  $t_{count}$  of -2,218, which means  $-t_{count} < -t_{table}$  is  $-2,218 < -1,681$  with a significance value of  $0,032 < 0,05$ . It means that the condition variable (X4) has a negative and significant effect on the non-performing loan variable (Y).
- Collateral variabel (X5) with a  $t_{count}$  of -2.467, which means  $-t_{count} < -t_{table}$ , that is  $-2,467 < -1,681$  with a significance value of  $0,018 < 0,05$ . It means that the collateral variable (X5) has a negative and significant effect on the non-performing loan variable (Y).

• **Simultaneous test results (F test)**

Conducted to determine the simultaneous effect of the independent variable on the dependent variable. The test results can be seen in Table 6, which shows the  $f_{count}$  value of 24,916 and  $f_{table}$  with  $df = N-k-1$ , that is,  $47-5-1 = 41$ , which is 2,44. This means that  $f_{count} > f_{table}$ , with a significant value of  $0,000 < 0,05$ . so that the character variable ( $X_1$ ), capacity variable ( $X_2$ ), capital variable ( $X_3$ ), condition variable ( $X_4$ ), and collateral variable ( $X_5$ ) simultaneously have a significant effect on the non-performing loan variable (Y).

**Table 6.** F Statistical Test Results

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	189,410	5	37,882	24,916	0,000 <sup>b</sup>
	Residual	62,335	41	1,520		
	Total	251,745	46			

a. Dependent Variable: Non-Performing Loans  
 b. Predictors: (Constant), Collateral, Character, Capacity, Capital, Condition

Source: Primary data was processed in 2022

• **Coefficient of determination test results**

It is done with the aim of knowing how much the percentage of the influence of the independent variable (X) can explain the dependent variable (Y) in a study. The results of the coefficient of determination test can be seen in Table 7. Using the Adjusted R Square value because the number of independent variables used in this study is more than three variables (Priyatno, 2017). It can be seen that the *Adjusted R Square* value is 0,722, which means the variable character ( $X_1$ ), capacity ( $X_2$ ), capital ( $X_3$ ), condition ( $X_4$ ), and collateral ( $X_5$ ) together give an effect of 72,2% on the non-performing loan variable (Y) and the remaining 27,8% is influenced by other variables outside the study.

**Table 7.** Coefficient of Determination Test Results

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0,867 <sup>a</sup>	0,752	0,722	1,233

a. Predictors: (Constant), Collateral, Character, Capacity, Capital, Condition

Source: Primary data was processed in 2022

• **Discussion**

- **The fluence of character on non-performing loans**

The results of the study explain that character has a negative and significant effect on non-performing loans. So these results support the hypothesis  $H_1$  that has been proposed previously. The relationship that occurs between the character and non-performing loans is a negative relationship, meaning that the debtor has a good character or character, so that non-performing loans will decrease. This study confirms the similarity of research with Nursyahriana et al (2017), which is in line with the findings of research conducted by Rahmayanti and Puspitasari (2017), which shows that character has a significant negative effect on non-performing loans. Based on the results of the interview, it is stated that the assessment of character is the most important consideration and by far the most important thing to be assessed. Because in the distribution of credit, priority is given to the willingness to pay off the credit so that the debtor will try to pay off his obligations on time and the level of non-performing loans can be minimized.

- **The influence of capacity on non-performing loans**

The results of the study indicate that capacity has a negative and significant effect on non-performing loans. These results support the hypothesis  $H_2$  that has been proposed previously. The relationship that occurs between capacity and non-performing loans is a negative relationship, meaning that the higher the debtor's ability to manage their business, the lower the level of non-performing loans. Assessment of capacity has a significant negative effect on non-performing loans at Bank BPD Bali Tabanan Branch Office. This relates to the ability of the debtor to run his business so that he is able to pay off his debts regularly when they fall due. These results have similarities to research by Kencana et al (2016), which is in line with the research findings proposed by Rahmayanti and Puspitasari (2017), which show that capacity has a significant negative effect on non-performing loans. Based on the results of the interviews conducted, it is hoped that in carrying out



the capacity assessment, it is expected that the debtor's business is running, for example, by looking at the amount of business and profits earned by the debtor and by calculating the ability to repay or the ability to pay installments (repayment capacity).

- **The influence of capital on non-performing loans**

The results of the study indicate that capital has a significant and negative effect on non-performing loans. These results support the hypothesis  $H_3$  that has been proposed previously. The relationship that occurs between capital and non-performing loans is a negative relationship, meaning that the higher the capital owned by the debtor, the lower the level of non-performing loans that will arise. This relates to the capital owned by the debtor, which can provide guarantees for smooth credit payments. These results have similarities to research by Kencana et al. (2016), which shows that capital has a significant negative effect on non-performing loans. Based on the results of interviews conducted for capital appraisal, it can be assessed from assets owned such as land, vehicles, and other valuables, and can be assessed in terms of business capital and facilities for businesses owned by debtors.

- **The influence of condition on non-performing loans**

The results of the study indicate that the condition has a significant and negative effect on non-performing loans. These results support the hypothesis  $H_4$  that has been proposed previously. The relationship that occurs between the condition and non-performing loans is a negative relationship, meaning that if the economic condition of the debtor is relatively good, it will minimize the risk of non-performing loans. This is related to the economic conditions experienced by debtors, which can affect the smoothness of credit payments. The results of this study have similarities to research by Kencana et al. (2016), which explains if the condition has a significant negative effect on non-performing loans. Based on the results of interviews conducted, the condition assessment must still pay attention to current economic conditions because many types of businesses are affected by economic conditions. An assessment of the condition can, for example, be made from economic fluctuations, the socio-economic conditions of the debtor, and the type of business run by the debtor.

- **The influence of collateral on non-performing loan**

The results of the study indicate that collateral has a negative and significant effect on non-performing loans. These results support the hypothesis  $H_5$ , which has been proposed previously. The relationship that occurs between collateral and non-performing loans is a negative relationship, meaning that the higher the value of the collateral provided, the lower the level of non-performing loans that will arise. The results of this study have similarities with those of Kencana et al (2016), which are in line with the findings of research conducted by Utami (2016), which shows that collateral has a significant negative effect on non-performing loans. The results of the interview stated that the assessment of the collateral still pays attention to the selling value of the guarantee and that the guarantee must be marketable. For example, the land must have road access, be disputed land, not be a place of worship, and for vehicles, it must have an economic life. PT Bank Pembangunan Daerah Bali Tabanan Branch Office typically uses certificates and vehicle BPKB as forms of guarantee.

- **The influence of character, capacity, capital, condition, and collateral on non-performing loans**

The results of the study indicate that character ( $X_1$ ), capacity ( $X_2$ ), capital ( $X_3$ ), condition ( $X_4$ ), and collateral ( $X_5$ ) have a significant effect on non-performing loans ( $Y$ ). These results support the hypothesis  $H_6$  that has been proposed previously. This is related to a good, accurate, and objective 5C assessment that will be able to minimize the occurrence of non-performing loans. The results of this study have similarities with those of Kencana et al (2016), which are in line with the findings of research conducted by Rahmayanti and Puspitasari (2017), which shows that character, capacity, capital, condition, and collateral have a significant effect on non-performing loans.

## Conclusion

The 5C assessment of non-performing loans at PT Bank Pembangunan Daerah Bali Tabanan Branch Office shows the following results:

- a. Character has a negative and significant effect.
- b. Capacity has a negative and significant effect.
- c. Capital has a negative and significant effect.
- d. Condition has a negative and significant effect.

- e. Collateral has a negative and significant effect.
- f. Character, capacity, capital, condition, dan collateral (5C principle) significant effect.

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