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Managing Credit Risk to Optimize Profitability: A Survey of State-Owned Enterprise Banks in Indonesia

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Absract:
The purpose of this study is to determine the effect of credit risk management on optimizing the profitability of State Owned Enterprise (SOE) Banks in Indonesia. The sample in this research is employee of SOE Banks. Sampling technique in this research uses purposive sampling. This method uses certain criteria for selecting respondents; the criteria are all staff from bank credit administration group, Credit Management Committee and from SOE Banks. The data were obtained through the distribution of questionnaires with Likert scale and from the annual financial statements. The results of this study indicate that credit risk management variables have a significant positive effect on the optimization of bank profitability, while the Non-Performing Loan (NPL) level has no significant effect. This means that if credit risk management goes well then profitability will increase. Implications for Managerial and Investors should be paid attention to credit risk management in order to increase bank profitability.

Keywords: *Risk management, Non-Performing loan, profitability, credit risk, state owned entreprise*

1. Introduction

Credit is a driver of the economy of a country, in Indonesia the rate of economic growth increases with the ease of credit in some sectors. For example in terms of vehicle loans, purchases of electronics and also home ownership credits. For banks, credit is a source the largest income, this income is inseparable from the amount of credit that can be channeled to the public bank. With this bank can perform its functions as collecting third party funds and channeling it in the form of credit. However, in lending banks must also have sufficient source of funds, the greater the availability of funds the more credit that can be distributed.

The proceeds from the credit will bring a profit to the bank. Every company whether it is a bank or a non-bank company must pursue profitability; because the benchmark of a company's success can be seen through its profitability [1]. In addition to bringing in profits, lending by banks will also bring about a risk that is commonly referred to as credit risk. This risk is present when the bank fails to assess and misrepresents the credit to the customer. The bank fails to assess whether the customer is able to fulfill his obligation to pay the credit already given by the bank. Banks with high credit risk have a high bankruptcy risk and place depositors or third party funds in jeopardy [2]. The risk itself may be defined as an adverse event or the expected outcome is not in accordance with that obtained, usually the risk is measured using standard deviations in statistics [3].

In addition to good manage the management; banks also need to maintain the ratio of Non-Performing Loans (NPL). NPL is defined as a loan that has difficulty repayment or often called bad loans at the bank. The high value of NPL in a bank will affect the cost to be incurred, so that in the end will make the bank profitability will decrease and make the bank a loss. NPL occurs if the credit payment process withdraws from the due date, this reflects that credit risk management is not going well [4]. Therefore, it is very important to manage and set up the provision of credit for NPL and credit risk can be reduced; so the bank can optimize profitability. Profitability is the level of ability of banks in increasing its profit. Research conducted by [10] states that the NPL has a significant negative effect on profitability of banks. While good credit management positively affects the profitability of banks [2]. State-owned Enterprise Banks are banks that are wholly or partly owned by the government. SOE Bank was formed to provide convenience to the community in accordance with the program planned by the government, namely to increase people's purchasing power and economic growth. Therefore, the purpose of this study is to determine the significant effect between credit risk management and NPL on the profitability of state-owned banks.

2. Literature Review

The study of the effect of credit risk management on bank profitability optimization in Nigeria was conducted by [2]. The results of this study indicate that credit risk management significantly influences the management of bank profitability in Nigeria. Study of the influence of internal and external factors of banks on the profitability of commercial banks in Indonesia has been done by [6]. The results of this study indicate that external factors do not significantly affect the profitability of banks, while internal factors significantly influence the profitability of banks.

The examination of the effect of credit risk on commercial bank profitability in Nigeria has been done by [7]. The results of this study indicate that credit risk has a significant impact on the profitability of commercial banks in Nigeria. Testing the influence of liquidity risk on conventional bank profitability in Indonesia has been done by [4]. The result of this research indicates that there is a positive relation between deposit and cash reserve to profitability, and negative relationship between liquidity gap and non-performing loan to profitability.

Testing of the influence of CAR, NPL and LDR against profitability in banking companies was done by [11]. The result of this research indicates that CAR has no significant effect on profitability, NPL has a significant negative effect on profitability and LDR has a significant positive effect on profitability. Testing of the influence of NIM, BOPO, LDR, and NPL against the profitability (Case Study of Private National Private Banks Listed on Indonesia Stock Exchange Period 2009-2013) was conducted by [8]. The results of this study indicate that NIM, BOPO, NPL, and LDR have an effect on profitability.

2.1. Effect of Credit Risk Management on Profitability

In previous research it has also been discussed that credit risk management has a significant impact on banking profitability [2]. It is also similar to that disclosed by [6] that there is a significant influence between credit risk and profitability. Credit risk has a very significant influence on the performance of banks [11]. This means that if the credit risk in a well-managed bank will result in high profitability and, vice versa, if credit risk is not managed properly it will reduce the level of profitability of a bank. Based on the results of the above research can be formulated as follows.

- H_1: Credit risk management affects the profitability of state-owned banks.

2.2. Effect of NPL Level on Profitability

In the previous study it has also been discussed that the NPL had a significant negative effect on bank profitability [7]. Research conducted by [5] also states a similar thing, that there is a negative influence between NPLs and the profitability of banks. This means that if the NPL level increases it will make profitability decrease. The same thing is also explained by [8], NPL gives a significant effect on bank profitability. Based on the results of the above research can be formulated as follows.

- H_2: The NPL level affects the profitability of state-owned banks.

3. Research Method

The population in this study is all employees and financial statements of state-owned banks. While the sample is a portion of the population to be investigated, the samples in this study are all staff of the bank's credit administration group, Credit Management Committee and other bank marketing teams. The method that will be used in sampling is purposive sampling that is taken with the sample using certain criterion. The criteria used in this sampling are:

- Samples taken from state banks where from these criteria will be selected 4 banks used as research samples are BNI, BRI, Mandiri, BTN
- The unit of analysis of this research is an employee of state-owned banks that specifically handles credit problems.

The number of samples used in the study refers to [9] that the minimum sample used in the study by using the questionnaire is at least 5 times the number of measurement indicators used. In this study the number of indicators used as many as 25 indicators so that the minimum number of samples used is 25 x 5 = 125 respondents. Of the 168 respondents who gave responses only 160 respondents who can be researched, because the other 8 respondents did not complete the questionnaire. Of the 160 respondents who can be examined 8 of them come from questionnaires that are distributed online.

This study uses independent and dependent variables. The independent variable consists of credit risk management with seventeen statements measured using Likert and NPL scales measured using the ratio of total nonperforming loans divided by total credits.

The dependent variable consists of optimizing bank profitability as measured by eight statements measured using Likert scale.

4. Result and Discussion

Profile of research respondents consisting of 160 respondents can be seen in table 1 Based on gender there is no significant difference between men and women as indicated by the number of male respondents as much as 52.5% of a total of 160 respondents while female respondents as many as 47.5% of total respondents.

Seeing from the age group of respondents, the majority of respondents are in the age group between 20-30 years that is 70.6% of the total 160 respondents used in the study. Respondents with age group 31-40 years were 23.1% of the total respondents and the least were respondents in the 41-50 years age group that was 6.3% of the total respondents.

No	Characteristics of Respondents	Total	Percentage
1.	Gender		
	Male	84	52.5
	Female	76	47.5
2.	Age		
	20 - 30 years old	113	70.6
	31 – 40 years old	37	23.1
	41 – 50 years old	10	6.3
3.	Education		
	Diploma	42	26.3
	S1	100	62.5
	S2	18	11.3
4.	Banks		
	BNI	47	29.4
	BRI	52	31.9
	BTN	17	10.6
	Mandiri	45	28.1
5.	Job Position		
	ARM	102	63.8
	RM	58	36.3
6.	Long Occupied Position		
	1 – 5 year	119	74.4
	11 – 10 year	37	23.1
	11 - 15 year	2	1.3
	16 – 20 year	1	0.6
	>20 year	1`	0.6

Table 1: Descriptive Statistics Demographic Characteristics of Respondents
Source: Data Processed

Respondents when viewed based on the level of education showed from the total 160 respondents used in the study, as many as 62.5% are respondents with S1 education level, followed by respondents with Diploma level of education as much as 26.3% of the total respondents and the least are respondents with education level S2 i.e. as much as 11.3%.For the bank which is used as the object of research is the Government Commercial Bank with the number of respective respondents is for BNI accounts for 29.4% of total 160 respondents, 31.9% for BRI bank, 10,6% for Bank BTN and 28.1% for Mandiri Bank. Respondent according to the position indicates that the majority of respondents have the position of ARM (Assistant Relation Manager) is as much as 63.8% of a total of 160 respondents and the rest is as much as 36.3% are respondents with the position of RM (Relation Manager).

4.1. Descriptive Statistics of Respondents' Perceptions of Profitability

The results of data processing for descriptive statistics of Profitability variables can be seen in table 2. From the table can be seen as whole respondents give a good response in the assessment of the profitability of the company where they work. This is indicated by the average answer of respondents of 3.258. With a standard deviation of 0.349 indicates that the majority of respondents' answers to profitability variables are in the range of answer options between 3 (Agreed) to 4 (Strongly Agree) although there are some respondents who give answer option on number 2 (disagree) as can be seen from the minimum value, but in small quantities.

Indicator	N	Minimum	Maximum	Mean	Std. Deviation
1. Bank distributes dividends at the end of each year (PROF1)	160	2.00	4.00	3.181	0.602
2. Employee salaries are paid on time (PROF2)	160	2.00	4.00	3.532	0.548
3. For banks to generate profits, clear loan guidelines are needed (PROF3)	160	2.00	4.00	3.300	0.535
4. Profitability is achieved by maintaining cash reserve ratio (PROF4)	160	2.00	4.00	3.050	0.473
5. Crediting decisions should aim at making broader services that will lead to bank profitability and growth (PROF5)	160	2.00	4.00	3.231	0.595
Profitability	160	2.20	4.00	3.258	0.349

Table 2: Descriptive Statistics of Respondents' Perceptions of Profitability Variables
Source: Data Processed

When viewed from the responses of respondents to indicators of profitability measurement, there are 2 indicators that have a value higher than the average value of profitability as a whole. Both of these indicators are:

- Employee salaries are paid on time with an average value of 3.52.
  2. For banks to generate profits, a clear loan guideline with an average grade of 3.30 is required.
- Respondents gave positive responses to credit risk management variables as indicated by the average score of respondents' answers of 3.17 on a scale of 1 to 4.

Indicator	N	Minimum	Maximum	Mean	Std. Deviation
1. Non-performing credit management is responsible for the difficulties experienced by the banking industry (MRK2)	160	2.00	4.00	3.09	0.58
2. The essence of strict procedures on loans is to minimize bad credit (MRK5)	160	2.00	4.00	3.19	0.60
3. Non-performing debt is the main problem faced by banks in lending activities (MRK6)	160	2.00	4.00	3.35	0.60
4. Credit management positively impacts the profitability of industrial banks in general (MRK9)	160	1.00	4.00	3.24	0.56
5. One of the main objectives of an effective credit management operation is to restore the loss of confidence in the banking industry (MRK10)	160	1.00	4.00	3.06	0.62
6. For banks to stay afloat, clear loan guidelines should be supplemented with pure excellence in credit channeling (MRK12)	160	2.00	4.00	3.17	0.55
7. By providing loans to appropriate customers, loan repayments will be guaranteed (MRK13)	160	2.00	4.00	3.17	0.74
8. Regulation and supervision of credit management is paramount for banking industry stability (MRK17)	160	2.00	4.00	3.15	0.49
Credit Risk Management	160	2.13	3.88	3.17	0.36

Table 3: Descriptive Statistics of Respondents' Perceptions against Variable Credit Risk Management
Source: Data Processed

The standard deviation score of 0.36 indicates that the variation of respondent's answer is in the answer choice between 3 (Agree) to 4 (Strongly Agree). The minimum value of respondent's answer for Credit Risk Management variable is 2.13 and the maximum value is 3.88. When viewed from the response based on measurement indicators that are as many as 8 indicators obtained the following results:

A total of 3 indicators produce an average score of answers above the overall average in which all three indicators are:

- The statement on the number three of non-performing loan is the main problem faced by banks in lending activities with an average value of 3.39.
- There is a statement number four: Credit management has a positive impact on the profitability of industrial banks in general with an average value of 3.24.
- There is a second statement that is the core of strict procedures on the loan is to minimize NPL with an average value of 3.19.

There are 2 indicators that produce the equal responses to the overall average value of 3.17. The two indicators are:

- It is in the sixth statement that for a bank to survive, it needs clear loan guidelines coupled with a pure goal that excels in lending.
- There is a statement on number seven that by providing loans to appropriate customers, repayment of the loan will be guaranteed.

There are 3 indicators that produce a less response than the overall average value in which the three indicators are:

- There is in the statement number one that NPL management is responsible for the difficulties experienced by the banking industry with an average value of 3.09.
- There is in the statement number five that is one of the main objectives of an effective credit management operation is to restore a loss of confidence in the banking industry with an average grade of 3.07.
- There is in the statement number eight that the regulation and supervision of credit management is paramount for the stability of the banking industry with an average value of 3.15.

The result analysis is related to the findings of data processing using SEM model to answer the problems in this research. There are 2 stages in using SEM model that is:

4.2. Goodness of Fit Model Testing

Testing goodness of fit model is done to test whether the model produced can reflect the actual condition. SEM model used is shown with Figure 1.

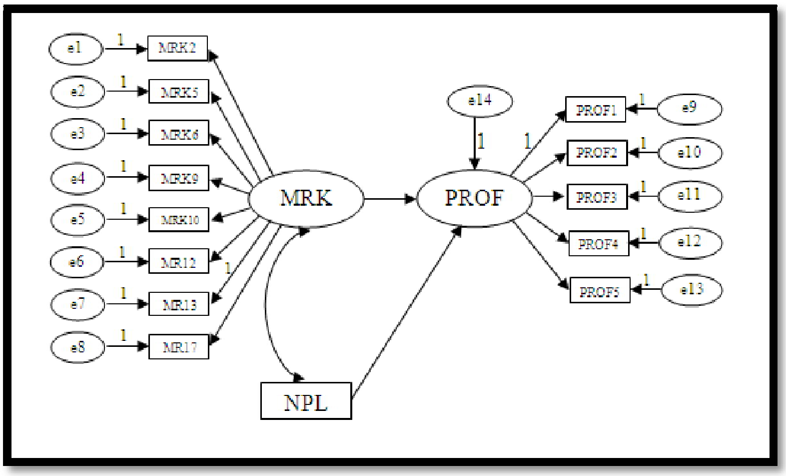

Figure 1: Result of SME Model

The results of processing are shown by table 4. From the test results can be seen by using chi-square and RFI criteria obtained conclusion model is not fit. Using the RMSEA, GFI and IFI criteria, the conclusion of the temporary fit model for CFI and TLI criteria was obtained by the conclusion of the marginal fit model. Because of a number of testing criteria obtained some criteria produce a fit model conclusion so that the hypothesis testing theory can be continued.

Goodness of Fit Index	Criteria (Cut-Off Value)	Result	Conclusion
X² - Chi-square	Expected Small	110.037	
Significance probability	≥ 0.05	0.001	Model is not fit
RMSEA	≤ 0.10	0.061	Model is fit
GFI	≥ 0.90	0.912	Model is fit
IFI	≥ 0.90	0.904	Model is fit
RFI	≥ 0.90	0.707	Model is not fit
TLI	≥ 0.90	0.866	Marginal is fit
CFI	≥ 0.90	0.899	Marginal is fit

Table 4: Test Result of Goodness of Fit
Source: Data Processed

5. Discussion

The results showed that good credit risk management significantly influences bank profitability, meaning that if credit risk is well managed it will optimize bank profitability. Conversely, if credit risk is not managed well then it will make profitability is not optimal. These results support the findings of research conducted by [4]. While for NPLs the results of the study indicate that the NPL level has no significant effect on profitability, this may occur because the management prioritizes the good management to defensive rather than already giving credit will create non-performing credit. This result supports research conducted by [6] NPF / NPL has no significant effect on profitability; because non-performing loans are not the only thing that affects the profitability of the banks.

Credit risk management itself consists of several statements. To see which contributes most to the establishment of credit risk management from the processing results, the tenth statement is one of the main objectives of an effective credit management operation is to restore the loss of confidence in the banking industry contributing the most with an estimated coefficient of 0.650, followed by the twelfth statement that is for the bank to survive, it needs clear loan guidelines coupled with pure excellence which is superior in channeling credit with the estimated coefficient value of 0.600, the next is the thirteenth statement that is about the election of a reasonable customer in order to avoid credit problems with the estimated coefficient value of 0.512, then the fifth statement is about strict procedures to minimize non-performing credit with the estimated coefficient value of 0.501, next is the second statement that is about bad credit management is responsible the answer to the credit problems that arose with the estimated coefficient of 0.486, the sixth statement that is about bad debts is a major problem in the banking industry with an estimated coefficient value of 0.466 is one of the largest contributors also in credit risk management.

6. Conclusion

Based on the above conclusions, the results of this study should be used by the management to always supervise and manage credit distribution in order to avoid non-performing loans. The most influential variable in this research is credit risk management; the result obtained is good enough that credit risk management has a positive effect on profitability, meaning that if credit risk is managed well then profitability will be optimal. For investors other than to see the profit generated by banks also need to pay attention to credit risk management procedures of the bank, because of the results of good credit risk management research will affect the level of profitability of the bank itself.

From the result of the research, it is known that credit risk management will improve bank profitability, so it is better that credit analyst of State Owned Enterprise Banks should pay more attention to customers who will apply credit so that the risk of non-performing loans can be minimized as small as possible. Banks should also pay attention to variables that have a significant effect on profitability can increase even higher. In addition to the next, need to consider other variables that can be used as a reference to improve profitability such as Loan to Deposit Ratio, Operational Revenue Operating Expenses and others that refer to research conducted by [8].

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