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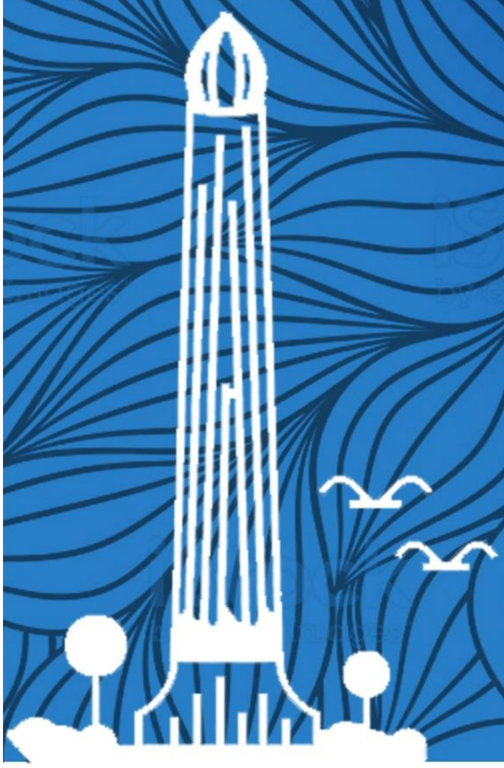

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MARKETING INTERNATIONAL SEMINARS AND THE 4th INTERNATIONAL CONFERENCE ON BUSINESS AND BANKING INNOVATIONS

Surabaya, 29th January 2022

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The Strategy of Digital in Business for Gaining Competitive Advantages after Pandemic

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"The Strategy of Digitalization in Business for Gaining Competitive Advantages after Pandemic"

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FOREWORD

Alhamdulillah, praise be to Allah Subhanahu Wa Ta'ala for granting us the opportunity to organize and publish the proceedings of the 4th International Conference on Business and Banking Innovations (ICOBBI) with the topic "The Strategy of Digitalization in Business for Gaining Competitive Advantages after Pandemic". This proceeding contains several researches articles from many fields in Business & Marketing, Banking & Sharia Banking, Accounting & Financial Management, Human Resources Management, Operations Management, Investasi, Insurance & Capital Market, Strategic Management, Technology Management, and Information System.

The 4th International Conference on Business and Banking Innovations was held on 29th January 2022 by virtual (online) zoom meeting and organized by the Master Management Study Program of Universitas Hayam Wuruk Perbanas in Collaboration with five Higher Education Institutions in Indonesia and three Universities from Asia countries. Keynote speakers in this conference were: Chonlatis Darawong, P.hD (Sripatum University, Thailand), Associate Prof. Dr. Ellisha Nasrudin (University of Science, Malaysia), Dr. Sanju Kumar Singh (Postdoctoral Fellowship in Universitas Airlangga, Tribhuvan University Nepal) and Prof. Dr. Abdul Mongid, MA., P.hD (Universitas Hayam Wuruk Perbanas, Indonesia).

I would like to give high appreciation to the Rector of Universitas Hayam Wuruk Perbanas for his support at this event. Acknowledgments and thank you to all the steering and organizing committees of the ICOBBI for the extra ordinary effort during the conference until this proceeding published. Thank you very much to all presenter and delegates from various Universities. Beside it, I would like to express our gratitude to the three universities, namely Universitas 17 Agustus Surabaya, STIE YKPN Yogyakarta, Universitas Negeri Gorontalo, Universitas Surabaya and Universitas Muhammadiyah Surakarta which has been the co-host of this event.

Hopefully, the proceeding will become a reference for academics and practitioners, especially the business and banking industry to get benefit from the various results of the research field of Business and Banking associated with Information Technology. Proceedings also can be accessed online on the website http://eprints.perbanas.ac.id/

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The Effect of Credit Risk and Efficiency on Capital Adequacy With Proftiability as Intervening Variables

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ABSTRACT

Bank is a financial institution whose main activity is collecting funds from the public which is often referred to as Funding and channeling funds back to the community which is often referred to as Lending in order to improve people's living standards. The Indonesian economy is strongly influenced by banking business activities. Economic activities require banks to be able to give trust to the public as financial intermediary institutions to run their business activities efficiently. Banking players are aware that in carrying out the function of financial services, banks are in a risky business. The risk faced by banks related to credit is credit risk and results in the emergence of non-performing loans. In addition, banks are also required to operate with a high level of efficiency so that the bank's performance is assessed as good. Credit risk, efficiency management, and profitability are indicators of banking performance measurement that will affect the capital capacity of a bank, it is the most appropriate parameter or measuring instrument to assess bank performance. The purpose of this study was to determine the significance of the effect of credit risk, efficiency, profitability on capital adequacy. The method used is a quantitative method with multiple regression analysis. To determine the population, a purposive sampling method is used, namely the National Private Commercial Bank.

Keywords: *Credit Risk, Profitability, Efficiency, Capital Adequacy, and Intervening variable.*

1. INTRODUCTION

Bank is a financial institution whose main activity is collecting funds from the public which is often referred to as Funding and channeling funds back to the community which is often referred to as Lending in order to improve people's living standards, as expressed by the Indonesian Bankers Association (2013). The main activity carried out by banks is to redistribute funds to the public in the form of credit, this cannot be separated from the risks of losses faced by banks. Poor credit services will trigger a decline in banking performance when credit risk has a high value. The role of the Bank as a financial institution cannot be separated from credit problems. According to Hasibuan (2004:87), credit is all types of loans that must be repaid with interest by the borrower in accordance with the agreed agreement.

Risk in banking is a difficult condition for a bank that appears in the financial sector as well as in the normal field or even becomes bankrupt (Sudirman, 2000:198). The risk faced by banks related to credit is credit risk and results in the emergence of non-performing loans. The amount of non-performing loan risk can be measured by the ratio of Non-Performing Loans (NPL). The credit management process has been regulated in credit management as a procedure for implementing and granting credit. Handling non-performing loans is also the main focus of banks, to anticipate these risks, banks need to set aside reserve funds to cover the risk of losses on loans provided by banks to debtors.

In addition, banking regulations made referring to PSAK 50 and 55 to overcome the risk of credit losses that occur due to the counterparty failing to fulfill obligations when they fall due, or the risk of loss due to the borrower being unable to repay their obligations in whole or in part, the bank must establish a provision for funds commonly referred to as Allowance for Impairment Losses (CKPN). CKPN on earning assets must be established to overcome the risk of loss of higher income, it is proposed to cover losses due to loan problems.

In the banking world this financial ratio is used to assess the company's management within a certain period in achieving the targets that have been set, besides that it can also be used to assess management's ability to empower company resources effectively (Kasmir, 2010:104). In this case, the ratio of operating costs to operating income (BOPO) is a tool that is often used as a determinant of efficiency measures to provide an assessment of bank efficiency performance (Bank Indonesia Regulation Number 6/25/PBI/2004).

Management of risk management, especially in credit risk, which will affect the profitability of a bank, it is the most appropriate parameter or measuring instrument to assess bank performance. Profitability is one of the factors that determine the viability of the banking business which is used as an indicator of the good or bad assessment of banking performance. The higher the profitability value, the bank will earn higher profits. Profitability is the main goal for banks in order to maintain the continuity of their business and meet the needs of the community. Good credit risk will affect the level of bank profitability. An indicator that can be a tool to determine the value of Profitability is to use the ratio of the rate of return on assets or Return On Assets (ROA).

Based on POJK No. 12/POJK 03/2020 concerning the Consolidation of Commercial Banks which states that the minimum core capital for commercial banks is IDR 1 trillion in 2020, IDR 2 trillion in 2021, and IDR 3 trillion in 2022. An indicator that can be a tool to determine the Core Capital Adequacy value is to use the Capital Adequacy Ratio by looking at the risk of loss that will be faced and meeting the needs of depositors and other creditors by comparing the amount of capital with weighted assets according to risk or Capital Adequacy Ratio (CAR).

A serious problem in the banking world is the increase in non-performing loans. The management of non-performing loans is one of the highlights of banking in order to avoid credit risk which can cause profitability to decline, and also affect the decline in capital as well. The emergence of non-performing loans can be caused by the effects of a slowdown in the global economy, in addition to the credit policy of a bank and the application of a risk management system to lending is also one of the causes of the occurrence of non-performing loans.

In a study conducted by Eviyanti Yuanita Nur in February 2018 also identified the effect of credit risk on bank profitability by using efficiency as an intervening variable which concluded that (1) NPL had a positive and significant effect on BOPO, (2) CKPN had a positive and positive effect not significant to BOPO, (3) NPL has positive and insignificant effect on profitability, (4) CKPN has positive and significant effect on profitability (5) BOPO has negative and significant effect on profitability, (6) NPL has negative and significant effect on profitability with BOPO as an intervening variable, (7) CKPN has a negative and insignificant effect on profitability with BOPO as the intervening variable. One of the problems of banking performance is how the bank's ability to earn profits can be measured through the ROA ratio, so based on the above background the researcher wants to know "The Effect of Credit Risk on Profitability With Efficiency as an Intervening Variable in Foreign Exchange National Private Commercial Banks".

This study aims to determine the significance of the positive effect of NPL, CKPN BOPO on ROA at National Private Foreign Exchange Commercial Banks. To determine the significance of the negative effect of NPL, CKPN, ROA on CAR at National Private Foreign Exchange Commercial Banks. To find out the significance of the role of ROA as an intervening variable in the relationship between NPL and CAR at National Private Foreign Exchange Commercial Banks. To find out the significance of the role of ROA as an intervening variable in the relationship between CKPN and CAR at National Private Foreign Exchange Commercial Banks. To find out the significance of the role of ROA as an intervening variable in the relationship between BOPO and CAR at National Private Foreign Exchange Commercial Banks.

Profitability is the bank's ability to earn profits efficiently and effectively. According to Kasmir (2010:115) that the profitability ratio is used to assess the company's ability to seek profit and the use of this ratio shows efficiency within the company. According to Dendawijaya (2009:118) stated that profitability is the ability or short efficiency of a bank in generating profits.

Fight (2004) which states that credit is based on all types of credit that should be returned by providing income to the Bank from interest by the debtor as agreed in the credit agreement between the Bank and the Debtor. According to Jesus & Gabriel (2006) that a high credit risk from a bank shows a declining level of credit quality and tends to have a high risk. It is necessary to control credit in providing credit both internally and externally to avoid loan problems or reduce the number of non-performing loans experienced by the Bank.

Siudek (2008) has defined efficiency as an indicator that shows the ability of company managers and staff to maintain the level of increase in revenue and profit above the level of increase in operating costs. In addition, efficient activities are efficient activities that not only lead to the achievement of certain goals but also guarantee higher economic benefits from the inputs used. Matthews & Ismail (2010) describe that the efficiency of companies, especially banking, is closely related to the efficiency of the banking market and the efficiency of the intermediation process as well as efficiency in implementing monetary policy through regulations on bank loans. However, in this study, to measure the efficiency of the National Private Foreign Exchange Commercial Bank, the BOPO variable was used.

2. LITERATUR RIVEW

2.1 Agency Theory

Jensen and Meckling's (1976) theory called Agency Theory explains that a bank is a collection of contracts between owners of economic resources and managers who take care of the control and use of these resources. bank), and the debtor (the party who is given the funds with the obligation to return the funds according to the agreed period of time). The regulation produces an employment contract that regulates the proportion of rights and obligations of all parties while still considering and taking into account the overall benefit value. Optimally and efficiently fund raising and fund distribution activities by the Bank will be in line with the main objective of obtaining profitability (Miadalyni, 2013).

2.2 Capital Adequacy

Capital Adequacy is what will be examined in this study is the Capital Adequacy Ratio (CAR). Capital Adequacy Ratio (CAR) is a benchmark for assessing the capital ratio in the context of the soundness level of each bank. Capital Adequacy is how a bank is able to finance its activities with its capital ownership, in other words CAR is used to measure the capital adequacy of a bank to support assets that contain or generate risk, for example by providing credit to customers (Fahmi, 2014:181).).

***Capital Adequacy Ratio* (CAR).** Based on Bank Indonesia regulations, a bank that is declared healthy must have a CAR of at least 12% (Copy of Financial Services Authority Regulation no. 5/POJK.03/2015, concerning Minimum Capital Adequacy Requirements and Fulfillment of Minimum Core Capital for Rural Banks.) based on the provisions stipulated by Bank Indonesia as the standard for Bank soundness for capital. Projected Capital Adequacy with CAR is a comparison between total capital and risk-weighted assets in National Private Foreign Exchange Banks for the period 2018 – 2020. The unit of measurement for capital adequacy is in percentages.

2.3 Profitability

Profitability is the bank's ability to earn profits efficiently and effectively. According to Lukman Syamsudin (2011: 59) states that the calculation of the company's profitability is each. The calculation is related to sales volume such as assets and own capital. According to Kasmir (2010:115) that the profitability ratio is used to assess the company's ability to seek profit and the use of this ratio shows efficiency within the company. According to Dendawijaya (2009:118) stated that profitability is the ability or short efficiency of a bank in generating profits.

Profitability is a measure in percentage used to assess the extent to which the company is able to generate profits at an acceptable level. To assess profitability, it is projected by ratios that can show the condition or level of profitability of a bank. The ratio used to measure profitability in this study is the ratio of Return On Assets (ROA).

Bank profitability performance can be calculated by the ratio of return on assets or the ratio of Return on Assets (ROA) because ROA can be obtained by focusing on the ability of banks to generate profits based on assets in their operational activities. When the Bank earns high profits and the use of high bank assets will result in the ROA value obtained by the Bank being high as well (Malintan & Herawati, 2012). According to Bank Indonesia Circular No.13/24/DPNP dated October 25, 2011, ROA can be calculated using the following formula:

$$\textbf{ROA} = \frac{\text{Profit before Tax}}{\text{Average total assets}} \text{ X } 100\%$$

2.4 Credit Risk

Credit Risk Theory by Fight (2004) which states that credit is based on all types of credit that should be returned by providing income to the Bank from interest by the debtor as agreed in the credit agreement between the Bank and the Debtor. The provision of credit by banks to prospective debtors must be carried out carefully and selectively by conducting several good analyzes based on the regulations applied both internally and externally. According to Jesus & Gabriel (2006) that a high credit risk from a bank shows a declining level of credit quality and tends to have a high risk. Credit risk is the risk that comes from debtors who fail to pay or cannot fulfill their financial obligations as agreed (Hu, 2012).It is necessary to control credit in providing credit both internally and externally to avoid loan problems or reduce the number of non-performing loans experienced by the Bank.

Non-Performing Loan (NPL). The ratio of non-performing loans or non-performing loans (NPL) is a ratio that shows the ability of bank management to manage non-performing loans provided by banks. Non-Performing Loans (NPL) can be calculated by comparing the total non-performing loans with the total loans granted. According to Slamet Bank Indonesia

Circular Letter No.13/24/DPNP dated October 25, 2011, non-performing loans (NPLs) can be measured using the following formula:

NPL = $\frac{\text{Troubled Credit}}{\text{Credit}}$ X 100%

2.5 CKPN

CKPN according to Statement of Financial Accounting Standards (PSAK) No. 55 in 2016, stated that the Allowance for doubtful accounts has been changed to Allowance for Impairment Losses (CKPN). According to Hasan and Wall (2014) that this CKPN is a reserve fund that must be provided by the bank with a percentage at a certain nominal which depends on the classification of the quality of productive assets. If a loan from a debtor is impaired, the bank must set aside funds or create a reserve fund to minimize losses caused by the loan. The formula for calculating Allowance for Impairment Losses (CKPN) for banks as required by Bank Indonesia Circular Letter No.13/24/DPNP dated October 25, 2011 is as follows:

CKPN = $\frac{\text{CKPN for Credit}}{\text{Credit Total}}$ X 100%

2.6 Efficiency

Siudek (2008) has defined efficiency as an indicator that shows the ability of company managers and staff to maintain the level of increase in revenue and profit above the level of increase in operating costs. In addition, efficient activities are efficient activities that not only lead to the achievement of certain goals but also guarantee higher economic benefits from the inputs used. This is in line with Gordo's (2013) explanation that efficiency is the ratio between Output and Input. This measure refers to the optimal technical or operational efficiency (TE) of an input used, or vice versa, the company's ability to utilize at least an input to produce a certain amount of output. To measure efficiency is operating expenses compared to operating income (BOPO).

Operating expenses compared to operating income (BOPO) according to the financial dictionary are a group of ratios that take into account the value of the effectiveness and efficiency of operational activities by comparing one with another. The BOPO ratio can be calculated based on the comparison between total operating costs and total operating income which is used to measure the level of efficiency and the bank's ability to manage funds and carry out operational activities (Wijaya, 2009). The lower the value of the BOPO ratio indicates that the more efficient the costs spent by the bank for its operational activities. This can affect the increase in the ability of banks to earn profits. Efficiency in this study is projected by operating costs compared to operating income (BOPO). In accordance with SE No.6/23/DPNP dated 31 May 2004, the efficiency of operating costs compared to operating income (BOPO) is formulated as follows:

BOPO = $\frac{\text{Operating expenses}}{\text{Operating Income}}$ X 100%

Based on the image framework above, the hypothesisof this study is as follows :

H1: Non-performing loan (NPL) ratio has a significant positive effect on profitability (ROA).

H2: The ratio of allowance for impairment losses (CKPN) has a significant positive effect on profitability (ROA).

H3: Efficiency (BOPO) has a significant positive effect on profitability (ROA).

H4: Non-performing loan (NPL) ratio has a significant negative effect on Capital Adequacy (CAR).

H5: The ratio of allowance for impairment losses (CKPN) has a significant negative effect on Capital Adequacy (CAR).

H6: Efficiency (BOPO) has a significant positive effect on Capital Adequacy (CAR).

H7: Profitability Ratio (ROA) has a significant negative effect on Capital Adequacy (CAR).

H8: Profitability Ratio (ROA) has a significant role as an intervening variable in the relationship between NPL and CAR.

H9: Profitability Ratio (ROA) has a significant role as an intervening variable in the relationship between CKPN and CAR.

H10: Profitability Ratio (ROA) has a significant role as an intervening variable in the relationship between BOPO and CAR.3. Material and method

3. MATERIAL AND METHOD

This research is a quantitative research that emphasizes theory testing through measuring research variables with numbers and analyzing data using statistical procedures. Based on its nature, this research uses a qualitative research design. Quality research is research conducted to determine the effect of one or more variables on certain variables (Sugiono, 2013). Quality research in this study was conducted to test the truth of the hypothesis to explain the phenomenon in the form of a relationship or the effect of credit risk on profitability with efficiency as an intervening variable.

This study examines the effect of credit risk on bank profitability with efficiency as an intervening variable. Based on the research problem formulation, this research is an explanatory research. According to Sugiyono (2013) explanatory research is research that intends to explain the position of the variables studied and the causal relationship between one variable and another. The characteristics of this research are replication in which the results of hypothesis testing must be supported by previous studies which were repeated under more or less the same conditions.

In terms of the time dimension, this study uses a data pooling research approach because the data taken is the Financial Statements of national private foreign exchange commercial banks starting from the first quarter of 2018 to the third quarter of 2021.

The population used is the National Private Foreign Exchange Commercial Bank with a research period from 2018 to 2020. This study uses secondary data taken from the financial statements of the Foreign Exchange BUSN for the period 2018 to 2020 which have been published in the Financial Services Authority (OJK).

The sampling technique used in this research is purposive sampling. According to Hermawan & Yusran (2017) purposive sampling is sampling based on certain criteria. According to Sugiyono (2013:218-219) Purposive Sampling is a sampling technique of data sources with certain considerations. According to Efferin Sujoko, Hadi Darmaji Stefanus, and Tan Yuliawati (2012:86) Purposive Sampling is "a method of determining the sample by determining the target of the population element that is estimated to be the most suitable for data collection, where the sample is selected based on certain considerations". The criteria for the sample in this study are as follows:

1. Banks that have a minimum total asset of 1 Trillion.
2. Banks that have a negative average Trend ROA.

Secondary data sources are sources that do not directly provide data to data collectors through documents, magazines, information or other publications (Sugiyono, 2013: 193). This study uses data from quarterly banking financial statements in the first quarter of 2018 to the fourth quarter of 2021. In this study, data analysis techniques are used, namely descriptive analysis, multiple linear regression analysis, path analysis and Sobel test.

Multiple Linear Regresy Analysis. Multiple linear regression analysis (Multiple Regression Analysis) is a tool that can be used to predict the effect of several independent variables on one dependent variable. The equation model of Multiple Regression Analysis is as follows:

$$\mathrm{CAR} = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon$$
$$\mathrm{ROA} = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon$$
$$\mathrm{CAR} = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 Z + \epsilon$$

Path Analysis. The analytical technique used in this research is path analysis. Path analysis is a statistical analysis developed from multiple regression. According to Ridwan and Kuncoro (2012:2), the Path Analysis Model is used to determine the direct and indirect effects described in the pattern of inter-variable relationships on the independent (exogenous) variables on the inhibiting (endogenous) variables. Besides According to Ghozali (2016: 237), path analysis is an extension of multiple linear regression analysis which is used to estimate causality relationships between variables (casual models) that have been previously determined based on theory. The main analysis of this subject is the variables that have a correlation and the model of the relationship between these variables was determined previously by the researcher. Testing the influence of intervention variables can be done by using the path analysis method. The test aims to determine the significance of the intervening role variables on the relationship between the influence of independent variables on certain variables.

Operational cost efficiency on operating income is used as an intervention variable because the effects of CKPN, NPL, and BOPO on CAR can be directly related conceptually to the efficiency ratio. Theoretically, the effect of CKPN, NPL, and BOPO on ROA can be seen directly, but can also be seen through efficiency. In this case, the confidence level used is 95% and the alpha used is 5%.

Sobel Test. According to Baron and Kenny (1986) in Imam Ghozali (2013) the variable referred to as a mediator is a variable that influences the relationship between the predictor variable (Independent) and the Criterion Variable (Dependent). The basis for calculating path coefficients is correlation and regression in calculations using software with IBM SPSS Statistics 23.0 software. Testing the mediation hypothesis (intervening) can be done with the procedure developed by Sobel (1982) and is known as the Sobel test. The Sobel test in this study was carried out by testing the strength of the indirect influence of the NPL, CKPN, and BOPO variables on CAR through ROA, where NPL, CKPN, and BOPO were X, CAR was Y, and ROA was Z. According to Sobel (1982) indirect X to Y through Z is calculated by the formula:

$$sab = \sqrt{b^2 sa^2 + a^2 sb^2 + sa^2 sb^2}$$

Description :
1. Coefficient a is Path X Z
2. Coefficient b is path Z Y
3. Sa is the standard error of the coefficient a
4. Sb is the standard error of the coefficient b
5. Sab is the size of the indirect effect standard error

According to Sobel (1982) to test the significance of the indirect effect, the following formula is used:

$$t = \frac{ab}{sab}$$

Description :

1. t is the significance of the indirect effect of the intervening variable
2. ab is the path product of the coefficient a and the coefficient b
3. the value of sab is taken from the results of the calculation of the sab formula

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