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Does bank health level effect the profitability? Case study on core capital bank group 4 green banking pioneers

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Abstract

The research aims as well as the health conditions of banks that affect profitability. The population and sample in this study are the Core Capital Bank Group 4 Green Banking Pioneers. This study used a sample consisting of 10 Core Capital Bank Group 4 category banks listed on the Indonesia Stock Exchange, namely: CIMB Niaga, Danamon, Panin, Permata, OCBC NISP, BTPN, Maybank Indonesia, BTN, Mega, and BSI. This study uses secondary data obtained through annual bank financial reports for green banking indicators and sustainability reports for CSR during the Covid-19 pandemic from early 2020 to the end of 2021. The analytical method in this study uses multiple linear regression and simple linear regression. The results showed that the Capital Adequacy Ratio had a positive effect on profitability, BOPO had a negative effect on profitability and Non-Performing Loans had a negative effect on profitability.

Keywords: Bank Health Level; Profitability; KBMI; Green Banking; Core Capital Bank Group

1. Introduction

Bank participation in sustainability efforts is known as green banking. Carrying out green banking practices through 'environmentally friendly' activities can be in the form of cost savings for the bank's internal operational activities, such as saving on the use of paper, energy, water, and so on. While the external efforts are through channeling funding (credit) to company operational activities that reduce environmental pollution. The involvement of banks in developing sustainable corporate businesses in Indonesia, is based on the Financial Services Authority Regulation POJK Number 51/POJK.03/2017 concerning the Implementation of Sustainable Finance for Financial Services Institutions (LJK), Issuers, and Public Companies (Services Authority Regulation.

Finance (POJK), 2017). OJK regulations in 2017 also apply to the sector. Bank profitability is influenced by economic conditions. Under growing economic conditions, bank profitability increases due to the ease of channeling funds (Korytowski, 2018). In the banking sector, bank health is an assessment of bank performance (Bank Indonesia Regulation number 13/1/PBI/2011). It was explained that in order to carry out its role, a bank needs to have sufficient capital, be able to generate sufficient profits through channeling funds based on prudent principles, and maintain liquidity to fulfill its obligations. By taking this into account, the bank can maintain optimal performance.

OJK regulations in 2017 also apply to the banking sector in implementing green banking both in operational activities (internal) and in lending activities (external). Kapoor et al. (2016); Sandeep (2016) in his study explained that the application of green banking which reduces negative impacts on the environment is carried out by inviting customers to transact via internet banking in order to reduce logging in forests - paperless banking. Thus, online banking is a substitute for opening new branches (branch banking) (Sandeep, 2016). Kapoor et al. (2016) stated that this bank's

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concern is carried out through tree plantation camps, maintenance of parks, and pollution check-up camps. This includes bank concern in the context of social responsibility services.

The company's capability to create net profit at a certain asset level is the company's profitability performance. The factors that influence the profitability of a bank in carrying out its activities are the capital owned by the bank as measured by the capital adequacy ratio (CAR). The bank's ability to obtain funds will be in accordance with its ability to extend credit. The more funds you have, the higher the credit disbursement. The higher the credit disbursement, the higher the impact on the acquisition profit. The results of the study by Prasanjaya & Ramantha (2013) obtained that CAR has a significant effect on profitability. However. studies by Kurniawan & Irawan (2021) and Hasan et al. (2020) provides CAR results that have no effect at a significant level of 5%.

- H1: Capital adequacy ratio has a positive effect on profitability
  In carrying out its activities, banks incur costs that must be managed efficiently. The measuring tool for bank cost efficiency is Operational Costs to Operating Income (BOPO). The higher the value of the BOPO ratio, it means that the greater the operational income allocated to operational costs which causes the profit to decrease. Kurniawan & Irawan's research (2021) found that cost efficiency (BOPO) has a significant negative effect on bank profitability. These results are in line with the findings of Hasan et al. (2020); Prasanjaya & Ramantha (2013).
- H2: BOPO has a negative effect on profitability
  In channeling funds as its main activity, banks may face obstacles related to the distribution of uncollected funds. The higher the distribution of uncollected funds, as measured by non-performing loans (NPL), the lower the bank's profit. The results of the Saif-Alyousfi study (2020) obtain a significant negative effect of NPL on profitability. Meanwhile, Kurniawan & Irawan's research (2021); Hassan et al. (2020) shows that NPL has no effect on profitability.
- H3: Non-Performing Loans have a negative effect on profitability

2. Methods

The Core Capital Bank Group 4 is a pioneer of green banking and has the largest core capital. Not so with the Core Capital Bank Group 4. The population of this study were twelve banks in the Core Capital Bank Group 4 category. This study used a sample consisting of 10 banks in the KBMI 3 category listed on the Indonesia Stock Exchange, namely: CIMB Niaga, Danamon, Panin, Permata, OCBC NISP, BTPN, Maybank Indonesia, BTN, Mega and BSI. This study uses secondary data obtained through annual bank financial reports for green banking indicators from the beginning of 2020 to the end of 2021. The analytical method in this study uses multiple linear regression and simple linear regression.

3. Result and discussion

Simple linear regression test was carried out using a significant variable, namely BOPO. Before carrying out a simple linear regression analysis, a normality test was carried out first and the results can be seen in Table 1.

Table 1 Normality Testing

Model	**Uji Normalitas**
	Kolmogorov-Smirnov
Asymp. Sig. (2 tailed)	0,200

Secondary Data, 2023

Table 1 shows the significance value of the Kolmogorov-Smirnov test is greater than 0.05 so that it can be interpreted that the data is normally distributed.

3.1. CAR on Profitability

Based on table 2, the CAR variable has a t value of 0.847 with a significantly smaller value than 0.05, namely 0.411, which means that CAR has a positive and significant effect on profitability. Thus Hypothesis 1 is accepted. The company's capability to create net profit at a certain asset level is the company's profitability performance. The factors that influence the profitability of a bank in carrying out its activities are the capital owned by the bank as measured by the capital adequacy ratio (CAR). The bank's ability to obtain funds will be in accordance with its ability to extend credit.

The more funds you have, the higher the credit disbursement. The higher the credit disbursement, the higher the impact on the acquisition profit. The results of the study by Prasanjaya & Ramantha (2013) obtained that CAR has a significant effect on profitability. However. studies by Kurniawan & Irawan (2021) and Hasan et al. (2020) provides CAR results that have no effect at a significant level of 5%.

Table 2 Simple Regression Analysis

Model	**Unstandardized Coefficients**		**Standardized Coefficients**		
	B	***Std. Error***	***B***	**t**	**Sig**
(*Constant*)	0.087	0.011		8.284	0.000
CAR	0.012	0.014	0.062	0.847	0.411
BOPO	-0.095	0.008	-0.911	-11.718	0.000
NPL	-0.053	0.098	-0.037	-0.546	0.012

Secondary Data, 2023

3.2. BOPO on Profitability

Based on table 2, the CAR variable has a t value of 0.847 with a significantly smaller value than 0.05, namely 0.411, which means that CAR has a positive and significant effect on profitability. Thus Hypothesis 1 is accepted. This means that the greater the value of BOPO causes a decrease in profit. This is in line with the research of Kurniawan & Irawan (2021) and Hasan et al. (2020) who stated that BOPO had a negative effect on bank profitability.

3.3. NPL on Profitability

Furthermore, the NPL variable has a t value of -0.546 with a significantly smaller value than 0.05, namely 0.012, which means that NPL has a negative and significant effect on profitability. Thus Hypothesis 3 is accepted. In channelling funds as its main activity, banks may face obstacles related to the distribution of uncollected funds. The higher the distribution of uncollected funds, as measured by non-performing loans (NPL), the lower the bank's profit. The results of the Saif-Alyousfi study (2020) obtain a significant negative effect of NPL on profitability. Meanwhile, Kurniawan & Irawan's research (2021); Hassan et al. (2020) shows that NPL has no effect on profitability.

Table 3 F test

Model		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
1	Regression	0.002	4	0.000	45.468	0.000b
	Residual	0.000	15	0.000		
	Total	0.002	19			

Secondary Data, 2023

In Table 3 it is stated that the significance value is 0.000 < α=0.05. It can be concluded that the data has a linear pattern. It can be interpreted that the independent variables together can explain profitability. The results of the t-test with independent variables.

Table 4 Model Summary

Model	***R***	***R Square***	***Std. Error of the Estimate***
1	0.967a	0.935	0.00248

Secondary Data, 2023

The results in Table 4 show that R square is 0.935 (93.5%). This value can be interpreted that the BOPO variation explains the ROA variation of 93.5%. The remaining 6.5% is explained by other variables not included in this study.

4. Conclusion

Regarding the health of the bank which includes the factors of capital adequacy, cost efficiency, and distribution of funds, 3 category banks focused on cost efficiency as indicated by results that had a negative effect. Thus, during the Covid-19 pandemic, profit was decreasing due to higher operational costs. For further research, it can be conducted on KBMI 2 category banks. The Covid-19 pandemic period lasts for three years from 2020 to 2022. The limitation of this study is that data is available in two the early years of the Covid-19 pandemic period. Therefore, further research can increase the research period until 2022. It is recommended that further research be able to assess banking performance by using a variety of other variables.

Compliance with ethical standards

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Disclosure of conflict of interest

All authors contributed positively to the writing of this manuscript and there no conflict of interest as agreed to the content of this research.

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