

THE EFFECT OF THIRD-PARTY FUNDS, CAPITAL ADEQUACY RATIO, OPERATING COSTS, OPERATING INCOME, AND NON-PERFORMING LOANS ON PROFITABILITY WITH FIRM SIZE AS A MODERATION VARIABLE IN THE BANKING SUB-SECTOR FOR THE 2019-2023 PERIOD

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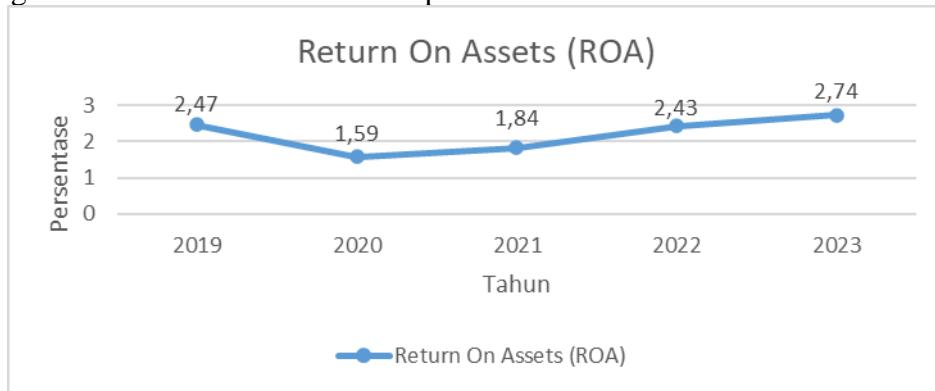
ABSTRACT This research aims to determine and analyze the influence of third-party funds, capital adequacy ratio, operating expenses to operating income, and non-performing loans on profitability with firm size as a moderating variable on the banking sub-sector for the 2019-2023 period. Secondary data is used in this quantitative research. This research uses a quantitative research method. The population of this study was 47 companies with the sample used being 10 companies included in the banking sub-sector. The sampling technique used a purposive sampling. The analysis techniques used are descriptive statistical tests, classical assumption tests, multiple linear regression analysis tests, t-statistical tests, coefficient of determination tests, and Moderate Regression Analysis (MRA). Based on the results of this research, show that third-party funds have a positive effect on profitability, capital adequacy ratio have a positive effect on profitability. In contrast, operating expenses to operating income do not affect profitability, and non-performing loans do not affect profitability. Meanwhile, firm size can moderate the influence of the capital adequacy ratio on profitability. However, the firm size variable cannot moderate the variables of third-party funds, operating expenses to operating income, and non-performing loans.

Keywords: Profitability, Third Party Funds, Capital Adequacy Ratio, Operating Expenses to Operating Income, Non Performing Loans, Firm Size

INTRODUCTION

In three main functions, namely to collect funds from the community, then can provide loans to good services related to the bank's duties to the community. A bank can be defined as an institution that collects funds from the community in the form of savings, current accounts, deposits, and also distributes its funds to the community in the form of credit or other forms that aim to improve the standard of living of the community (Tofan et al., 2022:97). To generate greater revenue, banks need larger funds as a tool for money circulation between banks and the public, so as to obtain greater profits. The analysis of the bank's health level can be seen from the profits generated from its operating activities. Bank health is a sensitive issue, especially for investors who will invest their funds. The health of the bank itself is one of them, which can be seen from the profitability performance obtained. Projected profitability with *Return on Assets* (ROA) That is, rasiol which shows the ability of acel to generate profits larger the ROA of the bankl, the greater the level of profit achieved by the bankl and the better the return The bank's position is that it is safe to use. This study

uses *Return On Assets* (ROA) as a measurement tool for bank profitability. *Return On Assets* (ROA) is a ratio that measures the profitability of a bank. The following is a graph showing profitability growth (ROA) in the Banking Sub-Sector for the 2019-2023 period.



Source: OJK, 2024 (processed by researchers)

Chart 1
Growth of ROA in the Banking Sub-Sector

The condition of the *Return On Assets* (ROA) of the Banking Sub-Sector for the period 2019 to 2023 depicted on the chart shows that there was a significant decrease in profitability in 2020. This was caused by the Covid-19 pandemic at that time, thus affecting the decline in the average value of *Return on Assets* (ROA) as well as the profitability of banks. When the value of *Return On Assets* (ROA) can be increased by a bank, it means that the company's profit will increase and also have an impact on the health of the bank. Several aspects in banking performance can affect *Return On Assets* (ROA) such as third-party funds, *capital adequacy ratio*, operating costs, operating income, *non-performing loans*, and bank size. These different business strategies can affect how banks manage third-party funds, *capital adequacy ratios*, operating costs, operating income, and *non-performing loans*, which will further affect profitability. The size of a company can affect the resilience to market fluctuations or changes in economic policy than small banks. A large company size will try to convince investors with detailed and complete information so that investors do not make mistakes in making decisions (Natanael & Mayangsari, 2022: 1091). Therefore, the influence of variables such as third-party funds, *capital adequacy ratio*, operating costs, operating income, and *non-performing loans* on profitability can differ depending on the size of the bank. The influence of *firm size* as a moderation variable allows researchers to understand the impact of different market changes or economic policies according to the size of the bank. If the company has a larger business scale, then the disclosure of information will also be more to avoid sanctions that will be given if it does not carry out accountability. Thus, the role of *firm size* as a moderation variable in this study can provide a deeper understanding of the relationship between the variables studied can interact with company size to affect profitability in the Banking Sub-Sector. The explanation is related to an interesting phenomenon to be studied more deeply regarding profitability in the Banking Sub-Sector. Therefore, this research is needed to discuss the following: 1) Does third-party funds affect profitability? 2) Does the *capital adequacy ratio* affect profitability? 3) Does operating costs affect operating income on profitability? 4) Does *non-performing loans* have an effect on profitability? 5) Can *firm size* moderate the influence of third-party funds on profitability? 6) What *firm size* can moderate the effect of *capital adequacy ratio* on profitability? 7) Can *firm size* moderate the effect of operating costs of operating income on profitability? 8) Can *firm size* moderate the effect of *non-performing loans* to profitability? Thus, the purpose of this study is to find out and analyze whether independent variables affect dependent variables, as well as whether moderation variables can strengthen or weaken the influence of independent

variables on the dependent variables studied. This journal is arranged into several parts, namely introduction, literature review, methods used in research, results and discussions, and finally conclusions and suggestions.

METHOD

This study uses a type of quantitative research using secondary data contained in the company's annual financial statements. The sampling technique of this study is a *purposive sampling method* where the sample is included in the criteria, namely 10 companies in the banking sub-sector. The analysis used was a descriptive statistical test, a classical assumption test, a multiple linear regression analysis test, a t-statistical test, a determination coefficient test, and *Moderate Regression Analysis* (MRA). The test was carried out using *SPSS 23* software.

RESULTS AND DISCUSSION

Descriptive Statistical Test

Descriptive statistical analysis is a technique to get an overview or description of a data by looking at the average value, standard deviation, maximum, minimum, sum, range, curtosis, and skewnes (Ghozali 2019: 19). The results of descriptive statistics are as follows:

Tabel 1
Descriptive Analysis Test Results

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
ROA	50	.57	4.27	2.1576	.84465
DPK	50	17.44	21.03	19.3390	1.01900
CAR	50	16.78	32.50	23.6398	3.68103
BOPO	50	27.28	90.65	63.2126	13.10815
NPL	50	.38	28.88	4.4878	5.89865
SIZE	50	19.01	21.50	19.9534	.90695
Valid N (listwise)	50				

Source: *Output SPSS 23* (Data processed by researchers)

Classic Assumption Test

The classical assumption test includes normality, multicollinearity, heterogeneity, and autocorrelation tests. The data from this study has met the classical assumption test, so that the next test can be carried out.

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The multiple linear regression analysis in this study is as follows.

Table 2
Multiple Linear Regression Test Results

Model	Coefficients ^a			T	Sig.
	B	Unstandardized Coefficients	Standardized Coefficients		
1	(Constant)	-4.210	2.114		.053
	DPK	.327	.109	.390	2.988
	CAR	.053	.026	.241	2.060
	BOPO	-.012	.009	-.200	-1.455
	NPL	.032	.023	.190	.166

a. Dependent Variable: ROA

Source: *Output SPSS 23* (Data processed by researchers)

Based on the results of the data processing above, the following equations can be obtained:

$$\text{ROA} = -4.210 + 0.327 \text{ DPK} + 0.053 \text{ CAR} - 0.012 \text{ BOPO} + 0.032 \text{ NPL}$$

Based on this equation, the regression analysis that can be explained is that the regression coefficient for the deposit variable has a value of 0.327 with a significance value of $0.005 < 0.05$, meaning that the deposit has a positive effect on profitability. The regression coefficient for the CAR variable has a value of 0.053 with a significance value of $0.045 < 0.05$, meaning that CAR has a positive effect on profitability. The regression coefficient for the BOPO variable has a value of -0.012 with a significance value of $0.153 > 0.05$, meaning that BOPO has no effect on profitability. The regression coefficient for the NPL variable has a value of 0.032 with a significance value of $0.166 > 0.05$, meaning that NPL has no effect on profitability.

Coefficient of Determination Test (R2)

The value of the determination coefficient is between the values of 0 and 1. A small R2 value indicates that the independent variables in the study have limited ability to explain their dependent variables. Meanwhile, if the R2 value is large, it means that the independent variable in the study is able to provide almost all the information needed to predict the dependent variable. The following are the results of the determination coefficient test.

Table 3
Determination Coefficient Test Results

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.659 ^a	.434	.383	.60466

a. Predictors: (Constant), NPL, CAR, DPK, BOPO

Source: SPSS 23 output (Data processed by researchers)

Based on the output results table above, it shows that the *Adjusted R Square value* is 0.383. The results explain that the magnitude of the influence of third-party funds, *capital adequacy ratio*, operating income operating costs, and *non-performing loans* on profitability is 38.30%. Meanwhile, the remaining 61.70% was influenced by other variables that were not studied in this study.

Tabel 4

Partial Test Results (t-test)

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients Beta	T	Sig.
	B	Std. Error			

1	(Constant)	-4.210	2.114		-1.991	.053
	DPK	.327	.109	.390	2.988	.005
	CAR	.053	.026	.241	2.060	.045
	BOPO	-.012	.009	-.200	-1.455	.153
	NPL	.032	.023	.190	1.407	.166

a. Dependent Variable: ROA

Source: SPSS 23 output (Data processed)

Moderated Regression Analysis (MRA)

Moderated Regression Analysis (MRA) in this study was used to determine the relationship between independent variables and dependent variables that can be influenced by moderator variables. The following are the results of the *moderate regression analysis test*.

Tabel 5
Test Results Moderate Regression Analysis

Coefficients^a

Model	Unstandardized Coefficients			t	Sig.
	B	Std. Error	Beta		
1	(Constant)	47.008	49.296	.954	.346
	DPK	-2.056	3.161	-.650	.519
	CAR	-1.627	.551	-2.956	.005
	BOPO	.357	.187	1.907	.064
	NPL	-1.142	.985	-1.159	.253
	SIZE	-2.735	2.813	-.972	.337
	DPKXSIZE	.123	.181	.677	.502
	CARXSIZE	.097	.032	3.030	.004
	BOPOXSIZE	-.021	.011	-1.885	.067
	NPLXSIZE	.062	.053	1.160	.253

a. Dependent Variable: ROA

Source: SPSS 23 output (Data processed by researchers)

Based on the table of *output results* above, the regression equation is obtained:

$$\begin{aligned}
 \text{ROA} = & 47,008 - 2,056 \text{ DPK} - 1,627 \text{ CAR} + 0,357 \text{ BOPO} - 1,142 \text{ NPL} \\
 & + 0,123 \text{ DPK*SIZE} + 0,097 \text{ CAR*SIZE} - 0,021 \text{ BOPO*SIZE} \\
 & + 0,062 \text{ NPL*SIZE}
 \end{aligned}$$

Based on the regression equation above, it can be concluded that the results of the significance test of the moderation regression coefficient of the influence of third-party funds on profitability with *firm size* as the moderation variable obtained a sig value of 0.502. Thus, the sig value of $0.502 > 0.05$, it can be interpreted that *firm size* cannot moderate the influence of third-party funds on profitability. The results of the significance test of the moderation regression coefficient of the effect of *capital adequacy ratio* on profitability with *firm size* as the moderation variable obtained a sig value of 0.004. Thus, the sig value of $0.004 < 0.05$, it can be interpreted that *firm size* can moderate the effect of *capital adequacy ratio* on profitability. The results of the significance test of the moderation regression coefficient of the effect of operating costs on operating income on profitability with *firm size* as the moderation variable were obtained with a sig value of 0.067. Thus, the sig value of $0.067 > 0.05$, it can be interpreted that *firm size* cannot moderate the influence of operating costs of operating income

on profitability. The results of the significance test of the moderation regression coefficient of the effect of *non-performing loans* on profitability with *firm size* as the moderation variable were obtained with a sig value of 0.253. Thus, the sig value of $0.253 > 0.05$, it can be interpreted that *firm size* cannot moderate the influence of *non-performing loans* on profitability.

CONCLUSION

Based on the results of the data analysis that has been carried out, the conclusion is: 1) Third-party funds have a positive effect on profitability. 2) *Capital adequacy ratio* has a positive effect on profitability. 3) Operating costs of operating income have no effect on profitability. 4) *Non-performing loans* have no effect on profitability. 5) *Firm size* cannot moderate between third-party fund variables on profitability. 6) *Firm size* can moderate the relationship between *capital adequacy ratio* variables to profitability. 7) *Firm size* cannot moderate between operating cost variables and operating income to profitability. 8) *Firm size* cannot moderate between *non-performing loan* variables and profitability. Based on the results of the research that has been conducted, the following are suggestions that can be given to several parties, including: 1) For companies, especially those included in the Banking Sub-Sector, it is better to conduct various evaluations and considerations in various decisions to be able to optimize their profitability. Banks need to increase customer confidence in order to be able to place their funds as third-party funds to be used as operational funds. Banks also need to improve services and increase promotions in order to get more customers who entrust their funds to banks. 2) For investors, it can be used as a reference for investors, especially prospective investors who want to invest in companies in the banking sub-sector, especially in the Banking Sub-Sector. Some factors to consider in the decision to invest in these companies are to pay attention to third-party funds and *capital adequacy ratios*. Based on the results of the research that has been conducted, these two variables provide results that have a significant positive effect on the profitability obtained by banks. So that it affects the level of bank health while at the same time affecting the profitability of the investment rate of these companies. 3) For the next researcher, it is expected to be able to use or add other variables that are not included in this study such as liquidity, *leverage*, *Environmental Social and Governance* (ESG), *free cash flow*, and so on. Given that this research still has limitations, it aims to obtain accurate results. This research only uses the company's research object in the Banking Sub-Sector for the 2019-2023 period. It is hoped that the next research can use more diverse research objects and use the latest research period, so that novelty can be obtained from the results of the research to be carried out.

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