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The Effect of Inflation and Firm Size on Profitability in Banking Companies Listed on The Stock Exchange

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ABSTRACT

This study analyzes the effect of Inflation and Firm Size on Profitability in Banking Companies listed on the Indonesia Stock Exchange. The research method used is multiple linear regression analysis, which is to determine the effect of two independent variables on one dependent variable which is then carried out t hypothesis test and F hypothesis test to determine the significance level of the effect. The population of this study is the financial statements of Banking Companies listed on the Indonesia Stock Exchange and samples taken using purposive sampling techniques so that the samples taken start from the 2019-2023 period. Based on the results of the study, it shows that simultaneously and partially Inflation and Firm Size have a positive and significant effect on Profitability. The coefficient of determination is 36.3% and the remaining 63.7% is another variable that also affects profitability but is not examined. As for partial Inflation has a greater influence than Firm Size.

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1. INTRODUCTION

The banking business is the core of every country's financial system, because the banking business is an important sector to achieve stable, healthy and dynamic economic growth in developing countries such as Indonesia. As one of the developing countries that is actively engaged in national development. The main goal of development is to realize a prosperous society and obtain quality human resources that are competitive and independent.

To achieve these goals, facilities and infrastructure are needed, especially adequate financial support, banking as a financial intermediary, or the important role of the two

parties (i.e. the party with too much capital and the party who lacks funds). Even in the current economic system, banking is not the only major source of capital that can be used for a country's investment.

In national banking, the commercial bank group is divided into 4 Commercial Bank Business Groups (BUKU). In addition to having a core capital of more than RMB 30 trillion, banks in this group can also carry out all business activities both domestically and abroad. The banks included in Book 4 are Bank Mandiri, Bank BNI, Bank BRI, BCA, and CIMB Niaga Panin Bank, Bank Danamon, Bank BTPN.

As an institution that plays an important role in the economy, it is necessary to monitor good performance. One of the right indicators to evaluate the bank's financial performance is by looking at its profitability level. Because the main goal of banking is to maximize profits. Based on the above, the authors conducted research with the title "The Effect of Inflation and Firm Size on Profitability in Banking Companies Listed on the Indonesia Stock Exchange".

2. METHOD

2.1 Multiple Linear Regression Analysis

Multiple linear regression analysis is a linear relationship between two or more independent variables (X1, X2, ... Xn) with the dependent variable (Y), whether each independent variable is positively or negatively related to predict the value of the dependent variable if the value of the independent variable increases or decreases as stated by Sugiyono (2017: 275) that multiple linear regression analysis is used when the researcher intends to predict how the state (increase / decrease) of the independent variable, if two or more independent variables as predictor factors are manipulated (increase / decrease in value). So multiple regression analysis will be carried out if the number of independent variables is at least 2.

2.2 Correlation Coefficient Analysis

Correlation coefficient analysis is used to determine how strong the causal relationship is between Inflation and Firm Size with Profitability. As for knowing the strength of the relationship, see the guidelines for the correlation coefficient criteria table as follows:

Tabel 1. Correlation coefficient and its estimate

Coefficient Interval	Relationship Level
0,00 - 0,199	Very Low
0,20 - 0,399	Low
0,40 - 0,599	Medium
0,60 - 0,799	Strong
0,80 - 1,000	Very Strong

2.3 Coefficient of Determination

$$KD = R^2.100\%$$

After the correlation coefficient is known, the next step is to calculate the coefficient of determination with the formula.

Source: Ghazali "Application of Multivariate Analysis with the IBM SPSS 21 PLS update program (2013: 160)

Description :

KD = Coefficient of Determination

R^2 = Squared Correlation Coefficient

The criteria for the determniation coefficient analysis are:

- If Kd is close to zero (0), then the influence of the independent variable on the dependent variable is weak.
- f Kd approaches one (1), then the influence of the independent variable on the dependent variable is strong.

1. Hypothesis Testing

According to Sugiyono (2015: 93) is a temporary answer to the formulation of research problems, where the formulation of research problems has been stated in the form of a question sentence. The hypothesis that will be used in this study is related to whether or not there is an influence of the independent variable on the dependent variable. Then Ho there is no significant effect and Ha indicates an impact between the independent variable and the dependent variable. The hypothesis formulated can be tested through the following hypothesis testing:

a. Test t (Partial)

The statistical t test is used to see the significance of the effect of Inflation and Firm Size on Profitability individually. This test is done by comparing tcount with ttable. After calculating the tcount value, then make a conclusion about whether or not the hypothesis is accepted after comparing the tcount and ttable with the following test conditions:

- If tcount> ttable at α = 5% then Ho is rejected and Ha is accepted (effect).
- If tcount < t table at α = 5% then Ho is accepted and Ha is rejected (no effect).
- If using a computer program (SPPS software), if the sig value < α = 0.05 then Ho is rejected.

b. F Test (Simultaneous)

The F test is known as the simultaneous test or model test / anova test, which is a test to see how the influence of all independent variables together on the dependent variable. The test criteria by comparing Fcount and Ftable are:

- If Fcount> Ftable at α = 5% then Ho is rejected and Ha is accepted (effect).
- If Fcount < Ftable at α = 5% then Ho is accepted and Ha is rejected (no effect).
- When using a computer program (SPPS software), if the sig value < α = 0.05 then Ho is rejected.

c. Determining the Significance Level

The results of the analysis and hypothetical testing of the significant level is 0.05% (α = 0.05), meaning that if the null hypothesis is rejected or accepted with a confidence level

of 95%, then the possibility that the results of drawing conclusions have 95% truth and this shows the influence or absence of a convincing influence (significant) between the two variables.

3. RESULTS AND DISCUSSION

3.1 Multiple Linear Regression Results

Table 3.1 Multiple Linear Regression Analysis Results Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	-8,185	2,745		-2,982	,005
	X1_Inflasi	,498	,162	,437	3,082	,004
	X2_Size	,429	,133	,457	3,229	,003

a. Dependent Variable: Y_ROA

Source: Data Processing with SPSS Version 20

From the data above, a multiple regression equation can be made as follows:

$$Y = -8,185 + 0,498\ X_1 - 0,429\ X_2$$

The multiple linear regression equation obtained can be explained as follows:

a. Constant of -8.185 This indicates that if the independent variable is eliminated or Inflation (X1) and Firm Size (X2) are 0, then Profitability (ROA) (Y) is 8.185.
b. The regression coefficient of Inflation (X1) is 0.498. The regression coefficient (b1) is positive. This shows an indication of a unidirectional relationship, meaning that if the value of the Inflation variable (X1) increases by 1% (0.01) it will cause an increase in Profitability (ROA) of 0.498 assuming other variables remain.
c. The regression coefficient of Firm Size (X2) is 0.429. The regression coefficient (b2) is positive. This shows an indication of a unidirectional relationship, meaning that if the value of the Firm Size variable (X2) increases by 1% (0.01) it will cause an increase in Profitability (ROA) of 0.429 assuming other variables remain constant.

3.2 Correlation Analysis

Table 3.2. Results of Correlation Analysis Peearson Correlations

		X1_Inflation	X2_Size	Y_ROA
X1_Inflasi	Pearson Correlation	1	-,091	,395*
	Sig. (2-tailed)		,604	,019
	N	35	35	35
	Pearson Correlation	-,091	1	,418*

X2_Size	Sig. (2-tailed)	,604		,013
	N	35	35	35
	Pearson Correlation	,395*	,418*	1
Y_ROA	Sig. (2-tailed)	,019	,013	
	N	35	35	35

Table 3.3. Simultaneous Correlation Test Results (R) Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,603[a]	,363	,324	,61214

a. Predictors: (Constant), X2_Size, X1_Inflasi
b. Dependent Variable: Y_ROA

Source: Data Processing with SPSS Version 20.

Judging from the two correlation calculation tables above, it shows that :

a. The correlation between Inflation and Firm Size is 0.395. Based on the correlation criteria table, including the correlation value between 0.20-0.399 has a low relationship. Because the results are positive, it can be concluded that the increase in Inflation will be followed by an increase in Firm Size.
b. The correlation between Firm Size and Profitability is 0.418. Based on the correlation criteria table, including the correlation value between 0.40-0.599 has a moderate relationship. Because the results are positive, it can be concluded that any increase in Firm Size will be followed by an increase in Profitability.

3.3 Test t (Partial) and Test F (Simultaneous)

a. Test t (Partial)

To determine whether the research hypothesis is accepted or rejected, the following decision is made:

- If tcount < ttable or probability> 0.05 then Ho is accepted.
- If tcount> ttable or probability <0.05 then Ho is rejected.

2 above the tcount value for Inflation (X1) is 3.082, on the t table with dk 32 (n-3 = 35-3) and a significant level of 0.05 obtained 2.039 (see t table in the attachment). Because tcount> ttable (3.082> 2.039) then Ho is rejected and Ha is accepted. Then in the sig. column above, it can be seen that the t-test significance value of 0.004 is smaller than 0.05 (5%). Thus the decision taken with the level of significance that Inflation (X1) partially has a significant effect on Profitability (Y).

In table 2 above, the tcount value for Firm Size is 3.229 on the ttable with dk 32 (n-3 = 35-3) and a significant level of 0.05 obtained 2.037 (see t-table in the attachment). Because tcount> ttable (3.229> 2.037) then Ho is rejected and Ha is accepted. Then in the sig.column above, it can be seen that the t-test significance value of 0.003 is smaller than 0.05 (5%). Thus the decision taken with the level of

significance that Firm Size (X2) partially has a significant effect on Profitability (Y).

b. Test F (Simultaneous)

Table 3.4 F test results The effect of X_1 and X_2 on Y

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	6,846	2	3,423	9,135	,001[b]
	Residual	11,991	32	,375		
	Total	18,837	34			

a. Dependent Variable: Y_ROA

b. Predictors: (Constant), X2_Size, X1_Inflasi

Source: Data Processing with SPSS version 20

To determine whether the research hypothesis is accepted or rejected, the following decision is made:

- If Fcount < Ftable or probability > 0.05 then Ho is accepted.
- If Fcount > Ftable or probability <0.05 then Ho is rejected.

From the table above, it can be seen that the Fcount value is 9.135 while Ftable can be obtained with the free degree F table, namely residual 32 and regression 2 with a significant level of 0.05, so that Ftable is 3.29 (see Ftable in the attachment). Because Fhitung > Ftabel (9.135 > 3.29) then Ho is rejected and Ha is accepted. Then from the ANOVAa table above, it can be seen that the F-test significance value of 0.001 is smaller than 0.05 (5%). Thus the decision taken with the level of significance that Inflation (X1) and Firm Size (X_2) simultaneously have a significant effect on Profitability (Y).

3.4 Discussion

Based on the research results that have been obtained, the discussion to answer the problems in this study is as follows:

1) The effect of Inflation on Profitability in Banking Companies listed on the Indonesia Stock Exchange.

Based on the results of verification analysis, that Inflation and profitability (ROA) have a positive relationship. This is evidenced by the results of the regression coefficient (b1) of 0.498 and the results are positive, this shows an indication of a unidirectional relationship, meaning that if the value of the Inflation variable (X1) increases by 1% (0.01) it will cause an increase in profitability (ROA) of 0.498 assuming other variables remain. Then the partial correlation coefficient of 0.478 is at the correlation value between 0.40 -0.599 has a moderate relationship, because the value is positive then any increase in Inflation will be followed by an increase in profitability (ROA) assuming other variables remain (constant). As for the partial effect of Inflation on profitability (ROA) of Banking Companies listed on the Indonesia Stock Exchange of 17.26% has a very low influence. The results of the t test that Inflation on profitability (ROA) has a significant effect because tcount> ttable (3.082> 2.037) with

a sig value <0.05, namely 0.04 the two-party test curve image is in the Ho rejection area, then Ho is rejected and Ha is accepted. Thus the decision taken with the level of significance that Inflation (X1) partially has a significant effect on profitability (ROA) (Y).

Inflation has a significant effect on profitability (ROA), as seen in the results of descriptive analysis that Inflation of Banking Companies listed on the Indonesia Stock Exchange for 5 periods has experienced instability which tends to decrease, causing the economy to increase, public interest in saving and also investing in banks is high due to lower bank interest rates. Low inflation results in declining real bank interest rates, so the profitability obtained by the bank also decreases.

The results of this study are supported by previous research by Afifah Dian Kusuma (2018) The Effect of Inflation, BI RATE, Currency Exchange Rate, Car, Npf and Frd on the Profitability of Islamic Commercial Banks in Indonesia states that Inflation simultaneously affects Bank profitability. And supported by the theory put forward by Pohan which states that a high inflation rate can reduce people's purchasing power so that it will reduce company profits.

2) The Effect of Firm Size on Profitability (ROA) in Banking Companies listed on the Indonesia Stock Exchange for the 2016-2020 Period

Berdasarkan hasil analisis verifikatif, bahwa ukuran perusahaan dan profitabilitas (Based on the results of verification analysis, that Firm Size and profitability (ROA) have a positive relationship. This is evidenced by the regression coefficient of 0.429, which means that every 1% increase in Firm Size will be followed by a decrease in profitability (ROA) of 0.429 assuming other variables remain (constant). Then the partial correlation coefficient result of 0.496 is at the correlation value between 0.40 - 0.599 has a moderate relationship, because the value is positive, any increase in Firm Size will be followed by an increase in profitability (ROA) assuming other variables remain (constant). The partial effect of Firm Size on profitability (ROA) of 19.10% has a very low influence. The t test results that Firm Size on profitability (ROA) has a significant effect because tcount < ttable (-3.229 < 2.037), as well as sig. value above 0.05, which is 0.03 in the two-party test curve image is in the Ho acceptance area, so Ho is rejected and Ha is accepted. Thus the decision taken with the level of significance is that Firm Size (X2) partially has a positive and significant effect on profitability (ROA) (Y).

Firm Size partially has a significant effect on profitability (ROA), as seen in the results of descriptive analysis that Firm Size experiences instability which tends to decrease. This is because other factors that influence the decline in Firm Size are due to total assets, total sales, thus affecting the company's profitability.

The results of this study are in line with the research of Nasya Batari Ayunda Praja (2018) The Effect of Firm Size, Capital Adequacy Ratio (Car), Loan To Deposit Ratio (Ldr), Non Performing Loan (Npl) on Profitability at Foreign Exchange National Private Commercial Banks Listed in Indonesia shows that Firm Size has a positive effect on profitability. And supported by the theory put forward by David Sukradi

which states that the larger the size of the company, the greater the increase in profitability.

3) Inflation and Firm Size on Profitability (ROA) in Banking Companies listed on the Indonesia Stock Exchange for the Period 2016-2020

Based on the results of verification analysis, the inflation and Firm Size variables simultaneously have a very strong and positive relationship with profitability (ROA). This is indicated by the results of the multiple correlation coefficient of 0.478 which is at the correlation value between 0.40 -0.599 has a moderate and positive relationship. Then the results of the calculation of the Coefficient of Determination (KD) show a result of 36.3% having a moderate influence, while the rest is indicated by the epsilon value (Ɛ) of 63.7% influenced by other factors not examined in this study such as assets, debt, expenses and so on. Furthermore, the results of the F test show that simultaneously inflation and Firm Size have a significant effect on profitability (ROA) in Banking Companies listed on the Indonesia Stock Exchange because Fhitung> Ftabel (9.135>3.29) with a sig value of 0.001 <0.05 and in the right side test curve image that Fhitung is in the Ho rejection area, then Ho is rejected and Ha is accepted. Thus the decision taken with the level of significance that Inflation (X1) and Firm Size (X_2) simultaneously have a significant effect on Profitability (ROA) (Y).

The significant effect of Inflation and Firm Size simultaneously on Profitability (ROA) in Banking Companies listed on the Indonesia Stock Exchange, that together are influenced by Inflation and Firm Size, so that Inflation and Firm Size provide a very strong influence on Profitability (ROA) although individually show the results that Inflation has a positive, moderate and significant effect, and Firm Size has a positive, moderate and significant effect. This means that these two variables together will make a positive, very strong and significant contribution to Profitability (ROA) in Banking Companies listed on the Indonesia Stock Exchange.

The results of this study are in line with research conducted by Syafi'I and Haryono (2021) The Influence of Leverage, Firm Size and Inflation on Islamic Commercial Banks in Indonesia, the results obtained that Inflation (X1) and Firm Size (X2) have a significant effect on Profitability (Y) both partially and simultaneously.

4. CONCLUSIONS

Based on the results of the research and discussion, it can be concluded as follows:

a. Inflation and Profitability (ROA) have a moderate and significant relationship, this shows that partially Inflation has a significant effect on Profitability (ROA) of Banking Companies listed on the Indonesia Stock Exchange for the period 2016 to 2020, namely 0.498. This means that any increase in Inflation will be followed by an increase in Profitability (ROA), and vice versa, any decrease in Inflation will be followed by a decrease in Profitability (ROA). As happened in Banking Companies listed on the Indonesia Stock Exchange, which experienced a decline also followed by profitability (ROA).
b. Firm Size and Profitability (ROA) have a moderate and significant relationship, this shows that partially Firm Size has a significant effect on profitability (ROA) of

Banking Companies listed on the Indonesia Stock Exchange for the period 2016 to 2020, namely 0.429, which means that any increase in Firm Size will be followed by an increase in Profitability (ROA), and vice versa, any decrease in Firm Size will be followed by a decrease in Profitability (ROA). As happened in Banking Companies listed on the Indonesia Stock Exchange, which experienced a decline, it was also followed by profitability (ROA).

REFERENCES

Ayunda, B., & Praja, N. U. H. (2018). The effect of Firm size, capital adequacy ratio (CAR), loan to deposit ratio (LDR), and non-performing loans (NPL) on profitability in foreign exchange national private commercial banks listed in Indonesia for the period 2012–2016. *Journal of Management Science (JIM), 7*(1).

Boediono. (n.d.). *Macroeconomics: A synopsis series of introductory economics.* BPFE.

Hartono, J. (2008). *Portfolio theory and investment analysis.* BPFE.

Houston, J. F., & Brigham, E. F. (2010). *Fundamentals of financial management* (3rd ed.). Salemba Empat.

Irham. (2011). *Analysis of financial statements.* Alfabeta.

Rahardja, R., & Manurung, M. (2008). *Introduction to economics.* LPFE-UI.

Sartono, A. (2010). *Financial management: Theory and application* (4th ed.). BPFE.

Sudana, I. M. (2011). *Financial management.* Erlangga.

Sugiyono. (2015). *Qualitative quantitative research methods.* Alfabeta.

Sugiyono. (2017). *Statistics for research.* Alfabeta.

Sukirno, S. (2008). *Macroeconomics: An introductory theory* (3rd ed.). PT RajaGrafindo Persada.

Torang, S. (n.d.). *Organization and management* (1st ed.). CV Alfabeta.