ANALYSIS OF THE INFLUENCE OF EXTERNAL FACTORS OF SHARIA BANK ON NON-PERFORMING FINANCING (NPF) OF INDONESIAN SHARIA COMMERCIAL BANKS

Imamah Khairiyah[1]
Universitas Islam Negeri Sumatera Utara, Medan, Indonesia
imamahkhairiyah34@gmail.com

Fauzi Arif Lubis[2]
Universitas Islam Negeri Sumatera Utara, Medan, Indonesia
fauziariflbs@uinsu.ac.id

M. Lathief Ilhamy Nasution[3]
Universitas Islam Negeri Sumatera Utara, Medan, Indonesia
mlathiefilhamy@uinsu.ac.id

Abstract

Islamic banking in Indonesia has grown rapidly in recent years. However, along with its development, Islamic banking also faces various risks, one of which is credit risk which can result in Non-Performing Financing (NPF) or non-performing loans. NPF is an important indicator that can affect banking stability. Therefore, it is important to control the factors that can affect the level of NPF in Islamic banks. This study aims to examine the effect of inflation, BI Rate, and exchange rates on Non-Performing Financing (NPF) in Islamic banking in Indonesia. NPF is an important indicator that can affect banking stability and inflation control, the BI Rate, and the exchange rate is the factors that can affect the level of NPF in Islamic banks. This study uses a method with a quantitative approach and with a sample of 264 and removes outliers to 141 observational samples using multiple linear regression analysis techniques. The partial and simultaneous results of the research on inflation, the BI Rate, and the exchange rate on Non-Performing Financing (NPF) have a significant influence. The importance of controlling inflation, the BI Rate, and the exchange rate in managing credit risk and preventing NPFs. Inflation has an inverse effect on NPF, meaning that when inflation rises, NPF tends to fall. The BI Rate has a significant impact on a bank's ability to manage credit and credit risk, the higher the BI Rate, the greater the possibility of an NPF. Furthermore, changes in the exchange rate can affect the credit risk that must be borne by banks in managing credit, the lower the exchange rate, the greater the possibility of an NPF.

Keywords: Inflation, BI Rate, Exchange Rate, Non-Performing Financing (NPF)

INTRODUCTION

The development of Islamic banks in Indonesia is currently developing very rapidly. At first, Islamic banking was the development of the desire of a group of Muslim banking economic practitioners who tried to provide financial transaction services with Sharia principles. The development of Islamic Banking can be seen from the number of Islamic Commercial Banks in Indonesia which is increasing from year to year. Initially, there were only 9 Islamic Commercial Banks in 2009 and there were 13 Islamic Commercial Banks operating actively in Indonesia in 2018 (Rahmah et al., 2021). The development of Islamic Commercial Banks can also be seen through the Sharia Banking Statistics issued by the Financial Services Authority. OJK shows the achievement of Islamic Commercial Banks which continues to experience improvement in terms of institutional development and performance. In 2012, there were 11 BUS, 24 UUS, and 158 BPRS. Whereas in 2016 there were 13 BUS, 21 UUS, and 166 BPRS. The reduction in the number of UUS to 21 was due to the closure of HSBC Syariah in 2013 and BTPN Syariah which carried out a spin-off in July 2014. Likewise, the number of office networks also showed an increase in 2012 amounted to 2,663, increasing to 3,853 in 2016 (Sugiyanto, 2020).

Growth in banking performance in terms of financing is high, it will be accompanied by problematic financing which is reflected in the high NPF as well. Non Performing Financing (NPF) in Islamic Commercial Banks is relatively higher compared to Non Performing Loans (NPL) in conventional banking. It was recorded that based on data from the Financial Services Authority (OJK), the NPF in Islamic Commercial Banks in the second quarter of 2021 was 3.29%, the percentage of NPF was much higher than the NPL in conventional banking in the second quarter of 2021 of 1.06%. It can be concluded that the existence of a good development cannot be separated from various risks that must be faced (Fatimah & Izzaty, 2022). An increase in the amount of this financing distribution can trigger Non-Performing Financing (NPF). With the increase in the amount of financing provided by banks, the NPF will also increase. An increase in NPF is an indication that a bank is in bad condition because the higher the Non-Performing Financing or NPF, the higher the credit risk that will be faced by Islamic banks (Hidayah, 2019). Credit risk is the risk of loss incurred by the bank because the debtor is unable or unwilling to carry out its obligations to pay the borrowed funds in full and at maturity or beyond maturity. With this

high risk, it can affect the capital system of the Islamic bank itself. Measurement of the amount of Non-Performing Financing in Islamic banks is carried out using the Non-Performing Financing (NPF) ratio. Non Performing Financing (NPF) is a measure of a bank's assessment of the ability of debtors to meet their installment obligations.

The increase in Non-Performing Financing (NPF) in Islamic Commercial Banks can be caused by many factors. Factors that support the occurrence of problem financing can be caused by three factors, namely from the creditor or the bank itself, from the debtor or borrower, and outside the two parties (Destiana, 2018). Factors causing disruption to bank financing come from internal factors as well as external factors. External factors that result in problematic credit or financing are related to the debtor's business activities, for example declining economic activity, failure of the debtor's business, or disasters experienced by the debtor. External factors can also be in the form of macroeconomic conditions themselves, namely inflation, the BI rate and also the exchange rate (Sudarsono, 2018).

The theory that explains the link between internal factors and NPF is the Signaling Theory which was coined for the first time by Michael Space in 1973, which states that companies provide signals so that there is no information asymmetry between companies and external parties, because companies know more information. Signaling theory related to this study explains that by using financial ratios, banks can analyze financial statements to describe whether a bank's health condition can be said to be good or not (Rahayu et al., 2022). Meanwhile, the theory that explains the link between external factors and NPF is the Keynes Theory developed by a British economist named John Maynard Keynes in 1936, whose idea is to explain that economic activity can be determined by aggregate spending as well as by government policies, namely by controlling inflation, the BI rate and the value of swap. The government will issue a monetary policy to stabilize the inflation rate by lowering the BI rate or reference interest rate to maintain economic stability and people's purchasing power. In addition, if the exchange rate against the US dollar rises, the rupiah will weaken, this can reduce the debtor's income to the point that it disrupts the smooth running of debtors in paying financing installments (Purnamasari & Musdholifah, 2016).

Previous research that has been conducted by Sugiyanto (2020) states that the factors affecting the performance of Non Performing Financing (NPF) banks are internal factors and external factors. For internal factors, namely Financing to Deposit Ratio (FDR),

Capital Adequacy Ratio (CAR), Return on Assets (ROA) and Return on Profit (ROP). While the external factors are inflation, BI rate and exchange rate. The results of this study indicate that financial ratios affect the financing disbursed by the bank. However, in analyzing financial ratios, we do not only pay attention to the numbers listed in the financial statements, but also pay attention to other aspects such as historical records. While research by Nugrohowati & Bimo (2019) which discusses internal financial conditions and is sensitive to macroeconomic conditions, can be done by strengthening capital considering the role of capital is very important to maintain public confidence and capital also has a role to buffer risks.

Based on the results of previous studies that have been carried out, further research still needs to be carried out to find out the external factors that influence NPF. Therefore the researcher is interested in discussing again with the title Analysis of the Influence of External Factors of Islamic Banks on Non-Performing Financing (NPF) of Indonesian Islamic Commercial Banks.

REVIEW OF LITERATURE

External factors from banks that affect NPF are inflation, the BI rate and the exchange rate. These external factors have an influence on NPF so if a bank has high Non Performing Financing (NPF), it will increase costs, both the cost of propping up earning assets and other costs, in other words the higher the Non Performing Financing (NPF) of a bank, then it will disrupt the performance of the bank.

Inflation

Inflation is a condition of rising prices in general and occurs continuously (Rahmah et al., 2021). This price increase caused pressure on the country's economy, especially for the people's economy who are customers of Islamic bank financing. The occurrence of inflation will also lead to a decrease in people's purchasing power. Meanwhile according to Mutamimah & Chasanah (2012)Inflation is generally defined as an increase in the price of goods and services as a result of a greater amount of money (demand) than the amount of goods or services available (supply). As a result of inflation, the value of money decreases. Inflation can also be interpreted as a symptom of an increase in the prices of goods that are general in nature and take place continuously within a certain period of time (Asmara,

2019). So, inflation is a condition in which rising prices of goods and services occur continuously. This price increase caused pressure on the country's economy, especially for the people's economy who are customers of Islamic bank financing. The occurrence of inflation will also lead to a decrease in people's purchasing power.

BI Rate

The BI Rate is a policy interest rate that reflects the monetary policy stance or stance set by Bank Indonesia and announced to the public (Sugiyanto, 2020). If the BI rate rises, the bank's benchmark interest rate will also rise, and vice versa. Standard bank interest rates consist of deposit rates and loan rates. An increase in the BI rate can encourage people to save money in banks (Sudarsono, 2018). This means that with the large number of third party funds, the capacity of sharia bank financing distribution will increase, so that it can lead to the risk of problematic financing.

Exchange Rate

Foreign currency exchange rate is the domestic price of foreign currency or foreign currency (Mutamimah & Chasanah, 2012). Sugiyanto (2020) defines the exchange rate as the value of a currency relative to other currencies. The exchange rate of foreign currencies against the Indonesian currency illustrates the economic stability in Indonesia. The strengthening of the rupiah exchange rate, the stronger the rupiah the better the national economy in this country. Changes in currency exchange rates will also greatly affect the smooth running of the customers' business. If the value of the rupiah falls compared to foreign currencies and if the business is run using imported materials, it will hit the customers' business and can increase the ratio of non-performing financing.

RESEARCH METHOD

This research uses a quantitative approach in the form of ratio data and its analysis uses statistics. The population of this study is all Islamic Commercial Banks registered in the Islamic Banking Statistics issued by the Financial Services Authority (OJK) totaling 11 Islamic Commercial Banks where the sample was selected using a purposive sampling method. While the determination of the sample is based on criteria, namely Islamic Commercial Banks that are registered with the OJK and submit financial reports consistently at the OJK. This study uses data for the 2011-2016 period, with the reason

being to avoid extreme data due to the impact of the corona virus (Covid-19) and acquisitions that result in minimal data or starting from scratch at several banks such as currently Indonesian Islamic banks. Thus, the observed sample studied is the quarterly report of 4 x 6 years each year and x 11 companies equal to 264 observed samples.

Table 1
Conceptual and Operational Definitions

No	Variable	Variable Definitions	Indicators
1	Inflation	Inflation is an increase in prices that occurs continuously (Fadhlurrahman et al., 2021).	The data used in this study is based on monthly calculations. Quarterly inflation = 1st month inflation + 2nd month inflation + 3 month inflation
2	BI Rate	The BI rate is the interest rate set by Bank Indonesia as a policy that reflects monetary attitudes (Rahmah et al., 2021).	The data used in this study is the monthly BI rate data. $BI\ Rate = \frac{\text{BI Rate Month 1 + BI Rate Month 2 + BI Rate M}}{3}$
3	Exchange Rate	Exchange rate or exchange rate as the value of a currency relative to other currencies (Sugiyanto, 2020).	The data used is the monthly exchange rate data. $Quarterly\ Exchange\ Rate = \frac{\text{Final Exchange Rate} - \text{Initial Exchange Rate}}{\text{Initial Exchange Rate}}$
4	Non Performing Financing (NFT)	NPF is the level of problem financing in Islamic commercial banks which can occur from internal and external factors (Rahmah et al., 2021)	The data used as research is the NPF ratio. $NPF = \frac{Number\ of\ problematic\ financing}{Total\ Financing} x100\%$

The Conceptual Framework in this study is:

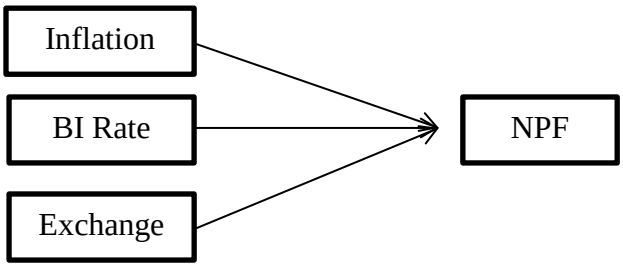


Figure 1
The Conceptual Framework

This study uses multiple linear regression analysis techniques. In addition, it also analyzes classical assumptions such as data normality, multicollinearity, and heteroscedasticity as a condition for testing multiple linear regression. The data analysis used is using the SPSS program.

RESULTS AND DISCUSSION

Descriptive Statistics

Table 2
Variable Descriptive Statistics

Descriptive Statistics

	N	Minimum	Maximum	Means	std. Deviation
Inflation	264	,760	2,150	1.37375	,401039
BI Rate	264	4,750	7,670	6.64958	,833734
Exchange Rate	264	-6,800	16,900	1.89167	4.858602
Non Performing Financing	264	,000	400,000	7.90530	27.482634
Valid N (listwise)	264				

Source: Processed, 2023

Inflation is an important measure in the economy which refers to the rate of increase in the prices of goods and services within a certain period of time. In this case, the inflation variable is calculated using data N=264, which shows a range of values between 0.760 to 2.150 with an average of 1.37375 and a standard deviation of 0.401039. This indicates that there were fluctuations in the rate of inflation over the observed time periods, with some periods experiencing a sharp increase while others experiencing a decrease. Nonetheless,

the average inflation rate shows an overall increase, which could have an impact on consumer purchasing power and overall economic stability. Therefore,

The BI Rate or Bank Indonesia's benchmark interest rate is an important indicator in the economy that influences monetary policy and financial stability. In this case, the BI Rate variable is calculated using data N=264, with a minimum value of 4.750 to a maximum of 7.670, and an average of 6.64958 and a standard deviation of 0.833734. This suggests that there were fluctuations in the value of the BI Rate over the observed time period, with some periods experiencing a sharp increase and other periods experiencing a decrease. Nonetheless, the average BI Rate value shows an increase, which could have an impact on the interest rates charged on financial products and loans.

Exchange rate is one of the important variables in the economy which refers to the exchange rate of a country's currency against foreign currencies. In this case, the exchange rate variable is calculated using data N=264, with a minimum value of -6.800 to a maximum of 16.900, and an average of 1.89167 and a standard deviation of 4.858602. This shows that the exchange rate fluctuated significantly over the period of time observed, with some periods experiencing sharp increases and other periods experiencing decreases. Nonetheless, the average exchange rate shows an increase, which can have an impact on consumer purchasing power, import and export prices, as well as international trade flows as a whole.

Non Performing Financing (NPF) is one of the important variables in the financial industry, particularly in the Islamic banking sector, which refers to the ratio of non-performing or non-performing loans. In this case, the NPF variable is calculated using data N=264, with a minimum value of 0.0 to a maximum of 400, and an average of 7.9053 and a standard deviation of 27.482634. This indicates significant fluctuations in NPF values over the time period observed, with some periods experiencing a sharp increase and others a decrease. Nonetheless, the average NPF score shows an increase, which could be an indication of a higher credit risk for Islamic banking.

Normality Test

Table 3
Normality Test

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residuals
N		264
Normal Parameters, b	Means	,0000000
	std. Deviation	27.15594307
Most Extreme Differences	absolute	,323
	Positive	,323
	Negative	-,271
Test Statistics		,323
asymp. Sig. (2-tailed)		,000c

Source: Processed, 2023

The normality test is used to determine whether the data has a normal distribution or not. In this case, the normality test value obtained is 0.00, which indicates a significant difference between the data distribution and the normal distribution. This shows that the data is not normally distributed or often referred to as non-normal data. The existence of non-normal data can affect the results of the statistical analysis performed, especially in inferential analysis such as hypothesis testing and regression. It is possible that there are extreme data, so in this case it is necessary to remove outliers.

Table 4
Normality Test After Outlier

One-Sample Kolmogorov-Smirnov Test

				Unstandardized Residuals
N				141
Normal Parameters, b	Means			,0000000
	std. Deviation			,85718715
Most Extreme Differences	absolute			,099
	Positive			.089
	Negative			-.099
Test Statistics				,099
asymp. Sig. (2-tailed)				,002c
Monte Carlo Sig. (2-tailed)	Sig.			,120d
	99% Confidence Intervals		LowerBound	,112
			Upperbound	,129

Source: Processed, 2023

The Monte Carlo normality test is used to test the normality of the data generated through a Monte Carlo simulation. In this case, the Sig. (2-tailed) obtained is 0.120, which indicates that the resulting data has a distribution that is not statistically significant from the normal distribution.

Multicollinearity Test

Table 5
Multicollinearity Test

Coefficients[a]

Model		Collinearity Statistics	
		tolerance	VIF
1	Inflation	,404	2,475
	BI Rate	,481	2,081
	Exchange Rate	,752	1,330

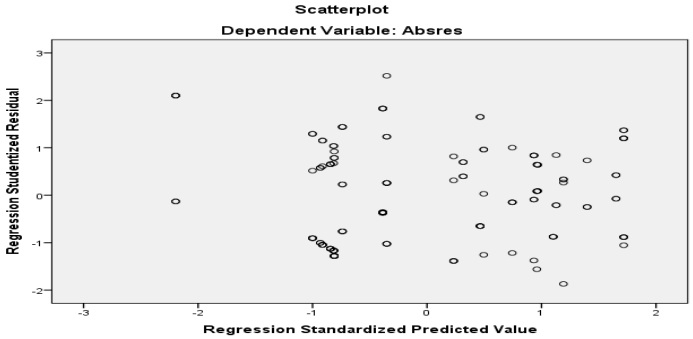
a. Dependent Variable: Unstandardized Residual

Source: Processed, 2023

The multicollinearity test is a statistical test used to measure the correlation between two or more independent variables in the regression model. One way to identify the presence of multicollinearity is to look at the Tolerance and VIF (Variance Inflation Factor) values of each independent variable in the model. In this case, if the Tolerance value is > 0.1 and VIF < 10, it can be concluded that there is no strong indication of the existence of multicollinearity in the regression model.

Heteroscedasticity Test

Figure 2
Heteroscedasticity Scatterplot



Heteroscedasticity or variance non-uniformity can affect the accuracy of the regression model. One way to find out whether there is heteroscedasticity is to examine the pattern of the scatterplot. If the scatterplot shows no clear pattern from the entire range of predicted values, it can be concluded that there is no heteroscedasticity in the regression model. The figure is shown by the distribution of data points that are not patterned and spread around zero and do not collect only above or below. Thus it can be interpreted that there are no symptoms of heteroscedasticity.

Partial Multiple Linear Regression Test

Table 6
Coefficient Test

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	std. Error	Betas	t	Sig.
1	(Constant)	-1.510	,648		-2,329	,021
	Inflation	-,742	,278	-,315	-2,663	,009
	BI Rate	,764	, 132	,628	5,799	,000
	Exchange Rate	.036	,016	,198	2,285	.024

a. Dependent Variable: Non-Performing Financing

Partial regression analysis can provide information about how much influence an independent variable has on the dependent variable in the regression model, by controlling for the influence of other variables. In the partial regression analysis between inflation and NPF variables using SPSS software, a t value of -2.663 is obtained and a significance value (sig.) of 0.09. This shows that there is a significant relationship between inflation and NPF at the 95% confidence level. In addition, a negative t value indicates that the relationship between inflation and NPF is an inverse relationship, meaning that when inflation rises, NPF will tend to fall.

Regression analysis was carried out to see the effect of the BI Rate on NPF, the results of the analysis showed a t value of 5.799 and a sig. of 0.000. This shows that the BI Rate has a significant effect on NPF after being controlled by other independent variables.

This indicates that changes in the BI Rate have a significant impact on a bank's ability to manage credit and credit risk. The higher the BI Rate, the higher the credit risk that must be borne by the bank and the greater the possibility of an NPF.

Regression analysis was carried out to see the effect of the Exchange Rate variable on NPF, the results of the analysis showed a t value of 2.285 and a sig. of 0.024. This shows that the exchange rate variable has a significant influence on Non Performing Financing (NPF). These results indicate that changes in exchange rates can affect the credit risk that must be borne by banks in managing credit. The lower the exchange rate, the greater the credit risk that must be borne by the bank and the greater the possibility of an NPF.

Simultaneous Multiple Linear Regression Test

Table 6
ANOVA Test

ANOVA[a]

Model		Sum of Squares	Df	MeanSquare	F	Sig.
1	Regression	30,366	3	10,122	13,481	,000b
	Residual	102,868	137	,751		
	Total	133,234	140			

a. Dependent Variable: Non-Performing Financing

b. Predictors: (Constant), Exchange Rate, BI Rate, Inflation

Simultaneous regression analysis was carried out to determine the effect of the independent variables jointly on the dependent variable. In this case, a simultaneous regression analysis was performed to see the effect of inflation, the BI Rate, and the exchange rate (exchange rate) together on the NPF. The results of the analysis show an F value of 13.481 and a sig. of 0.000. This shows that the variables inflation, BI Rate, and the exchange rate (exchange rate) together have a significant effect on NPF. This indicates that changes in inflation, the BI Rate and the exchange rate can affect the credit risk that must be borne by banks in managing credit. The higher the inflation, the higher the BI Rate, and

the lower the exchange rate, the greater the credit risk that must be borne by the bank and the greater the possibility of an NPF.

Table 7
Determinant Test

Summary Model[b]

Model	R	R Square	Adjusted R Square	std. Error of the Estimate
1	, 477a	,228	,211	,866522

a. Predictors: (Constant), Exchange Rate (Exchange), BI Rate, Inflation
b. Dependent Variable: Non-Performing Financing

R-squared adjusted or R^2 adjusted is a measure used to assess how well the regression model is used to explain variation in the dependent variable. This adjusted R^2 value indicates the percentage of variation in the dependent variable that can be explained by the independent variables in the regression model.

In this case, the adjusted R^2 value obtained is 0.211. This means that around 21.1% of the variation in the dependent variable can be explained by the independent variables used in the regression model. While the remaining 78.9% can be explained by other factors not included in the model.

CONCLUSION

It can be concluded that inflation, the BI Rate and the exchange rate (exchange rate) have a significant effect on Non Performing Financing (NPF) at the 95% confidence level, which shows the importance of controlling inflation, the BI Rate and the exchange rate (exchange rate) in managing credit risk and preventing occurrence of NPFs.

REFERENCES

Asmara, K. (2019). Analisis Faktor Internal dan Eksternal terhadap Non Performance Financing (NPF) Perbankan Syariah di Indonesia Periode Tahun 2015-2018. *OECONOMICUS Journal of Economics*, *4*(1), 21–34. https://doi.org/10.15642/oje.2019.4.1.21-34

Destiana, R. (2018). Determinan Pembiayaan Bermasalah Pada Bank Syariah Di Indonesia. *Jurnal Riset Keuangan Dan Akuntansi*, *3*(2), 53–63. https://doi.org/10.25134/jrka.v4i1.1335

Fadhlurrahman, A., Tristiarto, Y., & Fadila, A. (2021). Analisis Determinan Pembiayaan Bermasalah Pada Bank Umum Syariah Di Indonesia. *KORELASI*, *2*, 806–821.

Fatimah, N., & Izzaty, K. N. (2022). Analisis Pengaruh Faktor Internal dan Faktor Eksternal Terhadap Non Performing Financing pada Bank Umum Syariah. *Journal of Applied Islamic Economics and Finance*, *1*(3), 661–676. https://doi.org/10.35313/jaief.v1i3.2603

Hidayah, A. N. (2019). *Analisis Pengaruh Faktor Internal dan Eksternal Terhadap Terjadinya Non Performing Financing Pada PT. Bank Negara Indonesia Syariah Periode 2011-2018*. Institut Agama Islam Negeri Tulungagung.

Mutamimah, & Chasanah, siti nur zaidah. (2012). Non Performing Financing Bank Umum Syariah Di Indonesia Non Performing Financing Bank Umum Syariah Di Indonesia. *Jurnal Bisnis Dan Ekonomi (JBE)*, *19*(1), 49–64.

Nugrohowati, R. N. I., & Bimo, S. (2019). Analisis pengaruh faktor internal bank dan eksternal terhadap Non-Performing Financing (NPF) pada Bank Perkreditan Rakyat Syariah di Indonesia. *Jurnal Ekonomi & Keuangan Islam*, *5*(1), 42–49. https://doi.org/10.20885/jeki.vol5.iss1.art6

Purnamasari, A. E. K. A., & Musdholifah. (2016). Amalia Eka Purnamasari dan Musdholifah- Analisis Faktor Eksternal Dan Internal. *Jurnal Bisnis Dan Manajemen*, *9*(1), 13–25.

Rahayu, A., Kosasih, & Suhaemi, U. (2022). Pengaruh NPF Dan CAR Terhadap Pembiayaan Murabahah. *Competitive Jurnal Akuntansi Dan Keuangan*, *6*(1), 122–126.

Rahmah, F. J., Pratiwi, L. N., & Setiawan, I. (2021). Analisis Pengaruh Faktor Internal dan Faktor Eksternal Terhadap Non-Performing Financing pada Bank Umum Syariah Analysis of the influence of internal and external factors on non-performing financing in Islamic commercial banks Framesa Janu. *Journal of Applied Islamic Economics and Finance*, *1*(3), 661–676.

Sudarsono, H. (2018). Analisis Pengaruh Variabel Mikro Dan Makro Terhadap NPF Perbankan Syariah Di Indonesia. *Equilibrium: Jurnal Ekonomi Syariah*, *6*(1), 1. https://doi.org/10.21043/equilibrium.v6i1.3040

Sugiyanto, R. &. (2020). Analisis Pengaruh Faktor Internal Dan Faktor. *ICA Ekonomi*, *1*(11), 128–136.