

Determinants of Non-Performing Financing in Islamic Banks: Evidence from Islamic Banking in Southeast Asia

Faktor-faktor Penentu Pembiayaan Bermasalah di Bank Islam: Bukti dari Perbankan Islam di Asia Tenggara

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ABSTRACT

This research explored the influencing factors of employee awareness from Islamic banking regarding the newly enacted regulations for the development and strengthening of the financial sector (P2SK), specifically Law Number 4 of 2023. By using purposive sampling technique, 104 samples of Islamic banking employees met the criteria and were then analyzed using logistic regression. The results indicate that age, length of employment, and job position significantly influence the awareness of Islamic banking employees in Indonesia regarding the P2SK regulations, which are categorized into four levels. The information related to employee awareness level can be beneficial not only for employees of Islamic banking but also for the government and academics with similar topics. Despite the limitations in terms of variables and distribution of sample demographics, this research can still be beneficial in theoretical aspects by considering external factors of employees and in practical aspects by evaluating internal policies of Islamic banking or information dissemination processes by the government. Furthermore, this research is one of the initial studies addressing employee awareness of a legislative regulation.

Keywords: Employee Awareness, Islamic Banking, P2SK Law, Logistic Regression

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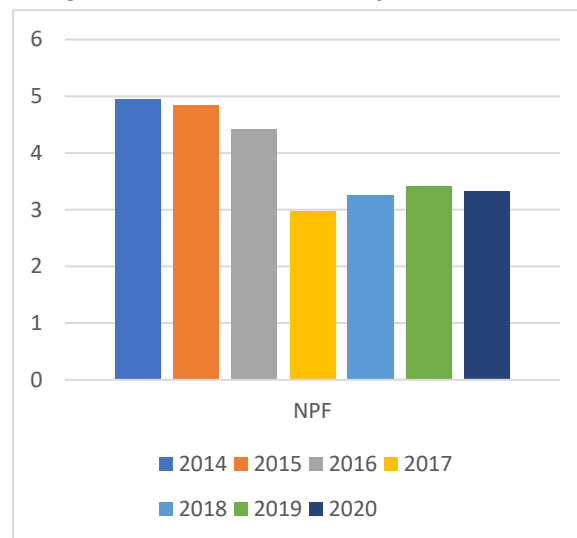
ABSTRAK

Penelitian ini dilakukan untuk mengetahui faktor-faktor yang mempengaruhi kesadaran karyawan perbankan Sharia terhadap peraturan pengembangan dan penguatan sektor keuangan (P2SK) yang baru disahkan, yakni Undang-Undang Nomor 4 Tahun 2023. Dengan menggunakan metode purposive sampling, ada 104 sampel karyawan perbankan Sharia yang memenuhi kriteria dan kemudian dianalisis menggunakan teknik regresi logistik. Hasil penelitian menunjukkan bahwa umur, lama bekerja, dan posisi jabatan berpengaruh signifikan terhadap kesadaran karyawan perbankan Sharia di Indonesia akan peraturan P2SK yang terbagi menjadi empat kategori kesadaran. Informasi terkait tingkat kesadaran karyawan ini dapat bermanfaat tidak hanya bagi pihak karyawan perbankan Sharia sendiri, tetapi juga pemerintah dan akademisi dengan topik sejenis. Walau penelitian ini memiliki keterbatasan dari sisi variabel dan penyebaran demografi sampel yang digunakan, penelitian ini bisa tetap bermanfaat dari segi teori dengan menggunakan faktor eksternal karyawan dan segi praktik dengan mengevaluasi kebijakan internal perbankan Sharia atau proses penyebaran informasi oleh pemerintah terkait. Selain itu, penelitian ini menjadi salah satu penelitian awal yang membahas kesadaran karyawan akan sebuah peraturan perundang-undangan.

Kata Kunci: Kesadaran Karyawan, Perbankan Sharia, UU P2SK, Regresi Logistik

I. INTRODUCTION

During the COVID-19 pandemic, various industries experienced a significant negative impact on company operations. One of the industries affected is the financial and banking industry. Where in the COVID-19 pandemic there were several financing problem both in conventional banks and Islamic banks. This is due to the decline in people's income so that some customers who carry out financing transactions at Islamic banks are unable to pay in installments. This causes the ratio of non-performing financing (NPF) to increase in several Islamic banks. Non-Performing Financing (NPF) is a ratio used to measure the level of non-performing loans classified as substandard, Problems or doubts can be paid off by the customer because they cannot repay their obligations to the bank in accordance with the agreement at the beginning of the agreement (Wahyuni, 2019). Every Islamic bank is required to avoid non-performing financing (NPF) that is too high because it can have an impact on the business continuity of Islamic banks. When Islamic banks have non-performing financing (NPF) of more than 5% of the total financing disbursed, Islamic banks have a high risk of business continuity because non-performing financing will affect the funds held by Islamic banks for operations banks.



Source: Financial Services Authority (2021)

Figure 1. Graph of Non-Performing Financing for Islamic Commercial Banks for the 2014-2020 Period in Indonesia

Based on the Financial Services Authority (2021) the ratio of non-performing financing (NPF) has increased and decreased during the 2014-2020 period. The increase in the ratio of non-performing financing (NPF) can be seen directly through the decrease in net income and total assets of Islamic banks. NPF is a component of financial performance that needs to be maintained by Islamic banks because it can affect the financial performance of Islamic banks. The increase in NPF is influenced by several factors that still need to be investigated. The factors that influence the increase in NPF in Islamic banks, namely Return on Assets (ROA), bank size, Gross Domestic Product (GDP), inflation, Net Interest Margin (NIM), Financing to Deposit Ratio (FDR), Capital Adequacy Ratio (CAR), and diversification.

This study focuses on the factors that influence the increase in non-performing financing (NPF) in Indonesia, Malaysia, the Philippines, and Brunei Darussalam. Previously, this research was conducted by Widarjono and Ari (2021) and Ali et al (2021) show that diversification has an effect on increasing NPF. Related research Capital Adequacy Ratio (CAR) has previously been studied by Aryani et al (2016) and Purwaningtyas and Ulil (2020), which resulted in CAR's significant negative effect on NPF. While the research of Indri and Heri (2018) and Priyadi et al. (2021) showed that CAR had a significant positive effect and the research of Suprayitno and Rizky (2021) showed results that had no effect on NPF.

Based on the research of Aryani et al. (2016) bank size has an effect on increasing NPF. However, in the research of Purwaningtyas and Ulil (2020), the bank size variable has no effect on the NPF level. While the variable Net Interest Margin (NIM) has been studied by Ginting and Haryanto (2016) produces NIM has an effect on NPF. Previously, Return on Assets (ROA) has also been studied by Priyadi et al. (2021) and Suprayitno and Rizky (2021) where ROA has a significant positive effect on NPF. Meanwhile, Indri and Heri's research (2018) shows that ROA has no effect on NPF.

In the research of Prastyo and Saiful (2021), the results of GDP have a significant positive effect on NPF. However, Suprayitno and Rizky's (2021) research shows that GDP has a significant negative effect on NPF. While Priyadi et al. (2021) show that GDP has no significant effect on NPF. While the inflation variable has been studied by Suprayitno and Rizky (2021) which results in inflation having a significant positive effect on NPF. However, research by Indri and Heri (2018) and Purwaningtyas and Ulil (2020) shows that inflation has a significant negative effect on NPF. Meanwhile, research by Prastyo and Saiful (2021) shows that inflation has no significant effect on NPF.

Based on the description of some of the results of these studies indicate that there are still various results. Therefore, this research still needs to be done to analyze the factors that influence the increase in non-performing financing (NPF) in Islamic banks in Indonesia, Malaysia, the Philippines, and Brunei Darussalam. The difference between this research and previous research is in the expansion of the research location which has never been studied by previous research.

II. LITERATURE REVIEW

Anticipated Income Theory

This theory explains that banks should be able to provide loans or credit in the long term where the repayment is in the form of principal installments and interest that is expected to be paid back on a predetermined schedule (HV Prochnow, 1949). If it is associated with FDR which has a relationship with NPF, that is if the bank plans well and strictly when channeling funds from third parties so that the debtor's profitability goes well and the bank can pay off its debts (Purwaningtyas and Ulil, 2020). But besides that, this theory also has a weakness, namely this theory assumes that with good planning, credit returns can be billed according to a predetermined maturity without seeing the risk of payment failure by the debtor due to internal and external factors.

In this study, the income anticipation theory explains that the lack of disbursement of funds to productive assets will lead to an increase in inflation rates and non-performing financing (NPF) in the Islamic banking sector. The greater the number of non-performing financing in a bank, the higher the level of the credit risk of the bank. Due to the increasing number of non-performing financing, this can also lead to an increase in the risk premium and will add to the number of lending rates. Due to the high number of loan interest rates, it can have an impact on decreasing demand for credit in the community. With the increase in the number of non-performing financing, it can also lead to larger bank reserves so that bank capital will be eroded.

Non-Performing Financing (NPF)

Non-Performing Loans (NPL) is a ratio that describes the risk of loss experienced by the bank, which is because the party cannot fulfill its obligations to the bank to the bank. In Islamic banking, this is better known as Non-Performing Financing (NPF). Non-Performing Loans reflect credit risk, the lower the level of credit risk generated by the bank, the lower the risk that will be borne by the bank. Banks are obliged to monitor the debtor after the bank provides credit to analyze the use of credit and the ability and obedience of the debtor to fulfill its obligations. By reviewing, assessing, and binding collateral can reduce the level of credit risk for banks.

The increasing number of NPLs can be caused by several factors that cause the borrower to default, including individual factors or global economic factors. As is currently happening, the world is being hit by the Covid-19 pandemic phenomenon which causes the entire economy to suddenly stall and even go bankrupt so that the income received by business actors decreases and loan defaults can occur (Permana and Sri, 2021).

Financing Diversification

According to the Big Indonesian Dictionary (KBBI) diversification is diversification. Diversification is an attempt to avoid dependence on one activity, product, service, or investment. There is a saying that says "Don't put eggs in one basket" which means that if the basket falls, the eggs in the basket will fall too. Therefore, diversification is carried out with the aim of reducing risk. Diversification in banking is highly recommended in order to avoid focusing on one borrower or a particular group of borrowers. Financing can be diversified based on the type of contract, use of financing, and economic sector.

Capital Adequacy Ratio (CAR)

Capital Adequacy Ratio (CAR) or solvency ratio is a ratio to measure how big the risk of loss is to the bank and how capable the bank is to meet its capital adequacy to cover the risk of the loss (Amelia, 2019). For this study, operational data obtained from Islamic banking financial reports from the 2016-2020 period were used.

Financing to Deposit Ratio (FDR)

Financing to Deposit Ratio (FDR) is one of the other factors that affect the NPF from the internal side. FDR is a ratio to measure liquidity in Islamic banks to find out how much banks distribute Third Party Funds (DPK) for financing (Somantri and Wawan, 2019). Bank Indonesia has issued regulations through Bank Indonesia Regulation No. 15/7/PBI 2013 regarding the limit of the FDR rate, which is at the level of 78% - 100%.

Bank Size

Bank size or company size is very important in a company. Bank size is an index used to measure the size of a bank, which is determined by several factors, such as average sales, total sales, and total assets. Usually, bank size is used to determine the health of a bank by looking at the total number of assets it has.

Net Interest Margin (NIM)

Net Interest Margin (NIM) is a measurement used to measure the ability of bank management in managing its productive assets to generate net interest income. Net Interest Margin is obtained by dividing Net Interest Income by Average Earning Assets. The higher this ratio number, the higher the interest income on productive assets managed by banks (BPS, 2021).

Gross Domestic Product (GDP)

Gross Domestic Product (GDP) or also called Gross Domestic Product (GDP) is used to measure income and expenditure in an economy. GDP is the total value of goods or services produced in a country in a certain period of time. GDP is divided into 2, namely real GDP and nominal GDP. Real GDP is the most comprehensive measure that can describe the general state of the economy. Economists often use real GDP to describe economic prosperity. This is because the measurement of economic prosperity better predicts the production of goods and services in the economy and is not affected by changes in prices.

Inflation

Inflation is a certain period of time there is an increase in the prices of goods and services continuously. As a result of rising inflation, it can affect economic stability (Bank Indonesia, 2021). Another impact of inflation is that it can increase the risk of default in Islamic banking and this risk causes the number of non-performing financing (NPF) to also increase so that banks will experience losses and have to bear it (Indri and Heri, 2018).

Return On Assets (ROA)

Return On Assets (ROA) is a ratio used to determine the profit or profit generated by a company. This ratio is used in this study with the aim of showing that the bank is able to manage assets obtained from the public well. The higher the ROA level, the better the company's profitability. The higher this ratio, the better the productivity of assets that generate net income. This certainly makes investors more interested in the company because it can be ascertained that high profitability can produce high dividends.

III. RESEARCH METHODS

The Effect of Diversification on Non-Performing Financing (NPF)

Based on the research of Widarjono and Ari (2021), Ali et al (2021), diversification has effects on increasing NPF. In previous research, it was explained that increasing diversification of financing types of contracts (main business) can affect the decline in profitability in Islamic bank businesses because the higher diversification in the main business will indicate the number of customers who cannot repay their loans according to the agreement that has been agreed between the customer and the Islamic bank. This will also pose a high risk and will cause losses so that the bank earns very low profits and the health of the bank is threatened. From this description, the following hypothesis can be formulated:

H1: Diversification has an effect on NPF.

The Effect of Capital Adequacy Ratio (CAR) on Non-Performing Financing (NPF)

Capital Adequacy Ratio (CAR) that is stable can affect the performance of Islamic banking. CAR serves to cover the risk of losses that may arise in Islamic banks. If the CAR is too low, it will reduce the bank's ability to offset capital risk. On the other hand, a CAR that is too high will cause banks to increase the number of outgoing funds. Several studies show that the effect of CAR on NPF is negative, with increasing CAR the NPF will decrease. In research conducted by Aryani et al (2016) and Purwaningtyas and Ulil (2020), showed a negative relationship between CAR and NPF. Research by Indri and Heri (2018) and Priyadi et al (2021) shows a positive influence on these two variables. Meanwhile, Suprayitno and Rizky's (2021) research showed no effect.

H2: CAR has an effect on NPF.

The Effect of Financing to Deposit Ratio (FDR) on Non-Performing Financing (NPF)

Financing to Deposit Ratio (FDR) serves to measure the ability of banks to channel funds from third parties into financing. The lower the FDR level indicates that the management of Islamic banks lacks the ability to channel funds, but if the FDR has a high level, it means that the financing provided by the bank to the public is also high. So, this condition can cause the risk of NPF to increase. A study conducted by (Indri and Heri, 2018), showed results that had a positive effect as well as research (Prastyo and Saiful, 2021). However, research (Safitri et al, 2020) showed the results of the negative effect of FDR on NPF. Meanwhile, research (Purwaningtyas and Ulil, 2020) shows that FDR has no effect on the NPF level.

H3: FDR has an effect on NPF.

The Effect of Bank Size on Non-Performing Financing (NPF)

Based on research (Aryani et al, 2016) bank size has an influence on the NPF level. The larger the size of a bank, the higher the volume of financing provided by Islamic banks, and the greater the risk borne by the bank. The increased risk will also lead to an increase in non-performing financing cases in Islamic banks (Tryana, 2019). Therefore, banks will have to be more selective in channeling financing and carrying out supervision so that it will reduce the risk of default. But on the other hand, research (Purwaningtyas and Ulil, 2020) found that bank size had no effect on the level of NPF. Based on this description, the following hypothesis can be formulated:

H4: Bank size has an effect on NPF.

The Effect of Net Interest Margin (NIM) on Non-Performing Financing (NPF)

Net Interest Margin (NIM) is an indicator used to assess a bank's ability to use productive assets to generate net interest income. Net interest income comes from interest expense minus interest income. So that net interest income is obtained from the results of loans obtained from banks. The higher the NIM level, the higher the interest income on the productive assets managed by the bank. Based on research (Ginting and Haryanto, 2016) Net Interest Margin (NIM) has an influence on banking non-performing loans, which means that if the NIM ratio is high, the NPF ratio will also increase. Based on this description, the following hypothesis can be formulated:

H5: Net Interest Margin has an effect on NPF.

The Effect of Gross Domestic Product (GDP) on Non-Performing Financing (NPF)

Gross Domestic Product (GDP) is one indicator of the progress of the community's economy. When the level of GDP falls, it can reduce the ability of producers to cover financing. Conversely, when a country's economy improves, economic actors financed by Islamic banks can receive incentives to increase sales and company revenues. This allows the debtor to repay the financing provided by the Islamic bank at the right maturity. So that financing is smooth and reduces the risk of non-performing financing (NPF). Thus, GDP has a positive influence on financing problems (NPF). This is in accordance with the research that has been carried out (Prastyo and Saiful, 2021) which shows the results that GDP has a positive effect on NPF. However, research (Suprayitno and Rizky, 2021) shows the results have a negative effect on these two variables. While the research (Priyadi et al, 2021) showed insignificant results. Based on this description, the following hypothesis can be formulated:

H6: Gross Domestic Product has an effect on NPF.

The Effect of Inflation on Non-Performing Financing (NPF)

Determining the proportion of profit-sharing in Islamic bank financing, the inflation rate is one of the factors. Inflation is where the price of goods increases continuously over a certain period of time. This increase in inflation will affect the income generated by banks. The bank's income from its source of income will decrease if the inflation rate continues to increase. This situation will be worrying because the ability of customers to repay will decrease and cases of non-performing financing will increase. Based on research (Suprayitno and Rizky, 2021) shows that there is a positive influence between inflation and NPF. However, in research (Indri and Heri, 2018), (Purwaningtyas and Ulil, 2020), inflation has a negative effect on NPF. Meanwhile, the research (Prastyo and Saiful, 2021) showed that there was no effect on these two variables. From this description, the following hypothesis can be formulated:

H7: Inflation affects NPF.

The Effect of Return on Assets (ROA) on Non-Performing Financing (NPF)

Return on Assets (ROA) is a ratio used to measure the ability of bank management to generate income. ROA is closely related to the profitability ratio of Islamic banking. The higher the ROA, the better the bank in managing the funds obtained from the businesses owned to generate profits. The lower the ROA,

it can be interpreted that the bank's management is less able to optimize its funds. If the bank can manage its finances well, then the level of ROA generated by the bank will be high and the level of NPF will decrease. So, the impact of ROA on NPF is negative. In research (Priyadi et al, 2021), (Suprayitno and Rizky, 2021), Return on Assets (ROA) has a positive influence on NPF. Meanwhile, research (Indri and Heri, 2018) shows that there is no effect on these two variables. Based on this description, the following hypothesis can be formulated:

H8: Return on Assets has an effect on NPF.

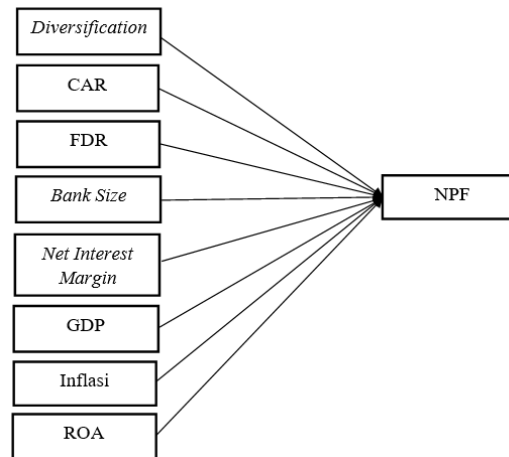


Figure 2. Framework

This research is descriptive quantitative with the aim of knowing the effect of each independent variable on the dependent variable. The population in this study, namely Islamic banks in Indonesia, Malaysia, the Philippines, and Brunei Darussalam. The sampling technique used in this research is the purposive sampling technique, namely the technique of determining the sample through certain criteria. These criteria, namely:

1. Registered with Bank focus.
2. Publishing the Bank's Annual Report for the 2016-2020 Period.
3. Have complete data related to variables.

The data used in this study is secondary data in the form of annual reports of Islamic banks. The data analysis technique used is the parametric statistical method. While the hypothesis testing method in this study is the multiple linear regression method using the Statistical Package for the Social Sciences (SPSS) version 25 software.

Tabel 1. Research Sample

Countries	Bank Name
Indonesia	Bank BCA Syariah
	Bank BNI Syariah
	Bank BRI Syariah
	Bank Mega Syariah
	Bank Muamalat Indonesia
	Bank Syariah Bukopin
	Bank Panin Dubai Syariah
	Bank Victoria Syariah
	Bank Aladin Syariah
	Bank Syariah Mandiri
Brunei	Bank Islam Brunei Darussalam Berhad
Filipina	Al-Amanah Islamic Investment Bank of The Philippines
Malaysia	Al Rajhi Banking & Investment Corporation (Malaysia) Berhad
	Hong Leong Islamic Bank Berhad
	Bank Islam Malaysia Berhad
	HSBC Amanah Malaysia Berhad
	Affin Islamic Bank Berhad
	Alliance Islamic Bank Berhad
	CIMB Islamic Bank Berhad

	Public Islamic Bank
	OCBC Al-Amin Bank Berhad
	Maybank Islamic Berhad
	RHB Islamic Berhad
	Kuwait Finance House (Malaysia) Berhad
	Bank Muamalat Malaysia Berhad
	Ambank Islamic Berhad
	Standard Chartered Saadiq Berhad
Thailand	Islamic Bank of Thailand

Operational Variables

Research variables are divided into independent variables and dependent variables. Independent variables are variables that have an influence or relationship or cause changes in the dependent variable. While the dependent variable is the main variable studied to find out what influences this variable. The summary of operational variables is in Table 2.

Table 2. Summary of Operational Variables

No	Variable	Variable Definiton	Measurement	Indicator
Independent Variables (X)				
1.	Diversification	Diversification is the expansion of business resources within a company.	$\text{Diversification} = \frac{\text{Interest income}}{\text{Total income}}$	Percent
2.	Capital Adequacy Ratio (CAR)	Capital Adequacy Ratio (CAR) is the ratio of capital to Risk Weighted Assets (RWA) which follows Bank Indonesia regulations concerning Minimum Capital Adequacy Requirements.	$\text{CAR} = \frac{\text{Modal}}{\text{ATMR}} \times 100\%$	Percent
3.	Financing to Deposit ratio (FDR)	FDR is a ratio used to measure how much the bank distributes funds received from third parties for financing.	$\text{FDR} = \frac{\text{Total Pembiayaan}}{\text{Total Dana Pihak Ketiga}} \times 100\%$	Percent
4.	Bank Size	Bank size is a ratio used to determine the size of a company.	$\text{Bank Size} = \text{Ln (Total Aset)}$	Percent
5.	Net Interest Margin (NIM)	Net Interest Margin is a ratio to measure the ability of bank management in managing its productive assets to generate net interest income.	$\text{NIM} = \frac{\text{Pendapatan Bunga Bersih}}{\text{Rata - Rata Total Aset Produktif}}$	Percent
6.	Gross Domestic Product (GDP)	GDP is the total value of goods or services produced in a country in a certain period of time.	$\text{GDP}_n = \frac{\text{GDP}_n - \text{GDP}_{n-1}}{\text{GDP}_{n-1}}$	Percent
7.	Inflation	Inflation is where at a certain time there is an increase in the prices of goods and services continuously.	$\text{Laju Inflasi} = \frac{\text{IHK}_n - \text{IHK}_{n-1}}{\text{IHK}_{n-1}} \times 100\%$	Percent
8.	Return on Asset (ROA)	Return On Assets (ROA) is a ratio used to determine the profits or profits generated by a company.	$\text{ROA} = \frac{\text{Laba Bersih}}{\text{Total Asset}} \times 100\%$	Percent
Dependent Variable (Y)				
9.	Non-Performing Financing (NPF)	NPF is a ratio to measure a non-performing financing.	$\text{NPF} = \frac{\text{Pembiayaan bermasalah}}{\text{Total Pembiayaan}} \times 100\%$	Percent

IV. RESULT AND DISCUSSION

In this study, the researcher conducted several tests to analyze the data, namely the classical assumption test (normality test, multicollinearity, heteroscedasticity, and autocorrelation), and hypothesis testing (R2 determination coefficient test, simultaneous F test, and partial t-test). The following are the results obtained in this research and discussion:

a. Classic assumption test

Normality test

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		102
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	.74608612
Most Extreme Differences	Absolute	.066
	Positive	.066
	Negative	-.060
Test Statistic		.066
Asymp. Sig. (2-tailed)		.200 ^{c,d}

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

d. This is a lower bound of the true significance.

Figure 3. Normality Test Results

The results of the normality test using the Kolmogorov-Smirnov test can be seen in table 1 above. Based on the test, it produces the asymp value. Sig. (2-tailed) of $0.200 > 0.05$. This means that the standardized residual data is declared normally distributed.

Multicollinearity Test

Coefficients ^a			
		Collinearity Statistics	
Model		Tolerance	VIF
1	Diver	.337	2.969
	CAR	.850	1.177
	FDR	.824	1.213
	Bank_Size	.481	2.080
	NIM	.284	3.527
	GDP	.710	1.409
	Ln_Inflasi	.662	1.511
	Ln_ROA	.522	1.914

a. Dependent Variable: Ln_NPF

Figure 4. Multicollinearity Test Results

The test results above show that the tolerance values for the diversification variables, CAR, FDR, bank size, NIM, GDP, inflation, and ROA are 0.337, 0.850, 0.824, 0.481, 0.284, 0.710, 0.662, and 0.522, respectively. Meanwhile, the VIF values for the diversification variables, CAR, FDR, bank size, NIM, GDP, inflation, and ROA were 2,969, 1,177, 1,213, 2,080, 3,527, 1,409, 1,511, and 1,914, respectively. By looking at the test results of the two variables, it shows that there is no VIF value greater than 10 and the resulting tolerance value is more than 0.10 so it can be concluded that the tested data does not detect multicollinearity symptoms.

Heteroscedasticity Test

In this study, the heteroscedasticity test was tested using the Glejser method. Based on this test, it produces significant values for the diversification variables, CAR, FDR, bank size, NIM, GDP, inflation, and ROA of 0.494, 0.524, 0.207, 0.992, 0.515, 0.252, 0.673, 0.170, and 0.653. Based on the significance value, it can be concluded that the significance value is greater than the absolute residual value (sig. value > 0.05). This shows that there is no systematic relationship between the variables that explain each other and the absolute value of the residuals. So, it can be concluded that the data obtained does not contain heteroscedasticity.

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.245	.357		.686	.494
	Diver	-.255	.399	-.112	-.639	.524
	CAR	.012	.009	.146	1.271	.207
	FDR	-.002	.152	-.001	-.010	.992
	Bank_Size	.013	.021	.087	.653	.515
	NIM	-.038	.033	-.190	-1.152	.252
	GDP	.011	.026	.047	.423	.673
	Ln_Inflasi	.119	.086	.161	1.384	.170
	ROA	-1.855	4.115	-.056	-.451	.653

a. Dependent Variable: Abs_Res

Figure 5. Heteroscedasticity Test Results

Autocorrelation Test

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.521 ^a	.272	.209	.77751	2.001

a. Predictors: (Constant), Ln_ROA, FDR, CAR, Ln_Inflasi, Diver, GDP, Bank_Size, NIM
b. Dependent Variable: Ln_NPF

Figure 6. Autocorrelation Test Results

Based on the results of the autocorrelation test in the table above, it produces the Durbin-Watson value of 2.001 which means that the value of dw is between the upper bound (dU) and 4 - upper bound (4-dU), which is 1.8634 2.001 2.1366, so it can be concluded that there is no positive or negative autocorrelation or there is no relationship between one data and another.

b. Hypothesis testing

Coefficient of Determination Test (R²)

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.521 ^a	.272	.209	.77751

a. Predictors: (Constant), Ln_ROA, FDR, CAR, Ln_Inflasi, Diver, GDP, Bank_Size, NIM
b. Dependent Variable: Ln_NPF

Figure 7. Coefficient of Determination Test Results (R²)

While the value of R square or coefficient of determination is 0.272 which means that the diversification variables, CAR, FDR, bank size, NIM, GDP, Inflation, and ROA affect NPF by 27.2% and the remaining 72.8% is influenced by other factors that have not been studied. by researchers. The adjusted R square value generated in this study is 0.209, which means that variations in diversification, CAR, FDR, bank size, NIM, GDP, Inflation, and ROA affect NPF by 20.9%. In addition, the above results show the value of std. The error of the estimate is 0.77751, which means that the deviation between the regression equation and the real dependent value is 0.77751 per unit of the dependent variable.

Simultaneous F Test

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	20.971	8	2.621	4.336	.000 ^b
	Residual	56.221	93	.605		
	Total	77.192	101			

a. Dependent Variable: Ln_NPF
b. Predictors: (Constant), Ln_ROA, FDR, CAR, Ln_Inflasi, Diver, GDP, Bank_Size, NIM

Figure 8. Simultaneous F Test Results

Based on the results of the simultaneous F test in table 6 above, the significance value of F is 0.000 < F significance value of 0.05 so it can be concluded that diversification, CAR, FDR, bank size, NIM, GDP, Inflation, and ROA simultaneously affect non- performing financing.

Partial t test

The partial t-test in this study used a level of significance of 0.05. The first hypothesis states that diversification has an effect on non-performing financing (NPF). The results of the regression analysis show that the diversification variable has a significance value smaller than 0.05, which is 0.039. Based on the above results, it is certain that diversification has a significant negative effect on the fish so that you accept the first. Diversification has an effect on decreasing or decreasing the proportion of NPF. Where the proportion is small, it can be interpreted that the income obtained by Islamic banks is other than small businesses. Islamic banks in Indonesia, Malaysia, the Philippines, and Brunei Darussalam because the financing provided by Islamic banks through their main business activities is riskier than other businesses that generate interest income.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.622	.728		2.228	.028
	Diver	-1.394	.664	-.320	-2.099	.039
	CAR	-.053	.015	-.344	-3.584	.001
	FDR	.221	.270	.080	.816	.416
	Bank_Size	-.075	.038	-.256	-2.005	.048
	NIM	.157	.064	.409	2.460	.016
	GDP	.069	.046	.157	1.494	.139
	Ln_Inflasi	-.269	.154	-.190	-1.744	.084
	Ln_ROA	-.229	.082	-.341	-2.787	.006

a. Dependent Variable: Ln_NPF

Figure 9. Partial t-test results

The second hypothesis states that the Capital Adequacy Ratio (CAR) has an influence on Non-Performing Financing (NPF) in Islamic banks. The results of the regression analysis showed that the CAR variable had a significance value of 0.001. Therefore, it can be said that the CAR has a significant negative effect so that the second is accepted. The lower the CAR percentage or reserve fund owned by the bank, the higher the NPF percentage or the more non-performing financing. When an Islamic bank has sufficient funds to cover the risk of loss, the bank is considered to have anticipated losses on financing so that this can reduce losses caused by financing because Islamic banks are more vigilant or so that losses on financing are widespread. This is in line with the theory of anticipation where when banks plan well and are structured, they can reduce the occurrence of financing risk.

The third hypothesis states that the Financing to Deposit Ratio (FDR) has an effect on non-performing financing (NPF). Based on the regression analysis, it shows that the FDR variable has a significance value of 0.416 which means that the FDR sig value is > 0.05 . So, it can be said that FDR is not significant to the increase or decrease in NPF so it is rejected. The larger the third party funds disbursed by each bank for the financing program does not significantly affect that the bank will experience an increase or decrease in financing problems.

The fourth hypothesis states that bank size has an effect on Non-Performing Financing (NPF). The results of the regression analysis showed that the value of sig. bank size is 0.48 or less than 0.05 so that it can guarantee that bank size has a significant negative effect on NPF. Based on these results, it can be concluded that the fourth hypothesis is accepted. The larger the size of the bank, the bank will be more selective and have the better financing system and planning in providing financing because the bank already has sufficient funds to develop the business. So that banks are able to predict and reduce losses on financing that are likely to occur when there is a crisis or rising inflation.

The fifth hypothesis states that Net Interest Margin (NIM) has an effect on Non-Performing Financing (NPF). The results of the regression analysis showed the value of sig. NIM is 0.16. The sig value is less than 0.05 so it can be said that the NIM has a significant positive effect on the NPF so that the five are accepted. The higher the bank's ability to manage its productive activities to generate income, the negative impact on credit risk. Disbursement of funds that are too large for productive assets such as financing will lead to an increase in inflation rates and non-performing loans (NPF) because financing that is too large can increase credit risk even though it can generate greater profit sharing as well.

The sixth hypothesis states that Gross Domestic Product (GDP) has an effect on Non-Performing Finance (NPF). The results of the regression analysis show that the GDP variable has a significance value greater than 0.05, which is 0.139. Based on the results of the regression analysis, it can be said that GDP

is not significant to the NPF so it is rejected. The higher the GDP of a country, the higher the number of problems, because every society has its own needs and income or cannot be equated so that the increase in GDP does not significantly affect the NPF.

The seventh hypothesis states that inflation has an effect on Non-Performing Financing (NPF). The results of the regression analysis showed that the value of sig. inflation of 0.084 or greater than 0.05. Based on the results of the regression, it can increase inflation not significantly to the NPF so that the seven are rejected. The higher the country's inflation, the more money there is in the market and the price of products in the market is much more expensive so that people will focus more on the funds they have to buy necessities and reduce the costs that will be made. Because people usually think about how to do the financing before doing the financing. However, inflation does not significantly affect the increase or decrease in NPF.

The eighth hypothesis states that Return on Assets (ROA) has an effect on Non-Performing Financing (NPF). The results of the regression analysis show that the GDP variable has a significance value smaller than 0.05, which is 0.006. Based on the results of the regression analysis, it can be concluded that ROA has a significant negative effect on NPF so that the eighth is accepted. When the bank has a higher profit, the bank will be better able to improve the quality of its human resources as well as the financing and supervision system so that this can suppress the increase in financing. In addition, increasing profits is also a form of maximum utilization of assets owned to generate large profits so as to reduce the risk of financing in Islamic banks.

Managerial Implications

Based on the t-test analysis (partial) in this study shows that Financing to Deposit Ratio (FDR), GDP, and Inflation has no effect on non-performing financing (NPF) in Islamic banks in Indonesia, Malaysia, the Philippines, and Brunei Darussalam. Meanwhile, those that have a significant positive effect on non-performing financing (NPF) are net interest margin (NIM) and other variables, namely diversification, capital adequacy ratio (CAR), bank size, and return on assets (ROA) have a significant negative effect. Based on the results of this study indicate that this study strengthens the research of Aryani et al. (2016).

The implication of this research is the need for improvement of policies and regulations in each Islamic bank. Because the better policies and regulations that are drawn up and implemented can minimize the increase in non-performing financing (NPF) in Islamic Bank operations. By improving policies and regulations, it is possible to increase the internal control of each Islamic bank, both large and small Islamic banks. The larger the Islamic bank, the policies and regulations used will be better and more competent in overcoming the problem of financing failure than small Islamic banks. Because large Islamic banks tend to be more professional than small Islamic banks. Therefore, there is a need for standardization in the provision of financing so that there are no more small Islamic banks that experience liquidation and large credit risks both in Indonesia, Malaysia, the Philippines, and Brunei Darussalam.

Standardizing policies and regulations, cooperation between the government and Islamic banks is needed. Because the government takes part in overcoming the problem of liquidation and credit risk in banks and the problems that exist in Islamic banks can have an impact on the country's economy. Therefore, it is necessary to hold a joint meeting to discuss the problem of financing failure in each Islamic bank so that the government can formulate policies and regulations that suit the needs of all Islamic banks, both large and small. This is done to standardize every policy, regulation, and supervision system that will be used by banks in providing financing to Islamic banks so that financing failures that occur can be minimized and large and small Islamic banks can increase their profits and operational processes.

V. Conclusion

This study aims to analyze the factors that influence the occurrence of Non-Performing Financing (NPF) in Islamic banking in Indonesia, Malaysia, the Philippines, and Brunei Darussalam for the 2016-2020 period. Based on the results of data analysis and discussion, it can be concluded:

- a. In the F test results, diversification, CAR, FDR, bank size, NIM, GDP, inflation, and ROA simultaneously affect non-performing financing.
- b. Based on the results of the diversification t test calculation, Capital Adequacy Ratio (CAR), Bank Size, and Return on Assets (ROA) have a significant negative effect on NPF. In addition, the Net

Interest Margin (NIM) has a significant positive effect on NPF. While the Financial to Deposit Ratio (FDR), Gross Domestic Product (GDP) and Inflation have no significant effect.

For further research, it is recommended to add other variables that can affect the occurrence of non-performing financing in Islamic banking. In addition, it is also recommended to expand the sample so that the study gets maximum results.

AUTHOR CONTRIBUTIONS

Conceptualization, S.P and A.R.; Methodology, A.P.; Software, L.S.; Validation, S.P, S.Y and A.R; Formal analysis, S.P.; Investigation, S.P.; Resources, A.R.; Data curation, S.P.; writing – original draft preparation, L.S.; Writing – review and editing, S.P.; Visualization, A.R.; Supervision, S.Y.; Project administration, A.P.

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INFORMED CONSENT STATEMENT

Informed consent was obtained from all subjects involved in the study

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available on request from the corresponding author [SSP].

CONFLICTS OF INTEREST

The authors declare no conflicts of interest.

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