Analysis of External and Internal Factors Influence on Islamic Bank Nonperforming Financing (Case Study: Bank Brisyariah Private Company)

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ABSTRACT

This paper intergrates themes from external and internal factors that influence Bank Brisyariah's nonperforming financing (NPF) periods from the first quarter 2010 to second quarter 2017 by using a descriptive analysis approach and multiple regression analysis. External variables consist of inflation rates, benchmark interest rate/BI rates, economic growth, and USD/IDR exchange rate, while internal factors consist of return on asset (ROA), net income margin (NIM), financing growth, financing to deposit ratio (FDR), and NPF management. Based on these methodologies, four significant factors are utilized: 1) NPF on commercial financing influenced sequentially by net interest margin (NIM), financing to deposits ratio (FDR), NPF management, benchmark interest rate, inflation and economic growth level; 2) NPF on retail consumers influenced by financing growth factors, benchmark interest rates, and inflation; 3) NPF on small and medium retail enterprises (SME) significantly influenced by financing growth factors and benchmark interest rates; 4) NPF on micro retail influenced by net interest margin (NIM), financing to deposit ratio (FDR), benchmark interest rates, inflation and economic growth.

Keywords
external factor, financing segment, internal factor, nonperforming financing, and Sharia bank

Article Received: 10 August 2020, Revised: 25 October 2020, Accepted: 18 November 2020

Introduction

The Islamic bank is a business that provides financing and other services to payment traffic as well as money circulation under the principles of Islamic law, i.e., Sharia law, and is guided by Islamic economics (Antonio, 2001). Financing means the provision of money or equivalent claims based on an agreement between the bank and other parties requiring the party financed to refund the money or the bill after a certain period of time in return or profit sharing. In Islamic banks, nonperforming financing frequently occurs because customers default in committing to their payment, which results in the bank's loss. According to Mahmoeddin (2004), nonperforming financing attitude indications are determined by account attitudes, financial statement attitudes, business activities attitudes, customer attitudes, and macroeconomic attitudes. Furthermore, nonperforming financing factors are driven by three elements, i.e., the bank itself (creditor), debtors, and other parties. From these perspectives, it can be concluded that many variables influence financing ratios or nonperforming financing in a financial institution.

Bank Brisyariah, as part of the Islamic bank industry, consistently performs favorable development during period of 2015–2016, as presented in Table 1. Indeed, Bank Brisyariah financing continues to reap in positive trends; however, the spike of national and regional economic turmoil has affected its growth. Economic conditions in 2015 until 2016 experienced a slowdown due to commodity prices' severe pressure on Bank Brisyariah's increasing NPF level. Problem formulation research based on the above descriptive are 1) How is Bank Brisyariah's financial and NPF performance during period of 2010 to 2017? and 2) how do external and internal factors influence Bank Brisyariah's NPF. Research objectives are 1) nature of performance development and Bank Brisyariah's NPF during the period of
2010–2017; 2) analysis of internal and external influences to Bank Brisyariah's NPF.

Literature Review

Much of the research and analyses are in regard to the internal and external factors influencing financing qualities in an Islamic Bank, whether in Indonesia or Asia. Badar et al. (2013) conducted an empirical study in regard to macroeconomic conditions against commercial bank nonperforming loans in Pakistan. The case study showed that, in the long-term, the nonperforming loan affected money circulation and interest rates. Nevertheless, both short- and long-term nonperforming loans are not affected by inflation and exchange rates. Nonperforming loan factor analysis was also carried out by Messai and Fathi (2013) on 85 banks from three countries (Italy, Greece, and Spain) during 2004–2008. Data panels were used for the research and showed that the nonperforming loan has a negative connection with gross domestic products (GDP) and has a positive correlation with unemployment, credit loss reserve ration against total credit, and interest rates. Credit risk research, specifically financing quality, was also conduction by Waemustafa and Suriani (2015) on 13 Islamic banks in Malaysia. The research analysis shows that the internal factors influencing credit risk is capital regulation and terms

of agreement/covenant, while the external factors are inflation and money supply.
Likewise, for Indonesia Islamic banking, Setiawan and Monita (2013) conducted analysis on the internal and external factors that influence an Islamic bank's NPG during 2007–2012. The result of significant internal factors influencing NPF is credibility of management, and the external factor is ROA. Havidz and Setiawan (2015) used four Islamic banks as their research analysis sampling for the 2008–2014 period. Significant factors that influenced four Islamic banks' NPF in Indonesia are company measurement, operational efficiency ratio, and GDP growth level. The internal and external factors of NPF are noted, specifically research conducted on the Bank Victoria Syariah by Setiawan and Bhirawa (2016). Research showed that GDP growth factor, inflation, and capital adequacy ratio (CAR) has a negative correlation and significantly influenced NPD; meanwhile, the exchange rate and operational efficiency ratio has a positive correlation and significant influence on the Bank Victoria Syariah's NPF.
Fajriati (2016) carried out research studies on external and internal factors of Islamic banking's NPF in Indonesia during 2009–2015. The result is that inflation variables, CAR, FDR significantly influence NPF. Further, Puspitasari (2012) also conducted this research during 2006–2009 on three Islamic banks, i.e., Bank Muamalat, Bank Syariah Mandiri, and Bank Mega Syariah, with the result that third-party funds and profit-sharing return ratio and financing return are among those that were sufficiently influenced.

Research Methodology

In this research, there are two analysis methods: 1) multiple linear regression analysis to determine internal and external factor influence of Bank Brisyariah NPF during 2010–2017; 2) multiple linear regression analysis to explain the relationship between one continuous dependent variable and two or more independent variables (X1, X2,….Xn) with dependent variables (Y). This analysis identifies the relation between independent and dependent variables and whether each independent variable is correlated as positive or negative. Data use consists of an interval scale or ratio. Multiple linear regression equivalent is as below:

$$Y = a + b1X1 + b2X2 + b3X3 + b4X4 + b5X5 + b6X6 + b7X7 + b8X8 + b9X9$$

Description:
Y = Dependent variables (prediction value)
a = Constant (Y value if X1, X2, . . . , X9 = 0)
b = Regression coefficient (increase or decrease value)
X_1 = Return on asset (ROA)
X_2 = Net income margin (NIM)
X_3 = Financing growth
X_4 = Financing to deposit ratio (FDR)
X_5 = NPF management
X_6 = Benchmark interest rate (BI rate)
X_7 = Inflation rate
X_8 = Exchange rate USD/IDR
X_9 = Economic growth

Variables Operation Definition

To obtain appropriate research and to avoid bias theories in processing results, the below variable parameters were applied:

- The dependent variables represent the output or outcome whose result is a reaction or response if connected to undetermined variables with the denoted Y. The dependent variable in this research is nonperforming financing (NPF).
- Independent variables or commonly known as free variables that causes or influences other variables are denoted with X. Independent variables are divided into internal factor variables and external factor variables. The following are several variables that influence financing quality in economic sectors:
  - External factors: inflation rate, benchmark interest rate (BI rate), economic growth, and USD/IDR exchange rate.
  - Internal factors: return on asset (ROA), net income margin (NIM), financing growth, financing to deposit ratio (FDR), NPF management.

Data Technique Analysis

Statistic Test
A statistic test is used to standardize values that are calculated from research results into hypothesis tests. In this study, statistic test is used with multiple linear regression methods. The few stages in this test are as follows:

- Coefficient of determination

The coefficient of determination is a measure used in statistical analysis that assesses outcomes between dependent and independent variables or how far independent variables influence dependent variables.

- F-test (simultaneously test)

F-test is used to test the significance level of influence of independent variables simultaneously to the dependent variable.

Results and Discussions

NPF Bank Brisyariah

Case study uses a 90% confident degree or 10% alpha numeric. The significant factors that influence Bank Brisyariah NPF are benchmark interest rate (BI rate) and economic growth. Interest rate level shows positive if correlated with Bank Brisyariah's NPF. It indicated that the higher benchmark interest rate (BI rate) has directly affected Brisyariah NPF enlargement. Economic growth is showing a negative correlation. If there is an economic growth downtrend, it will significantly impact NPF level. Both factors are used based on goodness-of-fit values of 87.4%. This proves that 12.6% is affected by other factors beyond the result models.

Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	*t*	Sig.
1	(Constant)	0.089	0.016		5.492	0.000
	Return on Asset	-0.124	0.168	-0.064	-0.739	0.469
	Financing to Deposit Ratio	-0.014	0.016	-0.144	-0.92	0.369
	Net Income Margin	-0.11	0.118	-0.102	-0.927	0.365
	Financing Growth	-0.005	0.011	-0.044	-0.426	0.675
	NPF Management	0.005	0.003	0.26	1.504	0.148
	Inflation Rate	-0.088	0.062	-0.152	-1.416	0.172
	Exchange Rate USD/IDR	-0.006	0.015	-0.028	-0.392	0.699
	Benchmark Interest Rate (BI Rate)	0.232	0.117	0.237	1.986	0.061
	Economic Growth	-0.701	0.195	-0.513	-3.596	0.002

- NPF of Financing Segments
  - Commercial Segment

The case study uses a 90% confident degree or 10% alpha numeric. For the commercial financing segment, the significant factors are inflation, benchmark interest rate (BI rate), FDR, NIM, NPF management, and economic growth. Positive correlation is indicated by FDR factor, NPF management, and benchmark interest rate (BI rate). This means that, if the FDR indicator increases, improvement in NPF management and increase of benchmark interest rate (BI rate) will have an impact on NPF increase in the commercial financing segment. For other factors such as NIM, inflation and economic growth have a negative influence on the relationship in the commercial financing segment. An accuracy model from influencing factors of the commercial financing segment has a goodness-of-fit test at 74.6%. It shows that there still 25.4% other factors beyond result models.

Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	*t*	Sig.
1	(Constant)	-0.009	0.06		-0.152	0.881
	Return on Asset	-0.023	0.629	-0.005	-0.037	0.971
	Financing to Deposit Ratio	0.121	0.059	0.463	2.071	0.051
	Net Income Margin	-0.903	0.444	-0.317	-2.035	0.055
	Financing Growth	-0.009	0.04	-0.034	-0.229	0.821
	NPF Management	0.023	0.012	0.45	1.833	0.082
	Inflation Rate	-0.512	0.233	-0.335	-2.2	0.040
	Exchange Rate USD/IDR	0.003	0.056	0.006	0.057	0.955
	Benchmark Interest Rate (BI Rate)	1.454	0.438	0.563	3.319	0.003
	Economic Growth	-1.332	0.731	-0.37	-1.823	0.083

- Retail Segment: Consumer

The case study uses a 90% confident degree or 10% alpha numeric. For the retail segment consumer financing, the significant factors are inflation, benchmark interest rate (BI rate), and financial growth. A positive correlation is indicated by benchmark interest rate (BI rate) in comparison to consumer financing. For other factors such as financial growth, inflation has a negative influence on relationships in the retail consumer financing segment. An accuracy model from the influencing factors of retail consumer financing segment has goodness-of-it test at 61.8%. It shows that 38.2% of other factors go beyond the result models.

Model		Unstandardized Coefficients		Standardized Coefficients	*t*	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.014	0.022		0.625	0.539
	Return on Asset	-0.197	0.232	-0.128	-0.847	0.407
	Financing to Deposit Ratio	0.004	0.022	0.055	0.203	0.842
	Net Income Margin	-0.048	0.164	-0.056	-0.292	0.773
	Financing Growth	-0.03	0.015	-0.364	-2.03	0.056
	NPF Management	0.007	0.005	0.459	1.524	0.143
	Inflation Rate	-0.204	0.086	-0.442	-2.371	0.028
	Exchange Rate USD/IDR	-0.026	0.021	-0.158	-1.258	0.223
	Benchmark Interest Rate (BI Rate)	0.45	0.162	0.579	2.785	0.011
	Economic Growth	-0.037	0.27	-0.034	-0.138	0.892

- Retail Segment: Small and Medium Enterprises

The case study uses a 90% confident degree or 10% alpha numeric. For retail segment consumer financing, the significant factors are FDR, benchmark interest rate (BI rate), and financing growth. Those three factors have a negative correlation to the retail SME financing segment. This means that if there is an FDR increase, the benchmark interest rate (BI rate) and financing growth will have an impact on NPF decrease. An accuracy model from influencing factors of the retail SME financing segment has a goodness-of-fit test of 64.8%. It shows that 35.2% of other factors go beyond the result models.

Model		Unstandardized Coefficients		Standardized Coefficients	*t*	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.193	0.035		5.477	0.000
	Return on Asset	-0.331	0.367	-0.131	-0.903	0.377
	Financing to Deposit Ratio	-0.063	0.034	-0.484	-1.842	0.080
	Net Income Margin	-0.094	0.258	-0.067	-0.364	0.720
	Financing Growth	-0.047	0.023	-0.345	-2.003	0.059
	NPF Management	-0.008	0.007	-0.321	-1.109	0.281
	Inflation Rate	0.132	0.136	0.175	0.975	0.341

Exchange Rate USD/IDR	0.028	0.032	0.104	0.863	0.399
Benchmark Interest Rate (BI Rate)	-0.944	0.255	-0.738	-3.698	0.001
Economic Growth	-0.324	0.426	-0.182	-0.762	0.455

- Retail Segment: Micro

The case study uses a 90% confidence degree or 10% alpha numeric. For the retail segment of consumer financing, the significant factors are inflation, benchmark interest rate (BI rate), FDR, NIM, and economic growth. This means that an economic growth downtrend will have an impact on NPF increase in micro retail financing. Other factors such as NIM and inflation have a positive correlation for this segment. An accuracy model from influencing factors of retail in the micro financing segment has a goodness-of-fit test of 74.4%. It shows 25.6% of other factors go beyond the result models.

Model		Unstandardized Coefficients		Standardized Coefficients	*t*	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.173	0.030		5.824	0.000
	Return on Asset	-0.109	0.310	-0.044	-0.353	0.728
	Financing to Deposit Ratio	-0.116	0.029	-0.902	-4.023	0.001
	Net Income Margin	0.501	0.218	0.359	2.294	0.033
	Financing Growth	0.012	0.020	0.091	0.618	0.544
	NPF Management	-0.003	0.006	-0.118	-0.48	0.636
	Inflation Rate	0.294	0.115	0.392	2.566	0.018
	Exchange Rate USD/IDR	0.010	0.027	0.038	0.365	0.719
	Benchmark Interest Rate (BI Rate)	-0.629	0.216	-0.497	-2.918	0.009
	Economic Growth	-0.701	0.359	-0.397	-1.951	0.065

Based on external and internal factors analysis, which influenced Brisyariah's overall NPF and segmented financing, it is concluded that this analysis is related to several previous researches. For instance, the researched carried out by Firmansyah (2014) clearly stated that GDP (economic growth) and inflation have a significant impact on NPL. The same research by Fajriati (2016) described that the IDR exchange rate, inflation, and FDR factors also significantly influence NPF, while Setiawan and Bagaskara stated that GDP growth, inflation rate, CAR, and exchange rate add leverage on NPF as well.

Conclusions

This study identifies which external and internal factors influence Bank Brisyariah's NPF. Generally, this study indicates that the benchmark interest rate (BI rate) has a positive and negative influence, while economic growth has a negative and significant influence. Specifically, deeper analysis on financing segmented NPF resulted in a range of variable factors that suits to each characteristic. For the commercial financing segment influenced by NIM, FDR, NPF management, benchmark interest rate (BI rate), inflation, and economic growth. For the retail segment, significant factors are financing growth, benchmark interest rate (BI rate), and inflation. For the retail SME segment NPF, influencing factors are financing growth and benchmark interest rate (BI rate). Last, the retail segment-micro is significantly influenced by NIM, FDR, benchmark interest rate (BI rate), inflation, and economic growth.

An overview of significant influence of NPF for different financing segments is considered for different strategies of NPF management/handling. This is required considering each business segment has specific characteristics and, at the end, will result in NPF improvement for Brisyariah. All of the efforts on NPF management should be formulated in regular strategies and monitoring.

Acknowledgment

Thank you to all who helped in this research process. I hope this research can provide benefits to Brisyariah and Islamic banking in Indonesia regarding what factors need to be considered in channeling financing based on certain business segments

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