Determinants Of Islamic Bank Non-Performing Financing By Economic Sector Of Financing

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Abstract
In this research, integration of determinant factor from external and internal factors that influence Non Performing Financing (NPF) in Bank BRISyariah in period of 1st Quarter 2010 until Quarter 4 2017 by using multiple regression analysis. The external variables themselves consist of Inflation Rate, Benchmark Interest Rate / BI Rate, Economic Growth, and USD / IDR Exchange Rate. Internal factors consist of Return on Assets (ROA), Net Income Margin (NIM), Growth Financing, Financing to Deposit Ratio (FDR) and NPF Handling and Bank Rating consisting of Risk Profile, Corporate Governance, Profitability and Capital. Based on this methodology, the results with multiple regression analysis show that based on the economic sector of financing, there are several factors affecting non performing financing at Bank BRISyariah, depending on the economic sector of the financing. 1) For economic sector agriculture, hunting and agricultural facilities, factors affecting NPF are bank rating-good corporate governance, and NPF handling; 2) For economy sector industrial are the handling of NPF, exchange rate and interest rate benchmark; 3) For economy sector electricity, gas and water affecting NPF is net income margin; 4) For economy sector construction that affects the net income margin and growth of financing; 5) For economy sectors trade, restaurants and hotels affecting NPF are bank rating-rentability, NPF handling and interest rate benchmark; 6) And for the economic sector of transport, warehousing and communication are bank rating-risk profile and economic growth

Keywords: External Factors, Financing Contract, Internal Factors, Non Performing Financing, Sharia Bank.

I. INTRODUCTION

1.1. Background
Sharia banking as one of the preferred banking system in Indonesia has a very promising growth potential in the future. Indonesia is a country that has the largest number of Muslims in the world with more than 80% of the composition of people in Indonesia are Muslims. The growth potential of sharia banking shows its development since the founding of Bank Muamalat in 1991 until today there have been thirteen Sharia Commercial Banks. Islamic banking has a 33.7% Compounded Annual Growth Rate (CAGR) from 2006 to 2014. This growth is relatively much higher than the conventional Indonesian banking CAGR of 16.2% in the same period. The comparison of the development of sharia banking to conventional banking in Indonesia during the period 2014 to 2016 can be seen in Table 1.

Table 1. Bank Industries Development in Indonesia (in Miliar Rupiah)

\[
\begin{array}{|c|c|c|c|c|c|}
\hline
\text{National Banking} & \text{Des 14} & \text{Des 15} & \text{Des 16} & \text{Growth Des15-Des 16} & \text{Growth Des16-Jun17} \\
\hline
\text{Asset} & 5,615,150 & 6,095,908 & 6,729,799 & 10.40% & 7,025,811 & 4.40% \\
\text{Financing} & 5,468,910 & 5,952,279 & 6,570,903 & 10.39% & 6,783,689 & 3.24% \\
\text{Third-Party Funds} & 4,594,876 & 4,909,707 & 5,399,210 & 9.97% & 5,650,589 & 4.66% \\
\text{Earning After Tax} & 144,591 & 133,521 & 137,467 & 2.96% & 82,877 & \\
\hline
\text{Shariah Banking} & \text{Des 14} & \text{Des 15} & \text{Des 16} & \text{Growth Des15-Des 16} & \text{Growth Des16-Jun17} \\
\hline
\text{Asset} & 272,343 & 296,262 & 356,504 & 20.33% & 378,198 & 6.09% \\
\text{Financing} & 199,330 & 212,996 & 248,007 & 16.44% & 365,317 & 6.98% \\
\text{Third-Party Funds} & 217,858 & 231,175 & 279,335 & 20.83% & 302,013 & 8.12% \\
\text{Earning After Tax} & 2,049 & 2,301 & 2,949 & 28.13% & 2,672 & \\
\hline
\end{array}
\]

(Source: Statistics of Shariah Banking, OJK)

Sharia banking which is part of the national banking is also not spared from the impact of declining economic conditions both regionally and nationally. This can be seen in Table 2. indicating that there is indeed a slowing growth in financing for national sharia banking. Evidently the trend shows a decline in financing growth, which in mid-2017 only reached 6.09%. The low growth of financing during the year 2017 was compared in 2016, resulting in a decline in the growth of sharia banking assets. The declining growth of Islamic banking assets contributes to
the increase in Return On Assets in sharia banking. This can be seen in Table 2. on trend value Return On Asset ratio has increased from 0.63% in 2016 to 1.10% in June of 2017.

Table 2. Sharia Banking Financial Ratios (%)

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<tbody>
<tr>
<td>ROA</td>
<td>1.79</td>
<td>2.14</td>
<td>2.00</td>
<td>0.41</td>
<td>0.49</td>
<td>0.63</td>
<td>1.10</td>
</tr>
<tr>
<td>NPF</td>
<td>2.52</td>
<td>2.22</td>
<td>2.62</td>
<td>4.95</td>
<td>4.84</td>
<td>4.42</td>
<td>4.47</td>
</tr>
<tr>
<td>FDR</td>
<td>88.94</td>
<td>100.00</td>
<td>100.32</td>
<td>86.66</td>
<td>88.03</td>
<td>85.99</td>
<td>82.69</td>
</tr>
<tr>
<td>BOPO</td>
<td>78.41</td>
<td>74.75</td>
<td>78.21</td>
<td>96.97</td>
<td>97.01</td>
<td>96.22</td>
<td>90.98</td>
</tr>
</tbody>
</table>

(Source: Statistics of Sharia Banking, OJK)

Along with the declining growth of asset, financing, DPK and the profit of sharia banking nationally, it is also seen that sharia banking has increased non-performing financing (NPF). The NPF increase is quite high in the period of 2013 from 2.62% to 4.95% in 2014. In June 2017 position, sharia banking NPF is still quite high at 4.47%. This is due to the slowing down of economic conditions due to the decline in commodity prices during 2015 to 2016, which has resulted in an increase in NPF in sharia banking.

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, Non-performing financing frequently occurred because of customers default in committing their payment which affected to Bank’s loss. According to Mahmoeddin (2004), non-performing financing attitudes indications determined by account attitudes, financial statement attitudes, business activities attitudes, customer attitudes and macro economic attitudes. Furthermore, non-performing financing factors driven by three elements which are Bank itself (creditor), debtors and other parties. From that perspectives, it can be concluded that many variables influence financing ratios or non-performing financing in financial institution. Figure 1. below showing Islamic Bank NPF movement and Nett NPF period of June 2014 untuk December 2016.

Bank BRISyariah as one part of Islamic banking is also experiencing problems that is the decline in the quality of financing that the trend can be seen in Figure 2. It is seen that the value of non-performing financing ratio of Bank BRISyariah is even above the average ratio of problematic financing of national sharia banking.

1.2. Problem Formulation

Problem formulation research based on the above descriptives are how is external and internal factors influenced Bank BRISyariah NPF based on Economic Sector of Financing during period of 2010 to 2017.

1.3. Research Objectives

Research objectives are analysis of internal and external influences to Bank BRISyariah NPF based on Economic Sector of Financing consist of 1) agriculture, hunting and agricultural facilities, 2) industrial, 3) electricity, gas and water, 4) construction, 5) trade, restaurants and hotels, 6) transport, warehousing and communication, during period of 2010-2017.

II. LITERATURE REVIEW

Much of the researches and analyses finding the internal and external factors influence financing qualities in Islamic Bank whether in Indonesia and several countries in Asia. Ikram, et al (2016), conducted empirical study was undertaken to explore the determinants of non-performing loans (NPLs) of small and medium enterprises (SMEs) sector held by the commercial banks with variable are branch age, duration of the loan, and credit policy were found to be significant determinants of NPLs. The study proposes that bank-specific and SME-specific microeconomic variables directly influence NPLs, while macroeconomic factors act as intermediary variables.

Makri (2013), conducted study to identify the factors affecting the non-performing loans rate (NPL) of Eurozone’s banking systems for the period 2000-2008, just before the beginning of the recession. Overall, from the study reveal strong correlations between NPL and various macroeconomic (public debt, unemployment, annual percentage growth rate of gross domestic product) and bank-specific (capital adequacy ratio, rate of nonperforming loans of the previous year and return on equity) factors.
Adeola and Fredrick (2017), conducted study investigated the macroeconomic determinants of non-performing loans in Nigeria, using time series data for the period 2005 to 2014 collated from Central Bank of Nigeria Statistical Bulletin, Nigeria Deposit Insurance Corporation annual report, World Bank Development Indicators and International Financial Statistics. The dependent variable used in the study was non-performing loan (NPL). Independent variables were gross domestic product growth rate (GDPGR), inflation (INF), lending rate (LR), exchange rate (ER), money supply to gross domestic product (M2GDP), and unemployment rate (UR).

Likewise Indonesia Islamic Banking, Setiawan and Monita (2013) had conducted analysis on internal and external factors that influences Islamic Bank NPF during period 2007-2012. The result of significant internal factor influencing NPF is credibility of Management and the external factor is ROA. Havidz and Setiawan (2015) using four Islamic Bank as their research analysis sampling for period 2008-2014. Significantly factors that influenced four Islamic Bank NPF in Indonesia are company measurement, operational efficiency ratio, and GDP growth level. The internal and external factors of NPF specifically research conducted in Bank Victoria Syariah by Setiawan and Bhirawa (2016). Research showed that GDP growth factor, inflation and Capital Adequacy Ratio (CAR) has negative correlation and influenced significantly on NPD meanwhile exchange rate and operational efficiency ratio has positive correlation and significantly influence to Bank Victoria Syariah NPF.

Some studies on external and internal factors of Islamic Banking NPF in Indonesia, such as Fajriati (2016) has carried out research on these studies during 2009-2015. The result is inflation variables, CAR, FDR significantly influencing NPF. Further, Puspitasari (2012) also conducted this research during period 2006-2009 to three Islamic Bank i.e. Bank Muamalat, Bank Syariah Mandiri and Bank Mega Syariah, with the result that third party fund and profit sharing return ratio and financing return are among those which sufficiently influenced.

III. ANALYSIS METHOD
In this research will use the method of multiple regression analysis to determine internal and external factor influence of Bank BRISyariah NPF during period 2010-2017. Descriptive analysis used to determine data dispersity from each independent variables both internal and external factors. Multiple linear regression analysis is to explain the relationship between one continuous dependent variables and two or more independent variables \((X_1, X_2, \ldots, X_n)\) with dependent variables \((Y)\). This analysis to identify relation between independent and dependent variables and whether each independent variables correlated as positive and negative. Data use consist interval scale or ratio. Multiple linear regression equivalent as below:

\[
Y_t = a + b_1X_{1t} + b_2X_{2t} + b_3X_{3t} + b_4X_{4t} + b_5X_{5t} + b_6X_{6t} + b_7X_{7t} + b_8X_{8t} + b_9X_{9t} + b_{10}X_{10t} + \epsilon_t
\]

Description:
- \(Y\) = Dependent variable
- \(a\) = Constant (\(Y\) value if \(X_1, X_2, \ldots, X_9 = 0\))
- \(b\) = 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 / NPF Handling
- \(X_6\) = Bank Rating
- \(X_7\) = Risk Profl, Rentability, Capital
- \(X_8\) = Benchmark Interest Rate (BI Rate)
- \(X_9\) = Inflation Rate
- \(X_{10}\) = Exchange Rate USD/IDR
- \(\epsilon_t\) = error term

An analysis commonly used in econometrics is a regression analysis which is essentially a study of the dependence of a variable that is a variable bound to other variables called free variables, in order to estimate and forecast the population value based on a particular value of the known variables (Gujarati, 1988). The most commonly used method for estimating parameters in the regression model is ordinary least squares method (OLS) because the mechanism of this method is easy to understand and the procedure is simple (Nachrowi, 2006). According to Supranto (1992), regression analysis expresses the relationship between several characters expressed in the form of the dependent variable as a function of the independent variable that influences it. The goodness of multiple linear regression equations is, to predict the quantitative effect of any independent variable if the influence of other variables is considered constant.

3.1. Variables operation Definition
To obtain appropriate research and to avoid bias theories in processing result, below variables parameters applied:

3.1.1. Dependent variables
The dependent variables represent the output or outcome whose result is reaction or respond if connected to undetermine variables with the denoted \(Y\). Dependent variables in this research is Non Performing Financing (NPF).

3.1.2. Independent variables
Independent variables or commonly known as free variables that causes or influences other variables denotedize with \(X\). Independent variables divided into internal factor variables and external factor variables.
Following are several variables that influence financing quality in economic sectors:
1. External factors: inflation rate, benchmark interest rate (BI rate), Economic Growth, and USD/IDR exchange rate.
2. Internal factors: Return on Asset (ROA), Nett income Margin (NIM), Financing growth, Financing to Deposit Ratio (FDR), Bank Rating (Consist of Good Corporate Governance Risk Profile, Rentability and Capital), NPF Management.

3.2. Data Technique Analysis
3.2.1. Classical Assumption Tests
Classical assumption test consist of:
1. Autocorrelation Test.
   Using test method known as Durbin Watson Test (DW). The measurement of autocorrelations existence is:
   a. No-Autocorrelation: If DW value higher than upper bound or in the range of lower and upper.
   b. Autocorrelation: If DW under lower values.
   The Method is to compares auxilliary regression values with R² total adjustment. The measurement of multi-correlation is:
   a. No multi-correlation: If auxilliary regression from regression equivalent model is higher than R² total adjustment.
   b. Multi-correlation: If auxilliary regression lower than R² total adjustment
3. Heteroskedasticity Test.
   Test is used to know whether or not there is deviation of classical assumption that is existence of variant inequality of residual for all observation in regression model:
   a. Non existence heteroskedasticity: if t value-parameter formula of equation model higher than t-table (α = 0,05)
   b. Existence heteroskedasticity: if t value-parameter formula of equation model is lower than t-table α = 0,05

3.2.2. Statistic Tests
A statistic test is used to standardized value that is calculated from research result into hypothesis test. In this study, statistic test is used with multiple linear regression methods. Few stages in this test as follows:
1. 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.
2. F Test (Simultaneously Test)
   F Test is used to test the significant level of influence of independent variables simultaneously to the dependent variable.

IV. RESULTS & DISCUSSION

4.1. Multiple Regression Analysis
The result of testing the correlation between the influence of internal factors and external factors to NPF in Bank BRISyariah based on economic sector of financing by using multiple linear regression analysis is as follows:
1. Analysis of parameters that gives significant influence on financing quality based on agriculture economic sector, hunting and agricultural facilities at BRISyariah are Bank Rating-GCG Assessment and NPF Handling. The explanation of the significant parameters are as follows:
   a. For Bank Rating on GCG assessment can be explained that when an increase in GCG value of one unit will increase the quality of problem financing (NPF) of 0.766
   b. For the handling of NPF can be explained that when done NPF handling since 2015 than before the handling of NPF until the end of 2014 have reduced the quality of problematic financing (NPF) of 0.267
2. Analysis of parameters that gives significant influence on financing quality based on industrial economic sector in BRISyariah is handling of NPF, Exchange Rate and Benchmark Interest Rate (BI Rate). The explanation of the significant parameters are as follows:
   a. For the handling of NPF can be explained that when done NPF handling since 2015 than before the handling of NPF until the end of 2014 have reduced the quality of problematic financing (NPF) of 0.411
   b. For the exchange rate can be explained that when an increase in the exchange rate of one unit will reduce the quality of problem financing (NPF) of 0.766
3. Analysis of parameters which gives significant influence on financing quality based on economic sector of electricity, gas and water in BRISyariah is Net Income Margin value. The explanation of the significant parameters are as follows:
   a. For Net Income Margin value can be explained that when an increase of Net Income Margin value of one unit will reduce the quality of problem financing (NPF) of 0.766
   b. For the value of BRIS's Financing Growth can be explained that when an increase in the value
of BRIS's Financing Growth by one unit will reduce the quality of problem financing (NPF) of 0.487

5. Analysis of parameters that gives significant influence financing quality based on economic sector of trade, restaurant and hotel in BRISyariah is Bank Rating - Assessment of Rentability, NPF Handling, and BI Rate. The explanation of the significant parameters are as follows:

a. For Bank Rating - Rentability assessment can be explained that when an increase in value Rentability of one unit will improve the quality of problem financing (NPF) of 0.043
b. For the handling of NPF can be explained that when done NPF handling since 2015 than before the handling of NPF until the end of 2014 have reduced the quality of financing problems (NPF) of 0.040

6. Analysis of parameters result that gives significant influence on financing quality based on transportation economic sector, warehousing and communication in BRISyariah is Bank Rating for the assessment of Risk Profile and value of Indonesia Economic Growth. The explanation of the significant parameters are as follows:

a. For Bank Rating in Risk Profile Assessment can be explained that when an increase of Bank Rating level in Risk Profile assessment by one unit will improve the quality of problem financing (NPF) of 1.141
b. For the value of Indonesia’s Economic Growth can be explained that when an increase in the value of Indonesia’s Economic Growth of one unit will reduce the quality of problem financing (NPF) of 18,049

4.2. Value of Model Goodness

For Goodness Value Model based on Multiple Linear Regression analysis results obtained as follows:

1. Table value of coefficient of determination (R2 / R-Square) shows that the regression equation model has been able to describe the actual condition of the population is equal to 75.1%. This explains that the good value of the model is good by yielding a value close to 100%. This means that the factors generated in the model are able to explain as a factor affecting the NPF based on the construction economy sector by 61%, while the remaining 39% is caused by other factors.

2. Table value of coefficient of determination (R2 / R-Square) shows that the regression equation model has been able to describe the actual condition of the population is equal to 82.5%. This explains that the good value of the model is good by yielding a value close to 100%. This means that the factors generated in the model are able to explain as a factor affecting the NPF based on the construction economy sector by 61%, while the rest equal to 54,4% caused by other factor.

3. Table value of coefficient of determination (R2 / R-Square) shows that the regression equation model has been able to describe the actual condition of the population is equal to 45.6%. This explains that the goodness of the model is not good enough because the value has not exceeded the 70% figure as the minimum value of model goodness. This means that the factors generated in the model are able to explain as a factor affecting the NPF based on the construction economy sector by 61%, while the remaining 39% is caused by other factors.

4. Table value of coefficient of determination (R2 / R-Square) shows that the regression equation model has been able to describe the actual condition of the population is equal to 61%. This explains that the goodness of the model is not good enough because the value has not exceeded the 70% figure as the minimum value of model goodness. This means that the factors generated in the model are able to explain as a factor affecting the NPF based on the construction economy sector by 61%, while the remaining 39% is caused by other factors.
is equal to 74%. This explains that the value of model goodness can be said to be good enough because it has exceeded the 70% as a minimum value of model goodness value. This means that the factors generated in the model are able to explain as a factor affecting the NPF based on trade, restaurant and hotel economy sector by 74%, while the remaining 26% is caused by other factors.

6. Table value of coefficient of determination (R2 / R-Square) shows that the model of regression equation is able to describe the actual condition of the population is equal to 82.1%. This explains that the model is good by yielding a value close to 100%. This means that the factors generated in the model are able to explain as factors that affect the NPF based on the economic sector of transportation, warehousing and communication of 82.1%, while the rest of 17.9% is caused by other factors.

V. SUMMARY & CONCLUSION
This study aims to identify the external and internal factors that affect the Non Performing Financing Bank BRISyariah. Generally the test results with multiple regression analysis shows that there are several factors causing non performing financing, depending on the economic sector of financing provided. The influential factors are 1) For economic sector agriculture, hunting and agricultural facilities, factors affecting NPF are bank rating-growth corporate governance, and NPF handling; 2) For economy sector industrial are the handling of NPF, exchange rate and interest rate benchmark; 3) For economy sector electricity, gas and water affecting NPF is net income margin; 4) For economy sector construction that affects the net income margin and growth of financing; 5) For economy sectors trade, restaurants and hotels affecting NPF are bank rating-rentability, NPF handling and interest rate benchmark; 6) And for the economic sector of transport, warehousing and communication are bank rating-risk profile and economic growth. Based on the results obtained, where has been known what factors affecting non-performing financing, it is then necessary to establish a different management strategy / handling of NPF in accordance with each sector of the economy. All NPF management efforts should be formulated in strategy and regular monitoring.

REFERENCES