



## DOES SHARIA BANKING PERFORMANCE VARY ACROSS THE REGION?

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### Abstract

The purpose of this research is to know the geographical influence on the performance of Islamic banking which are in different regions. The population in this research is the whole Islamic banking that operations in four regions (Asia, America, Europe, and Africa). Sample based on purposive sampling method there are 16 Islamic banking which comprises 13 banks came from the Asian continent, 1 bank of Americas, 1 banks from continental Europe, and 1 bank comes from the African continent. Methods of analysis used in this study are the analysis of multiple linear regression analysis tools with Eviews 9. The results of the research show that the geographical location of positive and significant effect on the performance of Sharia banking. Variable non-performing financing (NPF) a negative and significant effect on the performance of Sharia banking. Financing to Deposit Ratio (FDR) positive significant effect on the performance of Islamic banking while the Debt to Equity Ratio (DER) does not affect the performance of Islamic banking.

### Abstrak

Tujuan dari penelitian ini adalah untuk mengetahui pengaruh letak geografis dan rasio kesehatan bank syariah yang meliputi non performing financing (NPF), Financing to Deposit Ratio (FDR), dan Debt to Equity Ratio (DER) terhadap kinerja perbankan syariah yang berada di wilayah berbeda. Populasi dalam penelitian ini adalah seluruh perbankan syariah yang beroperasi diempat wilayah (Asia, Amerika, Eropa, dan Afrika). Sampel berdasarkan metode purposive sampling ada 16 perbankan syariah yang terdiri dari 13 bank berasal dari benua Asia, 1 bank dari benua Amerika, 1 bank dari benua Eropa, dan 1 bank berasal dari benua Afrika. Metode analisis yang digunakan dalam penelitian ini adalah analisis regresi linier berganda dengan alat analisis Eviews 9. Hasil dari penelitian menunjukkan bahwa letak geografis berpengaruh positif dan signifikan terhadap kinerja perbankan syariah. Variable non performing financing (NPF) berpengaruh negatif dan signifikan terhadap kinerja perbankan syariah. Financing to Deposit Ratio (FDR) berpengaruh positif signifikan terhadap kinerja perbankan syariah sedangkan Debt to Equity Ratio (DER) tidak berpengaruh terhadap kinerja perbankan syariah.

## INTRODUCTION

The bank is one of the financial institutions which has a vital role in the economy of a country (Presetyowati & Khoiruddin, 2017). Where the critical role is to support the national economy. It can be seen when the economic stability of a country has decreased so one way to restore it is by structuring the banking sector. According to the Law of Republic Indonesia, Number 10 the Year 1998 about banking, type of banking is divided into two systems, namely bank based on a conventional system and bank based on the sharia system.

Based on OJK regulation no. 64/POJK.03/ 2016 about the Amendment of Conventional Business Operations to Sharia Banks, described in Article 1 paragraph 1 that sharia bank is a bank that runs its business activities based on sharia principles (Islamic Law). Where, the central principle of sharia bank is Islamic law derived from Al-Quran and Hadith (Ratnaputri, 2013). This is what distinguishes sharia bank and conventional banks.

Sharia bank began to grow in the 1970s, where the primary mission of sharia banking is to develop financial activities based on Islamic principles. Sharia banking is listed as a bank that has considerable growth over the years. The combined balance of sharia bank grew from \$ 150 million in 1990 to about \$ 1 billion in 2010 with more than 300 sharia institutions operating in 80 countries (Siraj & Pillai, 2012). According to the Islamic Financial Service Board (IFSB) Report 2017, in 2016 sharia banking assets increased to about \$ 2 billion.

Meanwhile, based on sharia banking market share in various countries, that countries in Asia continent have the highest market share when compared with other continents. With the rapid growth of sharia bank assets and high market share growth has resulted in more extensive geographic coverage of sharia banking. Where the number of sharia-based financial institutions worldwide has increased from one institution in one country in 1975 to more than 300 institutions operating in more than 75 countries (Hassan & Coyle, 2008). Based on location theory proposed by Thunen (1826) states that when an industry is in an area with a high concentration of demand, then it will affect the high level of profits.

High asset growth and market share, in fact, are not companies by a good sharia banking growth rate. According to a World Bank Banking Competitive report in 2016, the growth of sharia banking each country has declined every year.

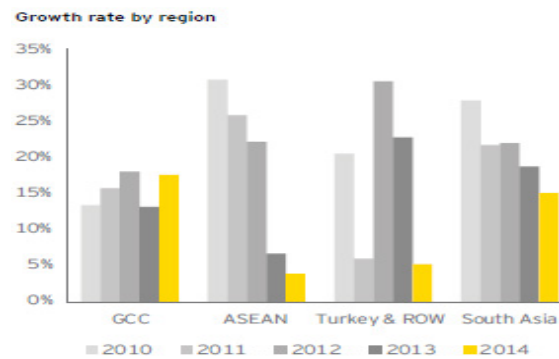


Figure 1. Growth Rate by Region

Based on the Figure 1, the average growth of sharia banking in various countries decreased by 5% in 2014 except for the GCC (Middle East) country which has a growth increase of 5% compared to 2013.

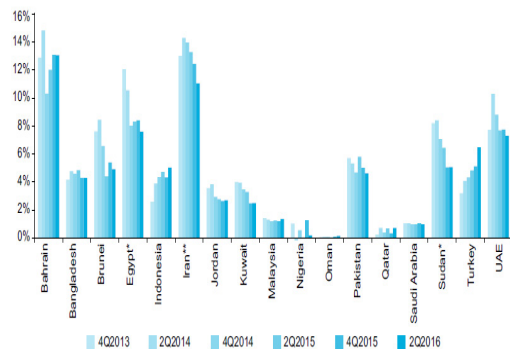
After the global financial crisis, sharia banking has the potential to provide an alternative to stable and safe risk aversion (Barnett & Jawadi, 2013). As a result, sharia banking is not only proliferating in Muslim countries but reaching non-Muslim countries (Causse, 2012). The rapid growth of sharia banking should also be followed by an improved bank health level. Simply put, a healthy bank is a bank that can keep and maintain public trust, be able to perform the intermediary function, and can keep and maintain payment traffic (Utama, 2006).

The assessment of bank health level includes assessment of factors comprising the bank's ability to generate profits presented with the Return on Asset (ROA) ratio, an assessment of the level of liquidity that can be seen from the Financing to Deposit Ratio (FDR) ratio and the assessment of health conditions bank assets and the risk of default from credit risk which can be seen from the ratio of Non-Performing Financing (NPF).

Based on data from the IFSB report in 2017 presented it shows that the ratio of Non-Performing Financing (NPF) from various countries has increased. Where Non-Performing Financing (NPF) is a financial ratio related to financing risk. NPF demonstrates management's ability to manage problematic financing provided by banks. NPF is one indicator in the health assessment of sharia banking, where the lower the ratio of NPF, the health of banks will be better. The following data on the growth of NPF in various countries are increasing:

Based on the Figure 2 about the growth of sharia bank NPF, the NPF ratio of sharia banking in various countries on average experienced

Chart 3.2.4.2 Islamic Banking Average Gross Non-Performing Financing to Total Financing by Country

**Figure 2.** Growth of Sharia Bank NPF

an increase as seen Turkey has NPF significantly increased compared to last year. In addition to Turkey, NPF also increased in Qatar, Malaysia, and Indonesia. High NPF illustrates the inability of management to manage problem financing. The higher the NPF indicates that the health of a bank is getting worse.

According to Jawadi et al. (2017) sharia banking shows different performance regionally depending on the presence of the financial authority (Sharia Supervisory Board) in the region. Even other factors such as the image of sharia banking, lack of transparency and Islamic issues can affect the difference in sharia banking performance. Meanwhile, according to Zantioti (2009) in his research which was conducted during the period 1999-2007 shows that the influence of geographical location in some countries has different results, which in South Asia Region negatively affect the profitability but have a positive effect in other regions.

According to Bashir (2003) in his study about the sharia banking performance located in the Middle East region between 1993 and 1998 showed that geographical location doesn't have a significant effect on banking performance, while macro indicators and financial structure on banking performance have a positive and significant impact on profitability. The result of Bashir's research (2003) is not in line with the results of the research by Jawadi et al. (2017) which states that the geographical location has a significant positive effect on sharia banking performance.

While the research about the influence of Non-Performing Performance (NPF), Financing to Deposit Ratio (FDR) and Debt to Equity Ratio (DER), one of them is done by Dewi and Prasetyono (2010) which indicates the result that NPF ratio has an adverse effect on sharia banking performance. These results are in contrast to the results of the research by Nahar and Prawoto

(2017) and the research conducted by Simatupang and Franzlay (2016) the results of the study identified that the ratio of NPF has no effect on sharia banking performance.

Research conducted by Sabir et al. (2012); Simatupang and Franzlay (2016) on the ratio of FDR to sharia banking performance, identifies the result that the ratio of FDR has a positive and significant effect on sharia banking performance. However, according to Suryani (2011); Lemiyana and Litri (2016) FDR ratio does not affect sharia banking performance.

Sukarno and Syaichu (2006) in his research found that debt to equity (DER) has an adverse effect on banking performance. The results of this study are not in line with the research by Najoan, 2016 where according to Najoan's research found that debt to equity (DER) has no effect on banking performance.

The difference of this research with previous research is that many previous research in doing the measurement of financial performance using return on asset ratio (ROA) whereas in this research the performance measured by using Tobin 'Q, performance measurement by using Tobin's Q not only give description on fundamental aspect but also the extent to which the market assesses the company from various aspects which are seen by outsiders including investors (Sudiyatno & Puspitasari, 2010). In addition, much previous research which neglects about the debt, both bad debt and limitations of debt to use by sharia bank. Sharia banking based on Islamic principles in which there is a limitation of debt issued because based on sharia principle debt will cause interest where the interest is one thing that is prohibited by sharia principles, so this study includes debt to equity (DER) ratio and nonperforming financing (NPF) ratio. In this study, the object used is not only countries with a Muslim majority but includes countries where the majority of the population are non-Muslims such as America and Switzerland.

### Hypotheses Development

Geographical location is one of the external factors which can affect sharia banking performance. According to Bashir's research (2003) states that geographical environment has no significant effect on sharia banking performance. While in the research by Jawadi et al. (2017) states that geographical environment has a positive and significant effect on sharia banking performance in 12 observation countries.

According to General Theory, regional growth has a correlation with the rate of capital

growth. It means that the economic growth of a region related to the level of equity participation obtained from third parties. When capital which is obtained by country is more significant, then it will encourage the growth of the national economy. The acquisition of the country's capital can be through several sectors, one of them is from the banking sector, where investors can invest their capital through banks located in the countries they are heirs. To determine the country that will be chosen as an investment destination, investors first evaluate bank performance and consider other geographical factors such as historical background, culture and social norms. If the terrestrial environment is well synergized, then it will increase capital in banking that will affect bank performance in the country.

According to location theory, when a company is in a region with high demand constraints, it will increase profits that will affect the banking system's performance. Based on the existing theory, then geographical factor has a positive effect on sharia banking performance, it is in accordance with the research that was stated by Jawadi et al. (2017).

H1: Geographical environment has a positive effect on sharia banking performance.

Problematic financing or non-performing financing is a ratio of problematic financing ratio with total channeled funds to the public (Siswati, 2013). This financing risk arises because it is too easy for banks to lend or invest because it is too demanding to take advantage of excess liquidity, so that poor credit scoring in anticipating various possible business risks it costs. The higher the NPF value, the smaller the profits/ profitability of the bank because the funds that cannot be billed make the banks cannot do financing on other productive assets (Ubaidillah, 2016).

Non-Performing Loan (NPL) affects the performance; it is based on the level of bank risk that leads to bank profitability. NPL is measured by the comparison ratio between problematic credit and the total credit given to the company. High NPLs will increase costs, thus potentially to the bank losses. The higher the ratio, the worse the credit quality of the bank, the higher the number of nonperforming loans, and therefore the bank must bear the loss in its operational activities so that it affects the decline profits (ROA) obtained by the bank.

In a sharia bank, the term Non-Performing Loan is replaced by Non-Performing Financing (NPF) because in sharia used financing principle. NPF is the level of risk faced by the bank. The

higher the value of NPF the worse the bank performance. The larger the NPF will reduce the profits/ profitability of the bank because funding which cannot be billed causes the bank cannot perform financing on other earning assets. It causes the income of the bank decrease so that the profitability of the bank will be disrupted. Thus, NPF has an adverse effect on sharia banking performance. According to Pratiwi and Mahfud (2012) the higher the risk of NPF, the worse the financing quality will eventually lead to higher problematic financing. The higher the value of NPF the lower the profits/ profitability of the bank because funding which cannot be billed cause the banks cannot do financing on other productive assets (Ubaidillah, 2016).

According to signaling theory, information released by the management is a signal given to the investors. Where the information can be interpreted as a sound signal (good news) or lousy signal (bad news). The information provided by management can be in the form of issuance of the company annual report which contains financial statements of the company. From the financial statements published by the company, investors can analyze the bank performance which can be interpreted through the signals sent by management with the issuance of the financial statements.

In the financial statements include summaries of funds which have been obtained by the management and the distribution of funds to other parties. One of the indicators assessed by investors is the level of nonperforming loans that are borne by the banks. Where, the higher the level of nonperforming loans it will negatively affect the bank performance. This is supported by empirical evidence by Dewi and Prasetyono (2010) and Bachri et al. (2013) which shows that the higher ratio of non-performing financing (NPF) the lower the profitability of sharia banks.

H2: Non-Performing Financing (NPF) has an adverse effect on sharia banking performance.

Financing to Deposit Ratio (FDR) is a ratio which measures how far the ability of the bank to repay its debts back to depositors and can meet the demand for financing proposed (Bachri et al., 2013). This ratio is used to measure the liquidity of a bank in repaying the withdrawal of funds by the depositor by relying on the financing given as a source of liquidity (Muliawati & Khoiruddin, 2015). In sharia banking is not known the term credit (loan), but financing (financing). So in one of its liquidity assessment using the ratio of financing to deposit ratio (FDR). The higher

the FDR ratio, the better the sharia banking in performing its intermediary function. However, in performing its intermediary function, sharia banks also need to keep in mind the availability of funds to meet their depositors when taking funds. According to Dendiwijaya (2005) stated that Loan to Deposit Ratio measures how far ability of bank to repay the withdrawal of depositors by relying on the credit given as a source of liquidity, the higher the LDR shows, the higher the DPK used for credit distributors, it indicates that the banks are able to perform its intermediation function well.

On the other hand, an excessively high LDR may cause liquidity risk for the bank. Yuwono and Meiranto (2012) mentioned that the Loan to Deposit Ratio is used as a ratio which can show vulnerability of bank's ability, in this case, the bank is required to provide the ability to pay back when the depositors withdraw their funds, thus causes, the higher the LDR in bank the lower the liquidity because the amount of funds needed to finance the credit becomes greater. When the fund disbursed to finance the credit is greater, then the possibility of nonperforming financing is also getting bigger.

According to signaling theory, information released by the management is a signal given to the investors. Where the information can be interpreted as a sound signal (good news) or lousy signal (bad news). The information provided by management can be in the form of issuance of the company's annual report which contains financial statements of the company. From the financial statements published by the company, investors can analyze banking performance which can be interpreted through the signals sent by management with the issuance of the financial statements. In the financial statements include summaries of funds which have been obtained by the management and the distribution of funds to other parties. One of the indicators assessed by investors is the level of financing distributed by banks. The lower FDR indicates the lack of banks' effectiveness in financing. This is supported by Sabir et al. (2012) study which states that FDR has a positive effect on ROA.

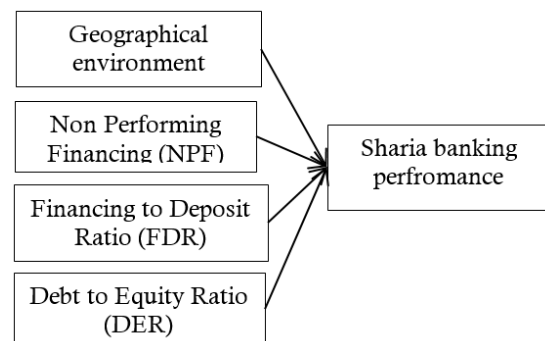
H3: Financing to Deposit Ratio (FDR) has a positive effect on the performance of sharia banking.

According to Maftukhah (2013) DER represents the ratio between the total debts of both current liability and long-term debt to total assets of both current assets and fixed assets and other assets. This ratio is used to measure the ability

of the company to repay its debts. According to Yulianto et al. (2015) when the private capital of the company is limited to meet funding, investment and dividends, the company will access external funding. The priority of external funding is primarily for debt issuance as opposed to equity. In sharia principles, the debt earned by sharia banking has its limits because if the level of debt increases it will increase the interest rate, where interest in the sharia law's perspective is usury, and it is not allowed in Islam. Referring to MM theory where it is mentioned that the use of debt will increase the company's value because the interest cost of the debt is used as a tax deduction. However, the high usage of debt will result in high-interest expense. When the interest expense is high, then the risk of default will be higher and the higher the debt burden. With the increasing debt burden, the banking performance will decrease further.

H4: Debt to Equity Ratio (DER) has an adverse effect on sharia banking performance.

The thinking framework in this research is as follow:



**Figure 1.** Thinking Framework

## METHOD

In analyzing the relationship between the terrestrial environment and sharia banking performance, this research used a quantitative approach method. A quantitative approach is an approach used to examine the population or a particular sample, data collection using research instruments, data analysis is quantitative/ statistic, with the aim is to test the hypothesis which has been established (Sugiyono, 2009).

The population in this study is all sharia banking operating in 4 regions (Asia, America, Europe and Africa). The data used is quarterly data in 2017. This study used a purposive sampling technique to determine the sample. The purposive sampling technique is used with the aim is



directing the data collection to fit the needs and is done by selecting informants who really control the existing information and problems and can be trusted (Shanty et al., 2017). The samples in this research are 16 sharia banking located in four regions (Asia, America, Europe and Africa): Panin Bank Syariah (PNBS), Bank Muallamat, Bank Mega Syariah, Afifin Islamic Bank Berhad, Hong Leong Bank Berhad, Kuwait International Banks, Al-Rajhi Bank, Dubai Islamic Bank, Abu Dhabi Islamic Bank, Qatar International Islamic Bank, Qatar Islamic Bank, Bahrain Muscat International Bank, Bahrain Islamic Bank, UBS Swiss and Albaraka Partners in the United States.

Data analysis method used in this research is multiple linear regress analysis by using Eviews program 9. The steps in calculating the ratio which will be used in this research, first are the dependent variable is Tobin's Q. Tobin's Q is an indicator to measure company performance, which shows a management performance in managing the company's assets (Sudiyatno & Puspitasari, 2010). Tobin's Q represents is the ratio of market value of the company's assets which is measured by the market value of the number of outstanding shares and the debt (enterprise value) against the replacement cost of the company's assets (Fiakas, 2005). The formulation of Tobin's Q formula according to Chung and Pruitt (1994).

$$\text{Tobin's Q} = ((\text{MVE} + \text{PS} + \text{Debt})) / \text{TA}$$

Description:

MVE : Market Value of All Outstanding Stock

PS : Liquidating Value of the Firms Outstanding Preferred Stock

Debt : Debt

TA : Firm Asset

Second, there are 4 independent variables that will be tested in this research they are a geographical location, nonperforming financing (NPF), financing to deposit ratio (FDR), and debt to equity ratio (DER)

### Geographical

According to Jawadi et al. (2017) geographical measurements in this study using dummy variables with a nominal scale of 1 value if the sharia banking is in the Asian continent and have 0 value if sharia banking is in the continent of America, Europe and Africa.

### Non-Performing Financing (NPF)

According to Siswati (2013) NPF is the ratio of financing that is problematic with the

whole channeling of funds distributed to society. Based on Bank Indonesia Circular Letter No.3/30/DPNP the ratio of NPF is measured using the formula:

$$\text{NPF} = (\text{Total Troubled Financing}) / (\text{Total Financing}) \times 100\%$$

### Financing to Deposit Ratio (FDR)

Financing to Deposit Ratio (FDR) is a ratio that measures how far the bank's ability to repay its debt back to its depositors, and can fulfill financing demand that proposed (Bachri et al., 2013). This ratio is used to measure bank liquidity in repaying the withdrawal of funds made by the depositor by relying on the financing provided as a liquidity source (Muliawati & Khoiruddin, 2015). According to Muhibad et al. (2017) the ratio of FDR is measured using the formula:

$$\text{FDR} = (\text{Total Financing}) / (\text{Total Third Party Funds}) \times 100\%$$

### Debt to Equity Ratio (DER)

Debt to equity ratio (DER) is the ratio which compares debt and equity. DER indicates the risks faced by the company in relation to the debt which is owned by the company (Maftukha, 2013). According to Agustina and Ardinasari (2015) investors should always follow the development of equity ratio to the debt or debt to equity ratio. This ratio is often used by analysts and investors to see how much debt of the company if it is compared with its equity. The bigger the DER shows, the greater the cost of debt to be paid by companies so that the profitability will decrease. It will decrease shareholders right and will affect the investor's interest that will influence the decline of the share price (Safitri, 2013). According to Kasmir (2008) debt to equity ratio (DER) can be measured by the formula:

$$\text{DER} = (\text{Total Debt}) / (\text{Total Equity}) \times 100\%$$

This study uses multiple linear equations as follows:

$$\text{Tobin's Q}_t = \beta_0 + \beta_1 \text{DGeografis} + \beta_2 \text{NPF}_t + \beta_3 \text{FDR}_t - \beta_4 \text{DER}_t + \varepsilon$$

Description :

DGeographical = 1 if sharia banking is on Asian continent

= 0 otherwise (if it is on  
 Europe, America, and  
 Africa continent)  
 NPFt = Non performing finance  
 ratio  
 FDRt = Financing deposit ratio  
 DERT = Debt to equity ratio  
 T = Year of observation  
 ε = Error

## RESULTS AND DISCUSSION

This research was conducted to test the effect of geographical environment and the ratio of sharia bank health to the performance of sharia banking. Table 1 shows the descriptions of research data. From the Table, it can be seen that the number of sharia banks which become sample in this study are 16 sharia banks spread across four continents (Asia, America, Europe and Africa).

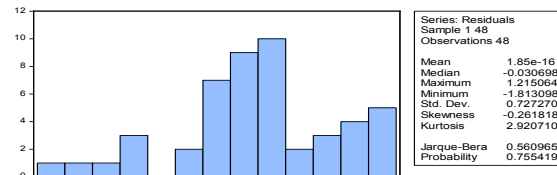
The average Tobin's Q is 4.008, which means that sharia banking located on four continents (Asia, America, Europe and Africa) have the average of returning the assets owned is 400%.

Table 1 shows that the number of sharia banks which become sample in this study are 48 data from 16 sharia banks during the quarterly period in 2017. Based on the Table 1, it can be seen that the maximum value of Tobin's Q variable is 11.42000 is UBS Swiss bank, the minimum value is 0.160000 that is Al Baraka USA bank, with the average, is 4.008542 and the standard deviation is 3.063841. The mean value is 4.008542 is higher than the standard deviation, it shows that the deviation which occurs is equal and the spread of data is not fluctuating.

### Classic assumption test

#### Normality test

According to Ghazali and Ratmono (2013) normality test is performed to find out whether in the regression model, the annoying or residual variable is normally distributed or not.



**Figure 2.** Normality Test Results

Figure 2 shows that the research data is usually distributed. It is proved by the probability value more than a or 0.05 that is 0.755419. Based on these results then  $H_0$  is rejected and  $H_a$  is accepted which means that the data is typically distributed.

### Multicollinearity Test

Multicollinearity test is used to test whether there is a significant relationship between each independent variable in the regression model (Ghozali & Ratmono, 2013). A regression model is said to be free from multicollinearity if the value of the correlation coefficient between the independent variables is less than one.

Table 2 shows that among the independent variables in the research in Indonesia have the average correlation is less than 0.9 (90%). This indicates that there is no multicollinearity among the research variables.

According to Ghazali and Ratmono (2011) if between the independent variables have a high enough correlation (above 0.90), then it indicates that there is multicollinearity. A good regression model is there is no high correlation between independent variables.

Table 2 explains that among the independent variables in this study there is no multicollinearity. It is proved by the value of centered VIF is not more than 10.

### Heteroscedasticity Test

The aims of Heteroscedasticity test is to test whether in the regression model there is ine-

**Table 1.** Descriptive Statistic

	Log_Tobin's Q	NPF	FDR	DER	Geografis
Mean	4.008542	2.530833	82.17083	6.982708	.062500
Medium	2.670000	2.965000	86.16000	6.445000	.000000
Max	11.420000	5.680000	114.04000	16.300000	1.000000
Min	.160000	.030000	42.57000	2.000000	.000000
Std. Dev.	3.063841	1.621063	18.15533	3.906734	.244623
Observations	48	48	48	48	48

**Table 2.** Multicollinearity Test Results

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	3.548556	29.45409	NA
NPF	.060841	4.533980	1.299410
FDR	.000438	25.73110	1.173841
DER	.010110	5.345465	1.254040
GEOGRAPHY	1.024856	6.911623	1.295929

quality variant of residuals or observations to other observations (Ghozali & Ratmono, 2013).

The Table 3 shows there is no heteroscedasticity in the regression model. Prob.Chi-Square is 0.7314 which means that Prob.Chi-Square more than 0.05 indicates that the regression model does not occur heteroscedasticity.

#### Heteroskedasticity Test: Glejser

Based on the Table 3, it can be concluded that the regression model does not occur heteroskedasticity. It is proved by the value of Prob. Chi-Square is larger 0.05 that is 0.7314.

#### Autocorrelation Test

The aims of the autocorrelation test are to test whether in linear regression model there is a correlation between residual errors in  $t$  period with an error in period  $t-1$  (previous). If there is a correlation, then there is called autocorrelation problem. Autocorrelation arises because following observations over time which are related to each other. To detect the existence or the absence

of autocorrelation Durbin Watson test (DW test). Durbin Watson's test is only used for the first-degree autocorrelation and requires intercept in the regression model, and there is no lag variable among independent variables. Durbin-Watson test results can be seen in the Table 4.

Autocorrelation test can be done by using the Durbin-Watson test (DW test). If the value of  $du < d$ ,  $4 - du$ , then in the regression model there is no autocorrelation (Ghozali & Ratmono, 2013). Based on the Table 4, it can be seen that the value of Durbin-Watson (DW test) is 2.151113 with the number  $n = 48$  and the number of variables ( $k$ ) -4, so that  $1.7206 < 2.151113 < 2.2794$ . It can be concluded that there is no autocorrelation in the regression model of this study.

#### Regression Analysis

Based on Table 5, the results of data testing on classical assumption test, it is obtained a regression model that has met the classical assumption test. The following regression test

**Table 3.** Glejser Test Results

F-statistic	.506174	Prob. F(4,43)	.7314
Obs*R-squared	2.158491	Prob. Chi-Square(4)	.7066
Scaled explained SS	2.298725	Prob. Chi-Square(4)	.6810

**Table 4.** Durbin Watson test results

R-squared	.282826	Mean dependent var	-.084255
Adjusted R-squared	.214523	S.D. dependent var	2.388486
S.E. of regression	2.116846	Akaike info criterion	4.438020
Sum squared resid	188.203600	Schwarz criterion	4.634844
Log-likelihood	-99.293460	Hannan-Quinn criteria.	4.512086
F-statistic	4.140792	Durbin-Watson stat	2.151113
Prob(F-statistic)	.006448		



**Table 5.** Regression Test Results

Dependent Variable: LOGTOBIN\_S\_Q

Method: Least Squares

Date: 05/27/18 Time: 10:50

Sample: 1 48

Included observations: 48

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	.775833	.595611	1.302583	.1997
GOEGRAFIS	1.036903	.320087	3.239439	.0023
NPF	-.269778	.077989	-3.459165	.0012
FDR	.126214	.031791	3.970129	.0003
DER	-.007160	.006619	-1.081756	.2854

results using ANCOVA regression model (Analysis of Covariance) obtained equation model as follows:

$$\begin{aligned} \text{Tobin's Q} = & 0.775833 + 1.036903 \\ & \text{GEO} - 0.269778 \text{ NPF} \\ & + 0.126214 \text{ FDR} - \\ & 0.007160 \text{ DER} + \varepsilon \end{aligned}$$

#### Individual Parameter Significance Test (Statistic t-Test)

Hypothesis testing in this research is intended to determine the partial significance of the influence of independent variables on the dependent variable. The test done in this research is by using partial test (t). From the results of the regression test, partially test results obtained as Table 6.

#### F Test (Overall significance test)

F test is used to find out whether all independent variables in the research model have an influence on the dependent variable (Ghozali & Ratmono, 2013). Table 7 is the results of F test.

Based on Table 7 which have been done it can be concluded that simultaneously variables: geographical, NPF, FDR, and DER affect the performance of sharia banking which is proxied by Tobin's Q. it is proved by probability value is 0.000044 less than the level of significance 5% or 0.05 . Therefore, the independent variables in this study affect simultaneously the dependent variable.

#### Coefficient Determination

The coefficient determination is primarily a concise measure that informs us how well

**Table 6.** t-Test Results

Hipotesis		Sig. Hitung	Sig. Alpha
Ha1	Upgr	.0023	< .05
Ha2	Down	.0012	< .05
Ha3	Stab	.0003	< .05
Ha4		.2854	> .05

**Table 7.** F Test Result

R-squared	.437674	Mean dependent var	1.042416
Adjusted R-squared	.385365	S.D. dependent var	.969844
S.E. of regression	.760345	Akaike info criterion	2.388243
Sum squared resid	24.859340	Schwarz criterion	2.583160
Log-likelihood	-52.317830	Hannan-Quinn criteria.	2.461902
F-statistic	8.367025	Durbin-Watson stat	.770487
Prob(F-statistic)	.000044		

**Table 8.** Determination Coefficient Test

R-squared	.437674	Mean dependent var	1.042416
Adjusted R-squared	.385365	S.D. dependent var	.969844
S.E. of regression	.760345	Akaike info criterion	2.388243
Sum squared resid	24.859340	Schwarz criterion	2.583160
Log-likelihood	-52.317830	Hannan-Quinn criteria.	2.461902
F-statistic	8.367025	Durbin-Watson stat	.770487
Prob(F-statistic)	.000044		

a sample regression line corresponds to its data (Gujarati, 2003). Based on Table 8, from the test in this study then obtained, based on the Table below, the adjusted R-squared value is 0.385. This may provide an idea that the ability of independent variables to explain Tobin's Q is 38%. While the remaining 62% is explained by other factors outside which are not contained in the model.

#### **The Geographical Environment and Sharia Banking Performance**

The first hypothesis in this study is geographic location; it has a significant positive effect on sharia banking performance. In this study, sharia banking performance is measured by Tobin's Q. Based on the results of hypothesis testing that has been done shows that the geographical location has a significant positive effect on sharia banking performance.

The results of this study are in line with the theory of location and general theory, where according to the theory of location if the location of a company is in the area of demand concentration or in the center of demand then it will affect the level of higher profits. With higher profits, it will improve the performance. The proxy of the terrestrial environment variables uses dummy variables, which have 1 value if sharia banking is on the Asian continent and 0 value if sharia banking is not in the Asian continent. Based on the results of the tests done, where the geographical variables have significant influence with the direction of the positive coefficient, based on location theory where the area that has the concentration of demand, the profits that will be gain is higher.

Based on the existing data where the Asian continent is the region with the highest level of assets of sharia banks compared to other continents. In addition, the Asian continent with the background of the country with the majority of the community is Muslim, and the regulations applied in the country on average using Islamic rules, the demand for Islamic-based banking is much in demand in Asia.

Meanwhile, according to the general theory of economic growth, a country will be higher when the growth of investors in the country is also high. Investors will invest in a country by considering several factors, one of them is about the state of the country's geographic environment, where the geographical environment is not only related to the country's climate which will affect the production level of a company but also the geographical environment including the diversity of religions, culture, as well as the regulations applied in the country. Where it can affect the risk factors that will be received by the investors. Capital growth in a country is also influenced by the performance of financial institutions, where the better the performance of financial institutions in the country then the investor's confidence will be higher and will be able to encourage capital growth.

The results of this study are in line with research by Jawadi et al. (2017) which states that the geographical location has a positive and significant impact on sharia banking performance. However, this study is not in line with the results of Bashir's research (2003) which states that geographical location has no effect on sharia banking performance.

#### **Non-Performing Financing (NPF) and Sharia Banking Performance**

The second hypothesis in this study is Non-Performing Financing (NPF) against sharia banking performance. Based on the result of hypothesis testing that has been done shows that Non-Performing Financing (NPF) has a significant adverse effect. It shows that the size of Non-Performing Financing (NPF) will affect the sharia banking performance. The results of this study are in line with Sharia Enterprise Theory where the actual funds in the bank is a trust from God and must be appropriately managed. Therefore, as immediacy between people with surplus funds and deficits, the financing channeled by sharia banks should be appropriate and consider the

possibility of uncollectible financing. The type or scheme of financing needs to be a consideration of the bank so that the financing is not problems which can hurt the fund owner because the problematic financing measured by the ratio of Non-Performing Financing (NPF) affect the level of sharia banking performance.

In addition, not only is in line with the sharia enterprise theory, but the results of this study are also in line with the signaling theory in which states that the information released by the company is a description or description of the prospects of the company in the future. Information issued by the company and a signal for stakeholders outside the company is the financial statements. Where in the company's financial statements provide information through the company's financial position.

In general, when the company's bad debts tend to be large, then it is a wrong signal for the company because it means that the company's capital is less because some substantial corporate funds stuck in bad credit. The negative relationship between NPF and sharia banking performance banking due to the decline in economic growth makes debtors are able in to pay credit debt is inhibited. The increase of NPF of banks causes banks to reduce lending so that the impact on the profitability of banks that will affect the performance of banks. High levels of bad debt have signaled that sharia banking performance is not good, because high levels of bad debts mean the bank is not healthy.

The results of this study are in line with the results of the research by Dewi and Prasetyono (2010); Bachri et al. (2013); Nahar and Prawoto (2017) stating that the NPF affect sharia banking performance. However, the research results are not in line with Simatupang et al. (2016); Lemiyana and Litriani (2016) stating that the NPF does not affect sharia banking performance.

### **Financing to Deposit Ratio (FDR) and Sharia Banking Performance.**

The third hypothesis in this research is Financing to Deposit Ratio (FDR) has a positive effect on sharia banking performance. Based on the results of hypothesis testing shows that Financing to Deposit Ratio (FDR) has a positive and significant effect on sharia banking performance. It indicates that the size of the Financing to Deposit Ratio (FDR) will affect sharia banking performance. The results of this study are in line with the signaling theory in which states that the information released by the company is a description or information about the prospects of the

company in the future. Information issued by the company and a signal for stakeholders outside the company is financial statements. Where in financial statements of the company provide information through the company's financial position.

The FDR ratio illustrates the level of bank liquidity when the level of bank liquidity is high, it means that the bank is able to repay the withdrawal of funds by the depositor by relying on the financing that has been granted as liquidation. In running out its intermediary function, it is necessary for the bank to pay attention to the availability of funds, where the availability of funds is used if the depositors will make a withdrawal of funds at any time so that sharia bank can meet the demand of depositors when taking funds. Besides being in line with signaling theory, the results of this research are also in line with Sharia Enterprise Theory where actually the funds that available in the bank is a trust from Allah and must be adequately managed. Therefore, as an *immediacy* between the people who have the funds, the financing channeled by the sharia bank must be appropriate and consider the level of risk inherent in it. So that it is not to harm to the third party.

The results of this study are in line with the results of research conducted by Sabir et al. (2012), Simatupang et al. (2016) and Nahar and Prawoto (2017) which shows that the Financing to Deposit Ratio (FDR) has a significant effect on sharia banking performance. However, this study is not in line with the results of research by Suryani (2011) and Lemiyana and Litriani (2016).

### **Debt to Equity Ratio (DER) and Sharia Banking Performance**

The fourth hypothesis in this research is the Debt to Equity Ratio (DER) has an adverse and significant effect on sharia banking performance. Based on the results of hypothesis testing performed shows that DER has an insignificant positive effect on sharia banking performance. This shows that the size of DER does not affect sharia banking performance. The results of this study are not in line with the pecking order theory which states that companies with high levels of profitability have low debt, because companies with high profitability will have an abundant internal funding source. Conversely, Nugraha (2013) states that debt can improve sharia bank performance. When the company's debt increases, the debt interest is borne by the company will also increase.

On the other hand, it results in a decrease in taxes borne by the company. The absence of

DER influence on sharia bank performance because the bank as bank intermediation which obtains funds and channel funds to the public then automatically the value of the bank's debt is substantial. However, gaining profit sharing by using third-party funds which are *noninterest best* cause the bank to gain profit. So the bank still can pay its debt in managing third-party funds which are *noninterest best* optimally.

In addition, the rules of sharia banks in the use of debt for operational banking activities have certain restrictions; this is related to the principles of sharia which became the guidance in banking operations. Where the higher the debt used, the higher interest will be borne, in sharia principle interest is forbidden so that the use of debt in the proportion of sharia banking financing is minimized. Since sharia banking ideally minimizes interest-based debt, then sharia banking performance is more determined by its own capital or third-party fund management which is noninterest best.

The results of this study are in line with the research by Najoan (2016) which states that the debt to equity ratio (DER) has no effect on performance. However, the results of this study are not in line with Sukarno and Syaicu (2016) and Ramdhan et al. (2016) which shows that DER affects sharia banking performance.

## CONCLUSION AND RECOMMENDATION

The geographic regression coefficient is 1.036903 with probability is 0.0023, it means that geographic variable has a significant effect on sharia bank performance with positive direction. The coefficient value is interpreted that sharia banks operating in the Asian continent have good performance compared to other sample regions (Africa, America, and Europe). In other words, sharia banking performance located in Asian continent is better than the other continents that are 1.036903 or the average of sharia banking performance in Asian continent is 1.812136 (0.775233 + 1.036903). It means that if sharia banking is in the Asian region, then its performance will be better.

NPF regression coefficient is -0.269778 with probability is 0.0012 it means that NPF has a significant effect on performance with negative direction. This value indicates that when NPF decreased by -0.269778 then the banking performance will increase by 0.269778.

FDR regression coefficient is 0.026959 with probability is 0.0150, it indicates that FDR has a significant effect on performance with positive direction, this value indicates that when FDR

increase by 0.026959 then banking performance will increase by 0.026959.

DER regression coefficient is -0.007160 with probability is 0.2854, this means that the DER variable does not affect the performance with significance level is 5%. So DER that occurs in sharia banking will not affect sharia banking performance, or in other words, the increase in DER will not cause a decrease in sharia banking performance. Sharia banking is more determined by own capital or third party funding management which is non interest best.

The results of this study are in line with the research by Najoan (2016) which states that the debt to equity ratio (DER) has no effect on performance. However, the results of this study are not in line with Sukarno and Syaicu (2016) and Ramdhan et al. (2016) which shows that DER affects sharia banking performance.

## REFERENCES

- Agustina, C & Ardiansari, A. 2015. Pengaruh Faktor Ekonomi Makro dan Kinerja Keuangan terhadap Nilai Perusahaan. *Management Analysis Journal*. 4(1): 10-21.
- Bashir, A. H. M. 2003. Determinants of Profitability in Islamic Banks: Some Evidence From The Middle East.
- Barnett, W & Jawadi, F. 2013. Recent Developments in Alternative Finance: Empirical Assessments and Economic Implications. *Monograph Series: International Symposia in Economic Theory and Econometrics*. 22.
- Causse, G. 2012. Islamic Finance: An Alternative or an Antidote to the Crisis of Capitalism? In Recent Developments in Alternative Finance: Empirical Assessments and Economic Implications. *International Symposia in Economic Theory and Econometrics*. 22: 173-196.
- Dewi, D. R & Prasentiono, P. 2011. Faktor-Faktor yang Mempengaruhi Profitabilitas Bank Syariah di Indonesia. *Doctoral dissertation*. Universitas Diponegoro.
- Ghozali, I & Ratmono, D. 2013. *Aplikasi Analisis Multivariate dengan Program IBM SPSS 19*. Semarang: Badan Penerbit Universitas Diponegoro.
- Gujarati, D. N & Porter, D. C. 2010. *Dasar-Dasar Ekonometrika*. Jakarta: Salemba Empat.
- Hassan, M & Coyle, D. 2008. Better banks. *New Statesman*. 137: 28-31.
- Jawadi, F., Jawadi, N., Idi, A., Ben, H & Louhichi, W. 2017. Modeling the Effect of the Geographical Environment on Islamic Banking Performance: a Panel Quantile Regression Analysis. *Economic Modelling Journal*. 67: 300-306.
- Kasmir. 2008. *Analisis Laporan Keuangan*. Jakarta: PT Rajagrafindo Persada.
- Lemiyana, L. L & Litriani, E. E. 2016. Pengaruh NPF, FDR, BOPO terhadap Return on Asset (RoA)

- pada Bank Umum Syariah. *I-Economics: a Research Journal on Islamic Economics*. 2(1): 31-49.
- Nahar, F. H & Prawoto, N. 2017. Bank's Profitability in Indonesia: Case Study of Islamic Banks Period 2008-2012. *Jurnal Ekonomi & Studi Pembangunan*. 18(2).
- Najoan, H. 2016. Analisis Kinerja Perbankan Ditinjau dari Aspek Profitabilitas dan Efisiensi (Studi Kasus pada Bank yang Terdaftar di Bursa Efek Indonesia Periode 2012- 2014). *Jurnal Riset Bisnis dan Manajemen*. 4(3): 407-420.
- Maftukhah, I. 2013. Kepemilikan Manajerial, Kepemilikan Institusional dan Kinerja Keuangan sebagai Penentu Struktur Modal Perusahaan. *Jurnal Dinamika Manajemen*. 4(1): 69-81.
- Muliawati, S & Khoruddin, M. 2015. Faktor-faktor Penentu Profitabilitas Bank Syariah di Indonesia. *Management Analysis Journal*. 4(1): 39-49.
- Peraturan OJK Nomor 64/POJK.03/2016 tentang Perubahan Kegiatan Usaha Bank Konvensional Menjadi Bank Syariah.
- Pratiwi, D. D & Mahfud, M. K. 2012. Pengaruh CAR, BOPO, NPF dan FDR terhadap Return on Asset (RoA) Bank Umum Syariah (Studi Kasus pada Bank Umum Syariah di Indonesia Tahun 2005-2010). *Doctoral Dissertation*. Fakultas Ekonomi dan Bisnis.
- Presetyowati, F. D & Khoiruddin, M. 2017. Pengaruh Struktur Kepemilikan, Struktur Pendapatan, Struktur Deposito terhadap Insolvency Risk Bank Syariah Fitriana. *Management Analysis Journal*. 6(2).
- Ratnaputri, W. 2013. The Analysis of Islamic Bank Financial Performance by Using Camel and Shariah Conformity and Profitability (SCNP). *Jurnal Dinamika Manajemen*. 4(2): 215-226.
- Sabir, M., Ali, M & Habbe, A. H. 2012. Pengaruh Rasio Kesehatan Bank terhadap Kinerja Keuangan Bank Umum Syariah dan Bank Konvensional di Indonesia. *Jurnal Analisis*. 1(1): 79-86.
- Safitri, A. L. 2013. Pengaruh Earning per Share, Price Earning Ratio, Return on Asset, Debt to Equity Ratio dan Market Value Added. *Management Analysis Journal*. 2(2): 1-8.
- Shanty, F & Khoirudin, M. 2017. Mapping Industry as the Strategy for Enhancing Competitiveness of Industry in Semarang Regency. *Advanced Science Letters*. 23(8): 7131-7134.
- Simatupang, A & Franzlay, D. 2016. Capital Adequacy Ratio(CAR), Non Performing Financing (NPF), Efisiensi Operasional (BOPO) dan Financing to Deposit Ratio (FDR) terhadap Profitabilitas Bank Umum Syariah di Indonesia. *Jurnal Administrasi Kantor*. 4(2): 466-485.
- Siraj, K. K & Pillai, P. S. 2012. Comparative Study on Performance of Islamic Banks and Conventional Banks in GCC Region. *Journal of Applied Finance and Banking*. 2(3): 123.
- Siswati. 2013. Analisis Penyaluran Dana Bank Syariah. *Jurnal Dinamika Manajemen*. 4(1): 82-92.
- Sudiyatno, B & Puspitasari, E. 2010. Tobin's Q dan Altman Z-Score sebagai Indikator Pengukuran Kinerja Perusahaan. *Kajian Akuntansi*. 2(1): 9-21.
- Sugiyono. 2009. *Metode Penelitian Kuantitatif, Kualitatif, dan RD*. Bandung: Alfabeta.
- Sukarno, K. W & Syaichu, M. 2006. Analisis Faktor-faktor yang Mempengaruhi Kinerja Bank Umum di Indonesia. *Jurnal Studi Manajemen & Organisasi*. 3(2): 46-58.
- Suryani. 2011. Analisis Pengaruh Financing to Deposit Ratio (FDR) terhadap Profitabilitas Perbankan Syariah di Indonesia. *Jurnal Walisongo*. 19(1): 47-74.
- Thünen, J. H. V. 1826. *Der isolierte Staat in Beziehung auf Nationalökonomie und Landwirtschaft*. Gustav Fischer. Stuttgart (reprinted 1966).
- Ubaidillah. 2016. Analisis Faktor-faktor yang Mempengaruhi Profitabilitas Bank Syariah di Indonesia. *Jurnal Ekonomi Islam*. 4(1).
- Utama, C. 2006. Mengukur Tingkat Kesehatan Bank di Indonesia. *Bina Ekonomi*. 10(1): 49.
- Yulianto, A., Suseno, D. A & Widiyanto, W. 2016. Testing Pecking Order Theory and Trade Off Theory Models in Public Companies in Indonesia. *International Journal of Economic Perspectives*. 10(4): 21-28.
- Yuwono, F. A & Meiranto, W. 2012. Analisis Pengaruh Dana Pihak Ketiga, Loan To Deposit Ratio, Capital Adequacy Ratio, Non Performing Loan, Return on Assets dan Sertifikat Bank Indonesia terhadap Jumlah Penyaluran Kredit (Studi Empiris: Bank yang terdaftar di BEI). *Doctoral Dissertation*. Fakultas Ekonomi dan Bisnis.
- Zantioti, L. E. 2009. Does Islamic Bank Performance Differ by Region. *Unpublished Master's Thesis*. Stockholm School of Economics, Sweden.