Determinants of Micro, Small and Medium Enterprise (MSME) Financing and Its Implications for Sharia Banking Profitability

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Abstract: *Development of Micro, small and medium enterprises (MSME) in Indonesia has increased yearly, but this is not followed by SMEs financing in shariah banking, which the proportion is relatively decreasing in a couple years. This study aims to analyze the influence of the Deposit or third party fund to MSME financing and also to analyze the implication of MSME Financing to Shariah banks profitability . This study uses a Vector Error Correction Model (VECM) to see the long term effect and response to shock that occur in the studied variables. The result shows that in the short run and the long run CAR has negative and significant effect to MSME Financing. DPK, NPF, BOPO dan FDR has positive significant to MSME financing in the long term. DPK, CAR, NPF has positive significant to Shariah Banks Profitability in the long term. BOPO and NPF has positive significant in the short run. Shock to CAR are negatively responded by MSME financing. Shock to MSME Financing are negatively responded by Shariah Banks Profitability (ROA) and will stable in a long term.*
Keywords: Shariah banking, MSME Financing, profitability,VECM

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I. Introduction

Sharia Bank has a very important role for economic growth in general, because Islamic banks are included into financial institutions providing financial services for local communities and entrepreneurs (Karim, 2012). Islamic banking is experiencing good growth. This is shown by sharia banking assets that have increased. This increase occurred over the last six years. Based on Sharia Banking Statistics, sharia banking assets in 2011 amounted to Rp. 148.9 trillion increased to Rp.356.5 trillion in 2016 per December or an average of 41.76% per annum. This amount is dominated by assets of Sharia Commercial Bank (BUS) and Sharia Business Unit (UUS) account of Rp 312.04 trillion and Sharia Rural Bank (BPRS) of Rp 44.1 trillion. This asset growth is relatively higher than the growth of conventional commercial bank assets (BUK) which in 2011 only reached Rp 340.7 trillion, growing to Rp 672.09 trillion or an average of 27.64% in 2016.

The high growth of these assets can not be separated from the high growth of Third Party Funds (DPK). Sharia banking deposits reached Rp 285.13 trillion as of December 2016. This amount is dominated by BUS and UUS DPK of Rp 279.33 trillion and an SRB of Rp 5.8 trillion, doubled from Rp 111.8 trillion . DPK is derived from the collection of Islamic banking funds. Sharia bank fund collection products include, deposit products, savings, and current accounts. In December 2016, demand deposits reached Rp 27.97 trillion, savings accounts reached Rp 85.2 trillion, and time deposits reached Rp 166.17 trillion. The growth of Islamic banking funds is also inseparable from the development of sharia banking office network from BUS, UUS and BPRS. In 2011 there were 11 BUS, 24 UUS, 155 BPRS. Then in 2016 there are 13 BUS, 21 UUS, and 166 BPRS. This growth is also shown by an increase in the number of accounts. In 2011, there were 93,736 accounts, savings accounts totaling 7,869,475 accounts, deposit products amounting to 224,217 accounts and financing products totaling 1,399,330 accounts. Then increased in December 2016, current accounts became 219,538 accounts, savings to 18,543,305 accounts, deposits rose to 274,578 accounts. While the financing account increased 20-25% per year.

According to Syariah Banking Statistics, the growth of MSMEs in Islamic banks initially has a pretty good improvement in 2011-2013 compared to the growth of SMEs in BUK. UMKM financing grew about 20% per year, since 2011 amounting to Rp 71,810 billion and began to decline in 2014 and 2016 to Rp 54,531 billion. While the growth of SMEs in BUK is about 22% per year, from 2011 amounting to Rp 458,164 billion to Rp 802,113 in 2016. The data shows that the growth of UMKM BUS is relatively lower than BUK for the last three years.

Financing of Sharia Commercial Banks that are channeled to the MSME sector has decreased. We can see how the growth of MSMEs in BUK is relatively better in the last three years, this can be caused by the public business credit programs that are being encouraged. There are several factors that influence the channeling of funds, namely Third Party Funds (DPK), SWBI, and Financing Problems (NPF), (Siswati, 2013).

This gives an indication of the relationship between asset growth, third party funds on channeling funds for MSMEs. The growth of MSMEs encourages the growth of assets, deposits, and financing in determining the distribution of funds for MSMEs. The potential of MSMEs that tend to be large is estimated to remain one of the attractiveness of sharia banking.

Thus, the growth of MSMEs can be influenced by several factors. MSME financing is certainly associated with DPK as a source pembiyaan. Increased DPK will increase the amount of funds to be channeled to MSMEs. According Sudarsono (2007: 56-61), the development of the number of DPK comes from the source of funds of Al-wadiah, Mudharabah, Mudharabah Mutlaqah or Mudharabah Muqayyadah. DPK is the main raw material for financing, so it is related to bank liquidity.

Another factor that is also suspected to have an effect on financing is Non Performing Financing (NPF). NPF is a ratio that describes the amount of nonperforming financing to the total financing provided. Andraeny (2011) mentioned that the increase of NPF will affect the increase of Allowance for Earning Assets Loss (PPAP), and this will reduce the bank's capital, thus affecting the bank's ability to distribute financing. In another study conducted by Meydianawathi (2007), stated that Non-Prforming Loans (NPLs) in conventional banks have no effect on MSME credit. High NPLs, will result in the bank can not grow. If the NPLs are low, the bank will be easier to grow. It is also revealed by Ghaffar (2010) that the rise and fall of NPF is an important indicator to know the effectiveness of BMT in an effort to increase financing of SMEs.

Capital Adequacy Ratio (CAR) factor is also suspected to affect the allocation of MSMEs financing. The CAR will show sufficient capital for the bank to disburse its financing. If the capital owned by the bank is sufficient then the bank will be easier to channel its financing. This ratio becomes very important, because the capital adequacy of the bank serves to smooth bank operations, especially in the process of financing MSMEs.

The FDR factor (Financing to Deposit Ratio) is a determinant of financing. According to Kashmir (2004), FDR can be measured from the ratio between the total amount of financing provided to third party funds. The amount of financing disbursed will determine the profitability of sharia banks. If the sharia bank is not able to distribute the financing, while the funds collected will cause a lot of losses for Islamic banks. The higher the FDR, the profit of sharia banks is increasing (assuming that sharia banks are able to channel financing effectively, so that the number of problematic financing will be small).

Return on Assets (ROA) is a factor for banking behavior in making MSMEs financing decisions. ROA shows the level of profitability of a bank. ROA describes how much the bank profits from the total assets of the entire bank. ROA is used by comparing earnings after tax to total assets. This factor will show how the operational efficiency of a bank to earn a profit from each dollar on assets owned (Endri, 2012). Good ROA will support the growth of bank financing in the next period. Based on research Giannini (2013) ROA has a significant positive effect on mudharabah financing. Thus ROA can be expected to have a positive effect on mudharabah financing, because the higher the ROA, the higher the profits will be obtained by the bank, so the higher the funds can be disbursed in the form of financing.

Return On Assets (ROA) focuses the company's ability to earn earnings in the company's operations by utilizing its assets. So in this study ROA is used as a measure of banking performance. The bank's main operational objective is to achieve maximum profitability. ROA is important for banks because ROA is used to measure the company's effectiveness in generating profits by utilizing its assets. Profitability is a bank's ability to generate or earn profits effectively and efficiently. The reason Profitability used is ROA because the author uses Accounting Based approach where ROA can take into account the ability of bank management in managing assets owned to generate income. The greater the ROA of a bank, the greater the level of profit achieved by the bank and the better the bank's position in terms of asset use (Dendawijaya, 2009: 118). Financing MSME become one of the profit contributors of sharia banks, This is what makes the writer interested to find out how much influence SME financing on profitability ROA.

Allegations of some of the above variables are also shown by previous researchers. Among Purwanto (2016) in his research using Capital Adequacy Ratio (CAR), Return on Asset (ROA), Non Performing Financing (NPF), Financing to Deposit Ratio (ODR) and OEOI. The results of the analysis states that the significant effect is the average interest rates on loans and third party funding factors. Another study conducted by Meydianawathi (2007) stating that DPK, CAR, and ROA have a positive effect on MSMEs offering credits, while MSME NPLs have a negative and significant effect on investment credit and working capital of conventional banks to this sector.

II. Theoritical Review

Financing

One of the activities of sharia banks is to channel customer funds to financing with the principle of prudence. Financing is the main activity of sharia banks, which use certain contract mechanism (Muhammad, 2005). Financing for investment and working capital with the aim of expediting economic mechanisms in the real sector through business (investment, buying and selling etc). One type of financing practiced by sharia

banks is financing with musyarakah contracts, this contract can be applied for financing with MSME actors. Thus, financing or financing is a funding provided by a party to other parties to support planned investments, either alone or institution. In other words, financing is funding issued to support planned investments (Muhammad, 2005).

Profitability of the Bank

According to Endri (2012), profitability is the basis of the linkage between operational efficiency with the quality of services produced by a bank. Profitability as the basis of the existence of the relationship between operational efficiency with the quality of services produced by a bank. Profitability is a specific measure of the performance of a bank, which is the goal of corporate management by maximizing shareholder value, optimizing returns, and minimizing risks (Hasan and Bashir, 2003). According to Endri (2012), profitability ratio is the ratio used to measure the effectiveness of the overall management of the company, which is shown by the amount of profits obtained by the company. Profitability ratio is considered as the most valid tool in measuring the results of the implementation of the company's operations, because the ratio of profitability is a comparison tool on various investment alternatives in accordance with the level of risk. The greater the risk of investment, expected profitability obtained higher also.

The purpose of profitability analysis of a bank is to measure the level of business efficiency and profitability achieved by the bank concerned (Kuncoro, 2002). The company's financial performance from the management side, expecting a net profit before taxes called earnings before tax (EBT) is high because the higher the company's earnings more flexible company in running the company's operational activities. So the company's EBT will increase if the company's financial performance increases. Profit before tax is net income from pre-tax operating activities. While the average total assets is the average volume of business or assets (Dendawijaya, 2009).

Third Party Fund (DPK)

Third Party Funds (DPK) are funds deposited by the public to banks in the form of demand deposits, savings deposits and time deposits (Bank Indonesia, 2006). On the other hand DPK for the bank itself is a source of funds to be disbursed in financing activities, placements with other banks, and others. DPK is a source of funds for financing, so it is strongly suspected to affect the financing of MSME.

Non Performing Financing (NPF)

NPF is the credit repayment rate given by depositors to the bank in other words NPF is the level of bad debts in the bank. NPF is known by calculating Non-Current financing to Total Financing. If the lower the NPF then the bank will be more profitable, on the contrary if the high NPF level of the bank will suffer losses due to the return of bad credit. (Margaretha, 2007)

Capital Adequecy Ratio (CAR)

CAR is a ratio that takes into account how much the amount of bank assets that contain elements of risk (credit, inclusion, securities, bills to other banks). CAR can be seen from the capital itself and also obtained from sources of funds outside the bank. Adequate or large bank capital becomes very important because bank capital can serve to facilitate the operation of a bank. The level of capital adequacy in the banking company is represented on the CAR ratio.

Return on Assets (ROA)

Profitability is the most important indicator to measure the performance of a bank. ROA is one of the valuation methods used to measure the level of profitability of a bank, namely the level of profit achieved by a bank with all funds in the bank. The greater the ROA, the greater the level of profit that the bank achieves.

Financing To Deposit Ratio (FDR)

The success of banks in performing the intermediary function can be seen from the percentage of the loan to deposit ratio (LDR), in other terms financing is the total financing managed by Islamic banks (in the form of mudharabah, musyarakah, receivables and ijara) total deposit is the sum of DPK demand deposits, savings and time deposits).

Operational Cost of Operating Income (BOPO)

BOPO according to the financial dictionary is a ratio group that measures the efficiency and operational effectiveness of a company with a path comparing one against another. Various income and expense figures from profit and loss statements and against figures in the balance sheet. The ratio of operational costs is the ratio between operating costs and operating income. The operational cost ratio is used to measure the

efficiency and capacity of the tub in conducting operations (Dendawijaya.2009). The lower BOPO means the more efficient the bank is in controlling its operational costs, with the efficiency of the cost of the profits obtained by the bank will be greater.

III. Research methods

Types of research

This research is descriptive quantitative research because it involves quantitative calculation and literature study. This methodology was chosen because the data in the study requires quantitative calculations. Descriptive because it explains the effect of information on DPK, CAR, NPF, BOPO and FDR of sharia banks towards MSME financing. Then how the influence factors of DPK, CAR, NPF, BOPO, and FDR and financing MSMEs Against ROA Profitability.

Source and Data Types

This research will use secondary data coherent time (time series). This data will use monthly report from January 2011 to December 2016 period. This report is officially published by Bank Indonesia and the Financial Services Authority (OJK) through Sharia Banking Statistics. The research methodology uses quantitative method, and the analytical tool used in this research is econometric method through Vector Autoregression model (VAR) if the data is stationary and not cointegrated, then continued with Vector Error Correction Model (VECM) method if the data is stationary and cointegrated. Data used in this research is monthly time series data from year 2011-2016. This method can also analyze the relationship between independent variables namely DPK, CAR, NPF, BOPO and FDR, with the dependent variable of SME and ROA financing.

Methods and Techniques of Data Collection

Data collection methods used by the author is to search data in Bank Indonesia and record all data that is considered relevant to the topic of this thesis. However, as additional and complementary, the author also conducts library research, among others, university libraries and BPS. It aims to obtain other references related to the research topic. All necessary data can also be accessed through the official websites of Bank Indonesia, and OJK

Technique of collecting data that is doing direct record in accordance with data used. The Time Series of the study from 2011-2016 uses the monthly statistical report with the period from January to December 2016 published by Bank Indonesia. This is related to the availability of banks in publishing financial statement data. The author needs some financial ratio data and other data which is variable in this research. From the data obtained, then will be processed in accordance with the model used is VAR VECM.

Variables and Operational Definition

In this study there are five variables that are grouped into two parts namely dependent variable (independent variable) and independent variable (independent variable). Dependent variable (Y) in this research is the financing of MSME that channeled syariah banking. While independent variable (X) is DPK (X1), CAR (X2), NPF (X3), FDR (X4), BOPO (X5), and ROA (Y2)

Model Vector Autoregression (VAR)

The Vector Autoregression Model (VAR) was first proposed by Sims in 1980 which assumes that all variables in the model are endogenous (defined in the model) so that this method is called a theoretical model (not theory-based). VAR model is one dynamic model (MLD) that is widely used for the application of economic variables forecasting in the long term and in the medium to long term, in addition VAR is also used to determine the cause and effect relationship. According to Widarjono (2007: 371), the VAR model is a non-theoretical model of time-based econometric model. Meanwhile, according to Ascarya (2009: 2), the VAR method is a non-structural approach (opposed to structural approach, as in simultaneous equations) which describes the causal relationship between variables in the system.

IV. Results and Discussion

Test Results of Stationaryity of Data

In the first phase of this study is the station data test, in this study is unit root test (Unit Root Test), Augmented Dickey-Fuller (ADF) test with 5% real level, then the data can be said to have 95% confidence interval and declared is stationary because the result does not contain the root of the unit. In this research is done from level level until level 1st difference which result can be seen in table below:

Table 1 Root Test Results Unit (Unit Root)

Variable	Level	Note	1st Difference	Note
LN_ MSME	0.5892	Not Stationary	0.0000	Stationary
LN_DPK	0.4177	Not Stationary	0.0000	Stationary
ROA	0.0568	Stationary	0.0000	Stationary
NPF	0.5528	Not Stationary	0.0001	Stationary
BOPO	0.0000	Stationary	0.0000	Stationary
CAR	0.0000	Stationary	0.0000	Stationary
FDR	0.3632	Not Stationary	0.0000	S Stationary

Based on the unit root test result table 1 can be stated that the stationary variable value there are only three variables at the level level. While at First Difference level the stationary variable is LN_DPK, LN_ MSME, BOPO, ROA, NPF, CAR, and FDR. If the data tested data stationary at the level level, then the method used is VAR. If the tested data is not stationary at the level level but stationary at the difference level, then the method used is VECM. From the test results in the above table shows the stationary data on the level of the difference more than the stationary at the level level, then this study using the VECM method.

Cointegration Test

The cointegritation test is performed when the data has stationed at the 1st Difference level, to determine the possibility of cointegration between variables. During the testing process, the data used must be changed first into the data level (Ascarya, 2009). Determination of the number of cointegration between variables can be known in accordance with the tarce method that can be seen from the value of trace statistics. The statistical trace value exceeding its critical value indicates that there is cointegration in the model used (Arsana, 2004). The following cointegration test results:

Table 2 Cointegration Test Results

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.603961	1.908.191	1.505.585	0.0000
At most 1 *	0.527807	1.269.083	1.177.082	0.0115
At most 2	0.310956	7.513.285	8.880.380	0.3195
At most 3	0.262856	4.943.378	6.387.610	0.4393
At most 4	0.191909	2.839.075	4.291.525	0.5986
At most 5	0.117607	1.368.816	2.587.211	0.6832
At most 6	0.070642	5.055.057	1.251.798	0.5885

Note: The asset (*) indicates the number of cointegrations between variables.

Based on the results of cointegration test between variables, it can be stated that there is cointegration between variables studied. Thus, the research will be continued using Vector Error Correction Model (VECM) model. From the above results also shows short-term relationship, but also has a long-term relationship

VAR Stability Test

The result of stability test in table 3 shows that the model of MSME Financing equation is stable on lag to one. This can be seen from the modulus value which is entirely smaller than one (<1).

Table 3 VAR Stability Test

Model	Modulus	Max Lag
D(LN_ MSME) D(NPF) D(FDR) D(BOPO) D(LN_DPK) D(CAR) D(ROA)	0.249621-0.977734	1

Based on the results of VAR stability test in table 3 above is in the range of 0.249621-0.977734, it can be concluded that the VAR estimation will be used for IRF analysis and

Optimum Lag Test Results

The test results in table 4 shows that the optimum lag test results on the optimal model of MSME financing equation in lag one. This is indicated by almost all of the tests. The tests include LR (sequential modified LR test statistic), FPE (Final prediction error), AIC (Scholar information criterion), SC (Schwarz information criterion), and the last HQ test (Hannan -Quin information criterion).

Table 4 Optimum Lag Test Results

Lag	LogL0	LR	FPE	AIC	SC	HQ
0	-6.095.621	NA	0.550154*	1.926.757	19.50369*	19.36059*
1	-5.655.183	77.07671*	0.648241	1.942.245	2.131.147	2.016.663
2	-5.303.968	5.377.979	1.054.590	1.985.615	2.339.807	2.125.149
3	-4.804.302	6.558.115	1.179.449	1.982.594	2.502.076	2.187.244
4	-4.290.458	5.620.163	1.467.122	1.975.143	2.659.914	2.244.909
5	-3.677.172	5.366.251	1.710.497	1.936.616	2.786.677	2.271.498
6	-2.683.356	6.521.917	0.921727	1.779.174	2.794.524	2.179.171
7	-1.475.243	5.285.495	0.562696	15.54764*	2.735.403	2.019.877

Analysis of Vector Error Correction Model (VECM) on MSMEs

The first VECM model had cointegration at a real 5% level, the study continued with VECM to see the effect of long-term and short-term variables. A variable is said to be significant in influencing other variables if the t-statistic value of that variable is greater than t-table at 5% real level that is 1.96 (t-statistic> 1,96). Here are the VECM estimates of the model:

Table 5 Long Term VECM Estimation Results

Long Term		
Variable	Coefficient	T-Statistics
NPF(-1)	1.182.327	**5.75195**
FDR(-1)	0.110469	**3.26763**
BOPO(-1)	0.001724	**8.25499**
LN_DPK(-1)	-1.892.769	**-2.78533**
CAR(-1)	-0.331573	-1.94017
ROA(-1)	1.009.430	**3.09359**

Table 5 shows the VECM estimates that have long-term effects. The existence of long-term cointegration is indicated by the value of contEq1 is positive and significant, while the number in bold shows significant variables. In the long run, NPF, FDR, BOPO, DPK and ROA variables are significant, while CAR variables do not have a significant long-term effect on MSME financing.

Table 6 Short-term estimates

Variablr	Coefficient	T-Statistics
CointEq1	0.008293	0.91632
D(LN_UMKM(-1))	-0.186035	-1.49150
D(NPF(-1))	-0.065271	-1.63717
D(FDR(-1))	0.012624	**2.96110**
D(BOPO(-1))	-6.85E-06	-0,64991
D(LN_DPK(-1))	0.241298	0.83856
D(CAR(-1))	0.000499	0.05730
D(ROA(-1))	0.002992	0.09426
C	-0.003185	-0,2861

Based on Table 6 the VECM estimates above can be seen that in the short term only the FDR variable has an effect, because the F statistical value of the FDR variable is greater than 1.96. For other variables it has no effect because the t-statistic variable is smaller than 1.96. The table above shows that the relationship between DPK and MSME financing has a long-term impact but in the short term does not have a significant effect. It can be seen from the t statistic <t table is 0.83856 <1.96 for the short term and -2.78533> 1.96 for the long term. Thus H1 in this study which states that the suspected influence of DPK on financing MSME accepted and H0 stating that allegedly no influence of DPK on financing MSME rejected.

The next relationship is the relationship between BOPO on MSME financing which has the difference between long-term and short-term results. In the short term BOPO does not have a significant effect on MSME financing and the two have different relationships. The statistic t <t table is -0.64991 <1.96. Thus for the short term H2 in this study which states that the suspected influence of BOPO on MSME financing is rejected, whereas H0 stating that allegedly no influence of BOPO on financing MSME accepted. For the long term, the relationship between BOPO and MSME financing has a significant influence that is 8.25499> 1.96. Thus for the long term H2 in this study which states that the suspected influence of BOPO on financing MSME accepted, whereas H0 stating that allegedly no effect of the MSME financing is rejected.

The third relationship is the relationship between NPF and MSME financing has a difference between long-term results and short-term. In the short term, the relationship between NPF and MSME financing has no significant effect and this can be seen from the statistic t <t table ie -1.63717 <1.96. Thus for the short term H3 in this study which states that the suspected influence of NPF on MSME financing is rejected, while H0 stating

that allegedly no influence of NPF on financing MSME accepted. In contrast to the long term it is known that there is a significant influence between NPF and MSME financing and has a positive relationship, it can be seen from the value t statistic> t table that is 5.75195> 1.96. Thus for the long term H3 in this study which states that the suspected influence of NPF on financing MSME accepted, whereas H0 stating that allegedly no influence of NPF on financing MSME rejected.

The fourth relationship is the relationship between FDR and MSME financing has the similarity between long-term and short-term results. In the short term, the relationship between FDR and MSME financing has no significant effect and this can be seen from the statistic t <t table ie 2.96110> 1.96. Thus for the short term H4 in this study which states that the suspected influence of FDR on financing MSME accepted, whereas H0 stating that allegedly no influence of FDR on financing MSME rejected. Likewise for the long term it is known that there is a significant influence between FDR with MSME financing and has a positive relationship, it can be seen from the t value t statistic> t table is 3.26763> 1.96. Thus for the long term H4 in this study which states that the suspected influence of FDR on financing MSME accepted, whereas H0 stating that allegedly no influence of FDR on financing MSME rejected.

The fifth relationship is the relationship between CAR and MSME financing For the short and long term relationship between CAR and MSME financing has no significant and negative influence, it can be seen from the statistic t <t table that is 0.05730 <1.96 for the short and long-term -1.94017 <1.96. Thus for the long and short term H5 in this study which states that the suspected influence of the CAR on MSME financing is rejected, whereas H0 stating that allegedly there is no effect of CAR on financing

Impulse Response Function Analysis (IRF) Financing MSME
IRF is one of the main forms of analysis contained in VECM, where IRF serves to see traces of current and future responses to a variable to the shock or shock of a particular variable.
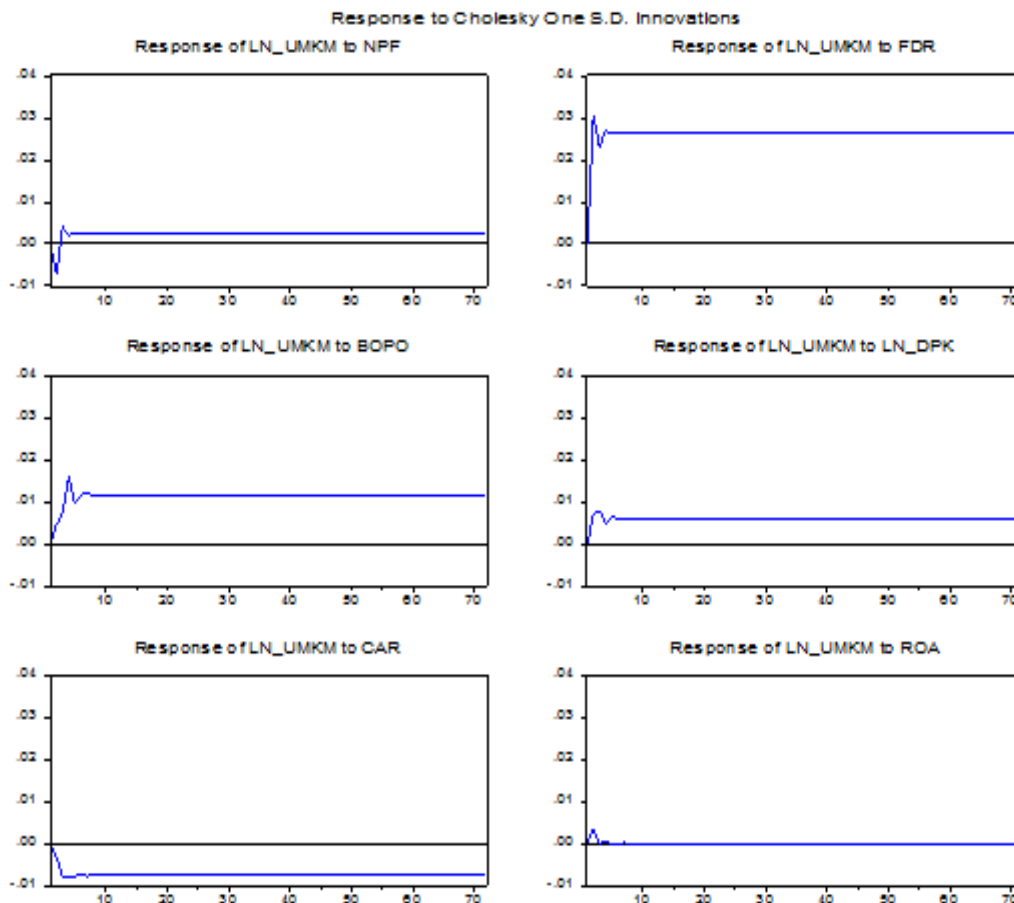

Figure 1 Results of Impulse Response Function Analysis (IRF) of MSME

From Figure 1 it can be seen that the MSMEs financing response to DPK, NPF, ROA, CAR, FDR, and BOPO are varied:
1. Financing MSME respond positively with permanent standard deviation of 0.026812 against DPK shocks. MSME financing response to DPK shocks began to stabilize in the 13th period. In the early period of MSME

financing responded with the standard deviation of 0.006744 and decreased in the 8th period of 0.005939. Financing MSME takes 13 months equivalent to one year and one month to be stable again.

2. MSME financing responds positively with a permanent standard deviation of 0.015539 against NPF shocks. MSME financing response to NPF in the initial period with standard deviation of -0.007293 and increased in the 7th period of 0.002457. Financing MSME takes 55 months equal to 4 years 5 months to return stable.

3. Financing MSME respond positively with permanent standard deviation 0.169509 to operational income operational shock (BOPO). MSME financing response to operational costs (BOPO) began to stabilize in the 54th period. In the initial period MSME financing responded with a standard deviation of 0.004551 and increased in the 4th period of 1.4133. Financing MSME takes 54 months or standard with 4 years 6 months to return stable.

4. Financing MSME respond negatively with standard deviation 0.097325 against CAR shocks. MSME's financing response to CAR began to stabilize during the 42nd period. in the initial period of MSME financing responded with a permanent standard deviation of 0.097325 and increased in the 4th period of 0.415636. Financing MSME takes 42 months or standard with 3 years and 5 months to return stable.

5. MSME financing responds positively to the standard deviation of 8.50084 against FDR shocks. The MSME financing response to FDR began to stabilize at the 34th month period. in the initial period of MSME financing responded with a permanent standard deviation of 7.618307. Financing MSME takes 34 months or standard with 2 years and 8 months to return stable.

Research Discussion

Based on the results of the analysis we will discuss one by one how the influence of each of the internal variables on the financing of SMEs, namely how the influence of DPK, CAR, NPF, FDR, BOPO against financing MSME.

Influence of DPK to Financing MSME

The result of analysis using eviews 7 shows the result that DPK has no significant effect on UMKM financing. The t-table value <1.96, seen from the short run of 0.83856 <1.96, but in the long run of 2.78533> 1.96 have a significant effect. This shows that the DPK affects the financing of SMEs in sharia commercial banks, this research is supported by existing theory where DPK is fund collected by banks from second parties or communities that will be channeled back to the community through financing. The results of this study are in line with the research conducted by Meydianawathi (2007) stating that the DPK has a positive and significant impact on the lending of MSME. This is also the same with the results of research conducted by Purwanto (2016) that the DPK has a positive and significant impact on financing MSME.

Effect of CAR on Financing MSME

Results of the second analysis, CAR shows the similarity between short-term and long-term results, both have a negative influence and not significant. Where the CAR in the short term has a value of 0.05730 <1.96, while the long term has a value of -1.94017 <1.96. From these results can be concluded that the CAR does not affect, high low CAR does not affect the financing of SMEs in sharia commercial banks. This research is in contrast to the theory put forward by Purwanto (2016) the higher the CAR of a bank, the higher the level of capital adequacy to channel capital into financing. The results of this study are also not in line with research conducted by Meydianawathi (2007) that CAR has an influence on financing on MSME credit.

Influence Operational Cost Operating Income (BOPO) to Financing MSME

The result of the third analysis, Operational Income Operating Cost (BOPO) shows the difference between short and long term results. Where the short term has a negative and insignificant effect with a value of -0.64991 <1.96 and long term has a positive and significant influence with the value of 8.25499> 1.96. From the results of this study can be concluded that in the short term Operational Cost and Operating Income (BOPO) has no effect on the financing of SMEs, high or low BOPO can not affect the financing of SMEs. Viewed from the long term BOPO very influential, high BOPO can increase the financing of SMEs in syari'ah commercial banks and vice versa, low BOPO can reduce the financing of SMEs in syari'ah commercial banks. This is in accordance with the theory that the operational costs are the costs incurred by the bank to perform its operational activities in order to obtain profits that became the main goal. This research is in line with the theory proposed by Dendawijaya (2005), the lower Operational Cost and Operating Income (BOPO) of a bank to the bank's income, the more the total of Syari'ah bank earnings given to the financing sector. However, unlike research conducted by Widiyanti and Sjahruddin (2014) which states that Operational Costs have an insignificant effect on credit distribution to MSMEs.

The Influence of Non Performing Finance (NPF) to Financing MSME

Result of fourth analysis, NPF shows difference of result between short term and long term, that is for short term have no effect to financing MSME at syari'ah bank. In the short term it has a value of -1.63717 <1.96 while in the long run has a value of 5.75195> 1.96. The results of this study can be concluded that the NPF has an effect, the high low NPF can affect the financing of SMEs in syari'ah commercial banks. This study is in

accordance with the theories put forward by Widyaningrum and Septiriani (2015: 971), if the NPF ratio increases then the problematic financing incurred by the SRB increases and causes the losses faced to increase so as to reduce the rate of profit, the decreased profit can reduce the funds disbursed to customers. This is in line with research conducted by Wahab (2014: 130), where NPF has a negative and insignificant effect on mudharabah financing.

Long-term NPF variables show a positive and significant value. This research is in agreement with Rimadhani (2011) research which stated that NPF has positive and significant effect on murabahah financing. The results of this study revealed that if the NPF rises, then the financing of MSME will also increase. This can happen because the portion of problematic financing or NPF is the NPF of the total financing of Islamic banks. So for other products still carried out the distribution of financing, both for consumptive and SMEs. For example the bank will reduce the financing distribution for the type of vehicle product, because for vehicle product has a tendency of high NPF level. However, the bank will continue to channel the MSME financing for other types of products such as venture capital or factory machinery, because the product has a good rate of return. So from that it can be concluded even though NPF rises, financing MSME which channeled also can increase.

Influence of FDR on MSME Financing

Fifth analysis result that is FDR have equation to financing SMEs syari'ah commercial bank between short and long term. In the short term SBIS has a positive and significant influence on the financing of MSME with a value of 2.96110 <1.96, and long term has a positive and significant influence with a value of 3.26763> 1.96. It can be concluded that the increase of FDR in the long run can increase the financing of SMEs in Sharia Commercial Bank, if there is a decrease in FDR it can reduce the financing of SMEs in Sharia Commercial Bank. FDR has a positive and significant relationship in the long run. The estimation results showed that when FDR increased by 1%, MSME financing will increase by 3.26763%.

The hypothesis that FDR has a positive effect on mudharabah financing is acceptable. FDR is the ratio between the entire amount of credit granted to the bank with funds received by the bank. The higher the FDR means the higher the mudharabah financing channeled by the SRB. This study is also in accordance with research (Aal et al., 2013) that the higher the value of FDR will further increase financing activities undertaken by banks. Aal et al., (2013) states that this condition occurs because Islamic banks can maintain the needs of funds obtained from third parties well, so the bank has a flow of funds that can be utilized to carry out financing activities. This result is also supported by Adnan and Purwoko (2013) research that FDR relationships with financing are consistent with the theory that the higher the FDR shows the higher the financing disbursed from the received third party funds.

Effect Analysis of DPK, NPF, CAR, FDR, BOPO and MSME in ROA

The second VECM model has a cointegration at a real 5% level, so the study continues with VECM to see the long-term and short-term effects of the variables. A variable is said to be significant in influencing other variables if the t-statistic value of that variable is greater than t-table at 5% real level that is 1.96 (t-statistic> 1,96). Here are the VECM estimates of the model:

Table 7 Results of Short and Long Term VECM Estimates

Long Term		
Variable	Coefficient	T-Statistics
LN_DPK(-1)	66.33404	**[6.61850]**
CAR(-1)	3.167546	**[5.00968]**
NPF(-1)	4.890131	**[3.23086]**
BOPO(-1)	-0.044343	[-0.45140]
FDR(-1)	-0.000387	[-0.62199]
LN_MSME(-1)	-0.079487	[-0.01999]

Shor Term		
Variable	Coefficient	T-Statistics
CointEq1	-0.008123	[-0.55572]
D(ROA(-1))	-0.016612	[-0.54382]
D(ROA(-2))	-0.016612	[-0.12887]
D(LN_DPK(-1))	0.135949	[0.09915]
D(LN_DPK(-2))	0.961189	[0.78265]
D(CAR(-1))	-0.045511	[-0.97013]
D(CAR(-2))	0.06676	[1.69447]
D(NPF(-1))	0.358221	[1.68224]
D(NPF(-2))	0.335268	**[1.96108]**
D(BOPO(-1))	0.016979	[1.28678]
D(BOPO(-2))	0.035922	**[2.97885]**
D(FDR(-1))	2.86E-05	[1.06297]
D(FDR(-2))	1.52E-05	[0.56021]

D(LN_ MSME (-1))	-0.201163	[-0.37765]
D(LN_ MSME (-2))	-0.519807	[-0.83910]
C	-0.051284	[-0.88393]

The influence of DPK on ROA Profitability

The result of research indicate that DPK has a significant positive effect on profitability in long term. The probability value is 6.61850> 1.96, this value indicates the effect of third party funds on profitability. The magnitude of coefficient value 66.33404 indicates that third party fund growth is elastic to profitability of BUS. The impact of percentage growth of third party funds as a percentage increase in profitability. As the growth of third party funds increased by 1%, Sharia Bank profitability will also increase by 6.6 percent. These results are supported by Menicucii's (2015) research which resulted in a positive relationship between third party funds and ROA whereby, the greater the third party funds will be the greater the allocation of funds for financing that will result in high profits.

Effect of NPF on ROA Profitability

The results showed that problematic financing or NPF had a significant effect on profitability in the long term and short term. Short-term probability values are 1.96108> 1.96 and 3.23086> 1.96 for the long term. These findings are contradictory to the findings of Wibowo and Syaichu (2013), Riyadi and Riyanto (2014), Sabir et al., (2012), and Purbaningsih (2014) stating that problematic financing has no significant effect on profitability. However, this study is supported by findings Rahman and Rochmanika (2012) which states that NPF has a significant positive effect on profitability. Differences in the results of this study could have occurred because the number of research objects that only amounted to 4 Islamic Banking Sharia and the length of the study period from 2008-2011. Hadiyati and Baskara (2013) are also in line with the results of this study by showing that mudharabah NPF has a significant negative effect on profitability.

The Effect of BOPO on ROA Profitability

Operational efficiency variables show no significant influence with the profitability of sharia banks in the long run, this is indicated by the smaller probability value of t-statistics that is -0.45140 <1.96. But different for short term in lag 2, BOPO shows significant influence with value 2.97885> 1.96. Reduced BOPO value will increase the value of ROA. The decline in BOPO indicates an increase in operational efficiency, so that the more efficient the operations of the Sharia Bank will be the higher the profitability level. Therefore, the high operational efficiency of a Sharia Bank will increase the ability to increase profits. This result is corroborated by the discovery of Wibowo and Syaichu (2013), and Sabir et al., (2012). The regression coefficient of BOPO valued at 0.035922 reflects that every 1% increase in Sharia Commercial Bank operating efficiency will increase the profitability of Sharia Commercial Bank by 0.035922%. On the contrary, any decrease of operational efficiency by 1% will decrease the profitability of Sharia Bank by 0.035922%. Although the effect of operational efficiency is relatively small on the level of profitability, but the effect is very significant.

Influence of CAR on ROA Profitability

From the analysis results show that the effect shown CAR on ROA is positive and significant in long term with probability value 5.00968> 1.96 bigger than t-statistics. This condition can reflect that the higher the CAR, the higher the capital ability of the bank the higher the effect on the level of bank profits because the bank has many reserves to invest or finance. Short-term estimation results do not show any significant effect either lag 1 or lag 2. These results are in line with the Lestari (2014) study where the CAR has a negative and significant effect on ROA. According to Lestari CAR is high can reduce the ability of banks in expanding its business because the greater the capital reserves used to cover the risk of loss. Inhibition of business expansion due to high CAR which will ultimately affect the financial performance of the bank.

Influence of FDR on ROA Profitability

FDR has a negative and insignificant effect on the long run, as well as on lag 1 and 2 for short term because the probability value is smaller than t-statistics ie -0.62199 <1.96 in the long run and 0.56021 <1.96 for the short term. This result is in accordance with the Lestari (2014) study which says LDR has positive and insignificant effect on ROA. This result is in line with Armereo research (2015). The variable of FDR (X2) has a negative effect on ROA (Y) in Syariah Commercial Bank in Indonesia. Where if the variable FDR (X2) increases then the ROA will decrease vice versa if FDR (X2) down then ROA will increase.

**Effect of MSME Financing on ROA Profitability**

The results showed that MSMEs financing had negative and insignificant effect both short and long term on profitability. The probability value of -0.01999 and -0.83910 <1.96, this value does not show the effect

between the MSME billing on profitability. In contrast to the significant positive effect of murabahah financing on the profitability of Syariah Banks by previous researches by Rachman and Rochmanika (2012) and Oktriani (2012). However this is in contrast to the findings of Riyadi and Riyanto (2014) who found no significant effect of financing the sale and purchase on profitability. This difference is possible because the number of research objects is only a number of four Sharia Commercial Banks. MSME financing is one type of financing that exist in Bank Syariah and the portion is still small so it does not directly affect the profitability of sharia banks.

Impulse Response Function (ROF) Analysis ROA Profitability

IRF analysis on profitability ROA serves to see traces of current and future responses to a variable ROA to shock or shock from independent variables DPK, CAR, NPF, BOPO, FDR and MSME. Here are the results of the IRF test:

Figure 2 The ROA Impulse Response Function (IRF) Analysis Results
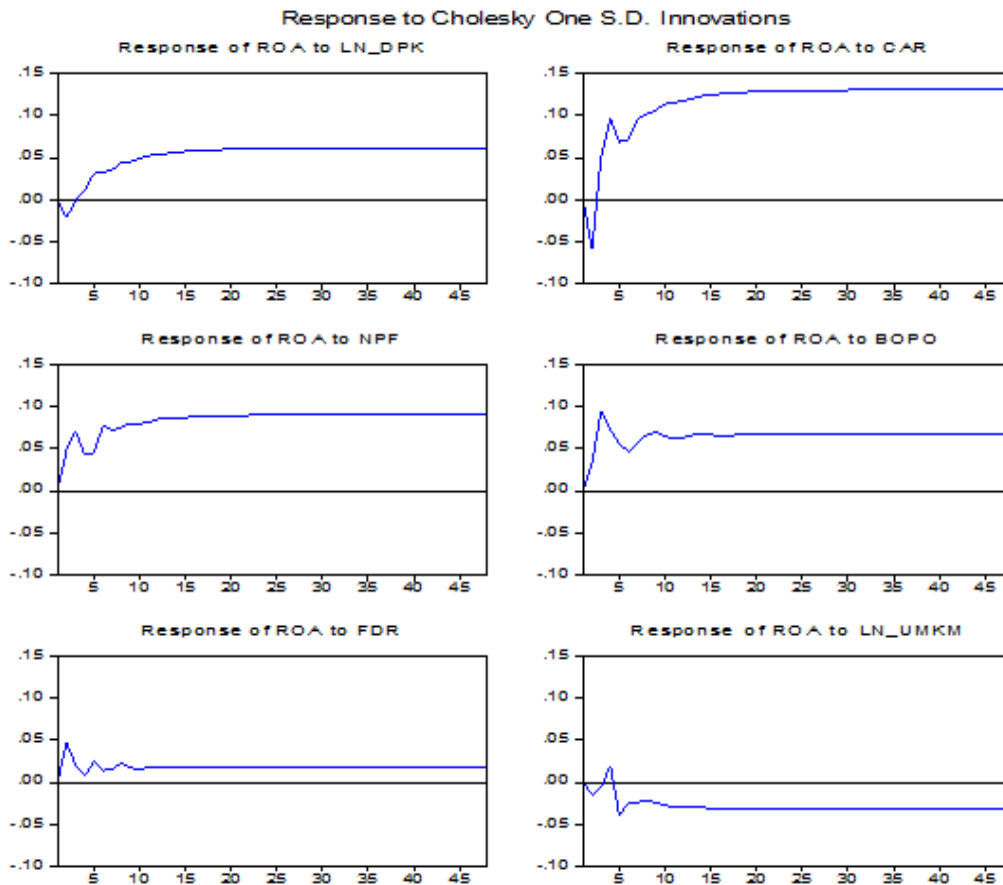
From Figure 2 can be seen response ROA Profitability to DPK, NPF, CAR, FDR, BOPO, and MSME are as follows:

1. ROA profitability responds positively with permanent standard deviation of 0.062174 against DPK shocks. ROA Profitability Response to DPK shocks began to stabilize in the 47th period. In the initial period Profitability ROA responded negatively with standard deviation of 0.021145 and increased in the 5th period of 0.031058. ROA profitability takes 47 months equals 3 years 9 months to stabilize again.

2. ROA's profitability responds positively to a permanent standard deviation of 0.090700 to NPF shocks. ROA Profitability Response to NPF in the initial period with a standard deviation of 0.048513 and decreased in the 6th period of 0.077788. ROA profitability takes 50 months equals 4 years 1 month to stabilize again.

3. ROA's profitability responds positively to the permanent standard deviation of 0.067101 to operational income operational shock (BOPO) shocks. ROA Profitability Response to operating costs (BOPO) began to stabilize in the 48th period. In the initial period Profitability ROA responded with a standard deviation of 0.004551 and increased in the 4th period of 1.4133. ROA profitability takes 48 months or standard with 4 years to stabilize again.

4. ROA's profitability responds negatively with a permanent standard deviation of 0.130952 against CAR shocks. ROA Profitability Response to CAR in the initial period with a standard deviation of -0.058552 and

increased in the period to -8 amounted to 0.101479. ROA profitability takes 55 months equals 4 years and 5 months to stabilize again.

5. ROA's profitability responds positively with a standard deviation of 0.047525 against FDR shocks. ROA Profitability Response to FDR is stable at the 40th month period. in the initial period ROA profitability responds with a permanent standard deviation of 0.017139. ROA profitability takes 40 months or standard with 3 years 3 months to stabilize again.

6. ROA profitability responds negatively with permanent standard deviation of -0.032477 to MSME shocks. ROA Profitability Response to MSMEs began to stabilize at the 49th month period. in the initial period Profitability ROA responds with a permanent standard deviation of -0.015128. ROA profitability takes 49 months or a standard with 4 years 1 month to stabilize again.

Analysis of Forecast Error Variance Decomposition (FEVD) Results of MSME

Analysis of Forecast Error Variance Decomposition (FEVD) is a VAR model that aims to predict the percentage contribution of variants of each variable due to changes in a particular variable in the VAR system. The FEVD analysis is used to describe the relative importance of each variable in the VAR system due to shock (Juanda and Junaidi 2012).

From result of analysis which have been obtained from result of FEVD analysis show that FDR variable give biggest influence to financing MSME equal to 11,38%, then variable which give biggest contribution after FDR is BOPO give contribution equal to 2,08%. Followed by NPF variable contributes 0,14%, variable after NPF that CAR give contribution equal to 0,9%. Then last followed by DPK variable contributing 0.6%.
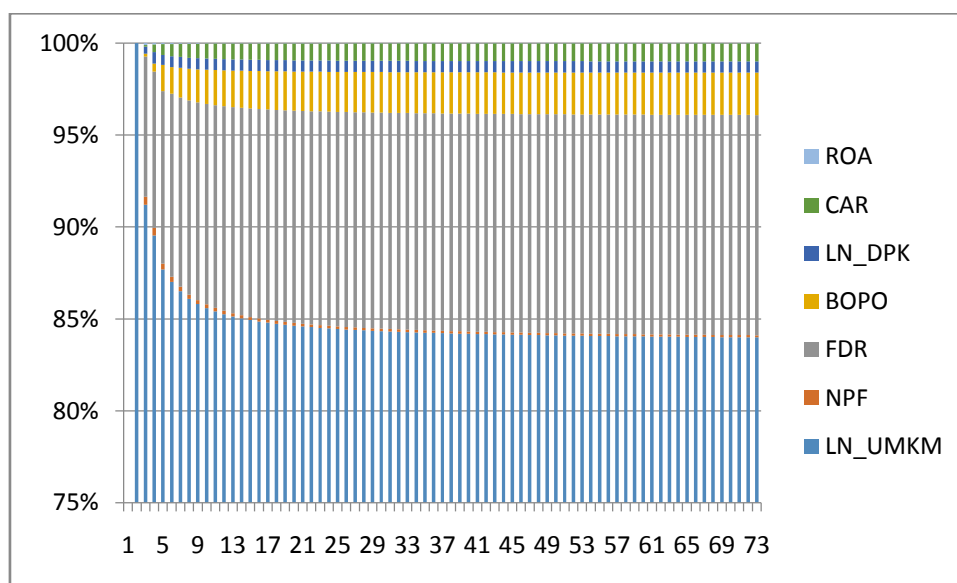

Figure 3 Results of SME FEVD

The FEVD results show the dynamic contribution of the variables studied to the diversity of MSME financing. The diversity of MSME financing is most influenced by MSME financing itself, then FDR, BOPO, and NPF in the second month. The tenth month of contribution from MSME financing itself to the diversity of MSME financing has decreased. The decrease in the contribution of MSME financing was replaced by an increase in the contribution of other variables.

Result Analysis of Forecast Error Variance Decomposition (FEVD) ROA

The last step of the method used in this research is the Forecase Error Variance Decomposition (FEVD) test. This analysis aims to estimate the percentage contribution of the variance of each variable to the change of a particular variable. Here is the result of FEVD analysis for ROA profitability.
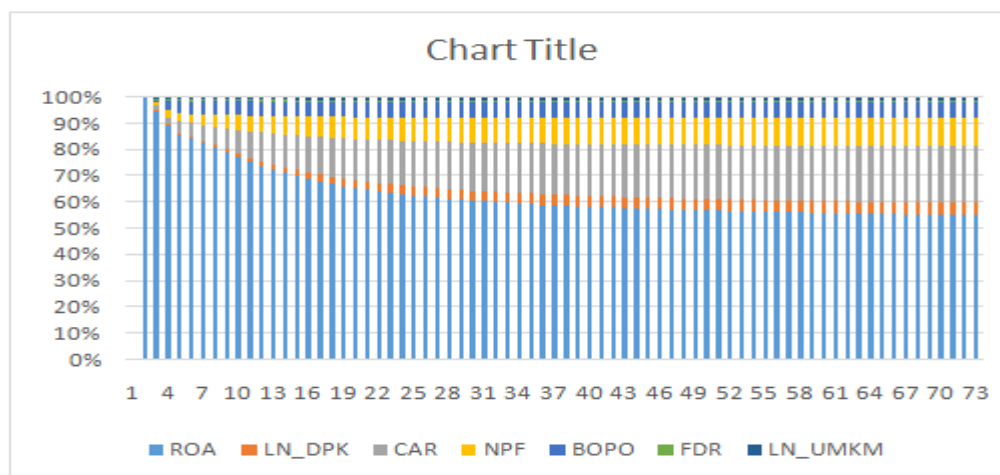
Figure 4 FEVD ROA Results

The results in Figure 4 show that in the first month the ROA's profitability fluctuations are affected by the ROA Profitability shock itself by 100%. The influence of other variables starts to be seen from the fourth month. In the fourth month, mudharabah financing fluctuation is still dominated by mudharaba own financing of 63.11%, then influenced by CAR of 17.14%, NPF of 8.82%, BOPO of 5.77%, third party funds by 3.47%, MSME of 1.11% and FDR of 0.54%

V. Conclusion

This study aims to determine the effect of DPK, CAR, BOPO, FDR, and NPF on the financing of SMEs Sharia Commercial Bank (BUS) as well as implications on the profitability of sharia banks. Based on the research that has been done, it can be concluded things as follows:

1. CAR variable does not give influence either in short or long term to finance MSME. In the short term only the FDR variable has a significant positive effect, while the DPK, NPF, BOPO and FDR are significant in the long term towards MSME financing.

2. Variable of DPK, CAR, NPF give significant influence to ROA profitability in long term. While for the short term only BOPO and NPF that give effect to profitability ROA. MSME financing proved to have no effect on profitability ROA.

3. Shocks that occur in the financing of SMEs, DPK, NPF, CAR, BOPO, and FDR will be stable in the long run. Shocks that occur in the CAR are negatively responded by MSME financing, and will be stable over the long term. Shocks that occur in profitability ROA, DPK, NPF, CAR, BOPO, and FDR will be stable over the long term. Shocks that occur on MSMEs are responded negatively by ROA, and will be stable over the long term.

References

[1]. Aal H, Ethika, Yeasy D. 2013. Faktor-Faktor yang Mempengaruhi Volume Pembiayaan Berbasis Bagi Hasil pada Perbankan Syariah di Indonesia. E-Journal Universitas Bung Hatta. 2(1):1-16.

[2]. Adnan, M.A. & D. Purwoko. 2013. Analisis Faktor-faktor yang Mempengaruhi Rendahnya Pembiayaan Mudharabah Menurut Perspektif Manajemen Bank Syariah Dengan Pendekatan Kritis (Analysis of Factors That Influence Declining in Mudharaba Financing According to Islamic Bank's Management Using Critical Approach). Jurnal Akuntansi dan Investasi, Vol. 14, No. 1: 14-31.

[3]. Andraeny D. 2011. Analisis Pengaruh Dana Pihak Ketiga, Tingkat Bagi Hasil, dan Non Performing Finance terhadap Volume Pembiayaan Berbasis Bagi Hasil pada Perbankan Syariah di Indonesia. Simposium Nasional Akuntansi 14. Banda Aceh (ID): Fakultas Ekonomi, Universitas Syiah Kuala.

[4]. Armereo, Crystha. 2015. Analisis Faktor-Faktor Yang Mempengaruhi Profitabilitas Bank Syariah Yang Terdaftar di Bursa Efek Indonesia Jurnal Ilmiah Ekonomi Global Masa Kini, Vol. 06 No.0.

[5]. Arsana,I. 2004. VAR (Vector Autoregression). Jakarta: Laboratorium Komputasi Ilmu Ekonomi FEUI.

[6]. Ascarya. 2009. Aplikasi Vector Autoregression dan Vector Error Correction Model Menggunakan Eviews 4.1.

[7]. Bank Indonesia. 2006. Surat Edaran Bank Indonesia No.9/24/DPbS Tentang Sistem Penilaian Tingkat Kesehatan Bank Umum Berdasarkan Prinsip Syariah.

[8]. Dendawijaya, Lukman. 2009. Manajemen Perbankan, Bogor : Ghalia Indonesia, edisi kedua Ekonometrika Dasar, Erlangga, Jakarta

[9]. Endri. 2012. Pengaruh Mekanisme Corporate Governance Terhadap Kinerja Profitabilitas Perbankan Syariah di Indonesia, Jurnal Keuangan dan Perbankan, Vol. 16, No.2 Mei 2012, hal. 264-274.

[10]. Ghaffar Abdul; Widiyanto. 2010. Improving The Effectiveness of Islamic Micro-Financing.Learning From BMT Experience. Homonomics, Vol.26 No.1

[11]. Giannini NG. 2013. Faktor yang Memengaruhi Pembiayaan Mudharabah pada Bank Umum Syariah di Indonesia. Accounting Analysis Journal. 2(1):97- 103.

[12]. Hadiyati, Puj; Aditya Baskara, & Riski. 2013. Pengaruh Non Performing Financing Pembiayaan Mudharabah dan Musyarakah Pada Bank Muamalat Indonesia. e-jurnal Manajemen & Bisnis Volume 1, Nomor 1

[13]. Hassan dan Bashir. 2003. Determinants of Islamic Banking Profitability. International Journal. ERF paper.

[14]. Juanda B, Junaidi. 2013. Ekonometrika Deret Waktu: Teori dan Aplikasi. Bogor (ID): IPB Press.
[15]. Karim, Adiwarman. 2012. Bank Islam (Analisis Fiqih dan Keuangan). Jakarta: PT. RajaGrafindo Persada
[16]. Kasmir.2004. Bank dan Lembaga Keuangan Lainnya. Jakarta : PT Raja Grafindo Persada
[17]. Kuncoro.2002. Manajemen Perbankan, Teori dan Aplikasi. Jakarta: PT. Indeks Kelompok Gramedia.
[18]. Lestari, Sunariyati Muji dan Nurul Widyawati. 2014. Faktor-Faktor yang Mempengaruhi Return on Asset Pada Perusahaan Perbankan di BEI. Jurnal Ilmu & Riset Manajemen, Vol. 3 No. 3 (2014)
[19]. Margaretha, Farah, 2004, Teori dan Aplikasi Manajemen Keuangan:Investasi dan Sumber Dana Jangka Pendek.Grasindo, Jakarta
[20]. Meydianawathi, Luh Gede. 2007. Analisis Perilaku Penawaran Kredit kepada Sektor UMKM di Indonesia (2002-2006), BULETIN STUDI EKONOMI Volume 12 Nomor 2
[21]. Muhammad.2005.Manajemen Dana Bank Syariah.Ekonisia:Yogyakarta.
[22]. Oktriani, Y. (2012). Pengaruh Pembiayaan Musyarakah, Mudharabah dan Murabahah Terhadap Profitabilitas, E-journal Accounting, 1(1).
[23]. Purbaningsih, Y.,P. 2014. The Effect of Liquidity Risk and Non Performing Financing (NPF) Ratio to Commercial Sharia Bank Profitability in Indonesia. International Proceedings of Economics Development and Research, 73(5).
[24]. Purwanto dan Sari Alfia.2016. Analysis Financial Strategy of Islamic Banking inMicro Small Medium Enterprises. Research Journal of Finance and Accounting Vol.7, No.12
[25]. Rahman, A.,F., dan Rochmanika, R. .2012. Pengaruh Pembiayaan Jual Beli, Pembiayaan Bagi Hasil, dan Rasio Non Performing Financing Terhadap Profitabilitas Bank Umum Syariah Di Indonesia. Iqtishoduna, Vol. 8
[26]. Rimadhani, M. 2011. Analisis Variabel-Variabel yang Mempengaruhi Pembiayaan Murabahah pada Bank Syariah Mandiri Periode 2008.01 – 2011.12. Media Ekonomi 19(1): 27-40.
[27]. Riyadi, S., & Yulianto, A. 2014. Pengaruh Pembiayaan Bagi Hasil, Pembiayaan Jual Beli, Financing To Deposit Ratio (FDR) dan Non Performing Financing (NPF) Terhadap Profitabilitas Bank Umum Syariah Di Indonesia. Accounting Analysis Journal, 3(4).
[28]. Sabir, M., M, Muhammad Ali, M.M., & Habbe, A.H. (2012). Pengaruh Rasio Kesehatan Bank Terhadap Kinerja Keuangan Bank Umum Syariah dan Bank Konvensional Di Indonesia. Jurnal Analisis, 1(1).
[29]. Siswati. 2013. Analisis Penyaluran Dana Bank Syariah. Jurnal Dinamika Manajemen, Volume.4, No.1.
[30]. Sudarsono, Heri, 2007, Bank dan Lembaga Keuangan Syariah, EKONOSIA Kampus Fakultas Ekonomi UII, Yogyakarta
[31]. Wahab. 2014. Analisis Pengaruh FDR, NPF, Tingkat Bagi Hasil, Kualitas Jasa Dan Atribut Produk Islam Terhadap Pembiayaan Mudharabah Pada Bank Umum Syari'ah Di Semarang. Jurnal Economica Vol.V No 2. Hal.121.
[32]. Wibowo, E.S., & Syaichu, M. (2013). Analisis Pengaruh Suku Bunga, Inflasi, CAR, BOPO, NPF Terhadap Profitabilitas Bank Syariah. Diponegoro Jurnal Of Management,
[33]. Widyaningrum, Linda dan Septiarini, Dina Fitrisia. 2015. Pengaruh CAR, FDR, dan OER Terhadap ROA Pada Bank Pembiayaan Rakyat Syari'ah Di Indonesia Periode Januari Hingga Mei 2014. Jurnal JESIT.Vol.2 No.12.Hal.971.
[34]. Widiyanti, H., dan Muchtar Mariso Sjahruddin, MA. 2014. Analisis pengaruh CAR, ROA, NPL, BOPO dan DPK terhadap penyaluran kredit UMKM di Indonesia (Studi pada bank umum yang terdaftar di BEI periode 2010- 2012). JOM FEKON, 1 (2).pp. hal. 1-15.
[35]. Widarjono. A. 2007. Ekonometrika Teori dan Aplikasi Untuk Ekonomi dan Bisnis. Edisi Kedua. Yogyakarta: Ekonisia.