RISK MANAGEMENT AND PERFORMANCE EMPIRICAL STUDY OF ISLAMIC RURAL BANKING IN INDONESIA

Check for updates

Sutrisno[1]

[1]Universitas Islam Indonesia
Email: sutrisno@uii.ac.id Tel: 06181392442525

ABSTRACT

Banking is an institution which has its operations highly regulated by the government, thus the management must be able to manage risks. The purpose of this study is to examine the effect of risk management on the performance of Islamic rural banking in Indonesia. The performance of Islamic rural banking is measured by return on assets (ROA), while risk management consists of financing risk that measured by nen-performing financing (NPF), capital risk as measured by capital adequacy ratio (CAR), liquidity risk as measured by financing do deposit ratio (FDR), risk of management as measured by net profit margin (NPM), and operating risk is measured by operating expense to operating income ratio (OEOI). The population of this study was the Islamic rural banking operating in Indonesia with a sample consisted of 55 banks taken by using purposive sampling method. The observation was conducted in 2 years (2015-2016) with quarterly data. The hypothesis test was conducted by using multiple regression analysis and was assisted by using SPSS version 17.0 program. The results showed that financing risk (NPF) and operating risk (OEOI) had a negative and significant effect on bank performance, while liquidity risk (FDR) and risk of management (NPM) had a positive and significant effect on bank performance. Meanwhile, capital risk (CAR) had no significant effect on bank performance.

Contribution/ Originality: This study is one of the few studies which have investigated about Islamic rural banking with the population of all Islamic rural banks in Indonesia. Generally, the other studies are conducted to one Islamic rural banking or one region only. Meanwhile, this study conducts to all of the Islamic rural bank in Indonesia. Therefore, the result of this study can be used to generalize Islamic rural banking in Indonesia.

1. BACKGROUND

Law No. 10 of 1998 also asserts that banking is grouped into commercial banks and rural banks. Commercial Bank is a bank conducting conventional and/or sharia-based business activities in which it provides services in the payment traffic, while Rural Bank is a bank conducting conventional or sharia-based business activities in which it does not provide services in the payment traffic. In these definitions, the concept of bank operations was separated into two types, namely conventional banks that use interest instruments and sharia banks of which operations are not allowed to use interest instruments but based on sharia principles.

Bank is a much regulated company that is the institution of which operation is highly regulated by the government. This is due to the majority of bank assets are from the community, so that if there is any bank that has poor performance and is then liquidated, it will have an adverse impact on the community, which could result in declined public trust. The Government through the Financial Services Authority (OJK) makes some regulations starting from the appointment of directors and commissioners of banks who were required through a fit and proper test by the OJK, banking health policy, capital and credit arrangement, net open position, and others. Therefore, bank is a company that has a high risk. As revealed by Brigham and Michael (2005) that there is a positive relationship between risk and return which means that the higher the risk, the higher the profits.

According to Law No. 10 of 1998, bank risks consist of credit risk, liquidity risk, investment risk, operating risk, fraud risk, interest rate risk, fiduciary risk, solvency risk, foreign exchange risk, and competition risk. There are so many risks faced by banks, so that it needs a formidable management to manage a bank. Credit or financing provided should be managed well because it is the main income of the bank which will cause losses if there were many non-performing loans. Credit risk (NPL/NPF) will lower bank profits since this risk will become costs. The findings of the research conducted by Mahmud et al. (2016) showed that credit risk (NPL) has a negative effect on profitability. Similarly, Yusuf and Mahriana (2016) also found that NPF has a negative effect on profitability.

Liquidity risk is very important because it involves the security of public funds. Liquidity can be measured by the *loan to deposit ratio* (LDR) which is the amount of public funds provided for credits. The higher the LDR, the riskier the bank. The high risk has a possibility of obtaining high profits. The amount of LDR indicates the amount of credits given, therefore, the higher the LDR, the more increasing the opportunity to earn income which will ultimately increase profitability. Wahdan and El-Leithy (2017) and Bukhari and Rana (2012) found a positive effect of liquidity risk (LDR) on profitability. Yusuf and Mahriana (2016) who conducted a study at the Islamic Rural Bank (BPRS) in aceh also found that FDR had a positive effect on profitability.

The bank capital as measured by *capital adequacy ratio* (CAR) is regulated by the government (OJK) with a minimum requirement of 8%. Capital bank has an advantage as a reserve fund to cover bank risks if there is a loss, so that the higher the CAR, the better and more able the profits to increase. Idris et al. (2011) found a positive effect between capital risk (CAR) and profitability. Hallunovi and Kume (2016); Vong and Hoi (2011) and Syafri (2012) found a positive effect between capital(CAR) and profitability.

Bank must be managed efficiently because the management is exposed to operational risks as measured by operating expense to operating income ratio (OEOI). The higher the OEOI, the higher the operational risk, and will lower the bank's profitability. The results of the research conducted by Hallunovi and Kume (2016) and Sudiyatno (2010) found that OEOI had a negative effect on profitability. Similarly, the findings of the research conducted by Abdillah et al. (2016) showed a negative effect between OEOI and profitability.

The management is expected to generate a spread between the credit and the deposit interest rates, since the income of the bank is basically from the spread. Management risk occurs if the spread decreases as the interest rate is too high. Ani (2012) and Syafri (2012) used *net interest margin* (NIM) as a measure of management risk. Margaretha and Zai (2013) found in Indonesian banks that NIM had a significant and positive effect on bank performance. Purwoko and Sudiyatno (2013) also found similarly. Similarly, Ongore and Kusa (2013) who conducted a research in Kenya also found that NIM had a positive effect on bank performance.

2. THEORITICAL REVIEW AND HYPOTHESIS

2.1. Financing Risk and Performance

The main income source of banks, including Rural Banks, comes from interest or profit sharing obtained from credits or financing (Rivai et al., 2013). The greater the financing disbursed by banks The greater the contribution on income. Credits/financing are the main sources of income, if these are managed in accordance with the principles of credit, but will pose risks if these are not managed properly, which potentially cause losses due to default. The

non-performing financing will lower the profit rate because it will be treated for cost in accounting. Credit risk in banks is measured by non-performing loan (NPL) for the conventional and by non-performing financing (NPF) for Islamic banks. The higher the non-performing financing, the lower the profit rate of the Islamic Rural Banks. According to Yusuf and Mahriana (2016) who conducted a study on Islamic Rural Banks in Aceh, found a negative and significant effect between NPF and performance (ROA). Similarly, Akhter *et al.* (2011) in Pakistan and Zeitun (2012) who conducted a study on Islamic Banks in Saudi Arabia, also found a negative and significant effect. Vong and Hoi (2011) and Syafri (2012) also found a negative and significant effect between NPL and the performance of conventional banks.

H₁   : financing risk (NPF) negatively affect on performance of Islamic rural banking

2.2. Capital Risk and Performance

Mostly, the source of bank funds comes from the community and there is only a small part comes from the owner (own capital). According to Rivai *et al.* (2013) the term bank capital is the amount of funds invested in a company by its owners for the establishment of a business entity and in the development the capital may be depreciated due to losses or developed due to the profits gained. Capital is an important element in the banking business, because capital serves to cover the risk of losses suffered by banks. Therefore, the government sets the minimum limit of own capital that must be owned. Bank capital is very important because it serves to back up the risk of losses faced by banks. Bank capital as measured by *capital adequacy ratio* (CAR), was set for its minimum for 8% by the government. The higher the CAR, the better the bank, because if the bank suffered losses, it could be covered by bank capital. Thus, the higher the bank capital, the further the improvement on bank performance. Margaretha and Zai (2013) who conducted a study on banking in Indonesia found a positive effect between CAR and bank performance. Almazari (2014) and Abdillah *et al.* (2016) also found a positive effect between capital and bank performance.

H₂   : Capital risk (CAR) positively affect on performance of Islamic rural banking

2.3. Liquidity Risk and Performance

Bank has its business on trust, therefore, it must maintain a good commitment to the borrowers and investors/depositors. If a bank has a commitment to provide credits, it must be able to provide credits according to the amount and time it promises. Also to the depositors, if they will withdraw the funds at any time, the funds must be available. Liquidity risk is a risk faced by banks in fulfilling credit commitments and withdrawing funds by depositors. If the bank is unable to meet its commitment, the liquidity risk may occur to the bank. Banks should be able to provide funds either those which are stored in banks or in Bank Indonesia in order to keep the reserve requirement for at least 5%, because if it less than the minimum, it will decrease the rate of bank health. The measurement of liquidity that is often used to assess the bank health is the *loan to deposit ratio* (LDR), which is the ratio between loans provided and public funds. The larger the LDR, the greater the public funds given for credits, so that the risk is high. However, since the LDR shows the credit or financing provided, the higher the LDR, the higher the credits given, so that it will increase the interest income which will eventually increase profitability. Margaretha and Zai (2013) found that LDR had a positive and significant effect on bank performance. Yusuf and Mahriana (2016) also found a significant and positive effect between FDR and profitability in Islamic Rural Banks. Similarly, Almazari (2014) also found a positive effect between LDR and bank performance.

H₃   : Liquidity risk positively affect on performance of Islamic rural banking

2.4. Risk of Management and Performance

The main business of banks is to provide credit or financing with the source of funds from the community. The management has a task to distribute it with a high rate of return and reduce the cost of funds. The management risk

occurs when interest income compared to credit decreases which indicates inefficient management. Management risk is often proxied by net interest margin (NIM) or net profit margin (NPM), which is the ratio between interest income and credits given. The higher the NIM or NPM, the better the bank, so it is expected to be able to improve its performance. Margaretha and Zai (2013) who conducted a study on banking in Indonesia found that NIM had a significant and positive effect on bank performance. Purwoko and Sudiyatno (2013) also found similarly. Similarly, Ongore and Kusa (2013) who conducted a research in Kenya also found NIM had a positive effect on bank performance.

H_4 : Risk of management positively affect on performance of Islamic rural banking

2.5. Operating Risk and Performance

In its operation, bank is expected to operate effectively and efficiently. Being effective in running the system and procedures will help in providing services to customers, and trying to be efficient in controlling costs. Operational risk occurs if the bank is less effective and less efficient in its operation, thus increasing the operational costs. Usually, operational risk is measured by operating expense to operating income ratio (OEOI).

The increasing competition between Islamic Rural Banks, not only between the Islamic Rural Banks and with conventional Rural Banks, but also with Islamic Microfinance Institutions, encourage bank management to operate efficiently. The efficiency of the banks will lower the operational risk as measured by the cost-to-income ratio. The bank management should be able to manage the overhead costs in order to suppress the increasing operational costs and to distribute credits or financing with high spread. The higher the OEOI, the higher the operational risk that may lower the profitability. Harjanti *et al.* (2016) who conducted a study on Rural Banks in Central Java found that OEOI had a significant and negative effect on profitability. Sudiyatno (2010) and Syafri (2012) also found a significant and negative effect between operational risk and bank performance. Similarly, the findings of the research conducted by Nizar *et al.* (2015) and Akhter *et al.* (2011) which showed similar results.

H_5 : Operating risk (OEOI) negatively affect on performance of Islamic rural banking

3. METHODOLOGY

3.1. Population and Sample

The population is all the objects of research, which is All Islamic Rural Banks operating in Indonesia with a total of 164 banks. Sample is a part of the population whose characteristics will be observed. The sample taken must be representative, because it should be able to represent the characteristics of the population. In this research, there were 55 Islamic Rural Banks taken as the sample by using *purposive sampling* technique.

3.2. Variables and Measurement

There were two types of variable used in this study, namely the dependent variable, which was the performance of Islamic rural banking (ROA), and five independent variables consisted of credit risk (NPF), liquidity risk (FDR), capital risk (CAR), management risk (NPM) and operational risk (OEOI). Here are the measurements of each variable:

Table-1. Variables measurement

No	Variable	Notation	Measurement
1	Banking performance	ROA	EAT/Total Assets
2	Financing risk	NPF	Non-perform Financing//Total financing
3	Liquidity risk	FDR	Total financing/third party fund
4	Capital risk	CAR	Total equity/risk-weighted assets
5	Risk of management	NPM	Income form financing/Net financing
6	Operating risk	OEOI	Operating expense/operating income

Source: Circular Letter of Bank Indonesia

3.3. Data Analysis

This study was conducted in order to find out the effect of independent variables on dependent variable. The analysis was conducted by using multiple regression, with a regression equation as follow:

$$ROA = \beta_0 + \beta_1 NPF + \beta_2 CAR + \beta_3 FDR + \beta_4 NPM + \beta_5 OEOI$$

where:

ROA   = return on assets

CAR   = capital adequacy ratio

LDR   = loan to deposit ratio

NPL   = non performing loan

NPM   = net interest margin

OEOI   = operating expense to operating income

4. RESULT AND DISCUSSION

4.1. Descriptive Statistics

There were 55 Islamic Rural Banks taken as the sample by using *purposive sampling* technique with quarterly data for two years (2015-2016), which obtained 440 data. The descriptive statistical results from data processing using SPSS version 17.0 are as follows:

Table-2. Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
ROA	440	-13.75	202.00	3.0047	10.11057
NPF	440	.00	31.84	7.8882	5.68839
CAR	440	7.25	95.94	24.0968	16.14740
FDR	440	.77	384.01	96.0936	38.23037
NPM	440	.01	.88	.1581	.10417
OEOI	440	.21	1.99	.5541	.18559

Source: Data Processed Result

The variable Islamic Rural Banks Performance measured by ROA indicated a minimum value of -13,75% and maximum value of 220,00% with an average of 3,00%. It means that although there are several Islamic Rural Banks suffered losses but there are also several Islamic Rural Banks which generate a very high profit, but the average shows a relatively small profit. For capital (CAR), there are several banks which are still at 7,25%, below the minimum requirement of 8%, but there is a bank which is at 95,94% with a CAR average of 24,10%. Liquidity (FDR) has a minimum value of 0,77%, and a maximum value of 384,01%, with an average of 96,09%. Management risk as measured by NPM is still low as it is indicated by minimum value of 0,01% and maximum value 0,88% with average of 0,16%. While the operational risk (OEOI) is very good since it has an average of 55,41%.

4.2. Hypothesis Test Result

The results of data processing using multiple regression analysis, with the assistance of SPSS version 17.0 program are shown in Table 3 below.

Table-3. Hypothesis Test

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.203	.526		7.997	.000
	NPF	-.047	.023	-.091	-2.015	.045
	CAR	.013	.008	.081	1.623	.105
	FDR	.009	.003	.120	2.567	.011
	NPM	2.596	.957	.127	2.713	.007
	OEOI	-5.179	.710	-.329	-7.298	.000

a. Dependent Variable: ROA

4.3. Financing Risk

The hypothesis test on financing risk which was measured by non-performing financing (NPF) showed a significance value of 0.045 which is less than the required significance level of 0.05, so that the proposed hypothesis is proven that NPF has a significant and negative effect. Thus, the higher the financing risk, the lower the performance of Islamic Rural Bank.

The financing provided has a risk of default, therefore, the management must be able to minimize the risk of default as low as possible, so that the NPF can be lowered. Often, in order to achieve the income targets by conducting the expansion of financing, the bank management ignores the standard operating procedures (SOP) of financing. The income can certainly increase, but it results in the increasing NPF which will lower the profit rate. As can be seen in Table 2, the observed Islamic Rural Banks had an average of NPF higher than the requirement of 7,89%. The management of Islamic Rural Banks still need to make serious efforts to suppress NPF in order to increase the profit.

The results of this study are in line with the findings of the research conducted by Akhter et al. (2011) in Pakistan. Yusuf and Mahriana (2016) also found a significant and negative effect of NPF on the performance of Islamic Rural Banks in Aceh. Youssef and Samir (2015) and Abdillah et al. (2016) also found a negative effect between credit risk and bank performance. However, theses results are in contrast to the findings of the research conducted Harjanti et al. (2016) and Mahmud et al. (2016) which found that credit risk had no effect on bank performance.

4.4. Capital Risk

Bank Capital (CAR) has a significance value of 0.105 which is greater than requirement, so that it can be concluded that the capital risk does not have a significant effect on the performance of Islamic Rural Banks, which means that the high CAR does not have any effect on the bank performance. Capital is very important for banks in order to build public trust. Capital has no effect on the performance of the Islamic Rural Banks since the CAR owned by Islamic Rural Banks is 24.09%, which is much higher than the minimum requirement of 8%. The 24.09% CAR is very high, so that banks are very safe from capital risk and the changes have no effect on the performance. The very high CAR basically shows that the management has not been able to utilize the capital efficiently in order to distribute it in financing. Thus, there is a need of more serious effort from the management to make the utilization of its capital to approach the ideal number. The results of this study are supported by the results of the study conducted by Harjanti et al. (2016) which found that CAR has no effect on the performance of Islamic Rural Banks in Aceh. Idris et al. (2011) and Gul et al. (2011) also found that the capital risk has no effect on bank performance. The similar results were also found by Acaravci and Ahmet (2013). Nevertheless, there were also some researchers who found significant effect on bank performance (Zeitun, 2012; Milhem and Istaiteyeh, 2015).

4.5. Liquidity Risk

Liquidity risk (FDR) has a significant effect on the performance of Islamic Rural Banks because it has a significance value of 0.011 which is less than the requirement. It means that the higher the liquidity as measured by the financing to deposit ratio (FDR), the higher the bank performance (ROA). FDR indicates the amount of financing provided by the Islamic Rural Banks, so that it shows that the higher the FDR, the greater the income of the bank. The higher the income of the bank, the higher the opportunity to increase profits.

The higher amount of financing provided has an effect on the increasing income, and the higher income can increase profitability. It will happen if the quality of the financing is good and there is no or low level of non-performing financing. However, if the process of financing is not performed well, it can result in high NPF which ultimately lower the profitability. Therefore, the management needs to be careful in providing financing. The financing analysis should be performed in accordance with the SOP in order to anticipate the occurrence of non-performing financing. As seen from the statistic of FDR of the Islamic Rural Banks, it is very good with an average of 96,09%, although there is a Islamic Rural Bank which reached a very high average of 384,01%. The bank management must maintain its commitment to FDR in accordance with the requirement set by the government between 70% and 95%. Yusuf and Mahriana (2016) who conducted research on Rural Banks in Aceh also found a significant and positive effect between FDR and bank performance (ROA). Similarly, Youssef and Samir (2015) and Sanwari and Zakaria (2013) also found a significant effect between liquidity (LDR) and bank performance. However, the results of research conducted by Sudiyatno (2010) found that there is no significant effect. Likewise, Mahmud *et al.* (2016); Milhem and Istaiteyeh (2015) also found that liquidity risk has no effect on bank performance.

4.6. Risk of Management

The hypothesis test on management risk as measured by net profit margin (NPM) showed a significance level of 0.007 which is smaller than the requirement of 0.05, so it can be concluded that NPM has a positive and significant effect on the bank performance (ROA). It means that the higher the NPM, the greater the profit rate. NPM is a measure of management's ability to place its funds in order to generate a spread between income and its cost of funds. The higher the spread, the better the fund management. Management is required to manage the funds owned by the bank on the profitable and secure assets. In a Islamic bank, the compensation paid to the customer is not in the form of interest, but it is profit sharing. The higher the profit of the bank, the higher the profit distributed to the customer and the more trust given by customers to the bank, that ultimately improves customer loyalty. Therefore, the role and creativity of the management of Islamic Rural Banks in managing funds are highly needed.

The results of this study are supported by Acaravci and Ahmet (2013) who conducted a study in Turkey. Similarly, Syafri (2012) who conducted a study on banking in Indonesia and Lartey *et al.* (2013) who conducted a study on banking in Ghana, also found that NIM has a positive and significant effect on bank performance. However Gul *et al.* (2011) and Ani et.al found that NIM has no effect on bank performance.

4.7. Operating Risk

The result of hypothesis test on the variable operational risk (OEOI) showed a significance level of 0.000 which is smaller than the requirement, which means that OEOI has a negative and significant effect on the performance of Islamic Rural Banks. Thus, the higher the OEOI, the lower the profitability. The bank's profit is derived from the difference between the income and operating costs. If the operating costs are high, the profit will be low, therefore, the bank management should be able to manage the operating costs by supressing the various less-efficient costing posts. The operating costs of bank that include cost of funds and overhead costs need to be managed well by streamlining human resources in achieving target income and streamlining all costs so that the spread between income and operating costs is greater. As seen from the data (table 2), the average of OEOI is 55.41%, means that

the operating cost is relatively very good, although there is a Islamic Rural Bank which has its operating cost ratio at very high level of 199%. The results of this study are in accordance with the findings of the study conducted by Harjanti *et al.* (2016) and Sudiyatno (2010) on banking in Indonesia. Youssef and Samir (2015) and Mahmud *et al.* (2016) also found a significant and negative effect between OEOI and bank performance. There are several different findings, such as Milhem and Istaiteyeh (2015) who conducted a study on banking in Jourdan, and Zeitun (2012) who conducted a study in Bangladesh, which stated that OEOI has no effect on bank performance.

5. CONCLUSSIONS AND RECOMENDATIONS

Based on the results of hypothesis test, it can be concluded that there is only one variable of which hypothesis is not proven, that is capital risk (CAR). While the other variables have their hypotheses proven. Financing risk as measured by the NPF has a significant negative effect on the performance of Islamic Rural Banks, liquidity risk as measured by FDR has a positive and significant effect on the performance of Islamic Rural Banks, the management risk as measured by NPM has a positive and significant effect on the performance of Islamic Rural Banks, while the operational risk as measured by OEOI has a negative and significant effect on the performance of Islamic Rural Banks. The results of this study can be utilized by the managers of Islamic Rural Banks to plan their performance by taking into account the variables that have effect on performance. The managers of Islamic Rural Banks must seriously reduce NPF and OEOI and increase FDR within the limits set by the government and increase NPM in order to improve bank performance. The results of this study are also expected to contribute to knowledge, especially for the studies conducted on Islamic Rural Banks that are still only a few conducted. Other researchers can also use these findings to be developed by adding other relevant variables, because this study certainly still has a lot of weaknesses.

REFERENCES

Abdillah, R., H.M. Nadratuzzaman and S.M. Muhari, 2016. The determinants factor of islamic bank's profitability and liquidity in Indonesia. Knowledge Horizons – Economics, 8(2): 140–147. *View at Google Scholar*

Acaravci, S.K. and E.C. Ahmet, 2013. Turkish banking sector's profitability factors. International Journal of Economics and Financial Issues, 3(1): 27-41. *View at Google Scholar*

Akhter, W., R.O. Ali and A. Muhammad, 2011. Efficiency and performnace of islamic banking: The case of Pakistan. Far East Journal of Psychology and Business, 2(2): 54-70. *View at Google Scholar*

Almazari, A.A., 2014. Impact of internal factors on bank profitability: Comparative study between Saudi Arabia and Jordan. Journal of Applied Finance & Banking, 4(1): 125-140. *View at Google Scholar*

Ani, W.U., 2012. An empirical assessment of the determinant on bank profitability in Nigeria: Bank characteristics panel evodence. Journal of Accounting and Taxation, 4(3): 38-43. *View at Google Scholar | View at Publisher*

Brigham, E.F. and E.C. Michael, 2005. Financial management: Theory and practice. 11th Edn., South Western: Thomson Corporation.

Bukhari, S.A.J. and A.Q. Rana, 2012. Internal and external determinant of profitability of banks: Evidence from Pakistan. Interdisciplinary Journal of Contemporary Research in Business, 3(9): 1037-1058. *View at Google Scholar*

Gul, S., I. Faiza and Z. Khalid, 2011. Factors affecting bank profitability in Pakistan. Romanian Economic Journal, 14(39): 61-87. *View at Google Scholar*

Hallunovi, A. and K. Kume, 2016. Determinants of profitability (Roa) in Albanian banking system. International Scientific Conference. Belgrade. pp: 391-400.

Harjanti, R.S., N. Mahmudah and G.D. Rahmadiane, 2016. Analisa Rasio Keuangan Pengaruhnya Terhadap Kinerja Bank Perkreditan Rakyat di Wilayah Kabupaten Tegal. Politeknik Negeri Jakarta: 502-508.

Idris, Asma and Rashidah, 2011. Determinant of islamic banking institutions' profitability in Malaysia. World Applied Journal, 12(Special Issue): 1-7.

Lartey, V.C., A. Samuel, K.B. Eric and P. Koforidua, 2013. The relationship between net interest margin and return on assets of listed banks in Ghana. Research Journal of Finance and Accounting, 4(16): 73-78.

Mahmud, K.M., I. Avijit, Md. Farhan. and N. Tabassum, 2016. The bank-specific factors affecting the profitability of commercial banks in Bangladesh: A panel data analysis. International Journal of Managerial Studies and Research, 4(7): 67-74. *View at Publisher*

Margaretha, F. and M.P. Zai, 2013. Faktor-faktor yang Mempengaruhi Kinerja Keuangan Perbankan di Indonesia. Jurnal Bisnis dan Akuntansi, 15(2): 133-141. *View at Google Scholar*

Milhem, M.M. and R.M.S. Istaiteyeh, 2015. Financial performance of islamic and conventional banks: Evidence from Jordan. Global Journal of Business Research, 9(3): 27-43.

Nizar, S., S. Wang, A. Jaleel and K. Peng, 2015. Determinants of bank's profitability in Pakistan: A latest panel data evidence. International Journal of Economics, Commerce and Management, 3(4): 1-16.

Ongore, V.O. and G.B. Kusa, 2013. Determinants of financial performance of commercial banks in Kenya. International Journal of Economics and Financial, 3(1): 237-252. *View at Google Scholar*

Purwoko, D. and B. Sudiyatno, 2013. The factors affecting bank performance (Empirical Study of the Banking Industry in Indonesia Stock Exchange). Jurnal Bisnis dan Ekonomi, 20(1): 25 − 39. *View at Google Scholar*

Rivai, V., B. Sofyan, S. Sarwono and P.V. Arifiady, 2013. Commercial bank management: Manajemen Perbankan dari Teori ke Praktik. Jakarta: PT. Raja Grafindo Persada.

Sanwari, S.R. and R.H. Zakaria, 2013. The performance of islamic banks and macroeconomic conditions. ISRA International Journal of Islamic Finance, 5(2): 83-98. *View at Google Scholar | View at Publisher*

Sudiyatno, B., 2010. Analisis Pengaruh Dana Pihak Ketiga, Bopo, Car Dan Ldr Terhadap Kinerja Keuangan Pada Sektor Perbankan Yang Go Public Di Bursa Efek Indonesia (BEI). Jurnal Dinamikan Keuangan dan Perbankan, 2(2): 125-137.

Syafri, 2012. Factors affecting bank profitability in Indonesia, Paper: The 2012 International Conference on Business and Management, Thailand.

Vong, A.P.I. and S.C. Hoi, 2011. Determinant of bank profitability in Macau, Working Papaer: Faculty of business and administration. University of Macau.

Wahdan, M. and W. El-Leithy, 2017. Factors affecting the profitability banks in Egypt over the Last 5 Years (2011-2015). International Business Management, 11(2): 342-349.

Youssef, A. and O. Samir, 2015. A comparative study on the financial performance between Islamic and conventional banks: Egypt case. Business and Management Review, 6(4): 161-176.

Yusuf, M.Y. and W.S. Mahriana, 2016. Faktor-Faktor Yang Mempengaruhi Tingkat Profitabilitas Bank Pembiayaan Rakyat Syariah (BPRS) Di Aceh. IQTISHADIA Jurnal Kajian Ekonomi dan Bisnis Islam, 9(2): 246-275. *View at Google Scholar | View at Publisher*

Zeitun, R., 2012. Determinant of islamic and conventional banks performance ini GCC countries using panel data analysis. Global Econony and Finance Journal, 5(1): 53-72. *View at Google Scholar*