

Does financial performance of Islamic banking is better, Panel data estimation

by Sugeng Suroso

Submission date: 06-Apr-2022 09:16AM (UTC+0700)

Submission ID: 1802971596

File name: formance_of_Islamic_banking_is_better,_Panel_data_estimation.pdf (436.07K)

Word count: 6049

Character count: 33346

Does Financial Performance of Islamic Banking is better? Panel Data Estimation

Irma Setyawati¹ Sugeng Suroso² Tulus Suryanto³ Dini Siti Nurjannah⁴

Abstract:

The global financial crisis has had a negative impact on the banking sector, especially the banking sector in Indonesia. Many studies suggest that Islamic banking is not affected by the global crisis, due to differences in the business nature.

The purpose of this study was to analyze the internal and external factors affecting the performance of Islamic banking in Indonesia. This study will also analyze the effect of the global crisis on the financial performance of Islamic banks.

This research resulted in the finding that the performance of Islamic banks is significantly affected by non-performing finance and inflation. In addition, the performance of Islamic banks have relatively better after crisis.

Keywords : financial performance, Islamic banking, global crisis, business, Indonesia

JEL Classification : E44, G01,

5

¹ Institut Bisnis and Informatika Kosgoro 1957, Jakarta–Indonesia, E-mail:

s_etyawati@yahoo.com

² Institut Bisnis and Informatika Kosgoro 1957, Jakarta–Indonesia, E-mail:

sugengsuroso1@gmail.com

³ Faculty of Islamic Economics and Business , State of Raden Intan Lampung Islamic University, Email: tulus@radenintan.ac.id

⁴ Institut Bisnis and Informatika Kosgoro 1957, Jakarta–Indonesia, E-mail:

dsitinurjannah@gmail.com

Introduction

The credit crisis experienced by the United States (US), known as the subprime mortgage crisis is one indicator of the financial crisis that wreaked havoc and extreme volatility in world financial markets. The credit crisis generally caused severe lack of funds or credit in the economy (Farook, 2009). This crisis began with the bankruptcy of several major financial institutions in the United States, then quickly turned into a global financial crisis and led to the bankruptcy of several financial institutions and banks in the United States and Europe. Across the world, there was a sharp decline in the values of stocks and commodities (Hassan, 2010).

Indonesia is a country that is affected by the global financial crisis, and affect the economic condition. One of the effects of the global financial crisis is slowing economic growth. In 2008, the overall Indonesian economy grew at 6.1% or slightly lower compared with 2007, of 6.3% (Abduh and Omar, 2012). The other causes, there was a very sharp decline in the rupiah against the US dollar, which resulted in a decrease in the capital adequacy ratio for leading banks. Although Bank Indonesia (the central bank in Indonesia) has conducted a policy by raising interest rates on deposits, but the bank's revenue to be negative, because negative interest rate spreads (Sufian and Habibullah, 2010).

The banking sector is the backbone of the economy and have an important role as a financial intermediary, therefore the soundness of banks is very important (Thalassinos *et al.*, 2015). The performance of a bank is very important in the national or global economy, surveillance over time is needed. Bank has a very important role in stability and economic growth through the contribution in improving the efficiency of the allocation and utilization of funds and the last resource in the economy (Al-Omar and Al-Mutairi, 2008, Suryanto, T, 2016).

Islamic banks able to withstand the economic crisis, because so far the Islamic bank has a strong commitment to the micro, small and medium enterprises (SMEs). In real terms this sector sustains the economy, Islamic financial institution positioning itself as a partner for the real sector. With this principle, the trust of customers grew (Ahmad and Haron, 2002). With the ability to withstand the global financial crisis and remains relatively positive in the midst of the crisis makes Islamic banks emerged as a system that is more fair and efficient. That condition has raised the profile of Islamic finance and bring stability in the global financial system (Abduh and Omar, 2012; Thalassinos and Liapis 2014).

The purpose of this study was to analyze the internal and external factors affecting the performance of Islamic banking in Indonesia. This study will also analyze the effect of the global crisis on the financial performance of Islamic banks. The global financial crisis affect the financial performance of conventional banks (Erkens, Hung and Matos, 2012; Nersisyan and Wray, 2010; Ramlall, 2009; Sufian and Habibullah, 2010; Thalassinos *et al.*, 2014), but the Islamic banking and finance is

not affected by the global crisis (Abdul-Razak and Hanudin, 2013; Adel, 2010; Ahmed, 2009; Md. and Mia, 2012; Rarick, 2008; Thalassinos and Dafnos, 2015).

The global crisis that afflicts conventional banks, shows how the financial sector is evolving towards fragility, where there was an increase in credit in the banking sector, a derivative transaction that exceeds the bank's assets. The basic cause of the crisis has not been fully resolved, because of the system used today is worse than it was before the crisis, this system even more fragile. This fact suggests that a healthy banking sector is a prerequisite for the economic (Nersisyan and Wray, 2010; Ramlall, 2009). But in Islamic finance, interest-based transactions are prohibited. Islam encourages business and trade transactions and activities that generate a fair and legitimate profit. Therefore, there is a close relationship between the flow of money and productivity. It is the concept of Islamic finance, which contributes to the isolation of the potential risks resulting from excess debt and speculative financial activities, which are part of the root causes of the financial crisis (Adel, 2010). Islamic financial operations based on two main objectives, namely the fulfillment of social welfare and benefits, where two objectives are important and can be achieved simultaneously with promoting Islamic values and social responsibility to the community (Abdul-Razak and Hanudin, 2013).

This paper can contribute to prove that the Islamic banking and finance can be an alternative compare with the conventional banking system, because the principles of justice, equality, honesty, piety and profit sharing mechanism is implemented in Islamic banking and finance in conducting its operational activities. At this time, it is very important to have a banking and financial system that is universal, fair, equitable, free of interest, free of fraud, ethical and feasible for the financial markets. Islamic banking and finance will have a bright future if conducted continuous research and development to meet the needs and welfare of the community, because it has it all.

Theory and Hypothesis

In general, the performance of Islamic banks is determined by internal and external factors. Internal determinants may include factors that affect the performance of banks, such as bank size, capital adequacy, asset quality, liability portfolio diversification, overhead costs, liquidity ratio, and ownership (Ramlall, 2009). Internal determinants of bank performance can be used to control the bank's management, and are divided into two categories, based on the financial statements and not based on financial statements. Based on the financial statements related to the decision-making directly to the posts on the balance sheet and income statement, while by no financial statements, including factors that are not directly related to the financial statements. Examples of the variables are not derived from the financial statements is the number of bank branches, branch status and location (Haron, Ahmad and Planisek, 1994).

Whereas the external/macroeconomic³¹ determinants affect the bank's financial performance, including stability of macroeconomic policy factor, Gross Domestic Product (GDP), inflation, interest rates and political instability and other macroeconomic variables (Ongore and Kusa, 2013; Shen, Chen, Kao and Yeh, 2009; Sufian and Habibullah, 2010).

Performance Measurement

In the many literature, bank's profitability measured by return on assets (ROA) or return on equity (ROE), usually expressed as a function of the internal and external determinants.

In this study, ROA used as dependent variables, which show a profit per dollar of assets owned by the bank. ROA is very important to demonstrate the ability of the bank's management in the use of financial resources and investment to generate profit (Hassan and Bashir, 2003). For some banks, ROA depends on the policy of the bank's management in decision-making, as well as factors that can not be controlled, such as economic growth and government regulations. ROA is an indicator that is most flattering to assess the profitability of banks (Rivard and Thomas, 1997), because regulators believe that ROA is a measure that is appropriate to calculate the efficiency of the bank and is an indicator that is not distorted by the high equity multiplier. ROA as a measure that is appropriate for determine the company's ability to generate profits from the portfolio of assets. On the other hand, return on equity (ROE) indicating how the effectiveness of the bank's management in the use of shareholder funds. ROE of banks affected by ROA, as well as the level of financial leverage of banks (equity/assets). For financial intermediaries, ROA has values tend to be lower than the ROE, so most banks use more financial leverage to increase ROE to be more competitive (Sufian, 2011).

Internal Determinants

Internal determinants used as independent variable is non-performing financing (NPF) and the capital strength (CS). NPF is the ratio between the total financing problems with financing provided by Islamic banks. Based on Bank Indonesia criteria, a category that included the financing problems is financing substandard, doubtful and loss. NPF is usually used as a proxy for credit risk. Usually, credit risk is high, due to the accumulation of the inability of the debtor to make payments, resulting in low profitability of banks (Hidayat and Abduh, 2012). NPF indicates the quality of bank assets and signals for the performance of the bank in the future (Demirguc-Kunt and Huizinga, 1999). The failure of the bank, usually comes from how banks can recognize the weaknesses of financing and creating a backup for written off (Sufian, 2011; Sufian and Royfaizal Razali Chong, 2008).

CS used as variables to examine the relationship between profitability and capitalization of the banking system. Although leverage (capitalization) is important in explaining the performance of financial institutions, but the impact on bank profitability is contradictory. The low ratio of bank's capital position caused to be

relatively risky, so CS can have a negative coefficient (Berger, Herring, & Szego, 1995). However, high levels of capital will reduce the level of capital costs, thus leading to a positive impact on the profitability of banks (Molyneux & Thornton, 1992). Moreover, the capital increase may increase the expected profit, due to the expected reduction in costs, so as to reduce the financial difficulties, including bankruptcy (Berger *et al.*, 1995).

External Determinants

In this study, used Gross Domestic Product (GDP) and inflation rate to measure the relationship between economic conditions to bank profitability. GDP is one of the most commonly used macroeconomic indicators to measure total economic activity in an economy. GDP is expected to affect various factors related to supply and demand for loans and deposits. Favorable economic conditions will affect the demand and supply of banking services, thus affecting either positively or negatively on profitability (Abduh and Omar, 2012; Al-Omar and Al-Mutairi, 2008; Alper and Anbar, 2011; Athanasoglou *et al.*, 2005; Guru *et al.*, 2002; Hassan and Bashir, 2003; Jiang *et al.*, 2003; Olweny, 2011; Sapuan and Roly, 2015; Shen *et al.*, 2009; Sufian and Royfaizal Razali Chong, 2008).

Inflation is a common price condition, both goods and services are increasing. Inflation affects the real value of cost and income, although it can have a positive or negative effect on profitability, depending on whether the inflation is anticipated or not anticipated. In the first case (inflation is anticipated), the bank can sometimes adjust the interest rate, which consequently generates an income that rises faster than the cost, with a positive impact on profitability. In the second case (unanticipated inflation), the bank may be slow in adjusting the interest rate resulting in a faster cost increase than the bank's income. This will consequently have a negative impact on bank profitability (Alper and Anbar, 2011; Guru *et al.*, 2002; Kosmidou and Zopounidis, 2008; Sufian, 2011; Sufian and Habibullah, 2010; Sufian and Royfaizal Razali Chong, 2008; Vong and Chan, 2009).

To assess the financial performance of Islamic banks to profitability, used a dummy variable interaction, namely DVBC to the period pre-crisis, given the number 0 and DVAC for the period post-crisis, given the number 1. Some researchers using dummy variables in research (Sufian and Habibullah, 2010). Dummy variables used to assess whether there is a change in the intercept, slope, or both, in two or more different situations, such as the condition before and after the crisis (Gujarati and Porter, 2010).

Hypothesis

The hypothesis of this research is:

H1: The performance of Indonesian Islamic banking is relatively better during the pre-crisis compared to the post-crisis period, after controlling the internal and external determinants.

H2: The performance of Indonesian Islamic banking is relatively better after post-crisis compared to the pre-crisis period, after controlling the internal and external determinants.

Data and Methodology

Data on internal determinants taken from the publication of quarterly reports eleven Islamic bank in Indonesia, period 2004 - 2012. Source of data derived from the Bank Indonesia's and or Financial Services Authority's website. While data on external determinants, obtained from the Central Bureau of Statistics. The software used in this study was Stata Ver 11.

Econometric Specification

In making estimation, used panel data model, because research data have both a cross-section and time-series dimension (Wooldridge, 2009). To examine the relationship between bank performance and internal and external determinants, multiple regression equations are used, because it allows explicitly controlling many other factors that simultaneously affect the dependent variable (Gujarati and Porter, 2010; Wooldridge, 2009), such as the following model :

$$Y_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \varepsilon_{it} \quad (1)$$

The addition of dummy variables is used to analyze the differences of two conditions (the performance of Islamic banks), pre-crisis and post-crisis. Therefore, in this study using interactive dummy variable (multiplying D with X), so it is possible to distinguish between the coefficient of slope of two groups (Gujarati and Porter, 2010). Table 1 shows the variables used as a proxy of the Islamic bank's performance and the variables that affect it. In the table there is a notation and the expected effects of each determinant as reflected in the literature.

Table 1. Overview Variables Used in Regression Model

VARIABLE	Overview of the ROA	HYPOTHESES WITH ROA
DEPENDENT VARIABLE		
RETURN ON ASSET (ROA)	The ratio used to measure a company's ability to generate profits derived from investment activities.	NA
INDEPENDENT VARIABLE		
INTERNAL DETERMINANT		
NON-PERFORMING FINANCE (NPF)	The level of non-performing financing measured by comparing the amount of non-performing financing divided by the total financing extended to the debtor	-

CAPITAL STRENGTH (CS)	The measure of capital strength, obtained by dividing capital by total assets. This ratio is used as an indicator that the company has low leverage, so the risk is lower	+/-
EXTERNS DETERMINANT		
LOG GROSS DOMESTIC PRODUCT (GDP)	The value of goods and services produced by the public within a year, including those produced by foreign nationals in the country	+/-
INFLATION (INF)	Overall price increase	+/-
DUMMY VARIABLE	Dummy variable that take value 0 for pre-crisis (DVBC) and the dummy variable that take value 1 for post-crisis (DVAC)	+/-

Multiple regression equation with interactive dummy variable as follows:

$$ROA_{it} = \beta_0 + \beta_1 NPF_{it} + \beta_2 CS_{it} + \beta_3 LnGDP_{it} + \beta_4 INF_{it} + \beta_5 DUMNPF_{it} + \beta_6 DUMCS_{it} + \varepsilon_{it} \quad (2)$$

Regression model with dummy interaction variable, as shown in equation (2), using least square fixed effect approach, the test of ordinary least square (OLS), such as multicollinearity, heteroscedasticity, and autocorrelation are still performed. Fixed effect preferred over random effect, after the Hausman test. In addition, the amount of research time (T) is greater than the number of individuals (N), so the use of fixed panel model panels is more appropriate (Greene, 2004; Kenward and Roger, 1997; White, 1980). By using the fixed effect panel model, it will show the individual effects of each Islamic bank. Table 2, 3 and 4 show the OLS test, which consists a test of multicollinearity, heteroscedasticity, and autocorrelation.

For multicollinearity test, indicated by the correlation coefficient between independent variables. If the value of the partial correlation between independent variables is greater than 0.8, it means that there is multicollinearity between independent variables (Gujarati and Porter, 2010). Table 2 shows the value of partial correlation between independent variables, smaller than 0.8, meaning there is no multicollinearity. Heteroscedasticity test was performed using Bruesch-Pagan Lagrange Multiplier (BP-LM test) and Likelihood Ratio (LR test) test (Gujarati and Porter, 2010). Table 3 shows that p-value is less than 0.05, meaning that the model variance structure is no heteroscedastic. While for autocorrelation test used Wooldridge test, in table 4 it shows that the value of p-value is less than 0.05, indicating no autocorrelation.

Table 2. Correlation Coefficient between Variables

	ROA	NPF	CS	LNGDP	INF	DUMNPF	DUMCS
ROA	1.0000						

NPF	0.0976 0.0318	1.0000					
CS	0.1254 0.0057	0.1790 0.0001	1.0000				
LNGDP	0.0707 0.1203	0.6113 0.0000	0.4732 0.0000	1.0000			
INF	0.1156 0.0109	0.5916 0.0000	0.5215 0.0000	0.7265 0.0000	1.0000		
DUMNPF	0.0718 0.1146	0.6443 0.0000	0.1586 0.0000	0.6314 0.0000	0.6088 0.0000	1.0000	
DUMCS	0.0939 0.0388	0.1923 0.0000	0.6395 0.0000	0.5246 0.0000	0.5450 0.0000	0.2445 0.0000	1.0000

Table 3. Heteroscedasticity Test

Breusch-Pagan Lagrange Multiplier Panel Heteroscedasticity Test	
Ho: Panel Homoscedasticity - Ha: Panel Heteroscedasticity	
Lagrange Multiplier LM Test	= 1820.64646
Degrees of Freedom	= 10.0
P-Value > Chi2(10)	= 0.00000
Greene Likelihood Ratio Panel Heteroscedasticity Test	
Ho: Panel Homoscedasticity - Ha: Panel Heteroscedasticity	
Likelihood Ratio LR Test	= 922.83602
Degrees of Freedom	= 10.0
P-Value > Chi2(10)	= 0.00000

18

Table 4. Autocorrelation Test

Wooldridge test for autocorrelation in panel data	
H0: no first order autocorrelation	
F(1, 10) =	26.284
Prob > F =	0.0004

Analysis**Empirical Result**

In the F test statistic (global test), it is stated that the model is significant because the p-value < 0.05, so the model is acceptable in describing the dependent variable. With the R² of 86%, meaning that the variation of ROA can be explained by variations of NPF, CS, LnGDP, INF, DumNPF, DumCS, while 14% explained by the variation

of other variables, which are not included in the model. Table 5 shows a summary of the dependent variable and its explanatory variables.

38

Table 5. Summary of the dependent and explanatory variables

VARIABLE	MEAN	STANDARD DEVIATION	MINIMUM	MAXIMUM
ROA	.217	2.661	-35.949	19.994
NPF	3.322	4.126	-13.355	16.793
CS	9.313	12.8153	0	82.622
LNNGDP	13.212	.183	12.906	13.521
INF	2.907	2.732	.028	8.6
DUMNPF	2.810	4.228	-13.355	16.793
DUMCS	7.581	12.912	0	82.622

Determinants of Profitability: Multivariate Analysis

Estimation results of the research model, as follows:

$$ROA_{it} = -28.201 - .0498 NPF_{it} + .036 CS_{it} + 2.182 LnGDP_{it} - .042 INF_{it} + .099 DUMNPF_{it} - .020 DUMCS_{it}$$

The complete estimation results are presented in Table 6.

Table 6. Estimation Result

Equation								R2
ROA	-28.201	-.0498	+.036	+2.182	-.042	.099	-.020	.96
=		NPF*	CS**	LnGDP	INF***	DumNPF	DumCS	
	(0,69)	.126	(.038)	(1.68)	(.255)	(.124)	(.040)	

*, **, *** indicates significant at the 1 per cent, 5 per cent, and 10 per cent levels respectively

The effect of NPF on ROA is negative. The regression coefficient marked as negative indicates the smaller of bad financing, and the greater tendency of the bank to make a profit. In some studies in the banking industry, non-performing loans (NPL) as credit risk proxies have a negative effect (Hidayat and Abduh, 2012; Mismam, 2012; Setyawati, 2016; Sufian, 2011; Sufian and Habibullah, 2010; Sufian and Royfaizal Razali Chong, 2008; Wasiuzzaman and Gunasegavan, 2013; Wasiuzzaman and Tarmizi, 2009). The results of empirical tests, statistically show that credit risk resulted in low profitability, both in conventional and syariah banks (Hidayat and Abduh, 2012; Mismam, 2012; Sapuan and Roly, 2015; Setyawati, 2016; Sufian, 2011; Sufian and Habibullah, 2010; Wasiuzzaman and Tarmizi, 2009). Bank management's concern about credit risk, can reduce future problems, because the biggest bank failures stem from the way banks recognize the weakness of assets

and create reserves to remove the write off of these assets (Sufian and Habibullah, 2010).

The capitalization rate (CS) has a positive effect to the profitability of Islamic banks in Indonesia. These empirical findings, provide support to the argument that a bank with good capitalization will reduce the cost of bankruptcy, thus reducing the cost of funding. Strong capital structure is also important for banks in developing countries, as it provides additional strength to avoid crises and enhance security for depositors during unstable macroeconomic conditions (Demirguc-Kunt and Huizinga, 1999; Goddard *et al.*, 2004; Kosmidou, Pasiouras and Tsaklanganos, 2007; Kosmidou and Zopounidis, 2008; Smith, Staikouras and Wood, 2003).

The effect of GDP on ROA is positive, consistent with previous research (Hassan and Bashir, 2003; Kosmidou *et al.*, 2007; Kosmidou and Zopounidis, 2008), and lends support to the argument that economic growth and performance of the banking sector are positively. INF has a negative effect on ROA, consistent with previous research (Kosmidou and Zopounidis, 2008). But many studies have found a positive effect between inflation and bank profitability. The effect between inflation and performance is ambiguous, because it depends on whether the bank fully anticipates the level inflation in the future. If the inflation rate is fully anticipated by the bank's management, then the bank can appropriately adjust the interest rate to increase income faster than the cost, it will gain higher economic returns. If the inflation rate is not expected, banks may be slow in adjusting interest rates. As a result, the cost increases faster than the bank's earnings, which consequently has a negative effect on bank profitability (Athanasoglou *et al.*, 2005; Bourke, 1989; Kosmidou *et al.*, 2007; Kosmidou and Zopounidis, 2008; Molyneux and Thornton, 1992).

Islamic Bank Performance in Indonesia : Pre and Post Crisis

To examine the differences in Islamic banking performance in Indonesia during the pre- and post-crisis, using parametric (t-test) and nonparametric tests (Mann-Whitney [Wilcoxon] and Kruskal-Wallis). The results are presented in Table 7.

28

Table 7. Summary Parametric and Non-Parametric Tests

INDIVIDUAL TESTS	PARAMETRIC TEST		NON-PARAMETRIC TEST		
	T – test		Mann-Whitney [Wilcoxon Sum]test	Rank-	Kruskall-Wallis Equality of Populations test
ROA	.083	-	188,68	-9,558***	165.463***
Pre-crisis	.329	1.0116***	307,08		
Post-crisis					
NPF	.804	-	154,76	-	118.244***
Pre-crisis	5.421	14.754***	347,78	15,664***	
Post-crisis					

CS	2.541	-	153,71	-	22.963**
Pre-crisis	14.957	12.107***	349,04	15,768***	
Post-crisis					
LNGDP	13.037	-	132,96	-	-0.000
Pre-crisis	13.357	39.059***	373,95	18,881***	
Post-crisis					
INF	.752	-	152,39	-	0.000
Pre-crisis	4.704	22.853***	350,64	15,530***	
Post-crisis					

*, **, *** indicates significant at the 1 per cent, 5 per cent, and 10 per cent levels respectively

Table 7 shows that the performance of Indonesian Islamic banks is better during post-crisis than pre-crisis. ROA, NPF, CS, were tested by parametric (t-test) and non-parametric (Mann-Whitney [Wilcoxon] and Kruskal-Wallis Test), obtained higher post-crisis than pre-crisis (statistically significant at 1 per cent level). The same study was conducted on conventional banks in Indonesia. The findings showed that the profitability of conventional banks in Indonesia decreased during post-crisis and losses resulting from credit risk, but the capital strength post-crisis relatively better (Sufian and Habibullah, 2010).

But in table 6 shows when added dummy coefficient of NPF obtained 0.0492. That is suggest that NPF pre-crisis is higher by 0.0492 than post-crisis. This is not consistent with the skimping hypothesis, that banks goal at maximizing long-term profits, may decide rationally to set lower costs in the short term by skimping on resources devoted to underwriting loans and monitoring, but has consequences of a larger credit risk (Mamonov, 2013). In the case of the Islamic banking in Indonesia, the empirical findings did not show such a thing, because the first Islamic bank in Indonesia was established in 1992 and its existence until 2008 only five Islamic banks, so that is done by Indonesian Islamic bank is how to educate the public about its existence by increasing financing to the public.

Dummy coefficients of CS obtained 0.34. That is suggest that CS post-crisis is higher by 0.34 than pre-crisis. The empirical findings show that the assets of Islamic bank in Indonesia showed increased annually, making it the capital strength of Islamic banks to be better. This is supported by the increasing market share, although the increase is not significant (Setyawati *et al.*, 2015).

Conclusion

The Asian financial crisis has had a very negative impact on the banking sector. The crisis caused a sharp decline in the domestic currency and a negative effect on the bank's leading balance sheets. In addition, bank revenues are reduced because banks can not charge higher interest rates to corporate borrowers, resulting in a negative spread of interest rates, reduced net bank income, and reduced capital adequacy.

The findings in this study that Indonesian Islamic banks have relatively better performance after the crisis. The reason is the exposure of Islamic banking financing is still more directed to the domestic economic activities, so it does not have a high level of integration with the global financial system and not yet have high transaction sophistication level. But it should be noted that the increasing competition in the banking sector due to the success of the Indonesian banking market depends on its competitiveness. Therefore, the management of banks and other stakeholders must find ways to obtain optimal capacity utilization while utilizing their resources as well as possible. These resources are not wasted during the production of banking products and services. Future research may include some variables, such as taxes, currency rates. Besides, it can also be done research on the determinants of bank profitability, differentiated banks that have big and small profits.

References

- Abduh, M., and Omar, M.A. 2012. Islamic banking and economic growth: the Indonesian experience. *International Journal of Islamic and Middle Eastern Finance and Management*, 5(1), 943–956. <https://doi.org/10.1108/17538391211216811>
- Adel, A. 2010. Global financial crisis: an Islamic finance perspective. *International Journal of Islamic and Middle Eastern Finance and Management*, 3(4), 306–320. <https://doi.org/10.1108/17538391011093252>
- Ahmad, N.H. and Ahmad, S.N. 2004. Key Factors Influencing Credit Risk of Islamic Bank : A Malaysian Case. *The Journal of Muamalat and Islamic*. Retrieved from http://s3.amazonaws.com/academia.edu.documents/72910/Key_Factors_influencing_credit_risk_of_islamic_bank__a_malaysian_case.pdf?AWSAccessKeyId=AKIAIWOWYYGZ2Y53UL3A&Expires=149077755&Signature=UQsq9BZXwrq39OHDLMLEUYzpfzA%3D&response-content-disposition=
- Ahmad, N. and Haron, S. 2002. Perceptions of Malaysian corporate customers towards Islamic banking products and services. *International Journal of Islamic Financial Services*, 3(4), 13–29. Retrieved from <http://staf.uum.edu.my/alib/wb3053/perceptions.pdf>
- Aksak, E. and Asutay, M. 2011. Does Islamic Finance Make the World Economically and Financially Safer? Islamic Finance and Its Implications on Sustainable Economic Growth. 8th International Conference on Islamic Economics and Finance, 1–44.
- Al-Omar, H. and Al-Mutairi, A. 2008. Bank-Specific Determinants of Profitability: The case of Kuwait. *Journal of Economic & Administrative Sciences*, 24(2), 20–34.
- Al-Salem, F. 2008. The Size and Scope of the Islamic Finance Industry : An Analysis. *International Journal of Management*, 25(1), 124–131.
- Alper, D. and Anbar, A. 2011. Bank Specific and Macroeconomic Determinants of Commercial Bank Profitability: Empirical Evidence from Turkey. *Business & Economics Research Journal*, 2(2), 139–152.
- Athanasoglou, P., Brissimis, S. and Delis, M. 2005. Bank-specific, industry-specific and macroeconomic determinants of bank profitability (MPRA Paper No. 32025). *Banking* (Vol. 25). Retrieved from <http://www.bankofgreece.gr/BogEkdoseis/Paper200525.pdf>
- Bashir, A.M. 2011. Assessing the Performance of Islamic Banks : Some Evidence from the Middle East. *ECommons*, 9(1), 1–11. Retrieved from <http://ecommons.luc.edu/cgi/viewcontent.cgi?article=1029&context=meea>

- 13 Beck, T., Demircug-Kunt, A. and Merrouche, O. 2013. Islamic vs. conventional banking: Business model, efficiency and stability. *Journal of Banking and Finance*, 37(2), 433–447. <https://doi.org/10.1016/j.jbankfin.2012.09.016>
- Bourke, P. 1989. Concentration and other determinants of bank profitability in Europe, North America and Australia. *Journal of Banking and Finance*, 13(1), 65–79. [https://doi.org/10.1016/0378-4266\(89\)90020-4](https://doi.org/10.1016/0378-4266(89)90020-4)
- 12 Demircug-Kunt, A. and Huizinga, H. 1999. Determinants of Commercial Bank Interest Margin and Profitability. *The World Bank Economic Review*, 13(2), 358–379. <https://doi.org/10.1093/wber/13.2.379> 22
- Erkens, D.H., Hung, M. and Matos, P. 2012. Corporate governance in the 2007 – 2008 financial crisis : Evidence from financial institutions worldwide. *Journal of Corporate Finance*, 18(2), 389–411. <https://doi.org/10.1016/j.jcorpfin.2012.01.005> 43
- Gischer, H. and Jüttner, D.J. 2001. Profitability and Competition in Banking Markets : An Aggregative Cross Country Approach, 1–19. Retrieved from <https://pdfs.semanticscholar.org/043d/f11a0bc1718fb4382b608dd930937704685b.pdf>
- Goddard, J., Molyneux, P. and Wilson, J.O.S. 2004. Dynamics of Growth and Profitability in Banking Dynamics of Growth and Profitability in Banking. *Journal of Money, Credit and Banking*, 36(6), 1069–1090.
- Greene, W. 2004. The behaviour of the maximum likelihood estimator of limited dependent variable models in the presence of fixed effects. *The Econometrics Journal*, 7(1), 98–119. <https://doi.org/10.1111/j.1368-423X.2004.00123.x> 32
- Gujarati, D.N. and Porter, D.C. 2010. *Essentials of Econometrics*.
- Haron, S., Ahmad, N. and Planisek, S.L. 1994. Bank Patronage Factors Muslim and Non-Muslim Customers. *International Journal of Bank Marketing*, 12(1), 32–40. <https://doi.org/10.1108/02652329410049599> 46
- Hassan, K. (2010). A return to the Qur'anic paradigm of development and integrated knowledge: The Ulu al-Albab model. *Intellectual Discourse*, 18(2), 183–210.
- Hidayat, S.E. and Abduh, M. 2012. Does Financial Crisis Give Impacts on Bahrain Islamic Banking Performance? A Panel Regression Analysis. *International Journal of Economics & Finance*, 4(7), 79–89. <https://doi.org/10.5539/ijef>
- Jalil, A. and Rahman, M.K. 2010. Financial Transactions in Islamic Banking are Viable Alternatives to the Conventional Banking Transactions. *International Journal of Business and Social Science*, 1(3), 220–234. 7
- Kenward, M.G. and Roger, J.H. 1997. Small sample inference for fixed effects from restricted maximum likelihood. *Biometrics*, 53(3), 983–997. <https://doi.org/10.2307/2533558>
- Kosmidou, K., Pasiouras, F. and Tsaklanganos, A. 2007. Domestic and multinational determinants of foreign bank profits: The case of Greek banks operating abroad. *Journal of Multinational Financial Management*, 17(1), 1–15. <https://doi.org/10.1016/j.mulfin.2006.02.002> 47
- Md., A.M. and Mia, M.A.H. 2012. Origin of & Solution to Global Financial Meltdown: An Islamic View. *International Journal of Business and Management*, 7(12), 114–130. <https://doi.org/10.5539/ijbm.v7n12p114> 15
- Mobeen A.H., Noreen, H., Karim, M. and Ilyas, M. 2011. Islamic Banking : Insulation against US Credit Crisis. *International Journal of Business and Social Science*, 2(10), 193–201. 19
- Molyneux, P. and Thornton, J. 1992. Determinants of European bank profitability: A note. *Journal of Banking and Finance*, 16(6), 1173–1178. [https://doi.org/10.1016/0378-4266\(92\)90065-8](https://doi.org/10.1016/0378-4266(92)90065-8)

- 20 Nersisyan, Y. and Wray, L.R. 2010. The global financial crisis and the shift to shadow banking (42 No. 587). Retrieved from <https://www.econstor.eu/bitstream/10419/56997/1/621628174.pdf> 24
- Olweny, T. 2011. Effects of Banking Sectoral Factors on the Profitability of Commercial Banks in Kenya. *Economics and Finance Review*, 1(5), 1–30. Retrieved from <http://www.businessjournalz.org/efr>. 19
- Ongore, V. and Kusa, G. 2013. Determinants of Financial Performance of Commercial Banks in Kenya. *International Journal of Economics and Financial Issues*, 3(1), 237–252.
- Ramlall, I. 2009. Bank-specific, industry-specific and macroeconomic determinants of profitability in Taiwanese banking system: Under panel data estimation. *International Research Journal of Finance and Economics*, 34(34), 160–167. Retrieved from <http://www.scopus.com/inward/record.url?eid=2-s2.0-72249099324&partnerID=tZ0tx3y1> 23
- Rarick, C.A. 2008. Islamic Finance : Panacea for the Global Financial System ? *Journal of Applied Business and Economics*, 11(3), 1–6. 21
- Rivard, R.J. and Thomas, C.A. 1997. The Effect of Interstate Banking on Large Bank Holding Company Profitability. *Journal of Economic and Banking*, 49, 61–76.
- Sapuan, N.M. and Roly, M.R. 2015. Bank Profitability and Bank-Specific Variables in Malaysia : A Panel Cointegration and Error Correction Model. *Journal of Islamic Finance and Business Research*, 3(1), 50–61. Retrieved from <http://www.wbiaus.org/5.Noraina.pdf> 14
- Seibel, H.D. 2008. The World beyond the Nation in Southeast Asian Museums. *Journal of Social Issues in Southeast Asia*, 27(1), 54–83. <https://doi.org/10.1355/s>
- Setyawati, I. 2016. Determinants of Growth and Profitability by Bank Specific Variable and Market Structure in Islamic Banking in Indonesia. *ACADEMY OF STRATEGIC MANAGEMENT JOURNAL*, 15(3), 1–14.
- Setyawati, I., Kartini, D., Rachman, S. and Brian, E. 2015. Assessing the Islamic Banking Financial Performance in Indonesia. *International Journal of Education and Research*, 3(10), 233–248. Retrieved from <http://www.ijern.com/journal/2015/October-2015/19.pdf>
- Suryanto, T. 2016. Audit Delay and Its Implication for Fraudulent Financial Reporting: A Study of Companies Listed in the Indonesian Stock Exchange. *European Research Studies*, 19(1), 18. 10
- Sufian, F. 2007. The efficiency of Islamic banking industry: A non-P metric analysis with non-discretionary input variable. *Islamic Economic Studies*, 14(1), 53–78. <https://doi.org/10.1108/08288660710779399> 11
- Sufian, F. and Habibullah, M.S. 2010. Assessing the Impact of Financial Crisis on Bank Performance Empirical Evidence from Indonesia. *ASEAN Economic Bulletin* Vol. 27(3), 245–62. <https://doi.org/10.1355/ae27-3a> 8
- Thalassinos, I.E., Stamatopoulos, D.T. and Thalassinos, E.P. 2015. The European Sovereign Debt Crisis and the Role of Credit Swaps. Chapter book in *The WSPC Handbook of Futures Markets* (eds) W. T. Ziemba and A.G. Malliaris, in memory of Late Milton Miller (Nobel 1990) World Scientific Handbook in Financial Economic Series Vol. 5, Chapter 20, pp. 605-639, ISBN: 978-981-4566-91-9, (doi: 10.1142/9789814566926_0020).
- Thalassinos, I.E. and Dafnos, G. 2015. EMU and the process of European integration: Southern Europe's economic challenges and the need for revisiting EMU's institutional framework. Chapter book in *Societies in Transition: Economic, Political and Security*

- Transformations in Contemporary Europe, 15-37, Springer International Publishing, DOI: 10.1007/978-3-319-13814-5_2.
- Thalassinos, I.E., Liapis, K. and Thalassinos, E.J. 2014. The role of the rating companies in the recent financial crisis in the Balkan and black sea area. Chapter book in Economic Crisis in Europe and the Balkans, 79-115, Contributions to Economics, Springer International Publishing, DOI: 10.1007/978-3-319-00494-5-6.
- Thalassinos, I.E. and Liapis K. 2014. Segmental financial reporting and the internationalization of the banking sector. Chapter book in, Risk Management: Strategies for Economic Development and Challenges in the Financial System,(eds), D. Milos Sprcic, Nova Publisher 221-255, ISBN: 978-163321539-9; 978-163321496-5.
- Usman, A. and Khan, M.K. 2012. Evaluating the Financial Performance of Islamic and Conventional Banks of Pakistan : A Comparative Analysis Abid Usman Sarhad University of Science & Information Technology. International Journal of Business and Social Science, 3(7), 253–257.
- Wasiuzzaman, S. and Tarmizi, A. 2009. Profitability of Islamic Banks in Malaysia : An Empirical Analysis. Journal of Islamic Economics, Banking and Finance, 6(December 2010), 54–65
- White, H. 1980. Econometrica. Journal of the Econometric Society, 48(4), 817–838.
- Wooldridge, M.J. 2009. Introductory Econometrics. Nelson Education, Ltd.
<https://doi.org/10.1016/j.jconhyd.2010.08.009>

Does financial performance of Islamic banking is better, Panel data estimation

ORIGINALITY REPORT

12%

SIMILARITY INDEX

7%

INTERNET SOURCES

3%

PUBLICATIONS

6%

STUDENT PAPERS

PRIMARY SOURCES

1	Asian Review of Accounting, Volume 16, Issue 1 (2008-05-11) Publication	<1 %
2	www.iaset.us Internet Source	<1 %
3	Submitted to Melbourne Institute of Technology Student Paper	<1 %
4	Submitted to Universitas Pelita Harapan Student Paper	<1 %
5	Submitted to Universitas Negeri Jakarta Student Paper	<1 %
6	Submitted to Universitas Pendidikan Indonesia Student Paper	<1 %
7	Submitted to University of Central Lancashire Student Paper	<1 %
8	Submitted to University of Pecs Student Paper	<1 %

9	academicjournals.org Internet Source	<1 %
10	www.ejilt.org Internet Source	<1 %
11	Submitted to Aston University Student Paper	<1 %
12	M. Pilar García-Alcober, Diego Prior, Emili Tortosa-Ausina, Manuel Illueca. "Risk-taking behavior, earnings quality, and bank performance: A profit frontier approach", BRQ Business Research Quarterly, 2020 Publication	<1 %
13	Submitted to Vrije Universiteit Brussel Student Paper	<1 %
14	thema.mcq.org Internet Source	<1 %
15	www.mla.vgtu.lt Internet Source	<1 %
16	Submitted to Kuwait Maastricht Business School Student Paper	<1 %
17	Submitted to Universiti Teknologi Malaysia Student Paper	<1 %
18	publisher.unimas.my Internet Source	<1 %
19	research-api.cbs.dk Internet Source	<1 %

20	Submitted to Sheffield Hallam University Student Paper	<1 %
21	openaccess.nhh.no Internet Source	<1 %
22	tesi.luiss.it Internet Source	<1 %
23	Submitted to Argosy University Student Paper	<1 %
24	Submitted to DeVry, Inc. Student Paper	<1 %
25	Liliana Ávila, Leonor Teixeira. "chapter 37 The Main Concepts Behind the Dematerialization of Business Processes", IGI Global, 2019 Publication	<1 %
26	Submitted to University of Hong Kong Student Paper	<1 %
27	www.ijbssnet.com Internet Source	<1 %
28	www.hsu-hh.de Internet Source	<1 %
29	www.fraserinstitute.org Internet Source	<1 %
30	Abuelgasim Sabah Elsaid Mohammed. "Chapter 8 Academic Writing Needs Assessment: A Case Study of MPH Students,	<1 %

University of Khartoum", Springer Science
and Business Media LLC, 2018

Publication

-
- | | | |
|----|--|------|
| 31 | Submitted to Cedar Valley College
Student Paper | <1 % |
|----|--|------|
-
- | | | |
|----|---|------|
| 32 | unitguides.mq.edu.au
Internet Source | <1 % |
|----|---|------|
-
- | | | |
|----|---|------|
| 33 | worldcustomsjournal.org
Internet Source | <1 % |
|----|---|------|
-
- | | | |
|----|---|------|
| 34 | Zehrina Selimović, Hazim Selimović, Siniša Opić. "Development of social skills among elementary school children", International Journal of Cognitive Research in Science Engineering and Education, 2018
Publication | <1 % |
|----|---|------|
-
- | | | |
|----|---|------|
| 35 | cloak.uclan.ac.uk
Internet Source | <1 % |
|----|---|------|
-
- | | | |
|----|---|------|
| 36 | qjma.atu.ac.ir
Internet Source | <1 % |
|----|---|------|
-
- | | | |
|----|---|------|
| 37 | www.coursehero.com
Internet Source | <1 % |
|----|---|------|
-
- | | | |
|----|---|------|
| 38 | www.csus.edu
Internet Source | <1 % |
|----|---|------|
-
- | | | |
|----|--|------|
| 39 | Peterson K. Ozili. "Bank income smoothing, institutions and corruption", Research in International Business and Finance, 2019
Publication | <1 % |
|----|--|------|
-

40	simorgh.de Internet Source	<1 %
41	Roikhan Mochamad Aziz, Adit. "Determinant Of Sharia Bank Indonesia Rate With Financing And Deposit In Indonesian Islamic Banking Asset", Kresna Social Science and Humanities Research, 2020 Publication	<1 %
42	academicworks.cuny.edu Internet Source	<1 %
43	dr.lib.sjp.ac.lk Internet Source	<1 %
44	www.boz.zm Internet Source	<1 %
45	www.i-scholar.in Internet Source	<1 %
46	www.researchintorecovery.com Internet Source	<1 %
47	www.sid.ir Internet Source	<1 %
48	Greene, Judith, D'Oliveira, Manuela. "Learning to Use Statistical Skills in Psychology", Learning to Use Statistical Skills in Psychology, 2005 Publication	<1 %

Exclude quotes Off

Exclude matches Off

Exclude bibliography Off