Analysis the Effect of Macroeconomic Indicators and Specific-Firm Characteristic as Determinant Profitability of Islamic Banks in Asia

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Abstract : The purpose of this study is to examine the effect of macroeconomic indicators and specific-firm characteristics on the profitability of Islamic banks in Asia for period 2008-2012. Macroeconomic indicators using variables GDP growth and inflation, while the firm-specific characteristics using variables leverage, capitalization, operating expense, asset quality, number of branches, and firm size. Bank profitability measured by ROA and ROE. Research method using Ordinary Least Squares regression (OLS) to process the data types unbalanced panels and balanced panel. Unbalanced panel using sample of 42 Islamic banks with 188 observations, while on balanced panel using sample of 28 Islamic banks with 140 observations. The result of this research shows that capitalization, firm size, GDP growth, and inflation are determinants affecting ROA with positive and significant influence, while operating expense and leverage are significantly negative determinants that affect ROA. Asset quality and number of branches had no significant influence to ROA. The research also shows that determinant factors that affect ROE with positive and significant influence are captalization, number of branch, GDP growth, and inflation, while operating expense, and asset quality are determinants that affect significantly negative to ROE. Leverage and firm size don't have significant influence to ROE. These results expected to be useful as a consideration material to improve the performance of Islamic banking, especially in Indonesia in order to compete with Islamic banking in Asia.

Keywords : Islamic Banks, Profitability, Macroeconomic Indicators, Specific-Firm.

Introduction

Islamic bank as part of the banking industries in the world, deserve attention and great support because growth of Islamic banking industry expanded significantly every year. Prospects and opportunities of Islamic banking in the future are very bright, positive and promising. According to statistics of World Islamic Banking Competitiveness Report 2011 global Islamic banking industry assets at the end of 2011 amounted to 1,3 trillion USD, growing about 20 percent from previous year. Global Islamic banking assets in 2011 amounted to 1,33trillion USD projected increasing up to 1,811 trillion USD in 2013. This data shows that estimated average growth of global Islamic banking assets rise by 17% per year. With higher predicted growth of global Islamic banking assets then the space for Islamic banking to grow is highly available.

The financial performance of global Islamic banking shows positive trend. According to statistics of World Islamic Banking Competitiveness Report 2013 shows an increase in growth

of the global Islamic banking assets at five years from 2008 to 2012. Increased growth in global Islamic banking assets per year amounted to 16,4%, it doesn't have much different from estimated growth in the 2011 reports. Total assets of global Islamic banking in 2012 reached 1,54 trillion USD. Furthermore, global Islamic banking assets in 2012 are dominated by Islamic banks from the GCC countries and Asia. Distribution of global Islamic banking assets including Saudi Arabia 13,7%, Malaysia 9,8%, UAE 9,1%, Kuwait 9,0%, Qatar 4,1%, Turkey 2,7%, Bahrain 2,3%, Indonesia 1,5%, and the remaining Islamic banks from other countries including Iran with a percentage reached 45%. The data shows 20 world Islamic banks in 2012 which resulted in more than 50% of global Islamic banking assets come from 8 countries in Asia, including GCC countries, Malaysia, Indonesia and Turkey. This data shows that Islamic banking currently being developed in Asian countries. This study is to examine the effect of macroeconomic indicators and firm-specific characteristics on the profitability of Islamic banks in Asia for period 2008-2012.

Literature Review

Many studies have investigated the internal and external determinants that influence bank's profitability within various countries, and different time periods. Abdullah Awadh Bukhair (2013) conducted research on Islamic banks in GCC countries. Oemar Masood (2012) with the scope of research in 25 Islamic Banks of 12 Middle Eastern countries for period 2006-2010. Deger Alper (2011) conducted research with the scope of research in commercial bank at Turkey for period 2002-2010. Ghulam Ali (2010) with the scope of research in 20 Commercial Bank of Pakistan for period 1996-2004. Ali Mustafa (2013) with the scope of research in Islamic Bank at Jordan for period 2000-2011. Muhamad Muda (2013) conducted research to examine profitability of Domestic Islamic Bank and Foreign Islamic Bank operating in Malaysia for period 2007-2010. Khizer Ali et al. (2011) conducted study with the scope of Islamic Banking in Pakistan for period 2006-2009. Virsya Umari (2013) conducted study with the scope 37 Islamic Bank in Asia. Al - Jafari and Alchami (2014) conducted research with the scope of Islamic Bank in Syria for period 2004-2011.

Among the determinants of Islamic bank's profitability, Bukhair (2013) found that variables capitalization, branch, and GDP affect significantly positive effect on ROA and ROA of Islamic bank, while asset size only affect significantly positive on ROE. Masood (2012) study showed variables asset size affect significantly positive and capital adequacy, asset quality, operating efficiency and financial risk affect significantly negative on profitability Islamic banks.

Development of Hypotheses

Supported by previous research, the hypothesis of this study are as follows : Islamic banks are generally operated in an environment that has a high level of risks. One of the most important asset quality indicators is the financial leverage ratio measured by total liabilities divided by total assets (Bukhair, 2013). He states in his research that the company which has the option to grow larger will have less total liabilities because companies prefer solution to problems associated with liabilities.

H1 : Leverage ratio with proxy LATA affect significantly negative on profitability of Islamic banking

High capital adequacy of banks means bank resist the occurence of losing assets (Samad, 2004). To measure capital adequacy in Islamic banking using Capital Adequacy Ratio (CAR). CAR is an indicator that shows the ability of banks to cover decline in operating activity as

result of losses caused by bank's risky assets (Ali, 2010). The greater ratio of Capital Adequacy Ratio (CAR) will affect lower possibility of bank's problem and could increase the public trust

H2 : Capitalization ratio with proxy CAR affect significantly positive on profitability of Islamic banking

Operating expenses of the banking system is an important factor affecting profitability, since it provides information related to operation costs, such as the total amount of wages and salaries, investment costs, and the daily cost of branch offices (Bukhair, 2013). According to Pasiouras and Kosmidou (2008), the bank's poor expenses factor is considered one of the primary elements of weak profitability. Operating expenses in this study were measured using Operating Expense Ratio. The greater this ratio will shows the condition of inefficiency management bank in operational activities that impact on Islamic bank profitability .

H3 : Operating Expense ratio with proxy OER/BOPO affect significantly negative on profitability of Islamic banking

Non-performing loans is another important measure of assets quality and describe the capital situation of banks loans portfolio that effect the banks performance negatively (Masood, 2012). Non Performing Financing (NPF) is the ratio used to assess quality of assets in Islamic banks is. NPF shows the ratio of non-performing loans. The greater the NPF may result in lower bank profitability, because increasing number of potential financing problems will cause losses for Islamic banks.

H4 : Asset quality with proxy NPF affect significantly negative on profitability of Islamic banking.

The key success of Islamic banks to raise funds from society is related to ability of Islamic banks in reaching out customers location. More number of branches, it will affect increase number of people who deposit funds into banks. The number of Islamic bank branches can be defined as the total of branch offices and sub-branch offices. It is used as a proxy for bank's location (Bukhair, 2013). According Harimaya and Kondo (2011), expansion of branch network at sufficient level will provide positive effect on bank cost and profit.

H5 : Number of branches affect significantly positive on profitability of Islamic banking

According to Smaoui and Salah (2012), Bukhair (2013) bank size is a very important factor affecting the profitability level of Islamic banks because an increase in bank's size would lead to a reduction in information gathering cost, and consequently, maximize profitability. Theoretically, the larger companies have greater access to individuals or certain parties that can help improve the performance of the company and has more varied methods of financing compared to small firms.

H6 : Asset size affect significantly positive on profitability of Islamic banking

GDP affects various factors related to the supply and demand for financing and deposits. If GDP growth slowly, especially during a recession it will lead to deteriorate in credit quality and defaults increased, thus resulting in reduce bank profits. According Bukhair (2013), if real GDP rises then people's income will also rise. So the ability of saving will also increase. The increase in public saving will affect the profitability of Islamic banks.

H7 : Real GDP growth affect significantly positive on profitability of Islamic banking

According Smaoi and Salah (2012) the effects of inflation greatly depending on whether or not banks have predicted the inflation. When inflation has been predicted, the banks will adjust their financing or loans, thus resulting increasing in profits. However, if inflation not predictable then the bank could increase costs, which can reduce profitability of banks. The

significant effect expected between inflation and profitability but negative or positive depends on whether the inflation is projected.

H8 = Inflation affect significantly negative/positive on profitability of Islamic banking

Methodology

Data Collection

The data in this study were obtained from financial statements of Islamic banks in Asia. This research was conducted with the scope of Islamic banks in Asia during the period 2008 – 2012. Sampling method using purposive sampling. The panel data is used in analyzing the bank's profitability determinants. The total sample used for unbalanced panel 42 banks with 188 observations, and on balanced panel 28 banks with 140 observations.

Empirical Models and Variables Measures

Islamic Bank Profitability

The 10 variables are considered in the study to analyze the profitability determinants of Islamic banks. The two variables are used as dependent variables and the rest of variables are considered as independent.

Dependent Variables

The most widely used measure for assessing the profitability are using Return on Assets (ROA) and Return on Equity (ROE). Return on asset (ROA) shown in percent and explained as net profit after tax to total assets. Return on equity (ROE) defined as net profit divided by shareholder equity and is expressed in percent (Masood, 2012).

Independent Variables

Including firm specific characteristics and macroeconomic indicators. Firm specific characteristics that affect the profitability of banks are factors that can be influenced by the bank's management decisions or also called internal factors. Macroeconomics is the analysis of the influence of external factors at the macro level, in the form of changes in economic conditions that occurred outside the company, so it can not be controlled directly by the company. Macroeconomic indicators used in this study are real GDP growth and inflation.

Leverage or better known as the solvency ratio or gearing ratio. It is said that this ratio used to measure the ability of a bank to pay all of its liabilities, both short and long term if the company is liquidated. According Masood (2012) leverage shows the capital of bank can absorb financial losses

Capitalization is assessing the capital adequacy of banks using capital adequacy ratio (CAR) against risk of loss that may arise from the movement of bank assets that most of the funds came from public funds or a third party. According Ali (2010) The higher ratio indicates lower need of external funding and higher the bank's profitability. It also signifies the ability of banks to absorb the external shocks and manage risk exposure with shareholders.

BOPO/OER is a ratio that shows efficiency of bank operational performance. BOPO/OER compare between banks operating expenses to operating income (Dendawijaya, 2009).

Asset Quality is an assessment of the condition of the bank's assets and the adequacy of risk management of financing. Asset quality is assessed by determining the level of collectibility.

The Number of Islamic Bank Branches can be defined as the total of branch offices, and sub-branch offices. It is used as a proxy for a bank's location or consumers accessibility to Islamic banks.

Firm Size is the classification of large and small companies in a variety of ways, including total assets, the log size, the value of the stock market and others.

Gross Domestic Product (GDP) Growth. Gross Domestic Product is the total value of final goods and services produced by the entire people of a country in a given time period, while GDP growth is a growth in the value of GDP from period year t-1 to year t (Mankiw, 2003).

Inflation is tendency of prices to rise in general and continuous. To measure the percentage increase in the Consumer Price Index (CPI), for all goods and services annual inflation rate is used (Kane, 2004).

Table 1 Research Variables

Ratio	Variabel	Formula
Variabel Dependen		
ROA	*Return on Assets*	*Net Income/Total Assets*
ROE	*Return on Equity*	*Net Income/Shareholder Equity*
Variabel Independen		
LATA	*Liabilities to Total Assets*	*Total Liability/Total Assets*
CAR	*Capital Adequacy Ratio*	*(Tier 1 + Tier 2) / ATMR*
NPF	*Non Performing Financing Ratio*	*Non-Performing Financing/Total Loans*
BOPO/OER	*Operational Efficiency Ratio*	*Operating Expense/ Operating Income*
SIZE	Bank Size	*Logn Total Assets*
NUMBER OF BRANCH	Number of Branch Network	*Number, Including head office*
INFLATION RATE	Inflation rate	$\dfrac{(CPI_n - CPI_{n-1})}{CPI_{n-1}}$
GDP GROWTH	GDP growth	$\dfrac{GDP\ t - GDP\ t\text{-}1}{GDP\ t\text{-}1}$

Multivariate regressions

The model used in this study is multiple regression analysis using Ordinary Least Square (OLS). Multivariate regression was adapted and modified from International Journal Bukhair (2013) as follows :

$$Profitability = \beta 0 + \beta 1*LATA + \beta 2*CAR + \beta 3*OETA + \beta 4*BRANCH + \beta 5*SIZE + \beta 6*GDP + \alpha i + \mu it$$

The independent variables added the asset quality and macroeconomic indicators such as inflation. Regression equation modified for use in this study, as follows :

Profitability $= f$ (*Bank Specific Variables; Macro Economic Variables*)

Profitability $= \beta 0 + \beta 1*LATA + \beta 2*CAR + \beta 3*BOPO + \beta 4*BRANCH + \beta 5*SIZE + \beta 6*AQNPF + \beta 7*GDP + \beta 8*IF + \mu it$

Description:

Profitability	= ROA , ROE
LATA	= leverage is measured by liabilities to total assets ratio
CAR	= Capitalization is measured by Capital Adequacy Ratio
BOPO/OER	= Operating Expense to Operating Income Ratio
NPF	= Asset Quality is measured by Non Performing Financing Ratio
BRANCH	= Number of branches
SIZE	= logn (total assets), the natural logarithm of total assets
GDP	= real GDP growth
IF	= Annual Inflation Rate
μit	= the error term / residual error
$\beta 0$	= constant
$\beta 1 , \beta 2 ,$ dst	= coefficient of independent variables

Result And Discussion

Tables 4.2 shows the descriptive statistics of existing variables in this study. Descriptive statistics provide description of data from the average value (mean), standard deviation, maximum, minimum, kurtosis and skewness. Tables 4.2 also shows the descriptive statistics of research variables based on type of panel data (balanced and unbalanced panels). The results of descriptive statistics between balanced and unbalanced panel shows no significant difference.

Tabel 2 Descriptive Statistic

	Jenis data	ROA	ROE	LATA	CAR	BOPO
Mean	Balanced	0.015622	0.135465	0.768638	0.185931	0.463824
	Unbalanced	0.014563	0.118452	0.745150	0.201004	0.488834
Median	Balanced	0.012948	0.130889	0.853927	0.168400	0.424177
	Unbalanced	0.012125	0.112214	0.845337	0.173800	0.455469
Maximum	Balanced	0.054686	0.349435	0.956724	0.995000	0.976470
	Unbalanced	0.074300	0.349435	0.956724	0.995000	0.977047
Minimum	Balanced	0.000538	0.002477	0.106086	0.090700	0.122321
	Unbalanced	0.000538	0.000678	0.095428	0.077000	0.122321
Std. Dev.	Balanced	0.010127	0.075376	0.241632	0.099384	0.198000
	Unbalanced	0.011342	0.078540	0.254559	0.122774	0.211978
Skewness	Balanced	1.407041	0.585257	-1.766487	4.582477	0.393818
	Unbalanced	1.730645	0.579238	-1.518242	3.603040	0.382167
Kurtosis	Balanced	5.257277	2.984500	4.635403	20.65382	2.507593
	Unbalanced	7.503483	2.861340	3.776774	19.67486	2.335174

Source : *Eviews 7* (2014)

	Jenis data	NPF	LnSIZE	BRANCH	GDP GROWTH	INF
Mean	Balanced	0.041242	22.09680	44.49286	0.053002	0.048393
	Unbalanced	0.040733	22.07743	42.71277	0.049836	0.050639
Median	Balanced	0.032115	22.09241	39.50000	0.056398	0.039694
	Unbalanced	0.031300	22.03303	30.00000	0.051268	0.038891
Maximum	Balanced	0.159300	24.98994	110.0000	0.177000	0.202861

	Unbalanced	0.160800	25.44194	141.0000	0.177000	0.206283
Minimum	Balanced	0.000000	17.39717	3.000000	-0.052000	0.002425
	Unbalanced	0.000000	17.39717	2.000000	-0.052000	0.002425
Std. Dev.	Balanced	0.030841	1.349107	31.86742	0.039991	0.040700
	Unbalanced	0.033244	1.328211	32.88974	0.037419	0.043887
Skewness	Balanced	1.424278	-0.207196	0.447185	0.719754	1.138365
	Unbalanced	1.565810	0.053141	0.655203	0.737538	1.233694
Kurtosis	Balanced	4.783106	3.337037	1.945129	5.340785	3.909192
	Unbalanced	5.375809	3.417253	2.316183	5.687198	4.119299

Source : *Eviews 7* (2014)

Descriptive statistics table above shows that the average ROA of Islamic banking in Asia in the period 2008-2012 is 0,015622 for balanced panel and 0,014563 for unbalanced panel. The second dependent variable is ROE with mean at percentage 0,135465 and 0,118452 on balanced panel on the unbalanced panel. The average value (mean) of ROE is slightly above the middle value and in ideal condition. The median is 0,112214, and the standard deviation is 0,078540.

From the results of correlation matrix, both balanced and unbalanced data for the panel there are no independent variables coefficient more than 0,8, so it can be concluded that there is no multicollinearity in the data of this study. The second table shows that all the independent variables are free from multicollinearity.

Table 3 *Generalized Least Squared (ROA)*

Total Panel (unbalanced) observations : 188			
Weighted Statistics		Unweighted Statistics	
R-Squared	0,782913	R-Squared	0,415990
Total Panel (balanced) observations : 140			
Weighted Statistics		Unweighted Statistics	
R-Squared	0,786081	R-Squared	0,613982

Source : *Eviews 7* (2014)

Table 4 *Generalized Least Squared (ROE)*

Total Panel (unbalanced) observations : 188			
Weighted statistics		Unweighted statistics	
R-Squared	0,746119	R-Squared	0,413163
Total Panel (balanced) observations : 140			
Weighted statistics		Unweighted statistics	
R-Squared	0,739035	R-Squared	0,486161

Source : *Eviews 7* (2014)

Testing heteroscedasticity using Generalized Least Square. From table 4.3 and 4.4 for indicator ROA, the value of R-squared weighted on the unbalanced panel is 0,782913 and R-squared unweighted value is 0,415990. Balanced panel have similar result. The test result shows that the value of R-squared weighted is greater than the R-squared unweighted. The table shows heteroscedasticity test ROE indicator, the value of R-squared weighted on the unbalanced panel is 0,746119 and R-squared unweighted value is 0,413163. From the test results shows that the value of R-squared weighted on the balanced and unbalanced panel value is greater than the R-squared unweighted. This indicates that the data used in this study are heteroscedasticity. Heteroscedasticity problem can be solved with Generalised Least Square method.

Regression result (Table 4.5 and 4.6), the autocorrelation problem has been solved. Probability (F-statistic) for balanced and unbalanced panel with ROA and ROE indicators have value less than 5% which is 0,00000. This means that the null hypothesis is rejected so that all the independent variables in study together can affect the profitability of Islamic banks in Asia with a proxy variable ROA significantly with 95% confidence level. Durbin Watson statistic within the range of 1,8 to 2 indicates that the variables in this model is free from autocorrelation. R Squared (R^2) measures how the model can be explained well. From the regression results, adjusted R^2 values obtained for unbalanced panel is 0,507929, and 0,692342 for balanced panel. In the unbalanced panel it indicates that 50,79% independent variables tested in this study (LATA, CAR, BOPO, NPF, number of branches, size, GDP growth, and inflation) has the effect amounted 50.79% of the variable dependent ROA. Percentage amounted 49,21% influenced by other variables outside the model of this study.

Table 5 Regression Result Indicator ROA

Variable	Exp. sign	188 Observations Unbalanced Panel : $ROAit = \alpha0 + \alpha1LATAit + \alpha2CARit + \alpha3BOPOit + \alpha4NPFit + \alpha5SIZEit + \alpha6BRANCHit + \alpha7GDPGRit + \alpha8IFit + \varepsilon it$			140 Observations Balanced Panel : $ROAit = \alpha0 + \alpha1LATAit + \alpha2CARit + \alpha3BOPOit + \alpha4NPFit + \alpha5SIZEit + \alpha6BRANCHit + \alpha7GDPGRit + \alpha8IFit + \varepsilon it$		
		Coef	(t-stat)	Prob (t-stat)	Coef	(t-stat)	Prob (t-stat)
C		0.035169	2.003784	0.0445	0.040851	2.741622	0.0067
LATA	-	-0.003748	-1.654676	0.0914*	-0.007379	-2.113661	0.0365**
CAR	+	0.013487	2.034102	0.0434**	0.010193	1.765323	0.0783*
BOPO	-	-0.026967	-6.758644	0.0000***	-0.029191	-8.015343	0.0000***
NPF	-	-0.018908	-0.976046	0.3304	-0.025642	-1.077047	0.2835
LnSIZE	+	0.001030	1.984548	0.0492**	0.001273	2.392791	0.0181**
BRANCH	+	3.30E-05	1.252924	0.2119	1.86E-05	0.768227	0.4438
GDPGR	+	0.070816	3.571414	0.0000***	0.053600	3.311915	0.0012**
INF	-/+	0.045454	2.943267	0.0037***	0.046369	3.331971	0.0011***
AR		0.431915	6.100755	0.0000***	0.521987	6.617746	0.0000***
R²		0.523566			0.712407		
Adj. R²		0.507929			0.692342		
F-statistic		20.76366			35.50556		
Prob (F-stat)		0.000000***			0.000000***		
DW stat		1.938072			2.019352		
* level significance α = 10%							
** level significance α = 5%							
*** level significance α = 1%							

Source : *Eviews 7* (2014)

Adjusted R² ROE indicator obtained for unbalanced panel is 0,590557, and 0,649237 for balanced panel. In the unbalanced panel indicates that 59,05% independent variables tested in this study has the effect amounted 59,05% of the variable dependent ROE. The rest is influenced by other variables outside the model of this study.

Table 4.5 shows that the probability of a variable leverage represented by Liabilities to Total Assets Ratio (LATA) on the unbalanced panel is 0,0914. Coefficient value is -0,003748 which means there is a negative effect of leverage with proxy LATA to profitability represented by ROA. LATA probability value is smaller than the level of significance 10% or 0.1 so that H0 is rejected, which indicates that leverage affect the profitability of Islamic banks in Asia significantly with the 90% confidence level. The coefficient is -0,003748 means LATA negatively affect the profitability of banks using ROA. Regression result for indicator ROE in table 4.6 shows probability value of unbalanced panel is 0,8467 with coefficient amounted -0,007752. LATA probability value is greater than the level of significance 10% so that H0 is accepted. It's indicates that the leverage factor does not significantly affect ROE Islamic banks in Asia.

Table 6 Regression Result Indicator ROE

Variable	Exp. sign	188 Observasi Unbalanced Panel : ROEit = α0+ α1LATAit + α2CARit + α3BOPOit + α4NPFit + α5SIZEit + α6BRANCHit + α7GDPGRit + α8IFit + εit			140 Observasi Balanced Panel : ROEit = α0+ α1LATAit + α2CARit + α3BOPOit + α4NPFit + α5SIZEit + α6BRANCHit + α7GDPGRit + α8IFit + εit		
		Coef	**(t-stat)**	**Prob (t-stat)**	**Coef**	**(t-stat)**	**Prob (t-stat)**
C		0.267102	2.998276	0.0031	0.200714	2.168574	0.0329
LATA	-	-0.007752	-0.193672	0.8467	-0.016083	-0.683987	0.4952
CAR	+	0.047233	2.150422	0.0329**	0.062432	2.492030	0.0140**
BOPO	-	-0.122788	-4.763472	0.0000***	-0.120618	-4.155297	0.0001***
NPF	-	-0.487109	-3.495251	0.0006***	-0.361285	-1.877913	0.0627*
LnSIZE	+	0.004481	0.907394	0.3659	0.005131	0.988016	0.3245
BRANCH	+	0.000816	4.661415	0.0000***	0.000912	4.567832	0.0000***
GDPGR	+	0.247857	2.050053	0.0418**	0.175048	1.390609	0.1667
INF	-/+	0.194931	1.987497	0.0484**	0.327931	3.070717	0.0026***
AR		0.592523	9.525535	0.0000***	0.601844	8.420127	0.0000***
R²		0.610369			0.672113		
Adj. R²		0.590557			0.649237		
F-statistic		29.38090			30.80844		
Prob (F-stat)		0.000000***			0.000000***		
DW stat		1.988333			1.900999		

* level significance α = 10%
** level significance α = 5%
*** level significance α = 1%

Source : *Eviews 7* (2014)

Table 4.5 on the unbalanced panel shows that the probability of the Capital Adequacy Ratio (CAR) is 0,0434. This value is smaller than the level of significance 10% so that H0 is rejected, which indicates that the capital adequacy is significantly affect ROA of Islamic banking in Asia with the 90% confidence level. The coefficient is 0,013487 indicates that CAR have positive effect on the profitability of banks using ROA. Regression result for indicator ROE in table 4.6 shows the probability value of the Capital Adequacy Ratio (CAR) is 0,0329. This value is smaller than the significance level of 5 % or 0.05 so H0 is rejected, which indicates that the capital adequacy is significantly affect ROE of Islamic banking in Asia at 95% confidence level. From the coefficient of 0,04723 indicate that CAR have positive effect on ROE.

Table 4.5 on the unbalanced panel shows that the probability of Operating Expenses to Operating Income (BOPO/OER) which represent operating expenses/ operating efficiency is equal to 0,0000. This value is smaller than the significance level 1% or 0,01 so H0 is rejected, which indicates that the operating expense is significantly affect ROA of Islamic banking in Asia at 99% confidence level. The coefficient is -0,026967 indicates that ROA negatively affect the profitability of banks using ROA. Regression result for indicator ROE in table 4.6 shows probability value of BOPO/OER is equal to 0,0000. This value is smaller than the significance level 1% or 0,01 so H0 is rejected, which indicates that factors operating expense is significantly affect ROE Islamic banks in Asia at 99% confidence level. The coefficient indicates that BOPO/OER negatively affect the profitability of banks using ROE.

Table 4.5 on the unbalanced panel shows that the probability of Non Performing Financing (NPF) which represents asset quality is 0,3304. This value is greater than the level of significance 10% or 0,1 so that H0 is accepted that indicates asset quality with proxy NPF had no significant effect on ROA of Islamic banks in Asia. The coefficient of the variable is -0,018908, shows that NPF have negative effect on the profitability of banks using ROA but not significant. Regression result for indicator ROE in table 4.6 shows probability value of Non Performing Financing (NPF) which represents the asset quality is 0,0006. This value is smaller than the significance level 1% so H0 is rejected, which indicates that the asset quality affect ROE of Islamic banking in Asia is significantly at 99% confidence level. The coefficient indicates that the NPF have negative effect on bank profitability using ROE.

Unbalanced panel in the table 4.5 shows the probability value that represents firm size by measuring company's total assets amounted to 0.0492. This value is greater than the significance level of 5% so H0 is rejected, which indicates that firm size have significant effect on ROA of Islamic banks in Asia at 95% confidence level. The coefficient variable is 0,001030 indicates that variable firm size affect significantly positive on the profitability of banks using ROA. Regression result for indicator ROE in table 4.6 shows the probability value of variable firm size is 0,3659. This value is greater than the level of significance of 10% so that H0 is accepted that indicates variable firm size had no significant effect on ROE of Islamic banking in Asia.

Table 4.5 on the unbalanced panel shows that the number of branch probability value is 0,2119. This value is greater than the level of significance of 10% so that H0 is accepted that indicates variable number of branch had no significant effect on ROA of Islamic banking in Asia. Regression result for indicator ROE in table 4.6 shows probability value number of branches is equal to 0,0000. This value is smaller than significance level 1% so H0 is rejected, which indicates that the number of branch variables is significantly affect ROE of Islamic banking in Asia at 99% confidence level. The coefficient indicates that the number of branch have positive effect on bank profitability using ROE.

Table 4.5 on the unbalanced panel shows that the probability value of GDP growth is equal to 0,0000. This value is smaller than the significance level of 1% so H0 is rejected, which

indicates that GDP growth is the factor that influencing ROA of Islamic banking in Asia significantly at 99% confidence level. The coefficient is 0,070816 indicates that GDP growth have positive effect on the profitability of banks using ROA. Regression result for indicator ROE in table 4.6 shows the probability value of GDP growth is 0,0418. This value is smaller than significance level of 5% so H0 is rejected, which indicates that GDP growth is significantly affect profitability of Islamic banks in Asia at 95% confidence level. The coefficients indicate that GDP growth has positive effect on ROE .

Table 4.5 shows probability value of variable inflation as macroeconomic indicator is 0,0037. This value is smaller than the significance level of 1% so H0 is rejected, which indicates that the inflation is significantly affect ROA of Islamic banks in Asia at 99% confidence level. The coefficient is 0,045454 indicates that inflation has a positive effect on the profitability of banks using ROA. Regression result for indicator ROE in table 4.6 shows the probability value of inflation is 0,0484. This value is smaller than the significance level of 5% so H0 is rejected, which indicates that the inflation is significantly affect ROE of Islamic banks in Asia at 95% confidence level. The coefficients indicate that inflation has a positive effect on bank profitability using ROE.

Conclusion

In accordance with the results of the regression, it can be concluded that all the independent variables affect the profitability of Islamic banking in Asia using ROA and ROE to represent profitability. Independent variables CAR, GDP growth, inflation, and firm size have significantly positive effect on ROA, while the independent variables BOPO/OER and LATA have significantly negative effect on ROA. variables NPF and number of branches had no significant effect on ROA. For dependent variable ROE, the independent variables that significantly positive affect ROE are CAR, number of branches, GDP growth, and inflation. Independent variables that have significantly negative effect on ROE are BOPO/OER, and NPF. Independent variables had no significant effect on ROE are LATA and firm size.

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