



RISK TAKING BEHAVIOR AND MACROECONOMIC INDICATORS OF ISLAMIC BANKS PROFITABILITY IN MALAYSIA

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Abstract:

Purpose: The purpose of the study is to examine the profitability indicators of full-fledged Malaysia Islamic explored in 1994-2013.

Design/methodology/approach: The return on assets (ROA) is used as profitability measures to determine the effect of Risk Taking Behavior, transmission of monetary policy and macroeconomic conditions indicators on profitability. The descriptive, correlation and panel regression analysis results are derived with the help of Limdep 9.0 software.

Findings: The retained profit, return on equity, money supply and economic growth establish positive and significant relation with profitability models. Otherwise, the highest credit risk taking and loan loss provision lead to lower profitability measured by return on assets (ROA).

Originality/value: The main objective of the study is providing empirical evidence on indicators of profitability in case of seventeen full-fledged Malaysia Islamic Bank to fill a demanding gap in the literature.

Keywords:

Profitability, Risk Taking, Monetary policy, Islamic Bank and Macroeconomics.

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1. INTRODUCTION

Today Islamic banking has existed in every part of world and is considered as a viable alternative system that can meet the needs of people through the products offered. Although in its early stages, initially growing Islamic banking only as financial intermediaries for the Muslim community, but now it has been widely accepted throughout the world beyond the non-Muslims and to be among the most important components of the global financial system. Islamic banking is also recognized as a fastest growing industry either domestically or internationally. Since the establishment of the first Islamic bank in Egypt in 1963, the industry



has grown to a total of more than 300 institutions in more than 75 countries, mostly concentrated in the Middle East and South Asia region as well as Europe and the United States.

The world's total Islamic banking assets are now estimated to have exceeded \$ 250 billion U.S. dollars with an estimated growth of 15 per cent per annum. With the development to be proud of, there are some suggestions from researchers that Islamic banks can ensure 40-50 percent savings in the Islamic society Islamic bank in 2009/2010. Evolution and development has shown interest to the public in addition to creating great discussion, especially among practitioners (practitioner), economists and policy makers (Abdel-Hameed M. Bashir, 1999).

Table 1: World Islamic Banking Assets (Thousands U.S. Dollars)

Tahun	TAHUN			
	Eropah	Timur Tengah	Asia	Afrika
2005	460,907	182,690,977	54,993,761	32,199,979
2006	844,216	112,097,469	78,271,482	10,540,594
2007	1,700,737	162,352,264	105,499,875	7,769,081
2008	2,137,766	217,244,873	129,565,761	12,457,942

Source: Islamic Banks and Financial Institutions Information

Although Islamic banking industry experienced the development and growth appears to be proud of, but the industry is not spared from the various forms of the current financial challenges, especially in the implementation of financial deregulation. Deregulation process has several important implications for a bank. First, deregulation would eliminate or reduce controls, promoting competition between banks and increase the risk of banks. Second, the deregulation process provides greater scope for banks to explore new business or activities in a wider area. The transition to the new business and further enhancing the business environment is changing the nature of the risk that the bank will raise the cost of financial market players. Therefore, banks will be more focused to make the analysis and control of costs and returns, as well as the level of risk-taking to produce a return to the bank. (Idries Al-Jarrah and Philip Moyneux, 2005).

In Malaysia, the Malaysian financial authorities since the beginning of the establishment has implemented several precautionary measures in confronting this challenge to ensure improved performance and efficiency of the Islamic banking system. Malaysian Government through the Ministry of Finance and Bank Negara Malaysia (BNM) is seen placing strict controls and regulations on the industry. However, Islamic banking is now forced to comply with the changes that occurred since the financial system of the Islamic banking system is fully liberalized in 2004. The liberalization process is often accompanied action deregulation,



reduction of government control while upgrading precautionary regulation. Many changes can be made after this step, the demand side (on the demand side), changing customer preferences become more complicated, and has a high level of sensitivity towards price changes.

While on the supply side (on the supply side), of the globalization of financial markets is also accompanied by a reduction in government regulation (deregulation), financial innovation and automation. Both of these factors have an impact on the increasing number of competitors, followed by further cost reduction and profit margins narrow Islamic banking. In addition, advances in communications technology, such as telephone, Internet banking (internet banking), etc. also allow international giants Islamic banking institutions expand their activities beyond the country and increase their market both inside and outside the country by providing products competitive with lower prices. This condition occurs directly significant implications for the Islamic banking industry in Malaysia, especially in the risks faced.

2. LITERATURE REVIEW

Financial institutions carry out many roles, especially in using the various inputs in the mediation process, including taking deposits and move them into the form of a loan or financing. Many bank performance evaluation done by previous researchers, especially in the direct effect of risk and is not directly influence profitability of individual banking institutions.

Among analysis of the efficiency and profitability of Islamic banks in the Arab countries ever made by Molyneux and Iqbal (2005). In this study they found that when the cost is the same inefficiency, incompetence profit will vary. This condition will usually reflect the variety of different services. Foreign banks were found to have less cost inefficiencies but found more profitable. Here the possibility of foreign banks offer high value services to larger customers and are thus able to produce higher returns. The study also found that financial reforms made in the 1990s are not able to improve the efficiency of the bank. Yudistira (2003) found that banks in the Middle East less efficient than Islamic banks is larger and more efficient.

Fadzlan Sufian and Mohamad Noor Mohamad Noor (2009) make a comparative analysis of the performance of the Islamic banking sector in the countries of the Middle East, North Africa and Asia. In this study, a two-stage procedure was used to test the efficiency of the Islamic banking sector in 16 countries MENA (Middle East and North Africa) and Asia. As a result, the researchers found that technical competence significantly positive with quality of financing, size and capital. Empirical results from this study also found that most technically efficient banks are those that have a smaller market and the amount of non-performing loans (non-performing loan) or low risk rate. The study has also found that there is a positive correlation between the efficiency of Islamic banks to changes in profits and the level of technical efficiency shows that efficient banks tend to be more profitable. The results also show that good economic conditions (favourable economic conditions) have positive relation with bank efficiency.



Abdus Samad (2004) then makes a comparative study of the performance of interest-free Islamic banks and conventional commercial banks based on interest in Bahrain during the post-Gulf War by looking at some of the following criteria; (a) profit, (b) liquidity risk and (c) credit risk. Nine financial ratios used in this study to measure the performance of six Islamic banks and 15 conventional banks for the period 1991 to 2000. By adapting the Student's t-test testing for financial ratios and conventional and Islamic commercial bank in Bahrain, the study found no significant difference in performance between conventional banks and Islamic banks in Bahrain with reference to the profitability and liquidity. However, the researchers found that there were significant differences in the credit performance of conventional and Islamic commercial bank in Bahrain.

Anjum Siddiqui (2008) focuses on the diversity that exists in the mode of Islamic finance and assess the risks and other features to perform a selective literature review. This study adopted the primary source of funds of Islamic banks in Pakistan are composed of deposit liabilities for the period 2003 to 2004. Because the Islamic prohibition against interest and compliance with the order of the authorized trade contracts, the impact of savings and investment contracts offered by Islamic banks have a different risk profile than conventional banks. This situation raises a number of regulations issues on capital adequacy and liquidity requirements. Operational issues also arise as long as Islamic banks are constrained in choosing risk and liquidity management instruments such as derivatives, options and bonds. All the problem is theoretically examined and various performance indicators for these two Islamic banks are also assessed to compare it with the traditional banking practice. Balance sheet and various performance indicators show that there is evidence that Islamic banks in Pakistan tend to be less involved in financing long-term projects. However, on the other hand, banks have shown good performance in the return on assets and equity and also show better risk management as well as the balance can maintain adequate liquidity required.

Finally, for this study, Abd. Karim (2001), Mariani A.M, et al. (2003), Amir (2004) and Suhaimi (2005) used to parametrik approach in order to measure the efficiency of the Islamic and conventional banking. Abd. Karim (2001) for instance study the efficiency of banks in selected ASEAN countries and most of the results of the study suggest that banks in ASEAN to increase revenue while larger banks tend to have higher cost efficiency than small banks. Mariani A.M, et al. (2003) found no empirical evidence that shows foreign banks are more efficient than domestic banks. Coinciding with the study done by Mariani A.M, et al. (2003), Suhaimi (2005) provide empirical evidence that finds no evidence of a difference in terms of cost and profit efficiency between foreign and domestic banks.

3. METHODOLOGY AND DATA

BANK PROFIT AND THE ECONOMIC CYCLE

Surah Yusuf verses 42-48 teaches people how to manage the economy in a state of economic cycles volatile. Could bank profits correlates with banks specific, changes in monetary policy and macroeconomic environment? This question is of interest to know what degree of correlation that



exists between these three indicator. So based on the model of the Cavallo & Majnoni (2002), Valckx (2003) and Salas and Saurina (2002), an estimation of the profits model published as follow:

$$ROA_{it} = \beta_0 + \beta_1 ROA_{it-1} + \beta_2 ROE_{it} + \beta_3 lpv_{it} + \beta_4 risk_{it} + \beta_5 CAR_{it} + \beta_6 Size_{it} + \delta_1 \Delta M3_t + \epsilon_1 inf_t + \epsilon_2 \Delta gdp_t + \mu_{it}$$

$$i = 1, 2, \dots, N \text{ (the number of bank)} \quad t = 1, 2, \dots, T \text{ (time period)} \quad (1.0)$$

EXPLANATORY VARIABLES

- i. Bank profit (ROA_{it}) is a measure of profits before tax divided by total assets. This variable indicates the number of bank profits to total assets.
- ii. Return on equity (ROE_{it}); cost of equity can affect the capital buffer of banks. With asymmetry information, to raise capital is more expensive than raising debt (Jokipii and Milne, 2008).
- iii. Provision for losses on financing (lpv_{it}) are included in the equation based on the assumption that banks with higher levels of losses financing show a lower tendency to align risk assets. Usually there is a negative relationship between bank profitability and financing loss.
- iv. Risk ($risk_{it}$) is a risk to be borne by the bank, that it is probable that the borrower will not repay as agreed.
- v. Capital and Reserves (CAR_{it}), is a paid-up capital, reserve funds, retained earnings and other capital funds. Capital and reserves consist of own funds or a bank's core capital. More committed financing risk, the more capital is needed. Thus the coefficients of variables that are expected to be negative.
- vi. Total bank asset ($size_{it}$) is the sum of cash, deposits, investment transactions and bank loans. This variable is included to indicate the presence of economies of scale in research and change with two factors, first: changes in regulatory controls such as increasing capital reserves at the central bank. Due to the sub-components in bank size is a cash deposit, then the fall in bank interest rates would result in a shift of resources from the bank to purchase assets which can bring better returns.
- vii. Growth of real money supply ($\Delta M3_t$) is defined as the sum of cash plus demand deposits, savings deposits, fixed deposits of commercial banks plus savings and fixed deposits in other financial institutions. Growth in money supply indicators show real growth potential, especially for future growth.
- viii. Inflation rate (inf_t) is a condition experienced by an economy that shows an increase in the general price level constant and infinite. Says, among the member of the French economist which defines inflation as "too much money hunting for fewer goods". In this study, the rate of inflation can affect both the cost and revenue of the bank. Staikourous et al. (2003) states that inflation can have a direct impact (ie increased labor wages) and indirect effects (changes in interest rates and asset prices) on the profitability of a bank. This is because



high inflation will result in the bank is not able to control interest rates quickly and cost banks increased dramatically over bank profits.

- ix. Growth in Gross Domestic Product (Δgdp_t) is taken as a measure of macroeconomic development. In this study it is a key indicator of demand banking services including extensions of loans and money supply. Variables are an indication of the economic cycle in which the bank cost is expected have correlation to the economic cycle.

4. SAMPLE AND STUDY LIMITATIONS

This study used a sample of 17 Islamic banks full (full-fledged) defined as Islamic Bank by Central Bank of Malaysia (BNM) for the period 1994 to 2012. For data index of monetary policy and Malaysia macroeconomic as growth of money supply, inflation and gross domestic product (GDP), data are taken from the Annual Report of Malaysian Economy, website of Asian Development Bank (ADB) and Global Market Information Database (GMID, 2013) dan Statistical, Economic and Social Research and Training Centre for Islamic Countries.

5. ESTIMATION RESULTS

DESCRIPTIVE ANALYSIS

Descriptive Analysis aims to see a features statistical data used as independent variables such as mean and standard deviation. Mean refers to the average value of each variable for the entire sample, while the standard deviation showed variation of data from the mean value. the following are the results of analyzes obtained;

Table 2: Descriptive Statistics of Variables

	Mean	Median	Std. Dev.	Skewness	Kurtosis	Jarque-Bera
ROA_{it}	0.0189	0.0125	0.1154	18.3759	357.8009	2109.970*
ROE_{it}	0.1118	0.0734	0.1733	4.0872	20.7468	6346.896*
LPV_{it}	11.4873	11.9362	2.5884	-1.3039	5.9413	191.2262*
$RISK_{it}$	11.8968	12.6655	2.5943	-0.8927	3.2119	29.3639*
CAR_{it}	12.0837	5.4150	26.7017	5.3668	34.5323	14885.77*
$SIZE_{it}$	15.5808	15.9582	2.0815	-0.8213	4.4232	78.7248*
$\Delta M3_t$	26.9071	26.8749	0.3899	-0.1968	2.3877	11.5917*
Inf_t	3.5031	3.4800	2.6105	0.3837	3.3019	14.8761*
Δgdp_t	5.6321	6.1376	4.1770	-1.912	6.6238	607.0958*

Note: Significant at *1%, **5% and ***10%.

ROA: bank profitability, ROE: Return on Equity, Lpv: Provision for financing loss, Risk: Risk Taking, CAR: Capital and reserve, Size: bank total asset, Inf: inflation rate, M3; money supply growth dan Gdp: Gross Domestic Product.



For bank specific, data for $size_{it}$ variable recorded the highest average distribution with mean value of 15.5808. Whereas the variables of ROA_{it} recorded the lowest average data distribution with mean value of 0.0189. In general, the data for the bank specific shows less scattering in which the mean and the standard deviation is low except data for CAR_{it} show a high value ie 26.7017. For the measure of skewness, the results showed two variables ie ROE_{it} and CAR_{it} has a positive skewness. While the measure of kurtosis, the analysis found that only the data for the $risk_{it}$ variables close to the normal distribution criteria ie 3.2119.

For the variable changes in monetary policy and macroeconomic, the data show $\Delta M3_t$ variables recorded the mean value with the highest of 26.9071. Whereas the inf_t variables recorded the lowest average data distribution with mean value of 3.5031. Standard deviation is seen to determine the variation of the data. The analysis found that variables of gdp_t recorded the highest standard deviation of 4.1770. The results for the skewness measure for macroeconomic indicators showed variable of Δgdp_t , and $\Delta M3_t$ negatively skewed while a positive value for the variable inf_t .

Kurtosis measurements were performed for the purpose of seeing the peak of data distribution. This study found that the data for the variables inf_t and $\Delta M3_t$ recorded the value approaching three ie 3.3019 and 2.3877 ie a normal distribution criteria. Jarque-Bera test is done to test whether the data is normally distributed or not. This result suggested that all data for the variables involved are not normally distributed.

CORRELATION ANALYSIS OF VARIABLES

Table 3 shows the correlation matrix for the independent variables in the model are established. Correlation analysis of variables performed to test whether there is any linear relationship between the independent variables in addition to explain the dependence of one variable on other variables.

Table 3: CORRELATION ANALYSIS OF VARIABLES

	ROA_{it-1}	ROE_{it}	lpv_{it}	$risk_{it}$	CAR_{it}	$size_{it}$	$\Delta M3_t$	inf_t	Δgdp_t
ROA_{it-1}	1.0000								
ROE_{it}	0.3233	1.0000							
lpv_{it}	-0.1106	0.0465	1.0000						
$risk_{it}$	-0.1753	0.0108	0.8662	1.0000					
CAR_{it}	0.1464	0.0891	-0.4674	-0.3874	1.0000				
$size_{it}$	0.1745	0.1566	0.8773	0.7646	-0.4761	1.0000			
$\Delta M3_t$	-0.0496	-0.1448	0.0594	0.0044	0.0791	0.1523	1.0000		
inf_t	0.0485	0.0141	0.0859	0.0444	-0.0622	0.0709	-0.0609	1.0000	
Δgdp_{it}	0.0785	-0.1165	-0.0434	-0.1371	-0.0274	0.0336	0.0961	-0.0391	1.0000

Note: Significant at *1%, **5% and ***10%.



ROA: bank profitability, ROE: Return on Equity, Lpv: Provison for financing loss, Risk: Risk Taking, CAR: Capital and reserve, Size: bank total asset, Inf: inflation rate, M3; money supply growth dan Gdp: Gross Domestic Product.

Refer to the Table 3, the results of the analysis show all bank-specific variables ie ROA_{it} , ROE_{it} , CAR_{it} and $size_{it}$ show positive kolineariti except for variables of lpv_{it} and $risk_{it}$. For the changes in monetary policy variables, the results indicate that the variable of $\Delta M3_t$ have negative kolineariti with ROA_{it} variable. Seterusnya bagi pembolehubah persekitaran makroekonomi yang diwakili oleh Δgdp_t dan inf_t , kedua-dua pembolehubah menunjukkan kolineariti positif dengan pembolehubah ROA_{it} yang mewakili keuntungan perbankan Islam. Further to the macroeconomic variables are represented by Δgdp_t and inf_t , these two variables showed positive kolineariti with ROA_{it} variables representing Islamic banking profit.

6. MODEL ESTIMATION RESULTS

$$ROA_{it} = 0.1067 ROA_{it-1} + 0.0259 ROE_{it} - 0.0007 lpv_{it} - 0.0053 risk_{it} + 4.23E-05 CAR_{it} + 0.0124 Size_{it} + 0.0250 \Delta M3_t + 0.0004 inf_t + 0.0007 \Delta gdp_t$$

i. BANK SPESIFIC

In terms of diagnostics, Sargan tests fail to reject the null hypothesis of the validity coefficients used. Results showed lag variable for profit is significant in verifying dynamic specifications at five per cent level. Based on the coefficient value indicated by 0.1067 percent, results showed that Islamic banks mobilize past or retained profit through capital construction in order to generate the current profits for bank. This result consistent with the findings of Frank, Daniel and Stephanie (2004), Stienherr and Huveneers (1994) and Bertrand (2001) in which retained profits are typically allocated for capital construction which in turn channeled into financing activities and other investments that generate profits for banks.

This study shows variables of ROE_{it} affecting the profitability of Islamic banking with the coefficient of 0.0259 percent. This result indirectly indicate an increase in the shareholding by the shareholders led to increased profitability of Islamic banking. This result consistent with the findings of Jokipii and Milne (2008) in which the equity contribution of its shareholding gives the ability to Islamic banking to strengthen capital holdings. The implication is that Islamic banking is capable of doing diversification of financial products to be offered which in turn contributed to an increase in bank profits.

The results also showed an increase of one percent in lpv_{it} , Islamic banking profitability will be lower by -0.0007 percent. This shows that loan loss provisions affect the performance of Islamic banking by reduce bank profits because it represents the middle cost that will reduce the book value of bank assets. This occurs because the bank believes this provision instruments can be used for the purpose of the loan value adjustments to reflect the true value of losses expected to be incurred.



Further results show $risk_{it}$ variables significantly affect the profitability of Islamic banking with the coefficient of -0.0053 percent. As shown negative coefficient is consistent with the findings of Mario (2004) in which high risk reflects the deteriorating quality of bank assets through increased loss in a portfolio of fixed-rate financing that contributed to the erosion of bank income. Here the banks generally will use discretionary behavior when there is an increased risk of default by increasing the number of withholding allowances for losses on loans deducted from the income of depositors.

i. CHANGES IN MONETARY POLICY

The next for the changes in monetary policy variables, the results indicate $\Delta M3_{it}$ variables show positive and significant relationship with the Islamic banking profit by the coefficient 0.0250 percent. This positive relationship between indicators of growth in the money supply aggregate make financing fund more affordable which in turn attract people to increase financing schemes offered by Islamic banking (Sudin and Nursufiza, 2008). Then profit from this financing be channeled towards increased profitability for Islamic banks. This result also consistent with the theory of expansionary monetary policy through financing channels to promote consumption and investment sectors in the economy.

iii. MACROECONOMIC ENVIRONMENT

In this study, changes in the Malaysia macroeconomic environment also proved to affect the profitability of Islamic banking. As evidence, the coefficients of the Δgdp_t variables significantly affect ROA_t variables that showed an increase of one percent in the Malaysia Gross Domestic Product contribute to the profitability of Islamic banking with a value of 0.0007 percent. The results also showed a profit of Islamic banking are pro-cyclical in which high economic growth provides good business prospects for Islamic banking, which in turn allows to generate high revenues. The increase in financing income supported by low default risk causing increased profits. Thus economic growth capable of generating profits for Islamic banking.

Table 4: MODEL RESULTS ESTIMATION

Specifications	Parameters	
	GMM-Difference	GMM-System
ROA_{it-1}	0.1067* (-5.4273)	0.1311* (-8.7452)
ROE_{it}	0.0259* (4.8079)	0.02454* (6.3314)
lpv_{it}	-0.0007* (-1.0080)	0.0038* (8.7066)
$risk_{it}$	-0.0053* (-8.9805)	-0.0094 (-28.1268)
CAR_{it}	4.23E-05 (0.4603)	5.32E-05 (1.4777)



$size_{it}$	0.0124 (-5.4031)	0.0183 (-20.3477)
$\Delta M3_t$	0.0250* (8.0439)	0.0254* (24.5943)
inf_t	0.0004 (4.8292)	0.0005 (6.4593)
Δgdp_t	0.0007* (7.5563)	0.0008 * (7.4816)
Ar (1)	-0.01	-0.07
AR (2)	-0.48	-0.89
Sargan test	22.3322*	21.4566*

Note: Significant at *1%, **5% and ***10%.

7. CONCLUSION

Overall, this study provides clear evidence of changes in the Malaysian Islamic banking profit from risk-taking activities, changes in monetary policy and macroeconomic Malaysia. Referring to the bank specific factors, study shows that Malaysian Islamic banking during the seventeen years of 1994 to 2011 mobilize retained profit and equity contributed by the shareholders in generating bank profit. At the same time, the results also show the Islamic banking in this study are more risk taking and profit-seeking are likely to increase financing in line with the increased risk of making a profit. This occurs because Islamic banking had to make provisions for losses on financing for the purpose of bank income lubricate for a current financial year. Studies also have shown that the mechanism of expansionary monetary policy implemented by the government through the Central Bank of Malaysia (BNM) has attracted many people to make financing in Islamic banking. Due to this increase, this measure has finally succeeds in influencing the Islamic banking increased profitability by a percentage to be proud of. Subsequently, this study has proven the Islamic banking need a strong economic base in order to ensure the continuity and integrity of the institution. This objective can only be realized through the control of several key macroeconomic indicators such as Gross Domestic Product (GDP), inflation, unemployment and so on. The proof is in economic expansion in this study clearly an encouragement to demand of households and the business sector for financing, thus contributing to increased profitability for Islamic banking.

8. REFERENCES

- [1] Abdel-Hameed M. Bashir (1999), *Risk And Profitability Measures In Islamic Banks: The Case Of Two Sudanese Banks*, *Islamic Economic Studies*, Vol. 6, No. 2, h. 1- 24.
- [2] Abd. Karim, M. Z. (2001). *Comparative Bank Efficiency Across ASEAN Countries*. *ASEAN Economic Bulletin*, 18(3), h. 289–304.



- [3] Abdus Samad (2004), “Performance of Interest –Free Islamic Banks VIS-À-VIS Interest-Based Conventional Banks of Bahrain”, *IIUM Journal of Economics and Management*, Vol. 12, No. 2, h. 1-15.
- [4] Amir, A. (2004). *Level Efficiency of Bank Islam Malaysia Berhad: A Stochastic Approach. Proceedings the Malaysian Finance Association 6th Annual Symposium (h. 744–753)*. Langkawi, Malaysia: UUM & MFA.
- [5] Anjum Siddique (2008), “Financial Contracts, Risk And Performance of Islamic Banking”, *Journal of Managerial Finance*, Vol. 34, No. 10, h. 680-694.
- [6] Bank Negara Malaysia (BNM), <http://www.bnm.gov.my/index.php?ch=13&cat=banking&type=IB>, 16hb January 2011.
- [7] Betrand Rime (2001), “Capital Requirement And Bank Behaviour: Empirical Evidence for Switzerland”, *Journal of Banking & Finance* 25, h. 789-805.
- [8] Cavello, M. and Majnoni, G. (2002). *Do Banks Provision For Bad Loans In Good Times? Empirical Evidence and Policy Implications*, In R. Levich, G.Majnoni and C. Reinhart Eds, *Ratings, Rating Agencies and The Global Financial System*, Kluwer Academic Publishers, Boston, Dordrecht and London.
- [9] Fadzlan Sufian and Mohamad Akbar Noor Mohamad Noor (2009), *The Determinants of Islamic Banks’ Efficiency Changes: Empirical Evidence From The MENA and Asian Banking Sectors*, *International Journal of Islamic and Middle Eastern Finance and Management*, Vol. 2, No. 2, h. 120-138.
- [10] Fadzlan Sufian and Mohamad Akhbar Noor Mohamad Noor (2009), “The Determinants of Islamic Banks’ Efficiency Changes”, *International Journal Islamic and Middle Eastern Finance and Management*, Vol. 2, No. 2, h. 120-138.
- [11] Fathin Faizah Said and Abd Ghafar Ismail (2007), “How Does The Change in Monetary Policy Affect Lending Behavior of Islamic Banking in Malaysia”, *Journal of Economic Development*, Vol. 12, No. 3, h. 163-77.
- [12] Frank Heid, Daniel Porath and Stephanie Stolz (2004), “Does Capital Regulation Matter for Bank Behaviour? Evidence for German Savings Banks”, *Discussion Paper Series 2: Banking and Financial Supervision*, No 03/2004, h. 1-40.
- [13] *Global Market Information Database (GMID)*, <http://www.portal.euromonitor.com>, 13hb April 2012.
- [14] Idries Al-Jarrah and Philip Moyneux (2005), *Efficiency of Arabian Banking*, in Munawar Iqbal and Rodney Wilson (eds.), “Islamic Perspectives on Wealth Creation”, Edinburgh University Press, Edinburgh, h. 97-117.
- [15] Mario Quagliariello. (2004). *Banks' Performance Over the Business Cycle: A Panel Analysis on Italian Intermediaries Discussion Paper 17/04 Research in the Department of Economics*, The University of York.
- [16] Molyneux, P and Iqbal. M (2005), *Banking and financial Systems in The Arab World*, London: Palgrave Macmillan.
- [17] Salas, V. and Saurina, J. (2002). *Deregulation, Market Power and Risk Taking In Spanish Banks*. *European Economic Review*. 47, pp. 1061-1075.
- [18] Salas, V. and Saurina, J. (2002). *Credit Risk In Two Institutional Regimes: Spanish Commercial and Savings Banks*. *Journal of Finance Services* 22 No.3. 203–224.



- [19] Staikouras, C, H and Wood, G (2003), *The Determination of Bank Profitability in European, Proceedings of the European Applied Business Research Conference, Venice, 9-13 Jun 2003*).
- [20] Steinherr, A. and Huveneers, C. (1994), “On the Performance of Differently Regulated Financial Institutions: Some Empirical Evidence”, *Journal of Banking and Finance*, Vol. 18, h. 271-306.
- [21] Sudin Haron and Wan Nursofiza Wan Azmi (2008), “Determinants of Islamic and Conventional Deposits in The Malaysian Banking System”, *Managerial Finance*, Vol. 34, No. 9, h. 618-643.
- [22] Suhaimi, R. (2005). *Cost and Profit Efficiency of Commercial Banks in Malaysia: Preliminary Findings. Proceeding of the Malaysian Finance Association 7th Annual Conference (pp. 472–489). 9–10 Mei, Kuala Terengganu, Malaysia: UiTM & MFA.*
- [23] Valckx N. (2003). *What Determines Loan Loss Provisioning In The EU? ECB, Mimeo.*
- [24] Yudistira, D (2003), *Efficiency in Islamic Banking: An Empirical of 18 banks. Proceeding of the International Conference on Islamic Banking, Jakarta Indonesia on 30 September-2 October.*
- [25] Jokipii, T. and Milne, A. (2008). *The Cyclical Behavior of European Bank Capital Buffers, Journal of Banking and Finance (32): 1440–1451.*
- [26] Mariani Abdul Majid, Nor Ghani Md. Nor and Fathin Faizah Said (2003), “Efficiency of Islamic Banks in Malaysia”. *Bahrin*.

9. APPENDIX

Samples of Islamic Banks in Malaysia

Bil	Banks	Ownership	Duration of Study
1	Bank Islam Malaysia Berhad	L	1994-2011
2	Bank Muamalat Malaysia Berhad	L	1994-2011
3	Maybank Islamic Berhad	L	1994-2011
4	RHB Islamic Bank Berhad	L	1994-2011
5	EONCAP Islamic Bank Berhad	L	1994-2011
6	Hong Leong Islamic Bank Berhad	L	1994-2011
7	CIMB Islamic Bank Berhad	L	1994-2011
8	AmIslamic Bank Berhad	L	1994-2011
9	Affin Islamic Bank Berhad	L	1994-2011
10	Alliance Islamic Bank Berhad	L	1994-2011
11	Public Islamic Bank Berhad	L	1994-2011
12	Al Rajhi Banking & Investment Corporation Berhad	F	1994-2011
13	Asian Finance Bank Berhad	F	1994-2011
14	HSBC Amanah Malaysia Berhad	F	1994-2011
15	Kuwait Finance House (Malaysia) Berhad	F	1994-2011
16	OCBC Al-Amin Bank Berhad	F	1994-2011
17	Standard Chartered Saadiq Berhad	F	1994-2011

Note: L = Local Islamic Banks F = Foreign Islamic Banks

Source: Modified from Central Bank of Malaysia (BNM)