

Case Study of the Relationship between Islamic Finance Modes and Financial Performance in Malaysia

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Abstract

The empirical results of the long run and short run relationship between the Islamic financial model and financial performance in Malaysia are investigated. The results showed that the optimal lag length detected depends on the lowest values of the different tests. The result of unit root test for Bank Islam Malaysia case is confirmed that all variables are stationary. The indication of long run result meant that an increase in these indicators will lead to increase the Return of Assets for all variables. While in the short run, the results showed that the Islamic finance products are positively associated with the Return of Assets for all variables. The Return of Assets model for Bank Islam Malaysia case is stable in the long run parameters.

Keywords: Bank Islam Malaysia, ROA, Islamic finance, Unit Root Test, Lag Length

1. Introduction

Many researchers argued that the Islamic finance sector will grow faster in the next couple years. This is due to the following factors. Firstly, the Islamic banking assets with commercial banks globally surpassed \$1.7 trillion in 2013, demonstrating an annual growth of 17.6% over the last few years. Secondly, Islamic banks are catering to 38 million customers with the global shift in world trade, and capital inflows represent an important business opportunity for Islamic banks that have a credible international presence. Thirdly, unlike the commercial banks which derive most of their income through interest and fees, Islamic banks operated mainly on the basis of profit and loss sharing agreement. Banks can earn profit from three areas; trading, leasing and direct financing in profit-and-loss-sharing contracts. This meant that the Islamic banks can extend loans only when an interest or return is not earned on it. Also, the Islamic financial institutions grant capitals for trading fertile ventures based on profit-sharing fundamentals (Al-Omar, 1996; Ernst & Young, 2013). Elmadani (2013) confirmed that the return in Islamic banking mode is calculated as a percentage of the profit and not the principal amount, like in the case of conventional banking. Islamic financing modes and instruments have been standardized and modeled under guidelines issued from time to time by the Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI) to meet the daily changing business requirements and to suit the financial needs of the customers.

Modes are classified as mudarabah, musharakah, murabahah, ijarah, bay salam and istisna. Fayazuddin (2012) stated that Islamic Banking in its organized form is consistently evolving ever since its birth. While Islamic Banks have acquired a remarkable presence in countries such as Bahrain, Saudi Arabia, Malaysia, and UAE for some time, they are quickly gaining prominence, even in the western world. Some other researchers have investigated the relationship between financial performance (FP) and other variables; for example, Doyran and Lehman (2010), Nassirzadeh and Rostami (2010), Benston, (1972), Berger, (1995), Bourke, (1986). Most of these studies have examined determinants of profitability rather than loan or asset performance, while there is a lack of studies on the relationship between FP and Islamic finance modes. According to Bank Negara Malaysia (2014), the Bank Islam was established in 1983 as the first Islamic bank in Malaysia.

Number of licensed Islamic banks in Malaysia has reached to 16 banks in 2014. Also, number of Islamic bank branches in Malaysia is increased from 126 in 2004 to 766 in 2005 and more than 2200 branches of Islamic bank in 2015. IBS banks were offering the Islamic banking modes and services (Bank Negara Malaysia, 2015).

In the context of financial infrastructure, the Malaysian Islamic financial system is both robust and fast growing. The Malaysian market has highly diversified players, with a strong presence of Islamic banks, investment banks, takaful companies, development financial institutions, savings institutions, fund management companies, stock brokers, and unit trusts in its economy. With the rapidly changing international Islamic financial landscape, Islamic finance in Malaysia is becoming increasingly integrated into the international financial system. This development has occurred in all segments of the Islamic financial system in Malaysia, including the Islamic banking and the takaful industry and in the Islamic money and capital markets (Aziz, 2007). The growth rate of Islamic finance in Malaysia is impressive by many standards. Therefore, Malaysia has capacity to retain its leadership in global Islamic finance, despite the emergence of competition from other centres such as Hong Kong and Dubai. The stiff competition in Malaysia was the way ahead of other countries in terms of product offerings and its sophistication having been developed the market for 40 years (Yong, 2007). In 2013, the Government of Malaysia has played a crucial role in the development of this sector by drafting legal reforms, creating a suitable business environment and providing qualified human resources. The conventional banks offered Islamic banking services alongside traditional banks; they can effectively publicize and popularize Islamic transactions. This case study has investigated the long and short-run relationship between Islamic finance modes in Malaysia. Bank Islam in Malaysia is the main source for collecting research data from 1984 to 2014.

2. Theoretical Background

Most of traditional measurements of financial performance are directly related to the current net income of a business entity with equity, total assets, net sales, like return on assets (ROA), return on equity (ROE) and operating profit margin. Many theories have been raised to examine the relationship between financial performance and different sets of variables. However, several studies are used the Stakeholders theory, Keynesian theory and agency theory as the best financial performance measurement, which are synonymous with the maximization of the firm, value (Bhattacharya, Ashish 2000).

3. Result and Discussion

The empirical results of the long run and short run relationship between the Islamic financial model and financial performance in Malaysia are obtained by the lag length test, co-integration test, long run and short run relationship. The optimal lag length detected depends on the lowest values of Akaike information criterion (AIC), Schwartz Bayesian criterion (SIC) and Hannan-Quinn information criterion (HQC) tests. Boutabba (2014) argued that these tests were performing relatively well in small sample sizes and minimizing the loss degree of freedom. However, the result of lag length for Bank Islam Malaysia is presented in Table 1, the data showed that all optimal lag length tests for Bank Islam Malaysia have confirmed results of the optimal lag length for this case study as one lag period due to the lowest values of AIC, SIC and HQC tests. Unit root test used to analyse the level of stationary in time series data. The Augmented Dickey-Fuller (ADF) and Phillips-Perron (P.P) tests have used to analyze the level of stationary in this study, variables of Bank Islam Malaysia case showed the result of unit root test (ADF and PP) for Bank Islam Malaysia case as shown in Table 2. The result concluded and confirmed that all the variables (LROE, LMR, LMK, LMD, LBL, LIJ and LBBA) are stationary at I(1), excluded LBBA variable which is stationary at I(0), I(1). In addition, the result of stationary test confirmed that ARDL model can be used in this study since the results are I(0), I(1) or mutually integrated (Pesaran et al., 2001).

Many studies argued the study of variables whether are stationary or not, if it is stationary then it is possible to bound co-integration F-statistics test and move toward for next step for null hypothesis (H_0) of no co-integration between variables in both models (Pesaran et al., 2001). Table 3 is shown calculated results and critical values of bounds F-statistics test for Bank Islam Malaysia model. The result of inconclusive co-integration is due to the error correction term to be accepted or rejected the H_0 of no co-integration (Banerjee et al., 1998). The long run results showed in Table 4, at 1% significance level, the BBA variable is positively associated with the ROA. At 5% significance level, the result shows that the MR, MK and MD variables are positively associated with the ROA. At 10% significance level, the BL and IJ variables are positively associated with the ROA. This is indicated that an increase in these indicators will lead to increase the ROA in Bank Islam Malaysia and 100% increase in MR, MK, MD, BL, IJ.

BBA variables are expected to increase the ROA by 154%, 28%, 53%, 7%, 95% and 8% respectively. For the short run, the results showed that all the Islamic finance products are positively associated with the ROA at 1% and 5% significance level. At 5% significance level, the MR, MK, MD, BL and IJ variables are positively associated with the ROA, while at 1% significance level, BBA variable is positively associated with the ROA.

This is indicated that an increase in these indicators will lead to increase in the ROA in Bank Islam Malaysia in the short run and 100% increase in MR, MK, MD, BL, IJ and BBA variables are expected to increase the ROA by 87%, 15%, 53%, 40%, 53% and 77%, respectively. These findings are similar with other results done by Siraj and Pillai (2012), Zainal, Yusof and Jusoff (2009), Samad (2004), Jabr (2003), Rosly and Abu Baker (2003), Rosly, (1999). These studies found that Islamic finance modes (mudharabah and musharakah, murabahah, ijarah, bay Salam, and istisna) are helpful to increase the profitability ratio. Moreover, the coefficient of ECT_{t-1} for ΔROA model in Bank Islam Malaysia case is -0.56. This model is corrected from the short-run towards the long-run equilibrium by 56% or the long-run would be shortly corrected back for the $\Delta LROA$ model by one year and seven months. Results in Bank Islam Malaysia case as in Table 4 showed that all modes (Murabaha (MR), Musharakah (MK), Mudharabah (MD), Ijarah (IJ), Bay-Allinah (BL) and Bay Bithaman Ajil (BBA) have full meaning result with financial performance and all variables are statistically significant. Figures 1 and 2 showed that the ROA_t model for Bank Islam Malaysia case is stable in the long-run parameters due to CUSUM and CUSUMQ tests being within critical bounds at the 5% significance level. This means that the coefficients of the ECT_{t-1} for this model have found stability for the study period.

4. Conclusion

The result for Bank Islam Malaysia case showed that there is a relationship between ROA and all variables of the long and short run in this study. The result of ECT_{t-1} coefficients for ΔROA model in Bank Islam Malaysia case is -0.56. This model is corrected from the short-run towards the long-run equilibrium by 56% or the long-run would be shortly corrected back for the $\Delta LROA$ model by one year and seven months. In Bank Islam Malaysia case, at 1% and 10% significance level, H_0 of no co-integration has been rejected for all models, except LBL_t and LIJ_t models. The F-statistics value for these models falls in the range between $I(0)$ and $I(1)$. This means that results are inconclusive whether to be accepted or rejected. However, these results are confirmed when the co-integration exists among variables, which means there was an existence of a long-run relationship among all variables in models.

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Table 1: Lag length Result for Malaysia (Bank Islam Malaysia) case

Lag	AIC	SIC	HQC
0	16.00673	16.33677	16.11009
1	9.194975*	12.63527*	10.72188*
2	9.229007	14.17956	10.77946

Notes: (1) * denotes the lag length that selected by the criterion at 5% level of significance.

Source: The Output of lag length results was retrieved from E-Views 7.2 econometric software packages.

Table 2: Unit root test (ADF and PP) for bank Islam Malaysia case

Variables	ADF			P.P	
	I(0)	I(1)		I(0)	I(1)
LROA	-4.016739	-8.016447*		-4.026285	-12.86497
LMR	-1.424472	-4.141558*		-1.069275	-6.250187*
LMK	-2.654720	-4.353690*		-2.257287	-4.339882*
LMD	-0.720071	-5.096045*		-0.782710	-5.092753*
LBL	-1.139510	-4.385799*		-1.245257	-4.305676*
LIJ	-1.835352	-6.136375*		-2.417855	-6.839646*
LBBA	-5.216980*	-8.949366*		-5.216980*	-7.515161*

Notes: (1) * significance at 1% and 5% levels, respectively; (2) Both ADF and PP tests examine the null hypothesis of unit root against the stationary.

Source: output of E-views 7.1 econometric software.

Table 3: Bounds F-statistics test result for Bank Islam Malaysia case

Models	F-statistics	Decisions
LROA _t	3.97*	Co-integration
LMR _t	3.41*	Co-integration
LMK _t	4.17*	Co-integration
LMD _t	3.23***	Co-integration
LBL _t	2.10***	Inconclusive
LJ _t	1.92***	Inconclusive
LBBA _t	3.71*	Co-integration
Critical Values		Significance level
I (0)	2.71	1%
I (1)	3.98	
I (0)	2.16	5%
I (1)	3.34	
I (0)	1.89	10%
I (1)	3.04	

Notes: *, ***, significance at 1% and 10% levels, respectively.

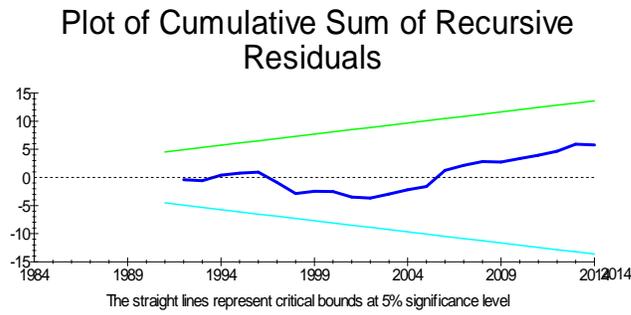
Source: Micro-fit 4.1 Software.

Table 4: Long run and short run and coefficients results for Malaysia (Bank Islam Malaysia) case.

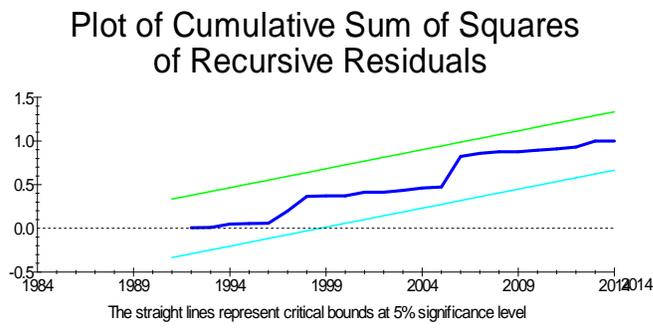
Variables	Coefficient	Std. error	T-Ratio	Sig. level
1: Long-Run Results				
LMR _t	1.548**	0.826	1.87	0.06
LMK _t	0.280**	0.122	2.30	0.03
LMD _t	0.532**	0.024	2.17	0.03
LBL _t	0.716***	0.277	2.58	0.09
LJ _t	0.957***	0.357	2.68	0.09
LBBA _t	0.080*	0.019	4.58	0.00
C	24.78**	10.19	2.43	0.02
2: Short-Run Results				
LMR _t	0.870**	0.449	1.93	0.06
LMK _t	0.157**	0.075	2.09	0.04
LMD _t	0.537**	0.239	2.24	0.03
LBL _t	0.402**	0.129	3.09	0.05
LJ _t	0.536**	0.224	2.39	0.03
LBBA _t	0.774*	0.195	3.95	0.00
C	13.931**	5.052	2.75	0.05
ECT _{t-1}	-0.562*	0.119	-4.69	0.00

Notes: (1) *, **, *** denote statistically significance at 1%, 5% and 10% levels, respectively; (2) multiplier test of residual serial correlation = 1.48; (3) autoregressive conditional heteroskedasticity test = 0.01; (4) Normality test = 0.69; (5) RESET test using the square of the fitted values = 0.07; (6) F-statistics = 7.04; (7) R² = 71%; (8) Durbin Watson = 2.73.

Source: The Output of the long, short-run and ECT_{t-1} coefficients analyses were retrieved from the Micro-fit 4.1 econometric software.



Figures 1: The CUSUM test for ROAt model for Bank Islam Malaysia case.
 Notes: The straight lines represent critical bounds at 5% significance level.
 Source: The Output of the Micro-fit 4.1 econometric software.



Figures 2: The CUSUMQ test for ROAt model for Bank Islam Malaysia case.
 Notes: The straight lines represent critical bounds at 5% significance level.
 Source: The Output of the Micro-fit 4.1 econometric software.