Investigating the major determinants of islamic bank savings: Malaysian evidence

Aini, Sarah and Masih, Mansur

INCEIF, Malaysia, Business School, Universiti Kuala Lumpur, Kuala Lumpur, Malaysia

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Sarah Aini[1] and Mansur Masih[2]

Abstract

This study attempts to determine the factors affecting the Islamic bank savings and deposits. Malaysia is taken as a case study. The standard time series techniques are used for the analysis. It is found that the Islamic bank savings and deposits are cointegrated i.e., theoretically related with money supply, CPI, profit rate of Islamic savings, base lending rate, Kuala Lumpur composite index. We evidence that the variable that has the most significant impact on Islamic bank savings is money supply. This is a significant finding in that the policy makers should monitor the changes of money supply periodically in order to determine the behaviour of Islamic bank savings.

Keywords: Islamic bank savings and deposits, determinants, VECM, VDC, Malaysia

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[1] INCEIF, Lorong Universiti A, 59100 Kuala Lumpur, Malaysia.

2 **Corresponding author**, Senior Professor, UniKL Business School, 50300, Kuala Lumpur, Malaysia.

Email: mansurmasih@unikl.edu.my

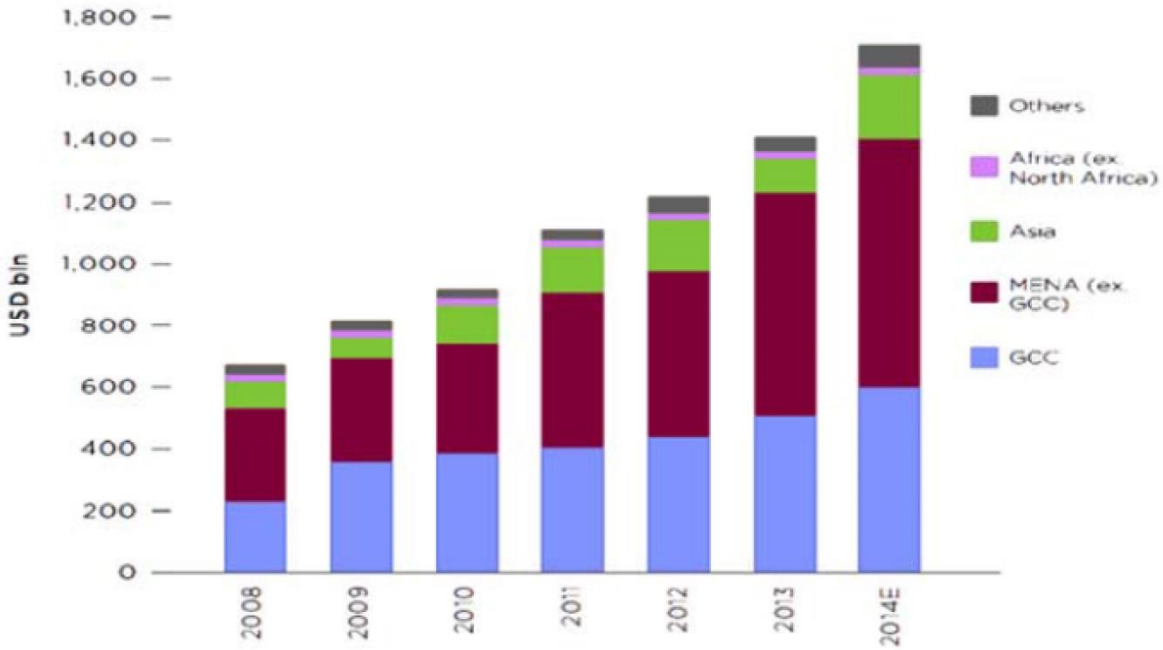
1.0 Introduction

Islamic banking growth has been popular in the financial world in recent years. The concept of Islamic banking has been praised and recognised all around the world as its practicality has proved to be significant. The concept of Islamic banking has served as a socially responsible and ethical banking model with exponential growth. This is because it is able to offer innovative financial solutions to cater the fulfilment for basic financial needs in under-served markets especially in the Muslim worlds. Islamic banking is able to adapt to the complex financial requirement of the modern times. Significant segments of the markets are beginning to choose Islamic finance as their financing and investment needs. The core strength of Islamic financial system lies in it being asset backed nature and direct link to the real economic transactions and the free of any element of interest and speculative activity. The basis of Islamic finance is from the teaching and philosophy of Islam.

The Islamic thoughts agree that everyone should be involved in some kind of economic activity for survival and they have every right to do so. Islamic banking is focused to provide superior model to rectify the modern day economic problems and aims to establish just and fair society to preserve the social welfare. “The central philosophy emerges from the divine guidelines allowing trade as an alternative of Riba or usury”.

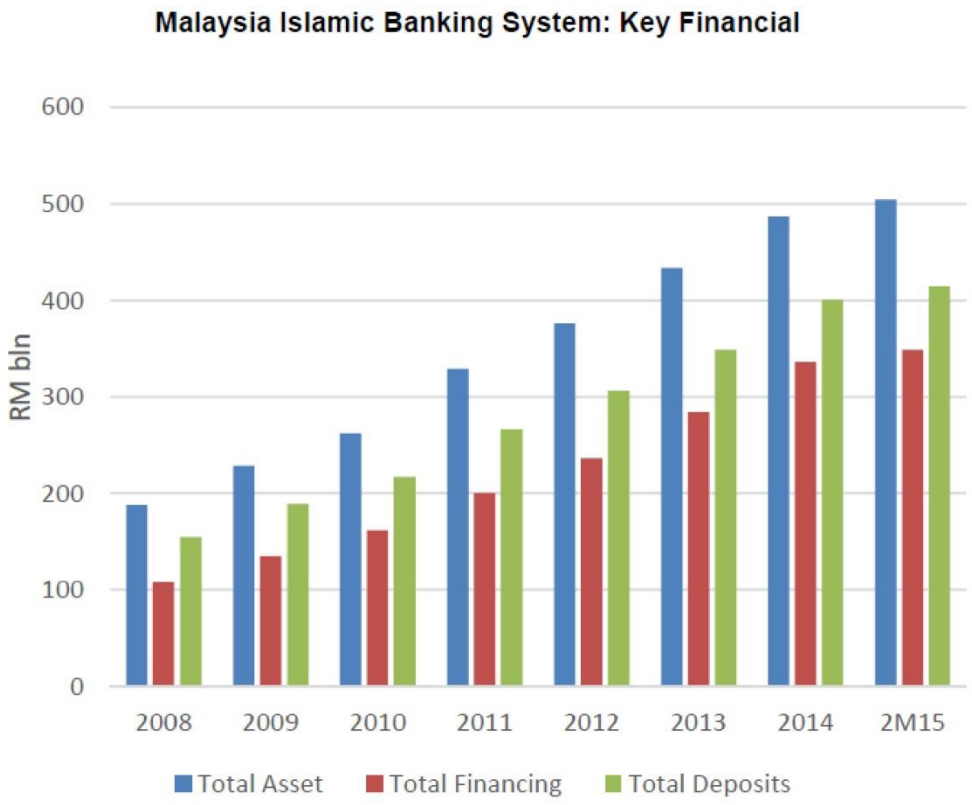
As of 2014, the total Islamic banking asset is estimated to be at approximately USD1.7tln. What drives the tremendous growth in Islamic banking assets are jurisdictions in MENA and Asia particularly Saudi Arabia, Malaysia, United Arab Emirates, Kuwai, Qatar, Turkey, Bahrain, Indonesia, Bangladesh and Pakistan where the world has witnessed a remarkable growth rates surpassing conventional banks in recent years.

Global Islamic Banking by Region (2014)



Source: MIFC 2014

Malaysia ranks the third largest Islamic banking industry in the world after Iran and Saudi Arabia with assets contributing to 16.7% of global Islamic banking assets worldwide. Islamic banks and Islamic commercial windows drive the growth of the Malaysian Islamic banking industry as the alternative to conventional banking. According to Bank Negara Malaysia, Islamic bank assets recorded at MYR487bln which accounts for 22% of the Malaysia's total banking assets as at end-2014. Islamic banking assets continued to expand over the years which rose from MYR430.6bln to MYR504.6bln as of 2015. The total Islamic banking deposits rose by 19.5% while Islamic financing grew by 20.7%.



Source: BNM's monthly statistical bulletins

Saving is important for everyone regardless of their financial status. Saving is defined as the excess of income over consumption expenditure (Keynes, 1936). It is intended to meet future consumption as well as to initiate investment. When people save, they would forgo their consumption, meaning they have to sacrifice now in order to be rewarded in the future. One of the motives of saving is to seek profit in the conventional banking institutions. Saving is determined by the rate of return on the saving ultimately. The conventional banking institutions practice rewarding interest on deposits.

However, in Islam it is strictly prohibited to provide excess in return of no reward or equivalent counter-value is paid. This is known as riba. Riba is widely and frequently discussed amongst the Muslim scholars. It is percept that bank's interest is equivalent to riba. Initially, contemporary Muslims scholars have different opinions on whether the bank's interest is equivalent to riba. But, today there is general consensus that interest on bank loans is considered riba and it

is strictly prohibited in Islam. The prohibition of riba is due to protecting the interest of social and economic welfare of mankind.

From the economic perspective, it is important to save money. This is because savings has a direct link to economic growth and prosperity of a country. Abundance of literature has been made on savings. They are categorized into several categories such as private savings behaviour, the factors determining savings, the effect of monetary and fiscal policies on savings and the relationship between profitability and public policy.

Therefore, it is important to investigate whether the behaviour of deposit is influenced by the economic variables such as BLR, KLCI, CPI, M3 and GDP. The behaviour of deposit could be influenced by religious dimension. Several studies have been conducted on this issue such as the works of Haron and Shanmugam, Haron and Ahmad, and Sukmana and Yusof.

The first empirical study on savings' behaviour in the Islamic banking environment is attempted by Sudin Haron and Wan Nursofiza. Their findings confirm that economic variables such as BLR, KLCI, CPI, M3 and GDP have significant long-run relationship with deposits placed by customers at both Islamic and conventional banking systems. They found that all the economic variables except for BLR have a significant positive relationship with the savings function. They reasoned that this could be due to Islamic system customers behave according to Islamic teachings. There are many verses from the Quran that encourages the act of saving regardless of their economic positions.

This study attempts to investigate the determinants of saving in the Islamic banks in Malaysia. The determinants are of selected economic variables on deposits placed in Islamic banks in Malaysia. It is hoped that this study could fill the literature gap by investigating the determinants.

2. Literature Review

The saving behaviour is always associated with rate of interest. According to classical economists, the saving is the function of the rate of interest. The theory is the higher the rate, the more money will be saved. This is because at a higher interest rate, people are more willing to forgo current consumption. Athukorala, Prema-C and Kunal Sen (2003) conducted a research on the determinants of private saving in India. They found out that the real interest rate on bank deposits has a significant positive impact. But the magnitude of the impact is not so high.

There is a number of research conducted on the determinants of saving in Islamic banks. The findings of the literatures comprised of different kinds of determinants ranging from macroeconomics variable to religious factors. One of the popular determinants of saving is the profit rate. This view is supported by Dr Sudin Haron & Norafifah Ahmad (2005). It is evident in their studies that there is a relationship between the amount of deposits placed in the Islamic banks in Malaysia and the returns given to these deposits. Their findings confirmed that profit rate is the factor affecting saving and investment deposits in Islamic banks. This view is also supported by El-Bdour, Radi and Cengiz Erol (1989). They concluded that the motive responsible in selecting Islamic banks is not really religious motive but profit motive.

Other economic variables such BLR, CPI, KLCI and CPI are used in this research. According to Dr Sudin Haron & Norafifah Ahmad (2005), they investigated BLR as the determinant of savings. They are the first researchers to investigate BLR. They concluded that an increase in BLR does not increase the Islamic deposits. One feasible explanation is that customers believe Islamic bank upholds Islamic teachings and will continue to provide services and loans during bad economic times.

KLCI represents the future growth in the economy and the confidence level of people towards the economy. It is expected that KLCI has an inverse relationship with deposits.

"CPI is used as a proxy for inflation. Inflation may or may not influence savings through several channels. Inflation can influence people to save as a precautionary step.

Money supply or M3 is used by government to manage its monetary policy. Changes in money supply can result in significant impact on economy. It is expected for money supply to have an inverse relationship with deposits.

3. Data and Methodology

The data used are taken from the monthly statistical bulletin of Bank Negara Malaysia and are examined using Microfit 5.0. The monthly data is used for a period of twelve years starting from January 2001. A total of 156 observations were obtained from a total of six variables. Vast empirical literature on savings has listed numerous variables. Based on the discussion presented in the previous section, the variables chosen for this study are Islamic savings profit rate (IS), base lending rate (BLR), Kuala Lumpur composite index (KLCI), consumer price index (CPI) and money supply (LM3).

Time series technique is employed in this study. The techniques of cointegration, Vector Autoregressive (VAR), error correction modelling and variance decomposition are employed to examine the relationship among the variables and evaluate the biggest factor affecting Islamic deposits in Malaysia. The standard time series technique is used which consists of these tests namely unit root test, VAR specification, cointegration test, Engle-Granger and Johansen Test, long run structural modelling (LRSM), vector error correction model (VECM), variance decomposition (VDC) and Impulse response function analysis (IRF) and lastly the persistence profiles. This time series technique is the preferred method over the traditional regression technique due to the following reasons.

The first reason is most of the finance and economic variables in their level form are non-stationary. Non-stationary variables will result in the conventional statistical tests such as R^2 and t-statistics being invalid. Even if the variables are non-stationary and not cointegrated, the differenced form of the variables can be estimated but the results drawn from it are invalid for long run theoretical relationship between the variables.

Secondly, the theoretical relationship is pre-determined by the research beforehand in the traditional regression technique. In time series technique, the data decide the endogeneity and exogeneity of variables.

The last reason is the cointegration techniques examine the dynamic interaction between variables. This is not the case in the traditional regression methods which do not include interaction between variables.

4. Empirical Result and Interpretation

The first test that needs to be done is the unit root test which is to test the stationarity of each variable. In order to pass the test, the level form variables must be non-stationary because they infer long run information and the first differenced form must be stationary because long run information have been changed to short term information. The unit root test that is used is the Augmented Dickey Fuller (ADF) test.

4.1 Augmented Dickey Fuller (ADF) and Philips Perron (PP) Tests

Each variable is tested with ADF test by taking the log form and differenced form in the Microfit system. The differenced form is created by taking the difference of the log forms. For example, DDTD= LTD - LTD(-1). The result of the ADF test is summarised in the table below:

Variables in Level Form					
Variables	ADF	VALUE	T-STAT.	C.V.	RESULT
LTD	ADF(1)=SBC	341.8740	- 1.555	-3.3437	Non-Stationary
LKLCI	ADF(1)=SBC	257.6647	- 2.754	-3.3437	Non-Stationary
LCPI	ADF(1)=SBC	614.6439	- 3.157	-3.3437	Non-Stationary
LIS	ADF(1)=SBC	171.4085	- 2.876	- 3.344	Non-Stationary
LBLR	ADF(2)=SBC	429.3999	- 2.746	- 3.363	Non-Stationary
LM3	ADF(1)=SBC	- 143.9703	- 1.967	- 3.325	Non-Stationary

Variables in Differenced Form					
VARIABLE	ADF	VALUE	T-STAT.	C.V.	RESULT
DTD	ADF(1)=SBC	341.1439	-7.7868	- 2.900	Stationary
	ADF(1)=AIC	345.6498	- 7.787	- 2.900	Stationary
DKLCI	ADF(1)=SBC	256.8673	- 7.953	- 2.900	Stationary
	ADF(1)=AIC	261.3732	- 7.953	- 2.900	Stationary
DCPI	ADF(1)=SBC	607.5651	- 6.927	- 2.900	Stationary
	ADF(4)=AIC	613.3798	- 6.408	- 2.917	Stationary
DIS	ADF(1)=SBC	170.6030	- 12.486	- 2.900	Stationary
	ADF(1)=AIC	175.1089	- 12.486	- 2.900	Stationary
DBLR	ADF(1)=SBC	426.9832	- 5.717	- 2.900	Stationary
	ADF(1)=AIC	431.4891	- 5.717	-2.9001	Stationary
DM3	ADF(5)=SBC	143.3414	- 4.969	- 2.917	Stationary
	ADF(5)=AIC	- 132.8276	- 4.969	- 2.917	Stationary

For the variables in level form, the highest value from either the AIC or SBC is used to determine the stationarity of the variables. The conclusion from this test is all of the variables used for this analysis are non-stationary. The null hypothesis for the ADF test is that the variable is non-stationary. In the above test, the test statistics for all the variables are lower than the critical value and thus we fail to reject the null. Therefore, we can proceed with cointegration test. The test statistic is compared with the 95% critical value for the ADF statistic.

For the PP test, it is found that there is a combination of stationary and non-stationary in the level form variables. As both tests are reliable, we have chosen to use the results from the ADF test to proceed to the next step.

4.2 Determination of the Order of the VAR Model

The next step is to determine the order of the vector auto regression (VAR) which is how many lags to be used. The VAR computation is identified based on adjusted LR test more than 5%, and highest AIC and SBC. The table below shows the order based on the highest selected AIC and SBC. The AIC gives higher order than SBC. Both option carry specified risk where higher order is exposed to over-parameterization while lower order have auto-correlation problem. However, we have chosen the higher order to get full results for Vector Error Correction Model (VECM) test.

Order	AIC	SBC	p-Value	C.V.
2	1686.3	1569.2	[.343]	5%

4.3 Testing Cointegration

The next step after determining the stationarity of the variables and the optimal VAR order as 2 is to test for cointegration. The test of cointegration is to ensure that the variables are moving together in one or two directions. If they are cointegrated, it is said that they are theoretically related. There are two tests for cointegration namely Engle-Granger Test and Johansen Test.

The Engle-Granger Test uses the residual based approach where it can only determine whether there is cointegration or not. Whereas the Johansen Test uses maximum likelihood where it can identify how many cointegration exists. As presented in the table below, the maximal Eigenvalue indicates that there is one cointegration But the Trace shows that there are two cointegration. For Maximal Eigenvalue and Trace, the test statistic for null or r=0 is greater than the 95% critical value.

Cointegration LR Test Based on Maximal Eigenvalue of the Stochastic Matrix					
Null	**Alternative**	**Statistic**	**95% Critical Value**	**90% Critical Value**	**Result**
r = 0	r = 1	71.180	43.610	40.760	1 cointegration
r<= 1	r = 2	35.129	37.860	35.040	
Cointegration LR Test Based on Trace of the Stochastic Matrix					
Null	**Alternative**	**Statistic**	**95% Critical Value**	**90% Critical Value**	**Result**
r = 0	r>= 1	160.444	115.850	110.600	2 cointegration
r<= 1	r>= 2	89.264	87.170	82.880	

Based on the statistical result above, we shall assume that there is one cointegration or relationship among the variables. Cointegration means that the relationship among the variables is not spurious, that is there is a theoretical relationship among the variables in the long run. It also implies that each variable can predict the information of other variables. However, the drawback of cointegration is it cannot tell us which variable is leading and which variable is following. The

economic interpretation is that all six variables are moving together in the long run. This result suggests that there is a strong relationship between the dependent variables and their determinants

4.4 Long Run Structural Model (LRSM)

The next step is to quantify the theoretical relationship among the variables. LRSM works by testing the variables coefficients. The main objective is to see whether the variables are statistically significant or not by imposing exact-identifying and over-identifying restrictions based on theories. Exact-identifying shows the focused variable is made equal to one. In over-identifying, the long-run coefficients of variables are tested against the theoretically expected values and whether the variable is significant or not. The variable is said to be statistically significant when the t-ratio is greater than 2. As stated in the introduction, our objective of study is to determine the factors affecting savings in Islamic banks. Thus, our focused variable is Total Deposit (TD). At the exact-identifying stage in Panel A, we normalized TD by making it equal to one. In Panel B, we move on to the over-identifying stage where we imposed restriction on variable that is insignificant. The table below summarizes the exact and over identifying restriction for one vector.

VRBL	PANEL A	PANEL B
	A6=1	**A6=1; A3=0**
LBLR	1.5622	1.3302
	(0.44811)	(.35078)
LCPI	-14.8124	-13.8054
	(2.2737)	-1.8425
LIS	-0.23314	**0**
	(0.24501)	**(*NONE*)**
LKLCI	-1.3786	-1.2813
	(0.27268)	(.23369)
LM3	0.029096	0.033686
	(0.0088799)	-0.0074391
LTD	**1**	**1**
	(*NONE*)	**(*NONE*)**
Trend	0.022873	0.022047
	(0.0053511)	-0.0050263
CHSQ(1)	NONE	.99240[.319]
s.e. in parentheses		

Panel A: Exact identifying; Panel B: Over identifying

When TD is normalised through exact-identifying, there are three variables that significant because the t-statistics' results are more than 2. This means that the variables have significant impact on our dependent variable which is TD. The other variable is found to be insignificant because its t-statistic's result is less than 2. The variables that are significant are CPI, KLCI and Money Supply. The variable that is insignificant is IS. Based on this result, we should remove IS variable because it does not bring any significant impact to the study. In over-identifying, we redo the test on IS by putting a restriction to zero in a way to ascertain its insignificance in the study model. The result gives P value in Panel B bigger than 5% which means restriction is correct. All the variables are significant in Panel B. This means that we accept null hypothesis where the restriction is correct and the IS variable is now significant. Theoretically IS (Islamic savings profit rate) is important in the study because it is related to TD. Furthermore, IS is one of the main variables beside TD in the study. Many articles support the connection between IS and TD as per presented in the literature review. LRSM managed to show that variables are cointegrated to a

significant degree but it does present the causality between the variables. After we have known which variables are exogenous and endogenous, we can proceed to the next test which is Vector Error Correction Model (VECM).

4.5 Vector Error Correction Model (VECM)

At this stage, we are going to find out which variable is the most exogenous and which is most endogenous. Exogenous variables are known as independence and are the leaders. They have strong influence towards endogenous variables. VECM is the test to establish the leaders and followers of the variables relationship. This test is called Granger Causality. Under Granger Causality we could establish an equation with the equality sign for all variables. In order to know the causality we look at the error correction term because it holds the long term information to test the theoretical part. It is established from the previous test that there is one cointegration, error correction term is regarded as stationary. Thus, we can establish that error correction term represent all variables in the equation and verify the finding. Using P value of each equation will tell us which variable is endogenous and which is exogenous. If t-ratio is more than 2 and P value is less than 5% then the variable is endogenous. If t-ratio is more than 2 and P value is more than 5% then the variable is exogenous. The table below presents the Granger Causality of the VECM result:

ecm1(-1)	Coefficient	Standard Error	T-Ratio [Prob.]	C.V.	Result
dLBLR	-0.036179	0.0090812	-3.9839[.000]	5.00%	Endogenous
dLCPI	0.0049234	0.0027437	1.7944[.075]	5.00%	Exogenous
dLIS	-0.046264	0.050838	-.91002[.364]	5.00%	Exogenous
dKLCI	0.1506	0.028337	5.3145[.000]	5.00%	Endogenous
dLM3	-0.04268	0.40328	-.10583[.916]	5.00%	Exogenous
dLTD	-0.018734	0.016774	-1.1169[.266]	5.00%	Exogenous

From the above result we can ascertain that there are two endogenous variables which are Base Lending Rate (BLR) and Kuala Lumpur Composite Index (KLCI). Other variables are exogenous. Based on the result, the variables Consumer Price Index (CPI), Islamic Savings Profit

Rate (IS) and Money Supply (M3) when receive shocks would greatly impact on other variables. Thus, Islamic Banks would be interested in these three variables to increase their banks' deposits. "VECM can also measure short term causality among variables, the speed of variable to return to equilibrium and provide diagnostic test for specification problem in terms of autocorrelation, functional form, normality and heteroscedasticity."

4.6 Variance Decompositions (VDC)

The next step is variance decomposition. This step determines the relative exogeneity or the ranking of the variables by recognizing the proportion of the variance explained by its own past. VDC decomposes the variance of forecast error of each variable into proportions attributable to shocks from each variable in the system including its own. For example, exchange rate depends on 50% of debt, by how much would exchange rate changes? The variable which is explained mostly by its own shock would be the most exogenous of all.

The Generalized VDCs are invariant to the ordering of the variables. We obtained results. The numbers in the Generalized VDCs do not add up to 1.0. Therefore, for a given variable, at a specified horizon, we total up the numbers of the given row and then divide the number for that variable by the computed totals. Then, the numbers will add to 1.0. The table below presents the result.

Forecast at Horizon = 50 (months)

	HORIZON	LBLR	LCPI	LIS	LKLCI	LM3	LTD	TOTAL	SELF-DEP	RANKING
LBLR	50	63.40%	21.38%	1.22%	12.98%	0.68%	0.34%	100.00%	63.40%	5
LCPI	50	7.69%	86.88%	0.00%	4.24%	0.30%	0.89%	100.00%	86.88%	2
LIS	50	8.18%	20.24%	69.99%	0.22%	1.18%	0.18%	100.00%	69.99%	4
LKLCI	50	1.23%	53.13%	0.29%	37.12%	2.06%	6.16%	100.00%	37.12%	6
LM3	50	0.00%	0.20%	0.23%	0.10%	98.45%	1.01%	100.00%	98.45%	1
LTD	50	0.68%	0.84%	0.01%	10.65%	1.33%	86.50%	100.00%	86.50%	3

Forecast at Horizon = 100 (months)

	HORIZON	LBLR	LCPI	LIS	LKLCI	LM3	LTD	TOTAL	SELF-DEP	RANKING
LBLR	100	62.98%	21.77%	1.20%	13.04%	0.69%	0.32%	100.00%	62.98%	5
LCPI	100	7.70%	86.69%	0.00%	4.40%	0.31%	0.90%	100.00%	86.69%	2
LIS	100	8.39%	20.79%	69.25%	0.18%	1.20%	0.17%	100.00%	69.25%	4
LKLCI	100	0.88%	55.28%	0.28%	35.34%	2.14%	6.09%	100.00%	35.34%	6
LM3	100	0.00%	0.21%	0.24%	0.09%	98.44%	1.02%	100.00%	98.44%	1
LTD	100	0.65%	0.87%	0.01%	10.75%	1.34%	86.38%	100.00%	86.38%	3

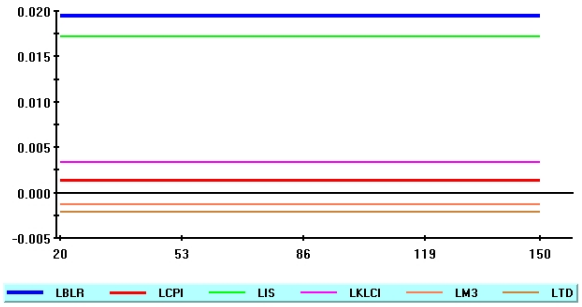
From the above results, the most exogenous variable is M3, followed by CPI, TD and IS. The most endogenous variable is KLCI followed by BLR. The ranks between the two horizons are the same. The relative rank in exogeneity between the indices is quite substantial. For example, in horizon of 50 months, 61.42% separate the most exogenous variable and the most endogenous variable.

The economic interpretation of this result is Money Supply is the most exogenous because the level of liquidity determines savings. Money supply is used by the government to manage its monetary policy. An increase in money supply will make loanable funds cheaper, therefore it reduces the cost of borrowing for corporate and individual customers. Thus, it is expected that people will increase consumptions and reduce savings. It is presumed that money supply have an inverse relationship with savings.

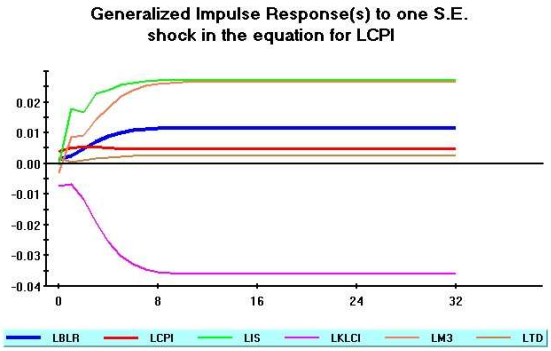
4.7 Impulse Response Function (IRF)

The impulse response functions hold the same information as the VDCs, except that they are presented graphically. IRF maps the graphical presentation of the impact of other variables when one variable is shocked. The figure below shows the impact of other variables on a particular variable when it is shocked.

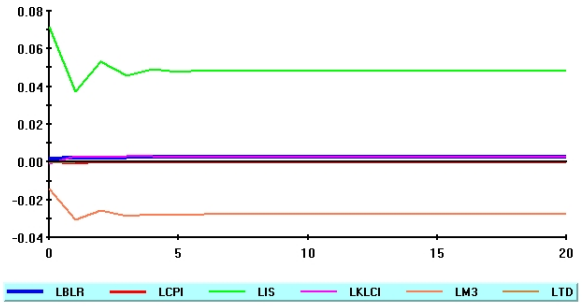
Generalized Impulse Response(s) to one S.E. shock in the equation for LBLR



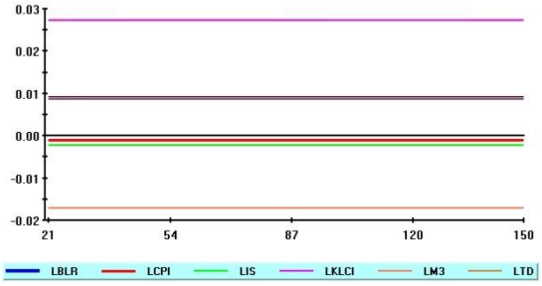
Generalized Impulse Response(s) to one S.E. shock in the equation for LCPI



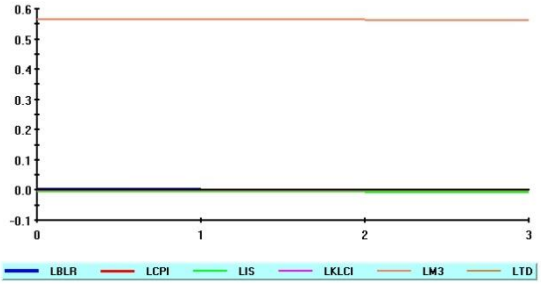
Generalized Impulse Response(s) to one S.E. shock in the equation for LIS



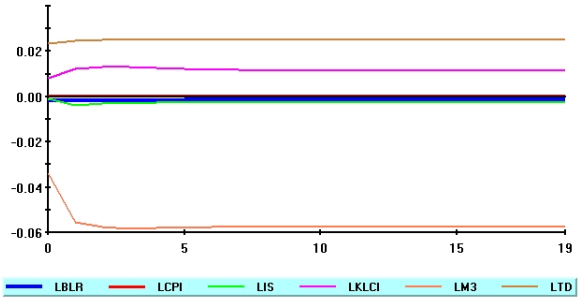
Generalized Impulse Response(s) to one S.E. shock in the equation for LKLCI



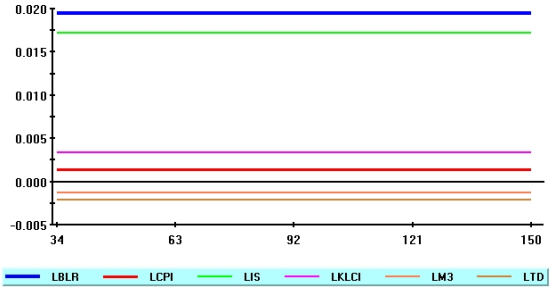
Generalized Impulse Response(s) to one S.E. shock in the equation for LM3



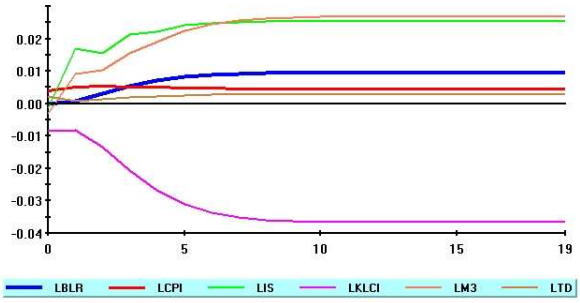
Generalized Impulse Response(s) to one S.E. shock in the equation for LTD



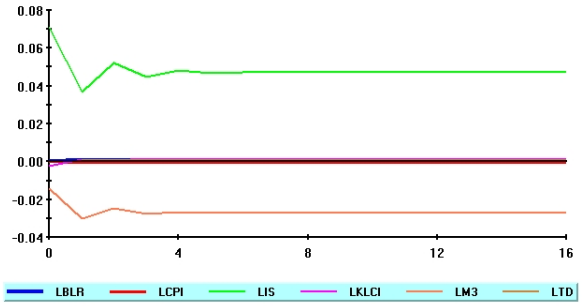
Orthogonalized Impulse Response(s) to one S.E. shock in the equation for LBLR



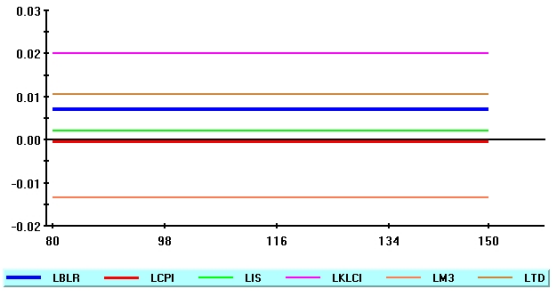
Orthogonalized Impulse Response(s) to one S.E. shock in the equation for LCPI



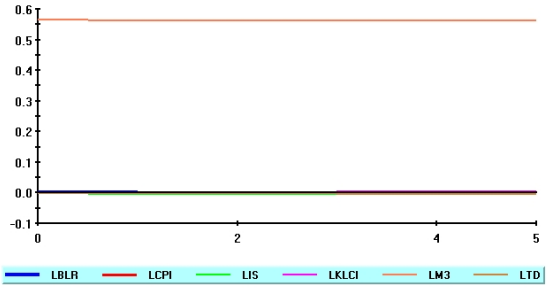
Orthogonalized Impulse Response(s) to one S.E. shock in the equation for LIS



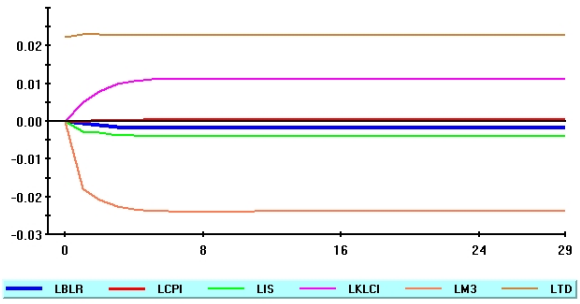
Orthogonalized Impulse Response(s) to one S.E. shock in the equation for LKLCI



Orthogonalized Impulse Response(s) to one S.E. shock in the equation for LM3

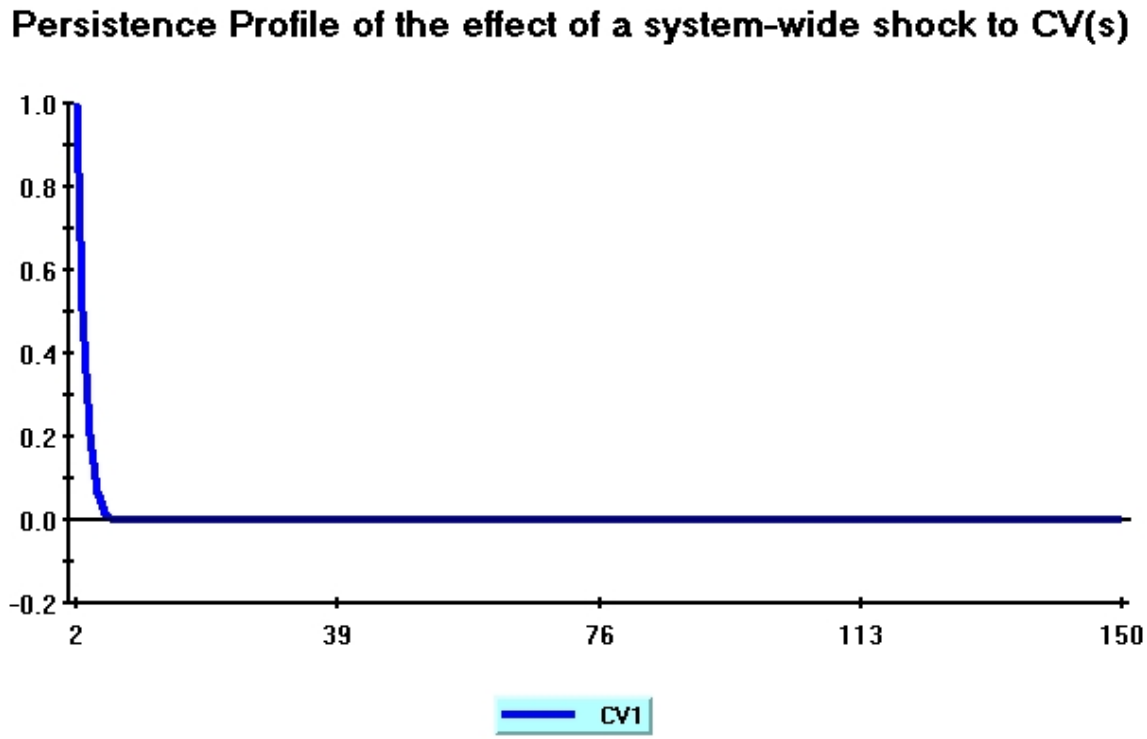


Orthogonalized Impulse Response(s) to one S.E. shock in the equation for LTD



4.8 Persistence Profile (PP)

The persistence profile shows how long it would take for the whole system to stabilize and return to equilibrium if all the variables are shocked by some external factor. The chart below shows the persistence profile for the cointegrating equation of this study.



The above chart indicates that it would approximately 10 months for the cointegrating relationship to return to equilibrium after all variables are shocked.

5.0 Conclusion and Policy Implications

The findings confirm that the economic variables such as BLR, KLCI, CPI and M3 have significant long-run relationship with savings in Islamic banks. The other variable which is profit rate of Islamic savings also has a significant long-run relationship with savings. In the LRSM test, it is found that the profit rate is not significant in the long-run with other variables. Therefore, in the over-identifying restriction, we have to remove that variable in order for the model to be accepted. In the VECM test, we found out which variable is exogenous and which is endogenous. We found out that KLCI and BLR are endogenous. Other variables namely CPI, IS and M3 are found to be exogenous. In the VDC, we investigated the ranking of each variable. We found that the most exogenous is money supply and the most endogenous is BLR. This is because the level of liquidity determines savings. Money supply is used by the government to manage its monetary policy. An increase in money supply will make loanable funds cheaper, therefore it reduces the cost of borrowing for corporate and individual customers. Thus, it is expected that people will increase consumptions and reduce savings. It is presumed that money supply have an inverse relationship with savings. Lastly, the persistence profile shows how long does it takes for the variables to return to equilibrium when all the variables are shocked. The result showed that it takes approximately 10 months for the cointegrating relationship to return to equilibrium after all variables are shocked.

The policy implication is the policy maker could examine and monitor the impact of the exogenous variables namely CPI, IS and M3 as these variables are shocked. This is because as these variables are shocked other endogenous variables would have a significant impact. Money supply is especially the most important factor to be monitored in order to determine the behaviour of savings in the Islamic banks.

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