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What Determines The Financing Supply of Islamic Banks? A Multicountry Study

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Abstract
Smooth functioning a bank depends on the stability of stream of returns that it gets from its financing decision. This study is an attempt to showcase the reason for idling or shortage of funds and the factors for the case of Islamic banking. This effort will determine the strategy which can boost the financing in the economy, for this, this study has used the panel data of full-fledged Islamic banks from countries Pakistan and Malaysia, spanning to several years and based on several banks. Based on the analysis of internal and external factors of Islamic banks, it can be seen that increase in the market rate leads to decrease in demand of financing while the increase in deposits and equity do not show a proportional increase in financing which hints that there is excess liquidity available in the Islamic banks. On the positive side, it is evident that increase in the economic activity boosts the demand for Islamic financing.
Keywords: Islamic banking; Financing; Excess liquidity.

1. Introduction

The growing Islamic banking industry has been the hallmark of the whole conventional world (Moin, 2008). What banking business does, it accepts the deposits and lends it to the customers who are in need of financing to run their business or meet their short-term obligations, long-term financing or to meet their day to day expenses. Banks earn using attracting the deposits on lower rate and financing on the higher rate and this difference is a profit of the banks. The more the banks do wise financing the more the banking sector earn a stable profit. Hence managing the financing and its returns are the key to the stability of banks in the economy.

In Islamic banking, the case becomes more difficult as it does not transfer complete risk to the financer rather perform as a partner with the borrower and shares all sorts of risk in asset creation process. As Islamic banking is based on real economic activity, where there is a probability of a loss. Hence in order to have a stable and consistent profit stream to the depositors, financing division of the Islamic banks are put to the task to invest in a portfolio of profitable business with rigorous risk assessments.

In Islamic banking, Mudaraba contract[1] is used to form a relationship between the bank and the depositor. Even though the contract of the bank with the depositor allow to transfer loss, still this situation will be devastating for the banks' ability to attract the funds in the form of savings account deposits. While on the other hand, it is facing competition with the conventional banks for attracting current accounts. Similarly better financing returns will help to manage the operational costs of the bank, the confidence of the stakeholders of an Islamic bank and attract depositors (Iqbal and Molyneux, 2016). In order to sort this issue, there is a challenge laying in front of Islamic banks that they have to utilize the surplus liquidity (funds available for financing) for returns. This Idle liquidity leads to higher opportunity cost as it is not earning while it increases the actual cost of funds as a bank has to pay to the depositors who are engaged in Mudarbah based savings account.

Islamic banks have their earnings from its pool of funds. These funds can be used in following ways, first is partnership based modes like Modarba, Musharka, trade-based modes like Ijarah (rental lease) and Murabaha (cost plus sale) and lastly, there is fee-based income like agency agreement, Letter of Credit. Islamic banks have to shift their funds between these pools based on expected profitability and risk ratio. All in all, healthy and profitable financing by the Islamic banks is the key factor which boosts the profitability and stability.

So devising the optimal strategy for financing by Islamic banks is of the essence in the era where Islamic banks. This is because Islamic banks are facing the issue of excess liquidity in their asset side as an opposed shortage of liquidity in conventional banks. This study will find the ways which Islamic can opt to boost their financing performance in the case of the long-term functionality of bank and healthy inflow of resources from the depositors.

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[1] "Mudaraba is a special kind of partnership where one partner gives money to another for investing it in a commercial enterprise. The investment comes from the first partner who is called Rabb ul Mal and the management work is exclusive responsivity of other partner called Mudarib" Usmani,(2004)

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1.1. Objective of the Study

The prevailing issue of increasing idle funds for financing, this study is set to find out the possible factors that affect the amount of financing by the Islamic banks across several countries. This effort will help in explaining how to streamline the financing by the Islamic banks in selected countries.

1.2. Research Question

Following are the research questions which this study will address.

i. What are the internal factors like a total asset and total equity which influence the financing of Islamic banks?

ii. What are the external factors like GDP, M2 and market rate of return which influence the financing of Islamic banks?

1.3. Research Hypothesis

The research hypothesis based on the research questions provided

Ho; Total Deposits has no effect on Islamic Banking Financing
H1; Total Deposit has an effect on Islamic Banking Financing
Ho; Total Equity has no effect on Islamic Banking Financing
H1; Total Equity has an effect on Islamic Banking Financing
Ho; Market Rate of Return has no effect on Islamic Banking Financing
H1; Market Rate of Return has an effect on Islamic Banking Financing
Ho; GDP has no effect on Islamic Banking Financing
H1; GDP has an effect on Islamic Banking Financing
Ho; M2 has no effect on Islamic Banking Financing
H1 M2 has an effect on Islamic Banking Financing

2. Islamic Banking and the World

Currently Islamic banking is set is strong foot is countries like Saudi Arabia, Malaysia, UAE, Kuwait, Qatar, Turkey, Indonesia, Bahrain and Pakistan. Follwong figure shows that the banks in Pakistan, Qatar and Saudi Arabia are experiencing double digit growth and it is almost twice to conventional banking growth in respective countries between 2010- 2014. While there is a apparent slowdown of banking sector in Indonesia, and Malaysia.

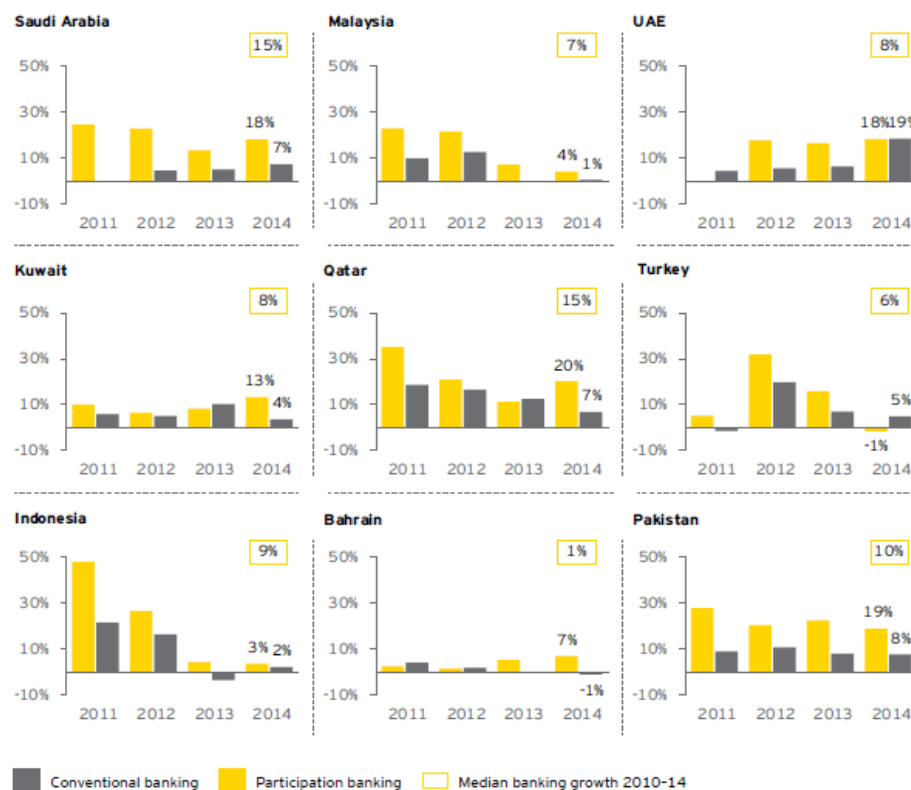**Figure-1.** Asset growth of Islamic banks as compared to conventional banks (EY, 2016)

Figure 2 shows the proportion of Islamic banking in local and international dealing of respective country. It can be see that for the case of Saudi Arabia and Kuwait there is significance representation of Islamic banking in national assets of the country. While unexpectedly the here very small share of Islamic banking in pakistan, turkey and Indonesia.

Figure-2. national and international footprint of Islamic banking (EY, 2016).
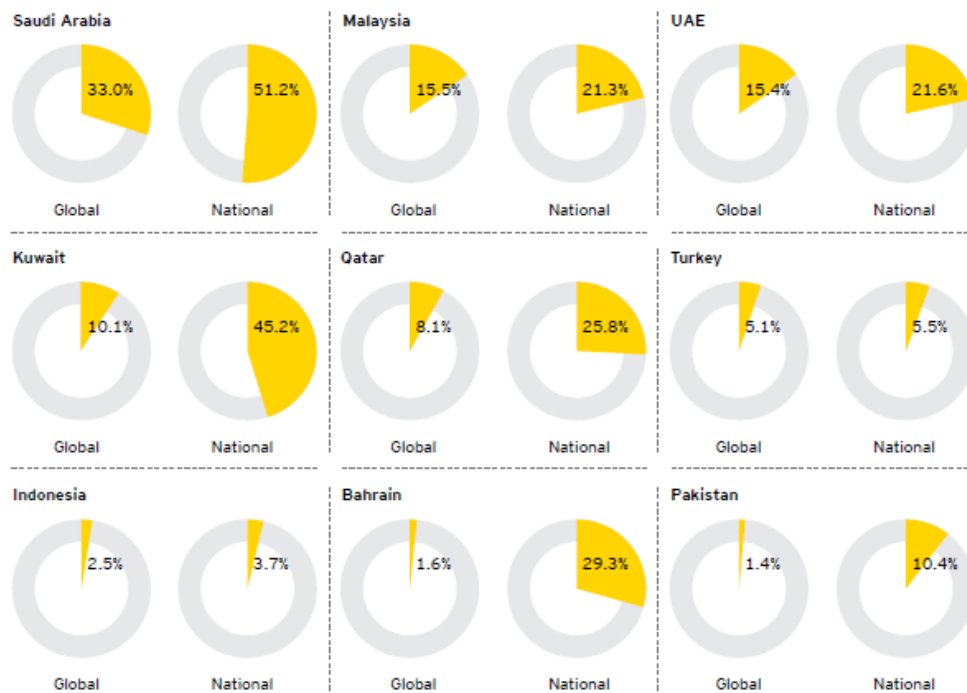
3. Literature Review

Khwaja and Mian (2008) explained that bank tends towards more financing if they have the more liquidity. He compared that due to liquidity shocks or fluctuation the larger firms absorb the pressure of the economy and get more financing from bank, but in case of t smaller firms they are unable to run their operations so this lead to financial distress. So more the liquidity will be used for financing the more credit creation increase and ultimately banking sector will develop.

Paravisini (2008) explains that the availability of the sufficient capital leads to financial institution have more financing to customers, in this study author investigated that the larger banks which have supportive internal and external factors are more aggressive in financing and the smaller banks which are less supportive by internal and external factors limit their credit supply and leads to underinvestment.

Ashcraft (2001) has explained that the fund rate as the determinant of the bank lending such that more KIBOR rate will attract to the bank to have more financing towards the individual and the firms. Iyer *et al.* (2013) stated that the financing of the bank mostly depends on interbank borrowing rate (interest rate), any changes in that eventually change the financing of the bank. Although the firms that have the strong net worth and maintaining the good relationship with the banks can bounce back, the case is different with the new entrepreneur when interbank rate changes get worse.

Albertazzi and Bottero (2014) have explained about the relation between the economic conditions of the country and the banking sector that the more the economic condition is stable the more banking sector will develop. The favourable economic condition leads to the development of banking sector. Holmstrom and Tirole (1997) have also pointed out that banking investment depends upon the capacities of the business to take loans and when the wealth of the firms increase their capacity to take loan increases and the more financing will be demanded by them from the banking sectors.

Bhatt and Kishor (2013) have stated that the changes in monetary policy affects the financing of banks. They find that money supply and money demanded heavily affect the bank loans and bank financing. For this purpose they used the novel strategy which used by Driscoll (2004) for US economy, they use the panel data all over the states of India by money demand and its effect on the amount of bank loan and they find that bank loans significantly affect the real economic activity in India.

Based on available literature, this study has listed total assets, total equity, KIBOR, GDP and M2 as possible indicators for total financing of Islamic banks. Previous studies used banking level data with the macroeconomic data for a single country which lead to issues of non-variability of macroeconomic data across the banks. Hence this study will use a multi-country data of Pakistan and Malaysia so that there is a variation of macroeconomic variables across banks.

4. Methodology
4.1. Model
Following this the functional form of the model used in this study.
Financing= f (irt, Td, Te, M2, GDP)

In order to fulfil the objectives, this study will use the data of full-fledged Islamic banks from countries Pakistan and Malaysia. The data of internal factors and financing will be extracted from the annual reports of Islamic banks available on their website. While the data of external factors will be an extracted from world development indicators website. Since the data span for several years and based on several banks hence this study will use panel data to find out the internal and external factors that effect and eventually help to manage the financing supply of Islamic banks. The banks included in this study are shown in table below

Table-1. Banks used in this study

Pakistani Islamic Banks	Malaysian Islamic Banks
Meezan Bank	Bank Islam Malaysia Berhad
Dubai Islamic Bank	Bank Muamalat Malaysia Berhad
Albaraka Bank	Affin Islamic Bank
Burj bank	Alliance Islamic Bank
Bank Islami	Asian Finance Bank
	CIMB Islamic Bank
	Hong Leong Islamic Bank
	Public Islamic Bank
	Al Rajhi Bank
	Bank Rakyat
	OCBC Al-Amin Bank Berhad
	Kperasi Bank Persatuan

4.2. Dependent Variable

This study will use the total financing to total assets of Islamic banks (TF/ TA) as a dependent variable.

4.2.1. Internal Factors

This study proposes that there are certain qualities of the bank which leads them to higher financing. The indicators for these qualities are
- Total deposits (Td)
- Total equity (Te)

4.2.2. External Factors

These factors include the status of the economy which played its role in the decision of financing supply. These indicators are:
- KIBOR (indicator for return on financing)
- GDP (indicator for economic growth)
- M2 (indicator for banking sector development)

4.3. Descriptive Statistics

In this section, the analysis of the data will be done to achieve the objectives set by this study.

### 4.3.1. Association of Islamic Banking Financing With Independent Variables

Following figure 3 is the scatter plot of total financing against the total equity of Islamic banks. It can be seen from the line that changes in equity of the bank does not create a considerable change in the financing of the banks. This means an increase in equity leads to higher reserves and bank tend to use the deposits aggressively.

**Figure-3.** Scatter plot of total financing and total equity
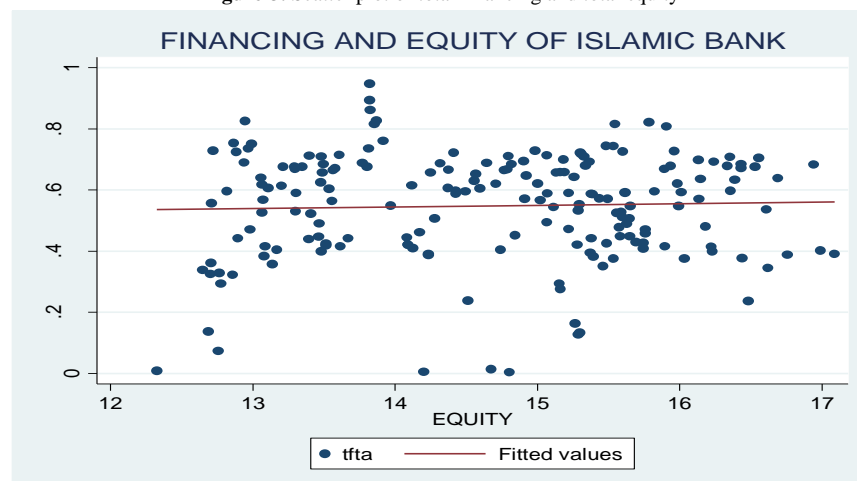
Here figure 4 complements the conclusion draws from the previous graph. Here the increase in deposits is met with an increase in financing of the bank. But the rate of increase is not proportional as it is expected that Islamic banks tend to invest in the capital market directly.

**Figure-4.** Scatter plot of total financing and total deposit
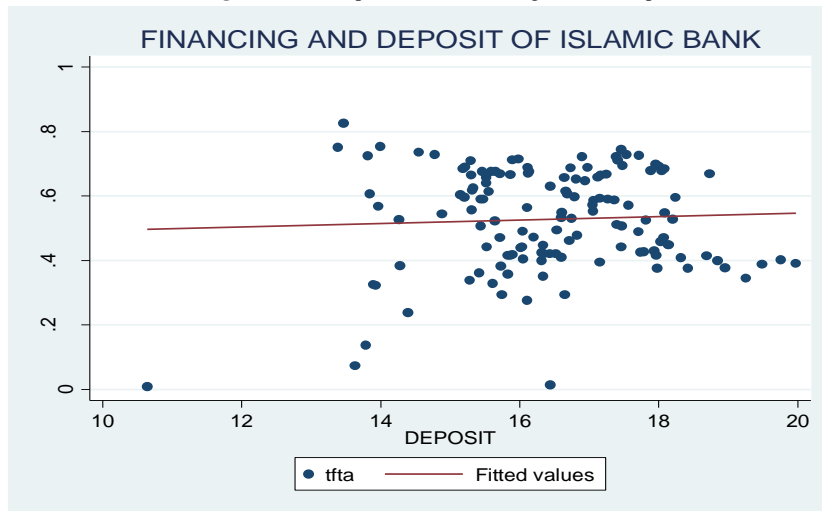
Following figure 5 indicates that increase in the cost of financing which is KIBOR leads to withdrawal of potential borrowers. Hence increase in KIBOR decreases the financing. This relationship is better explained by demand theory of financing.

**Figure-5.** Scatter plot of Total financing and market rate of interest
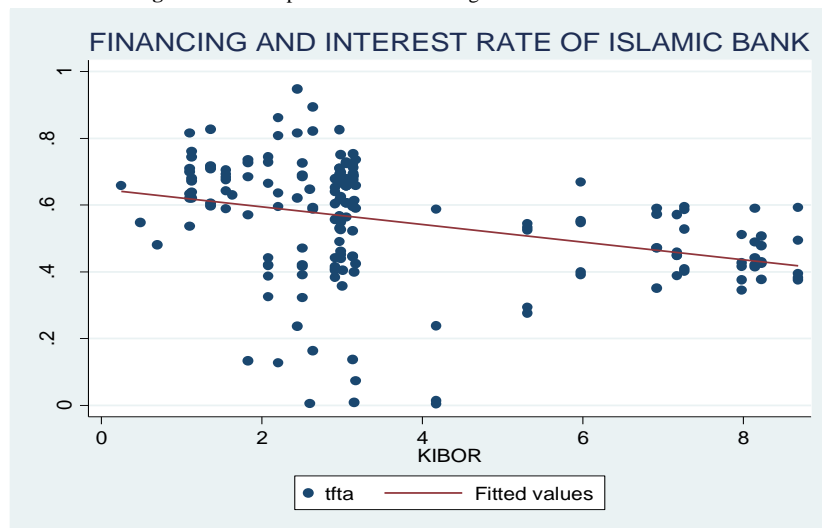
Following Fig. 6 shows scatter plot of financing and GDP which denotes that if the income of the of the individual and the firm increase the firm or individual will not go for borrowing and. So by the increase of the of GDP the financing will be decreasing

Figure-6. Total financing and GDP
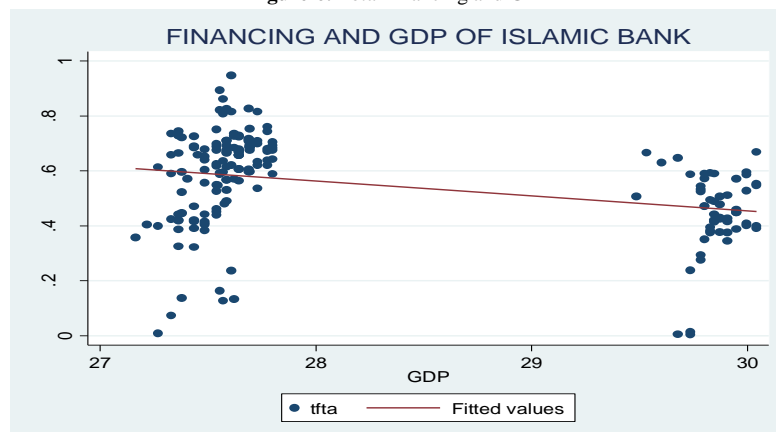
Following fig 7 present the scatter plot of the financing and money supply in the economy. This shows that in as money supply increases in economy the firms will have no need of financing and borrowing the excess money supply fulfil their operation and other needs so there is negative relationship financing will decrease as money supply in the market in increases,

Figure-7. Total financing and M2
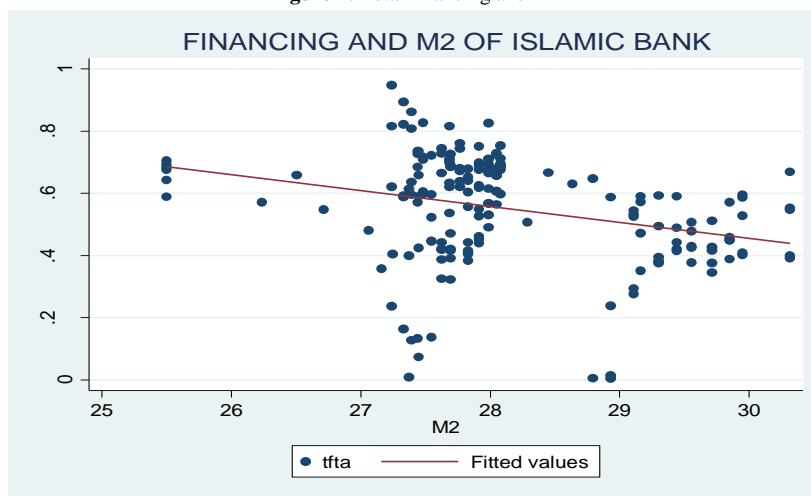
4.4. Estimation Results

Above table is the estimation result of the functional form adopted by this study. Since in the data Islamic banks are changing across time, hence there is a need for panel data model. This study has used fixed effect specification of panel data model, which assumes that banks are heterogeneous to each other but their changes across time are random, hence this study will make intercepts different for each bank.

Table-2. Estimation results

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Fixed-effects (within) regression              Number of obs      =        128
Group variable: id                             Number of groups   =         16

R-sq:                                          Obs per group:
    within  = 0.3090                                       min =          2
    between = 0.2700                                       avg =        8.0
    overall = 0.1081                                       max =         12

                                               F(5,107)           =       9.57
corr(u_i, Xb)  = -0.9894                        Prob > F           =     0.0000
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tfta	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]	
irt	-.0195884	.0100477	-1.95	0.054	-.0395068	.0003301
ltd	.0954642	.0213694	4.47	0.000	.0531017	.1378266
lte	-.1014926	.0450759	-2.25	0.026	-.1908503	-.0121349
lm2	-.2515859	.0757244	-3.32	0.001	-.4017007	-.1014711
lgdp	.8638485	.1906058	4.53	0.000	.4859948	1.241702
_cons	-16.87669	3.89368	-4.33	0.000	-24.59545	-9.15792

sigma_u	.79308593					
sigma_e	.09455807					
rho	.98598392	(fraction of variance due to u_i)				

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F test that all u_i=0: F(15, 107) = 9.90                     Prob > F = 0.0000
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Here R square value of 0.3090 in above table of fixed effect estimates shows that our model is 31% successful in explaining changes in the total financing of Islamic banks, the remaining portion may account for other factors

which are not in the model. This analysis has used 120 observations taken from 16 banks in which 5 from Pakistan and 11 from Malaysia.

The F test value of 9.57 is big enough as represented by the p-value and all variables are statistically significant as represented by their respective p-values. This shows the overall model is reliable in explaining changes in total financing and it can be used for policymaking.

Here the coefficient of interest rate is negative, it shows that if the market interest rate is increased by 1% then the financing of the banks will decrease by 0.019% this depicts the demand theory of financing and for these countries, it seems that there is excess liquidity.

Similarly, if total deposits are increased by 1% then total financing will increase by 0.09% this shows that for an increase in availability of funds banks can forward this resource as financing. The coefficient is small confirms the conclusion drawn from the financing variable that, there is excess liquidity, so even if deposits increases bank are not able to use these funds in the financing pool.

Similarly it total equity is increased by 1% then the financing of the banks will decrease by 0.101%. similar to previous two cases that there is an issue of excess financing in the Islamic banking sector because of which banks are not able to use their own equity too.

Furthermore, M2 is also having a negative relationship if M2 increase by 1% then financing will decreasing by 0.251%. Hence if there is excess cash available in the economy then firms and people might not opt for liquidity from Islamic banks.

Now if we look at the GDP if 1% the financing will increase by 0.863%. This shows that when the income of the country increases, it leads to demand in the market. This incentivizes the firms to opt for deficit financing.

5. Conclusion and Policy Implication

This study builds on the idea that for a bank to work smoothly it needs a stable flow of returns coming from all of its financing venues so that it can cover the cost of acquiring the capital and administrative expenses. the dynamics become more complex when we consider the Islamic banks as their asset-backed or asset-based financing mechanism might end up with a loss to the bank, which is transferred to the depositor, will deter people to provide funds in the form of deposits.

Secondly, if the funds are available there banks have to face another issue of managing the excess or shortage of liquidity as it increases the pressure on the already invested resources for a higher return. Bank would like that all of their resource pools are invested in a manageable return to risk ratio ventures.

Thus this study is an effort to find the internal and external determinants of Islamic banking financing supply for the case of Pakistan and Malaysia using unbalanced panel data fixed effect approach. The indicators proposed by this study were total deposits, total equity as internal indicators and while GDP, M2 and market interest rate are used as an external indicators.

The results of unbalanced panel data fixed effect model showed that increase in market interest rate leads to decrease in the financing demand from the Islamic banks. This shows that there is excess liquidity available in the Islamic banks because of this borrowers are able to bargain for a lower rate of return. Since there is excess liquidity, Islamic banks are not able to transfer all of their resources like deposit and equity toward financing, this is evident from less than unity coeffients of deposits and equity variable. Also there is one promising sign that increase in economic growth will boost the demand for financing.

Hence this study proposes that government should focus on expansionary fiscal policy by launching new investment ventures with collaboration of Islamic fiancnial insturments like Sukuk. While banks can innovate new financial products which may increase the demand for the fiancning and hence increase the engagement of Islamic banks' pool of funds.

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