

Journal of Applied Economics and Business Studies (JAEBS) Journal homepage: https://pepri.edu.pk/jaebs

ISSN (Print): 2523-2614 ISSN (Online) 2663-693X

An Appraisal of the Role of Islamic Banking Development and Economic Growth

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ABSTRACT

Literature is well-versed with the contribution of financial inclusion from the deposit and financing size and its role in economic growth. These contributions include a boost in economic transactions and efficient resource mobilization. Islamic financial system is different from conventional banking as it distributes the risk equitably and promotes fairness in dealings. It helps in the integration of business gains as a borrower of Islamic capital with the earnings of savers as depositors. This study has proposed two channels via which Islamic financial development may incur growth. First is bank financing penetration, and second is depositor financial inclusion. Based on the data of 41 full-fledged Islamic banks between 2012 and 2017, the results show that both increases in bank and depositor returns have a growth-promoting effect. This prompts the policymakers with new insights. Policymakers should increase Islamic banking penetration to different sectors and regulate for increased extraction of the depositor contribution from the banking financing activity.

1. Introduction

Economies enjoyed rapid growth with the introduction of currency as a common medium of exchange created ease in long-distance trading and storing value (Mishkin, 2007). This fiat currency allowed economies to specialize in production rather than focus on the production of necessities to avoid meet coincidence of wants (Kiyotaki & Wright, 1989; Ritter, 1995). Sollow (1956) illustrated that a certain level of investment is required to counter the depreciation and needs of capital. Such that without it, the current infrastructure will eventually fail to support the population needs. Here the



Keywords

Capital Structure; Financing Penetration; Financial Inclusion; Income Integration

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investment is the source of injection of the resources into productive sectors by businesses and households, which were leaked out of the economy's cash flow in the form of household saving (Daraban, 2010).

The invention of a common medium of exchange means that people now have two forms of wealth, first is in physical goods and services form. Second is in terms of the medium of exchange, which people and households can use to save their wealth for more extended periods (Mishkin, 2007). However, the real advantage is that people can access their future wealth today (by borrowing), or they can send their present wealth into the future (by lending)¹. The circular flow model of 3 sector economy, in Figure 1 depicts that, households need the assistance of the financial market in order to mobilize the saving in the economy. Which can be used in the form of the firm, government and foreign borrowing (Parkin, 2016).

Since economies have adapted and specialized, it led to the division of people into households (buyers) and firms (producers), and with the introduction of medium of exchange, the 3rd sector of financial market can become arbitrageur between the fund provider (savers/investors) and fund demanders (firms/government). In this case, every household cannot be an entrepreneur/producer; this leads to the inability of the households to mobilize the savings themselves efficiently (Abel, 2014). This resorts them to depend on the saving mobilization mechanism provided by the financial markets in the economy. The use of idle money, which was initially kept in temples for safekeeping, led to the evolution of the banking system. Priests in temples used to lend the money to the people who needed for some compensation. This compensation was later shared with the original owner to wait for the lent money to be returned. This arrangement later evolved into banks, which were known as financial institutes that accept deposits and make loans (Mishkin, 2007). So, banks use the idle resources of the households and lend it to the firms who are willing to pay for it; this becomes earning of the bank, which it shares with the depositors.



Fig. 1 – 3 Sector Circular Flow model (Parkin, 2016).

¹ Irving Fisher Theory of Intertemporal Choice. (Mankiw, 2014)

Under such situations, financial intermediaries/institutions play an important role in injecting the surplus income in the circular flow. It facilitates the people with excess resources (lenders/savers) with returns at reduced risk of default by diversifying and sharing of risk and addressing the asymmetric information problems. While it helps the people with the shortage of resources (borrowers) with low-cost liquidity services, furthermore, it facilitates specialization and technological innovations in businesses (Levine, 1997). The more the financial institutions are integrated within the economy and across the world, the better portfolio they will be able to make, which will reduce the systemic risk (Tarashev, Borio, & Tsatsaronis, 2009). Demirgüç-Kunt and Maksimovic (1999) provided evidence that economies having more robust financial and banking sector tend to have a stable supply of finances to firms. This enables them to access long-term debt. Better financial institutions also help the government to mobilize resources quickly and at a lower cost (Greenbaum & Thakor, 1995; Mishkin, 2007).

The study by (Gurley & Shaw, 1955) first discussed the contribution of the financial sector in economic development which is then followed by (McKinnon, 1973; Santomero, 1984). With time, the financial system developed as per the need. As the financial system developed under the patronage of the Western world, it lacked the underlying spirit and guidelines of the Islamic system. These conventional banks became accustomed to using interest-based means, which ensured their returns irrespective of the outcomes of investments. This system was ideal for the fund suppliers (savers) and harmful for the fund demanders (firms). The foundation of the Islamic capital market ensures the creation of difference in lives of people by providing value-based business support leading to a reduction in inflation, job creation and social prosperity (WIEF, 2014).

Commercial banks are the most crucial component of financial intermediaries. They ensure that the savings are efficiently channelled to the most efficient investment options to induce growth (Patrick, 1966). The uniqueness of commercial banks is that they specialize in short-term financing, while the other non-banking financial institutions like investment houses specialize in long term financing (Ebrahim & Joo, 2001). This conventional financial system has been working for more than 600 years. This conventional financial system has contributed to producing 358 billionaires while keeping 1.3 billion people below the poverty line. This signifies that the conventional financial system is mature, but it is not equitable (Yakcop, 2002).

Nowadays, Islamic banks present themselves as a responsible banking variant of commercial banks. The evolution of Islamic banks is transcribed to follow a completely different path rather than a coincidence for the case of conventional banks. The early foundations of Islamic banking are derived from Al Qur'an and Sunnah under the subject of Fiqh al-Muamalat. The early era of Islamic banking is observable under the rule of Caliphs. The initiative of a practical version of Islamic banking in the modern era started in 1963 with the establishment of an Islamic bank in Egypt. Further Organization of Islamic Conference (OIC) worked in the development of the financial system in 1973 (Ahmed, 2014; Hassan & Lewis, 2009). Other pioneers in Islamic banking is seen in Philippine in 1973 (Patrick & Moreno, 1982), Dubai in 1975 (Ariss & Sarieddine, 2007), in Sudan and Egypt (Alharbi, 2015; Fada & Weabekwa, 2012), Bahrain in 1979 (Abdulla, 2016) and Pakistan in 2002 (Ansari & Rehman, 2011). Currently, countries like Bahrain, Qatar, Indonesia, Saudi Arabia, Malaysia, UAE, Turkey, Kuwait and Pakistan (QISMUT +3) are leaders in Islamic banking with industry assets of US\$ 920 Billion in 2015 (EY, 2016).

Islamic banks are the type of commercial banks whose objectives are set by the moral code provided by Islamic law (Shari'ah). This banking system is not free in terms of defining new transaction mechanism that seems fit. Here Islamic banking system follows the boundaries set by Islamic law which defines all the rules of Faith (Agedah), Prayers (Ibadah), Social dealings (Muamalat) and Habits (Aadat). The rulings for Islamic banks come under the umbrella of social dealings and the study that interprets the rulings is called Figh al-Muamalat. The foundation of Islamic moral code for finance is put forward by Al Qur'an (2:261, 2:265, 2:270, 2:274). These mentioned verses of Al Qur'an depict that there is a code which needs to be followed in financial transactions, and Allah rewards those who follow it. Islamic banks are structured in such a way that removes all the aspects which spoil the relationship between humans. Like in riba, where lender exploits the borrower for his needs without any concern to the usage of funds and sharing of risks (Ebrahim & Joo, 2001). This entitlement is impermissible as per Islamic Legal Maxim narrated by Holy Prophet # "Entitlement of Profit depends upon the liability of loss" (Sunan Abi-Dawud, 3508). Compared to this, the lending mechanism of conventional banks transfers the total risk of loss in investment on the borrower while claiming unjustified rights to return (Mansoori, 2012). As per Al Qur'an (2:264), there is no reward for spending other than what Allah has prescribed.

While studying the code set by Islam, it will be noticeable that Islam promotes trade and entrepreneurship (Al Qur'an, 2:275). Here financiers are partners instead of having a relationship of creditor and debtor. Islam provides directions to humans through Maqasid Al-Shari'ah, where major categories of directions are provided for Ibadah and Muamalat. The principles of Muamalat are designed to guide how Muslims can earn their provisions (*rizq*) which are guaranteed by Allah, as mentioned in Al Qur'an (11:6, 17:29, 25:67, 65:7).

The economic implication of promoting Muslims to participate in fair trade and business is that it leads to the integration of the Muslim world and generation of economic surplus, which is curtailed in the prescribed rules in Shari'ah. (WIEF, 2014, 2016) iterated that if the documentation of trading is standardized, the inclusion of SMEs and integration of Halal business with the Islamic finance industry, then the growth of OIC countries can be boosted from inter and intra-region trade. Prophet Muhammad \cong recorded several instances in his life, which indicate the importance of working of sustenance, also indicated that the sustenance (*Rizq*) from trade is nine times

higher than working for others. Narrated by Abu Huraira, Allah's Messenger (ﷺ) said, "*The Prophet Daud A.S. used not to eat except from the earnings of his manual labour.*" (Sahih al Bukhari, 2073)

In all forms of halal income sources, trade and business are considered best as discussed in (Al Qur'an, 4:29). Usmani (1954) indicates that the purpose of only discussing trade in this ayat is to assert that in all means of sustenance, trade is superior.

The development of the Islamic banks is, therefore, a step to provide the facility of trade and investment under compliance with the canons of Islam. Here the banking and finance needs are fulfilled by ensuring permissible means which are proved to be less risky and are robust to financial shocks (Abduh, Omar, & Duasa, 2011; How, Abdul Karim, & Verhoeven, 2004). Because of such features, the acceptance of Islamic banks is growing in western economies, with the growth rate of about 10-15% per annum. This Islamic system has now been introduced in more than 51 countries (Solé, 2007).

The idea of Islamic banks is based on the principle of equitable sharing the surplus of business investment, rather than a fixed portion of surplus for a lender under conventional finance². This equitable sharing in Islamic finance is expected to increase the welfare of the lenders. Narrated Abu Huraira: The Prophet $\begin{pmatrix} all \\ all \\ all \end{pmatrix}$ said, "A time will come when one will not care how one gains one's money, legally or illegally." (Sahih al-Bukhari, 2059)

1.1. Present Scenario of Islamic Banking

Currently, Islamic banks have experienced 16% growth in their assets from US\$490 Billion to US%882 Billion, in which Gulf Cooperation Council (GCC) countries enjoyed 34% growth³. According to the report of EY (2016), Islamic banking has contributed 69% to GCC growth in 2014. Figure 3 depicts the stable growth in market share of Bahrain, while Saudi Arabia, Kuwait and Qatar are returning after a slump in 2013. As compared to asset growth of conventional banking, Islamic banking has outgrown its counterpart in Saudi Arabia, Malaysia, Kuwait, Qatar, Indonesia, Bahrain and Pakistan for the year 2014. Banks from Saudi Arabia, UAE and Qatar are market leaders with equity more than US\$2 Billion. Similarly, banks from Saudi Arabia, Malaysia, Qatar, Turkey and UAE have experienced more than 10% returns on equity between 2010 and 2014.

Other than Turkey and UAE, where convention financing growth is higher than Islamic financing growth shown in figure 4, Islamic financing growth is towering in all major markets. This indicates that every year Islamic financing is claiming a higher share in the market.

Even though Islamic financing is showing promising growth, but still there are challenges which are bottlenecks to realize its true potential. Islamic banks were initially

 $^{^2}$ Since lending interest rate is fixed and predetermined, lender cannot earn more surplus if the profit of the investment is higher than expectations. This borrower end up enjoying higher than equitable share of surplus.

³ Ernst and Young denote Islamic banks as participatory banks in order to avoid differentiation between the participatory banks of Turkey and Islamic banks of rest of Muslim countries.

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designed to cater to the partnership based modes of finance (Musharaka and Mudarabah). However, it later developed trade based modes of finance (Ijarah, Salam, Murabaha etc.) to address the issues and special needs of the economy (Usmani, 2002). The partnership-based modes of finance were designed to transfer the surplus from the big firms to the individuals, ensuring welfare generating a distribution of income, as advised in Al Qur'an (59:7)⁴. Rosly and Zaini (2008) stated that because of the fixed returns to depositors in conventional banks, their return to deposit is lower than the return to equity. In contrast, the higher risk in investments like Mudarabah has the potential to increase the return to deposits. While Islamic banks have imitated some products (trade-based) for special needs and conditions, mass utilization of these products over lenient treatment to the businessmen.



Fig. 3 – Trends in the market share growth of Islamic Banking. Source (EY, 2016)

⁴ "... so that it (the wealth) may not circulate among those who are rich among you" Al Qur'an (59:7) 220





1.2. Modes of Islamic Banking Deposits and Financing

There are few forms of contracts available which are used to accept deposits such as Mudaraba⁵ for deposit in saving account, Wakalah (agency)⁶ for portfolio investment accounts and Qard e Hassan as a current account (Ahmed, 2011). Other than attracting deposits, banks can engage clients from the financing side shown in Table 1. The specificity of the contracts in Islamic finance which differs from conventional banking and finance (Arshed & Kalim, 2020). All of these contracts have different implications to the depositors and the bank returns they receive from the investment pool. Hence, changes in these social (return to deposit) and private (return to the bank) indicators of banking sector development are needed to be explored using global data set (Narayan & Phan, 2019).

Unilateral Contracts	
Uqud al-Tabarru'at	Hiba (gift), Ibra (off-set of debt), Wasiyyah (bequest), Waqf
(Gratuitous Contract)	(endowment) and Qard (loan)
Bilateral Contracts	
Uqud al-Tijjariah	Ijarah (rental leasing), Salam (agri financing), Istisna'a
(Trading Contract)	(manufacturing contact), Istijrar, Murabaha (cost plus sale)
Uqud al-Musharakah	Musharaka (partnership), Mudaraba (trust financing), Musaqat
(Partnership Contract)	and Muzarah'ah
Uqud al-Khadmaat	Kafalah (guarantee), Wakalah (agency), Rahn (mortgage) and
(Services Contract)	Hawalah (transfer)

Table 1 – Types of Contracts

Source: (Aziz, 2013; Mansoori, 2009)

⁵ In the Mudarabah contract one partner (*Rabb ul Mal*) invests capital and other partner invests his entrepreneurial or management skills (*Mudarib*) (Usmani, 2002).

⁶ Wakalah contract makes bank agent of the depositor to manage the investment fund on his behalf. Client charges a nominal fee for services on the returns generated on the investment (Ahmed, 2011).

1.3. Objectives

The objective of the study is to determine, whether the Islamic banking sector development leads to the economic growth of the economy while controlling for the endogenous growth model (i.e. labor, capital and human capital) and governance.

This study has proposed indicators like the deposit returns and bank returns as an instrument of Islamic banking sector development. This study proposes a new indicator to assess the Islamic banking sector development, which represents the private and public objective maximization. The assessment will ascertain whether adherence to the objectives of the Islamic business leads to economic progress.

2. Literature Review

Development of Islamic banking sector as a part of developing the financial sector will influence growth in many ways. It will increase the capacity of the firms to acquire an investment and incentivize the household to save (Goldsmith, 1955). The relationship between economic growth and financial sector development can be explained by two hypotheses. First is the supply leading theory proposed by (Schumpeter, 1911), where development in the financial sector leads to economic development. And second is the demand following theory (Robinson, 1952) where economic development leads towards financial development. Following these two studies, several studies built on the relationship between financial development and growth, like (Apergis, Filippidis, & Economidou, 2007; Levine, 1997; McKinnon, 1973; Shaw, 1973; Shen & Lee, 2006). The most recent studies by (Bongini, Iwanicz-Drozdowska, Smaga, & Witkowski, 2017; Durusu-Ciftci, Ispir, & Yetkiner, 2017; Ghosh, 2017; Hassan & Kalim, 2017; Webb, Grace, & Skipper, 2017) coined that, the level of development of the economy defines how banking and stock market development (jointly known as financial sector development) affects economic development.

The rules set for the countenance of Allah in Islamic finance guarantee the growth in wealth while avoiding the interest (Al Qur'an, 2:276, 3:130, 30:39). Al Qur'an (2:261) gives the example of the growth of wealth if it is spent in the way of Allah, that it is like a grain seed which grows into seven branches and each branch yielding 100 grains. The spending mechanism ensures that there is moderation (Al Qur'an 17:29) and equal distribution of income (Al Qur'an, 59:7) in society.

There are certain advantages of Islamic financial system which makes them growthpromoting. These advantages are, the promotion of justice and objectivity (Al Qur'an 4:135)⁷, liquidity ease in hardship (Al Qur'an 2:280)⁸, transparency standards (Al Qur'an 2:282)⁹, sharing of risk (Ibn-Qudamah, 1983; Siddiqui, 2001), stabilize inflation

⁷ 'O you who have believed, be persistently standing firm in justice, witnesses for Allah, even if it be against yourselves or parents and relatives. Whether one is rich or poor, Allah is more worthy of both. So follow not [personal] inclination, lest you not be just. And if you distort [your testimony] or refuse [to give it], then indeed Allah is ever, with what you do, Acquainted." Al Qur'an (4:135)

⁸ "And if someone is in hardship, then [let there be] postponement until [a time of] ease. But if you give [from your right as] charity, then it is better for you, if you only knew." Al Qur'an (2:280)

⁹ "O you who have believed, when you contract a debt for a specified term, write it down. And let a scribe write [it] between you in justice. Let no scribe refuse to write as Allah has taught him. So let him write and let the one who has the obligation dictate. And let him fear Allah,

(Paramanik, 1993) and avoidance of interest-based exploitative tools (Sayedi, 2017; Zamil, 2014).

While comparing the Islamic financial or banking sector development and growth, there are a limited number of studies which explored this relationship. Comparing two studies for the case of Malaysia proposed opposite findings. A study by (Furqani & Mulyany, 2009) compared Islamic bank financing and real GDP per capita. It concluded that demand following phenomenon is prominent. While a study by (Majid & Kassim, 2010) favoured the supply leading view.

Opposing to uni-directional or bi-directional causality, Goaied and Sassi (2010) selected 16 countries in the Middle East and North Africa (MENA) region and using GMM estimation technique this study provides insignificant evidence for any contribution of the Islamic banking system on economic growth.

Few studies like (Abduh & Omar, 2012; Furqani & Mulyany, 2009; Majid & Kassim, 2010; Anggraini, 2019; Naz & Gulzar, 2020), used Error Correction Model for the case of several countries and concluded that there is bi-directional causality between the total financing of the Islamic banking and economic growth. Similarly, Kalim, Mushtaq, and Arshed (2016) explored the effects of Islamic financing like Ijarah and Murabaha on economic growth using ARDL cointegrating bounds approach for the case of Pakistan. They concluded that increase in Islamic financing to influence growth in long run, especially financing in Ijarah. Tabash and Anagreh (2017) studied the case of UAE and showed that Islamic banking causes an increase in growth, FDI and investment. A similar outcome was witnessed in the case of Indonesia (Mansur, 2019).

Hafnida et al. (2015) compared 5 popular Islamic financing products and their effect on economic growth in order to assess the gains of different forms of deposit mobilization. Kalim and Arshed (2018) compared 4 popular models like Musharaka, Mudarabah, Ijarah and Murabaha in terms of efficiency to achieve social goals. The results showed that the deposit mobilization via Musharaka and Mudarabah is effective in increasing the efficiency in the process of achieving public benefit from the Islamic bank. Arshed et al. (2020) extended this model to compared 7 Islamic financing modes against economic growth in a panel data setup of 9 economies. This study provided the profile of popular financing modes and their connection with economic progress. The outcome of the study showed that Salam, Wakala and Musharaka financing are the top more effective financing models for economic growth.

For the case of controlling variables, Solow (1956) pioneered in determining the long run growth model using the production function approach. He proposed physical

his Lord, and not leave anything out of it. But if the one who has the obligation is of limited understanding or weak or unable to dictate himself, then let his guardian dictate in justice. And bring to witness two witnesses from among your men. And if there are not two men [available], then a man and two women from those whom you accept as witnesses - so that if one of the women errs, then the other can remind her. And let not the witnesses refuse when they are called upon. And do not be [too] weary to write it, whether it is small or large, for its [specified] term. That is more just in the sight of Allah and stronger as evidence and more likely to prevent doubt between you, except when it is an immediate transaction which you conduct among yourselves. For [then] there is no blame upon you if you do not write it. And take witnesses when you conclude a contract. Let no scribe be harmed or any witness. For if you do so, indeed, it is [grave] disobedience in you. And fear Allah. And Allah teaches you. And Allah is Knowing of all things." Al Qur'an (2:282)

labor and physical capital as major inputs, in which increasing one by keeping other constant leads to diminishing returns. Mankiw, Romer, and Weil (1992) extended this model by proposing the role of knowledge and intellect, this model is known as human capital augmented Solow growth model and later on named as Endogenous growth theory (Aghion, Caroli, & Garica-Penalosa, 1999; Aghion & Howitt, 1992). Empirically, this human capital has been instrumented using health, education or sanitation related indicators (Babatunde, 2012; Barro, 1996; Bloom, Canning, & Sevilla, 2004; Hanif & Arshed, 2016; Inabo & Arshed, 2019).

Almost all of the empirical studies which compared Islamic banking and economic growth used quarterly data and aggregated time series analysis because of the limitation of data. This study will use bank-wise multicounty data of Islamic banks. This allows us to incorporate the dynamics of internationalization and financial integration which time-series studies often ignore.

3. Model

This study proposed two channels (in figure 5) which Islamic banking development may lead to economic growth. These two indicators are inspired by the objective of the Islamic firm (i.e. maximization of private and social benefits) (Amin & Yusof, 2003; Yusof & Amin, 2007). Here an increase in social / depositor benefits will increase saving returns of small income group leading to growth.

While an increase in the banking returns, it allows the bank to sustain higher risk and returns based capital structure. This will allow banks to penetrate new markets for financing. The previous model of supply of Ijarah and supply of Musharaka shows that bank profitability encourages the bank to increase supply of Ijarah and Musharaka. Consequently, banks financing is increased. Further, there is evidence that an increase in Musharaka and Ijarah lead to economic growth (Kalim et al., 2016).





This study has used the banking returns, and depositor returns are in a relative form, which indicates rules out the role of volume of banking returns and depositor returns to avoid endogeneity. Rather this study talks about the maturity of the banking sector, which increases would increase the proportion of returns, leading to growth.

Under the premise of assessing the effects of private and public objective maximization, this study has not compared the Islamic banking sector with conventional

banks because of few stylized facts. The earning structure of the Islamic and conventional banks are different, a comparative model will not be able to assess the effectiveness of Islamic banks. The earning structure of conventional banks are based on riba for which there is a decree that it decreases wealth (Al Qur'an 2:276) and increases the righteous earning (Al Qur'an 2:261). Hence theoretically, there is no need to compare both modes of earning and its effect on growth.

4. Methods

4.1. Sample

In order to achieve the set objectives, this study has access to the financial statements of 41 full-fledged Islamic banks around the globe for the time period of 2012-2017. The list of countries and banks are mentioned in the appendix.

4.2. Estimation Equation

Based on the literature regarding banking development and economic growth. Following stochastic equation is proposed by the study.

 $GDP_{ct} = \alpha_0 + \alpha_1 ROB_{it} + \alpha_2 ROD_{it} + \alpha_3 LL_{ct} + \alpha_4 LK_{ct} + \alpha_5 HK_{ct} + \alpha_6 GOV_{ct} + \epsilon_{it}$

Here, in the model of economic growth, the dependent variable used in the study is economic growth estimated using the natural log of GDP per capita. Here the variables used are deposit returns (ROD), bank returns (ROB), Labor (LL), Capital (LK), Human Capital (HK), Government Quality (GOV), i is representing banks, c is representing countries and t is representing years. While ε_{it} and μ_{it} denotes the randomly distributed factors which could determine the dependent variable, which are not included in this study and which are assumed to have a negligible effect on the dependent variable within the domain of the constructed model. The data is collected from World Development Indicators (WDI, 2019), Worldwide Governance Indicators (WGI, 2019) and Financial Statements of Banks extracted from the respective bank website.

4.3. Estimation Method

Since in the models based on panel data, which this study has built, the data has spatial-temporal variation. Estimating pooled OLS with over-restrictive assumptions will lead to heteroskedasticity in estimation results. This study will opt for panel feasible generalized least square (FGLS) approach, which allows the bank level differences to change standard errors of each coefficient (Greene, 2012; Hassan et al., 2019). Further to control from the cross-sectional heteroskedasticity and time series heteroskedasticity, this study will use country and time dummies (Jaccard & Turisi, 2003; Jaccard, Wan, & Turisi, 1990).

5. Estimation Results

5.1. Descriptive Statistics

While exploring the variables, Table 2 provides descriptive statistics. For all the variables, only government quality has a standard deviation more than the mean value

showing that this variable is over-dispersed across the banks globally. While all other variables are under dispersed owing to mean value greater than the standard deviation.

This study used the panel variant of (Jarque & Bera, 1987) normality test proposed by (Alejo, Galvao, Montes-Rojas, & Sosa-Escudero, 2015) to test the normality of the variables across cross-sections and time periods. Here for the case of cross-section normality, ROB, ROD and LL are normal at 5%, and GDP is normal at 1%, this means that these are not skewed, and there are no outliers when assessed across banks and countries. While for the case of time-series normality, GDP, LK and HK are normally distributed at 5%, this means that these variables are not skewed, and there are no outliers when assessed across time. All other variables are non-normal, which may have caused because of the presence of outliers in the data, and there is a mixture of under and over-dispersed variable, the pooled OLS model seems unfeasible¹⁰.

	Obs.	Mean	Std. Dev.	Cross-sectional normality	Time normality
GDP	932	8.84	1.42	7.21 (0.03)*	2.80 (0.24)
ROB	387	12.39	2.24	4.94 (0.08)	22.47 (0.00)*
ROD	431	12.93	2.42	2.74 (0.25)	12.30 (0.00)*
LL	990	16.07	1.52	5.44 (0.07)	31.18 (0.00)*
LK	920	3.08	0.23	16.09 (0.00)*	3.03 (0.22)
GOV	990	-0.18	0.66	14.57 (0.00)*	51.40 (0.00)*
HK	737	1.32	0.43	6.76 (0.03)*	4.68 (0.10)

Table 2 – Descriptive Statistics of Islamic Banking Development

* Significant at 5%

Figure 6 provides the graphical association between the GDP per capita and return to deposit and return to bank using time-averaged data. Here, it is evident that an increase in returns to deposit and return to the bank are positively associated with the growth. Further, the correlation of return to bank and growth are stronger, it may be because of direct link with the economic activity.



Figure 6 – Returns and Economic Growth

 $^{^{10}}$ While the variables can be used in estimation as they are asymptotically normal (Lind, Marchal, & Wathen, 2006). 226

5.2. Multicollinearity test

To detect the present of multicollinearity, Gujarati, Porter, and Gunasekar (2012) illustrated the VIF test. Presence of correlated independent variables (multicollinearity) would make regression estimates biased. The decision criterion is that if VIF < 10, then there is no evidence that independent variables are collinear to each other. Table 3 provides the VIF values for each independent variable pairs. Since none of them is above 10, it confirms the absence of multicollinearity and un-biasness of estimations.

VIF of Growth model					
	LL	LK	HK	GOV	ROD
LK	1.10				
HK	1.13	1.00			
GOV	1.17	1.03	2.55		
ROD	1.24	1.00	1.34	1.24	
ROB	1.11	1.01	1.29	1.32	3.54

Table 3 – VIF of Islamic Banking Development Model

5.3.Regression Estimates

In this section, the estimation of two way fixed effect panel feasible generalized least squares approach and results are reported in Table 4.

Based on the valid sample of 239 bank years, the significant value of Wald test confirms that all the proposed variables in the model are jointly significantly effecting the economy growth. And the positive value of intercept depicts that the other factors causing a positive trend in economic growth.

Panel FGLS (Two Way) – Economic Growth (Dep. Var.)								
	Coef.		Std. Err.		Z		Pro	ob.
LL	-0.46		0.02		-21.4	43	0.00	***
LK	0.01		0.004		1.4	7	0.1	14
НК	0.10		0.02		5.15		0.00***	
GOV	0.82		0.06		13.3	5	0.00	***
ROD	0.10		0.05		2.08		0.03**	
ROB	0.10	0.10			1.96		0.04**	
ROD*ROB	-0.01	-0.01			-1.85		0.06*	
Cons	14.31	14.31			21.96		0.00**	
Post Estimation Statistics								
Obs.	239	No	of banks		41	Averag per ban	e obs. Ik	5.82
Wald Chi ²	6739	Prob.		(***00.0			
Wald test on time effects				29.00		0.00***		
Wald test on bank effects				2600		0.00***		

Table 4 – Estimates of Islamic Banking Development Model

***significant at 1%, ** significant at 5% and * significant at 10%

While exploring the effect of independent variables, it can be seen that if there is 1% increase in labor force, it decreases economic growth by 0.46%. This is complying with the demand and supply framework, whereby an increase in labor leads to a decrease in 227

the market wages as defined by equilibrium shifts and a decrease in marginal productivity. Further, the results indicate that, capital has no significant effect on the economic growth for the selected countries. This is because the bank itself is moderating the supply of capital to the economy to maximize their returns; hence effects of the capital is already optimized to economic outcomes.

A 1% increase in human capital helps to increase economic growth by 0.10% on average. Here if the skill level of the existing labor is increased, it makes them more productive, which increases production and wages in the economy. Increase in the skilled human resource will increase the overall productivity of businesses which leads to growth. This result is complying to (Hadia & Arshed, 2020) which confirmed this outcome for the case of Mudarabah companies of Pakistan.

Also, if a 1% increase in institutional quality, there is 0.82% increase in economic growth. Hereby better governance improves the systems and procedures and reduces the leakages like corruption which helps to maximize economic gains. A study by Grant et al. (2019) confirmed that improvement in institutional quality increases the development related effectiveness of entrepreneurs.

Lastly, while discussing the concerned variables of banking sector development, it can be seen that economic growth increases by 0.10% for both cases when there is 1% increase in returns to deposit and 1% increase in return to the bank. Hereby profitable banks and the income disbursement to the savers increase economic activity in terms of investment and consumption, respectively. This confirms the path discussed in the theoretical model.

While the cross product of the returns to deposit and returns to bank shows that if both of them jointly increase, it slows down economic growth by 0.01% on average. We can coin it to the fact that when banks and depositors are earning high from the financing, it may consequently make the debt expensive for the firms leading to a decrease in demand for lending.

 Table 5 – Autocorrelation Test

First difference Residuals of Model	Coefficient of lag of residuals (Prob.)	Decision
Economic Growth	-0.03 (0.00)	No Autocorrelation

Table 5 provides the autocorrelation test on the model. The coefficient of the lag value of residuals against the first difference of residuals showed that there is no hint of autocorrelation in the model.

5. Conclusion

The objective was to explore whether pursuing the Shari'ah based objective of the Islamic banks are favorable for the economy or not. The Shari'ah based objectives include pursing for higher bank returns and deposit returns which are labelled as private returns and social returns of a bank. This study used the endogenous growth model with institutions as a base model and analyzed the role of the increase in bank returns and

deposit returns on the economic growth of the selected economies which have fullfledged Islamic banks. It is hypothesized that an increase in bank profit is private returns of bank while an increase in deposit returns are public returns of the bank. In an Islamic financial system increase in banking sector development is coined as an increase in both private and public returns which are expected to increase growth. This is because of the increase in financing base and financial inclusion in the economy.

The estimates were calculated using panel feasible generalized least square model on the data of all Islamic banks whose financial statements are available between 2012 and 2017. The results show that both bank returns and deposit returns have a positive and similar effect on economic growth. The outcome of bank returns is similar to (Furqani & Mulyany, 2009; Kalim et al., 2016; Tabash & Anagreh, 2017) while it opposes the outcome (Goaied & Sassi, 2010). While institutional quality has the highest impact on economic growth as proposed earlier by (Dollar & Kraay, 2003; Hassan, Bukhari, & Arshed, 2019; Knack & Keefer, 1995; Zaman, Mehmood, Aftab, Siddique, & Ameen, 2017).

Lastly, the study indicates that simultaneous increase in bank's public and private returns will decrease growth, this indicates the increase in the cost of lending. Hence, this study proposes that central banks and governments should postulate policies which can assist the bank's efficiency to earn profits in investments without a major increase in the cost of lending (Ahmad, 2016; Kalim & Arshed, 2018). This higher profits can then be translated into higher bank returns and deposit returns. This study aligns with the directive that the cash should not be held in a few hands (Al Qur'an 59:7).

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Countries	Islamic Banks				
	Al Baraka Islamic Bank	Citi Islamic Bank			
Bahrain	Bahrain Islamic Bank	Ithmaar Bank			
Bangladesh	Islamic Bank of Bangladesh	EXIM Bank			
	Shahialal Islamic Bank	Al Arafa Islamic Bank			
Brunei Darussalam	Bank Islam Brunei Darussalam				
Egypt	Abu Dhabi Islamic Bank				
Indonesia	Bank Muamalat Indonesia	MayBank Shariah			
T	Bank Maskan	Bank Tejarat			
Iran	Bank Pasargad				
Jordan	Islamic International Arab Bank	Jordan Islamic Bank			
Kenya	Gulf African Bank				
Kuwait	Kuwait Finance House				
Lebanon	Al Baraka Bank				
	Affin Islamic bank	Bank Rakyat			
	Al Rajhi bank	Cimb Islamic bank			
	Alliance Islamic bank	Hong Leong Islamic bank			
Malaysia	Am-Islamic bank	Koperasi Bank Persatuan			
	Asian Finance bank	Public Islamic bank			
	Bank Islam Malaysia Berhad	RHB Islamic bank			
	Bank Muamalat Malaysia Berhad	OCBC Al Amin Bank			
Nigeria	Jaiz Islamic Bank				
Oman	Alizz Islamic Bank				
	Al Baraka bank	Dubai Islamic Bank			
Pakistan	Bank Islami	Meezan Bank			
	Burj Bank	MCB Islamic			
Philippines	Al Amanah Bank				
Qatar	Qatar International Islamic Bank	Qatar Islamic Bank			
Saudi Arabia	Al Bilad Bank	Alnima Bank			
Saudi Alabia	Al Ranjhi Bank				
South Africa	Al Baraka Bank				
Sri Lanka	Amanah Bank				
Sudan	Al Baraka Bank Sudan	Faisal Islamic Bank			
Sudan	Al Shamal Bank				
Syria	Bank Sham				
Thailand	Islamic bank of Thailand				
Tunisia	Al Baraka Bank Tunisia				
Turkey	Al Baraka Bank Turkey				
	Dubai Islamic Bank	Abu Dhabi Islamic Bank			
UAE	Noor Islamic Bank	Al Hilal Bank			
	Sharjah Islamic Bank	Ajman Bank			
UK	Al Rayan Islamic Bank				
Yemen	Tadhamon Islamic bank				

Appendix Table A1 – Sample Banks