



## **IMPACT ANALYSIS OF ISLAMIC FINANCE ON FINANCIAL INCLUSION AND ECONOMIC GROWTH IN SELECTED MUSLIM COUNTRIES: LESSONS FOR NIGERIA**

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### **ABSTRACT**

This study makes an impact analysis of Islamic Finance (IF) on economic growth and financial inclusion in selected Muslim countries, designated as the nine core markets of IF. This is in view of the prominence and enabling environment IF enjoys in the sampled countries. The core markets of investigation are: Saudi Arabia, Malaysia, UAE, Kuwait, Qatar, Turkey, Indonesia, Bahrain, and Pakistan. This study draws lessons from the experiences of the sampled countries on how Nigeria, with her enormous resources, can efficiently utilize Islamic Banking and Finance (IBF) for financial inclusion and economic growth. In this connection, the study adopts Simultaneous Equations Model (SEM) approach with panel data from 2011 to 2014. Basically, the major findings indicate that positive and significant impacts exist between IF and economic growth. Also, financial inclusion is positively impacted upon by IF but not significant. This study therefore recommends that governments of the sampled countries should continue to strengthen the growth of IF for more developmental opportunities and gains, especially for more inclusive economic growth. The Nigerian government should provide concrete supports to IBF operations through a robust institutional framework and enduring political backing. This is to also enable Nigeria benefit from IBF, especially in economic growth and financial inclusion, which are germane to economic growth and development of developing economies and the sampled countries, which are known as the nine core markets of IF.

JEL Classification: C33, E44, F43, G29, N17

Keywords: Economic growth, Financial inclusion, IBF, Nigeria, Simultaneous Equations Modeling

## 1. INTRODUCTION

The emergence and operations of Islamic Banking and Finance (IBF) in various parts of the world, especially in Muslim countries has continued to remain one of the foremost economic and financial developments in recent times, particularly its concrete contributions to economic growth and development. According to Abdul-Rahman and Mohd Nor (2016), development in the Islamic Finance (IF) industry conforms with the Islamic goals of broad economic prosperity, balanced distribution of income and wealth, socio-economic justice, optimum level of economic growth and currency stability, especially in Malaysia. The IF industry is vibrant with total assets of USD150 billion in the mid-1990s reaching USD1.0 trillion in 2009 from zero level in 1970. Similarly, 2013 recorded a more impressive growth in the industry with total assets put at USD1.6 trillion (Islamic Finance News, 2014; Sanusi, 2011; Tahir and Abu Bakar, 2009). Also, Desai (2016), Hoggarth (2016) and Okte (2016) noted that the growth of IBF in 2014 was over USD2trillion with a projection of 19.7% average growth rate in 2018. The total of IF assets has been projected to reach USD3.25trillion by 2020, in view of its growing acceptance and viability.

Importantly, the World Islamic Banking Competitiveness Report (2016) indicates that Saudi Arabia and Malaysia are the two leading markets in the GCC and Asia Pacific respectively. It also states that the nine core markets of the IF industry are: Saudi Arabia with global participation banking assets of 33% and national share of 51.2%; Malaysia with global share of 15.5% and national share of 21.3%; UAE with 15.4% and 21.6% as global and national shares respectively. Kuwait has global share of 10.1% and national as 45.2%; Qatar has 8.1% and 25.8%; Turkey has 5.1% and 5.5%; Indonesia has 2.5% and 3.7%; Bahrain has 1.6% and 29.3%; and Pakistan has 1.4% global share and 10.4% as national share.

As noted by Okte (2016), countries such as Germany, France, Japan and even the Vatican, now recognize the potentials of IBF in restoring credibility and stability to the international financial market after the recent global economic crisis of 2007/2008 and early 2009, which left some economies still bleeding.

Admittedly, big conventional market players such as Citibank, HSBC, UBS and Deutsche Bank are becoming increasingly

important providers of Islamic products through Islamic windows. Bank Negara Malaysia (2015) submits that financial inclusion, which has been broadly recognized as critical to poverty alleviation and inclusive economic growth is certainly one of the main characteristics of a *Shari'ah*-compliant financial system deserving extra attention. A study by Naceur, Barajas, and Massara (2015) examined the extent to which IF has contributed to financial inclusion by reducing the incidence of religious exclusion in Muslim countries despite more than doubling of IF assets since 2006. They argued that the extent to which Islamic banking is associated with trends in supply-side measures of financial inclusion in Muslim countries (i.e., OIC countries) is certainly an area for research. The study established that worldwide financial exclusion for religious reasons is high in certain Muslim countries. For instance, Afghanistan suffers 34% financial exclusion as compared to Iraq and Tunisia of 26-27% with 23-24% in Djibouti and Saudi Arabia; whereas Kuwait and UAE have 2.5-3%, Sudan has 4.5% and Malaysia has virtually zero percent financial exclusion. It is therefore not surprising that Abdul-Rahman and Mohd Nor (2016) concluded that Islamic banking in Malaysia is aligned with current economic goals of broad economic prosperity for all. This is in view of the sum total of Islamic banking contributions to financial inclusion in the country through *Musharakah* and *Mudharabah*, which stands at 6% of the total aggregate financing. And as rightly noted by Bank Negara Malaysia (2015), successful financial inclusion should lead to the following: (i) effective usage of financial service by all citizens; (ii) convenient access to financial services; and (iii) enhanced quality of financial services.

Furthermore, the likely multiple economic benefits and contributions of IBF to its host countries include: deepening financial development, increasing investment opportunities, infrastructure development, poverty reduction, employment generation, foreign direct investment (FDI), development in the real sector and a host of others (Mustafa and Solarin, 2015; Mobolaji, 2012). Similarly, among other areas, IBF is expected to contribute meaningfully to the economies of developing countries, particularly, Muslim countries by facilitating financial inclusion and economic growth through various Islamic financial instruments (IFIs) such as *Mudharabah*, *Musharakah*, *Murabahah*, *Bai'-Salam*, *Ijarah*, *Qardul-hasan*, *Musharakah mutanāqishah*, *Shukūk* and *Istisnā'* among others (see Abdul-Rahman and Mohd Nor, 2016; Mustafa and Solarin, 2015;

Naceur et al., 2015; Abdullah, Maamor and Mohamed Fisol, 2013; Mohieldin et al., 2012). Unfortunately, in some Muslim countries, unemployment and poverty as well as inequality are pervasive and disheartening. As such, they expose the vulnerable groups to financial exclusion and economic humiliation. Bank Negara Malaysia (2015) notes that IF addresses financial inclusion from two directions: (i) promoting risk-sharing contracts such as *Mudārabah* and *Mushārah* as viable alternatives to conventional debt-based financing; and (ii) specific instruments of wealth distribution in society (such as *Zakāh*, *Waqf*, *Sadaqat*, *Qardul-ḥasan* and a host of others), to complement risk-sharing instruments.

For example, *Qardul-hasan* (QH), a contract of interest-free loan between two parties on the basis of social welfare enhancement, has been noted by Sadr (2011) as a type of versatile IF instrument. Hence it can be used to finance all sorts of consumption, production, services and debt activities such as business working capital, education, small industries and agricultural activities. Also, Abdul-Rahman and Mohd Nor (2016) submit that *Mudārabah* and *Mushārah* financing constitute 6% of the total aggregate financing of Islamic banking in Malaysia as against zero contribution in the earlier part of its emergence in the country and this connotes a positive development. Islamic financial instruments are very appropriate for producing entrepreneurs, especially in a financially exclusive and poverty-ridden economy such as Nigeria, where many qualified unemployed graduates and jobless youths pose problems. Greater access to financial services, which IF promotes, would help in reducing income inequality, unemployment, and poverty besides accelerating economic growth. Admittedly, Sanusi (2011) once noted that an inclusive financial system is needed in Nigeria, in order to attain an inclusive economic growth and thus, IF has the potential to realize this. As such, Nigeria as the biggest market on the African continent can also become a dominant player in the Islamic finance (IF) industry, if the necessary supports are provided and sustained.

Against this background, this paper investigates the impacts of IF on economic growth and financial inclusion in the nine core markets of IF. Moreover, lessons Nigeria should learn from them are identified, to optimize the contributions of IBF in the Nigerian economic development process. In this regard, the sampled countries provide us an excellent opportunity to investigate the role and contributions of IF in simultaneously accounting for financial inclusion and economic growth in the selected Muslim countries.

Two hypotheses to be validated in this study are: (i) Islamic finance has positive impacts on economic growth in the selected Muslim countries; and (ii) Financial inclusion is positively impacted upon by Islamic finance in the sampled countries. To this end, the remaining parts of this study are divided into four parts. Section two presents the literature review; section three discusses the methodology utilized in this study; section four discusses the results and findings; while section five provides the conclusion and recommendations.

## 2. LITERATURE REVIEW

### 2.1 EMPIRICAL REVIEW

A study by Furqani and Mulyany (2009) empirically investigates the relationship between Islamic banking and economic growth in Malaysia using co-integration test and Vector Error Model (VECM). The findings of their study show generally that, in the long-run, Islamic banking is positively and significantly correlated with economic growth and capital accumulation of Malaysia. This implies that Islamic banking aids the development of real sectors through increasing fixed investment. Also, there is a “virtuous cycle” effect between Islamic banking development and investment, which represents bidirectional causality. The study provides evidence for the “demand following hypothesis” of Gross Domestic Product (GDP) and Islamic banking; where increase in GDP causes Islamic banking development and not vice-versa. Also, a study by Johnson (2013) on Islamic banking and economic growth utilized exogenous instrument of 2SLS regressions to examine the determinative power of Islamic banks on economic growth. The study found that Muslim prevalence in a population is the most significant determinant of Islamic bank diffusion, which concurs with previous studies. The hypothesis that Islamic banks minimize the explanatory power of legal origin on economic growth due to their independent implementation of *Shari'ah* law could not be confirmed. What could therefore be inferred from the study is that *Shari'ah* implementation supports Islamic banking and promotes economic growth, which is especially good for Muslim economies to curb financial exclusion, poverty, unemployment, inequality and other deleterious socio-economic phenomena.

Abdullah et al. (2013) investigate the performance and impacts of Islamic Banking Scheme (IBS) of five conventional banks in Malaysia on national economic growth by focusing on four real sectors of the Malaysian economy as indicators (i.e., Agriculture, Manufacturing, Construction and Real Estate). Their study utilized a modified Production function based on Standard Neoclassical form and adopted panel data of 2003-2009 with Panel co-integration test and Fully Modified Ordinary Least Squares (FMOLS) as the estimating techniques. The findings indicate that IBS of those banks have positive impacts on economic growth, especially in the manufacturing and real estate sectors. Also, an empirical study by Mohd Yusof and Bahlous (2013) assessed the contributions of Islamic finance to economic growth in early adopters of Islamic banking such as Malaysia and Indonesia as well as Gulf Cooperation Council (GCC) countries. Their study utilized panel co-integration technique and the findings show that Islamic banking contributes to economic growth both in the long run and short run for both GCC countries and the selected East Asia (EA) countries. Moreover, Islamic banking in the short run contributes more to economic growth in Malaysia and Indonesia compared to the GCC countries. Similarly, an empirical study by Imam and Kpodar (2015) investigates the impact of Islamic banking on economic growth using panel data on 52 developing countries (29 of them being OIC countries) with data spanning 1990-2010 and with average of 3years adopted. Econometric techniques utilized in the study include pooling and fixed effects estimator to control for country specific effects and the system Generalized Method of Moments (GMM) estimator to control for endogeneity bias. The study revealed that countries where Islamic banking is present, and where its impact on growth is measurable, experience faster economic growth than others. It does establish positive impact of Islamic banking on growth, even after controlling for various determinants such as level of financial depth in the economy.

Furthermore, empirical studies on the impacts of Islamic finance/Islamic banking on financial inclusion include a study by Abdul Razak et al. (2017) on the relationship between financial inclusion and adoption of Ar-Rahn financing in promoting and enhancing customer well-being throughout Malaysia. The study adopted questionnaire method and the data collected from 239 respondents were analyzed using structural equation model and descriptive statistics. The findings indicate a positive relationship between financial inclusion and adoption of Ar-Rahn for financing.

Also, a study by Nazar (2017) underscores the extent of financial inclusion among the people of Kerala in India and their awareness of Islamic banking. He adopted both primary and secondary data and used chi square to test the hypothesis. The results show that Islamic banking use is very high among Muslims and non-Muslims and that its promotion will ultimately lead to inclusive growth of the country. Abdu et al. (2018) conducted a study on the effect of IBF on financial inclusion in sub-Saharan Africa (SSA) using the Probit, Tobit and Juhn-Murphy-Pierce decomposition method. The findings suggest that introducing IBF in the Organization of Islamic Cooperation (OIC) countries in SSA enhanced financial inclusion. The study also noted that households from OIC with Islamic banking are more likely to be financially included than their counterparts in OIC without IBF. Again, a study by Nawaz (2018) examined the impacts of 18 Islamic banks operating in Bangladesh and Pakistan on financial inclusion. The study adopted the regression model and the findings show that Islamic banks are heavily engaged in promoting financial inclusion to encourage social and economic fairness in society. The findings also indicate that intellectual capital resources, especially human and financial capital are the main channels for promoting financial inclusion by Islamic banks in both countries.

From the foregoing review of empirical literature, it is clear that none of the studies simultaneously investigate the relationship or impact of Islamic finance on economic growth and financial inclusion, which is the main concern in this study and this implies a gap exists. Also, using the sampled countries as an academic research concept is new in Islamic finance discourse as noted by the World Islamic Banking Competitiveness Report (2016). As such, no study is available on the concept as it relates to these macroeconomic phenomena under investigation in this study and more importantly, as they relate to Nigeria – the biggest market on the African continent with enormous potential. In this direction, it requires academic contribution, which the study seeks to do. Furthermore, from the methodological perspective, none of the studies reviewed made use of the Simultaneous Equations Modeling (SEM) framework to gauge the interconnectivity among Islamic finance, economic growth and financial inclusion, which are the major variables of interest in this study. Therefore, embarking on this auspicious study is justified and necessary, since expanding the frontiers of knowledge requires exploring new concepts and discovering new horizons, which is the main goal of this study.

## 2.2 STYLIZED FACTS ON ISLAMIC BANKING AND FINANCE IN NIGERIA

Nigeria is the most populous black nation on earth and also the most populated country in the African continent with population of 186 million people as at 2016 (World Bank, 2018). In this vein, over 50 percent of the Nigerian population are Muslims with the remaining 50 percent being Christians, Animists and Free thinkers. Yet, a significant number of the Muslim population are unbanked either because of poverty, lack of exposure to modern banking or perhaps most fundamentally dislike for usury/interest (*ribā'*) by the predominantly Muslim North of the country and South-west Muslims (Mustafa and Adebayo, 2015; Abdullahi, 2013; Sanusi, 2011; Atlas on Regional Integration, 2007). Thus, since many Muslims are unbanked due to Islamic prohibition of interest, it implies that substantial share of the financial and banking populace is automatically excluded. Importantly, according to Mustafa and Adebayo (2015) and Sanusi (2011), 39.2 million which represents 46.3 percent of the populace are financially excluded due to low level bank penetration in the country while only 25.4 million (representing 30 percent adults) are banked. In order to attain financial inclusion and equity besides empowering potential investors both big and small in the country, it has become inevitable to embrace the Islamic financial alternative, especially because of the large Muslim population. Herein lies the relevance of Islamic finance industry to the economic growth and financial development of Nigeria. In this connection, therefore, the first and earlier efforts at introducing Islamic banking in Nigeria after independence dates back to 1961, which was as a result of the proposal of the Muslim Bank West Africa Limited in Lagos for an Islamic Bank (IB), which eventually closed down in 1962 because of unsustainability. Notwithstanding, the more prominent and popularized efforts of modern IBF started in the early 1990s with the promulgation of laws. Promulgation of the Banks and Other Financial Institutions Decree/Act (BOFID/BOFIA) of 1991 which replaced the Banking Act of 1962 signalled a new dawn for introducing operations of Islamic finance in Nigeria due to the new provisions for non-Interest banking in the country (Mustafa and Adebayo, 2015; Aliyu, 2013; Umar, 2011).

Islamic banks are regarded as a form of non-interest banks and as such, the designation of non-interest banks as specialized banks in 2010 was actually based on this understanding.

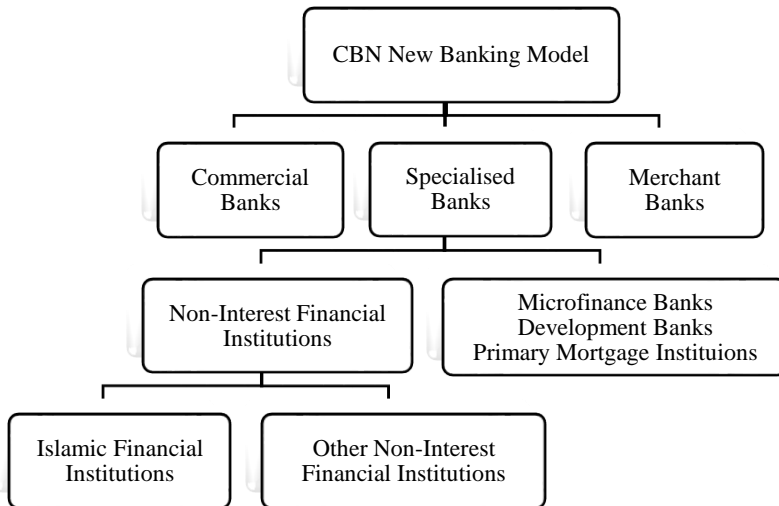


Furthermore, between 1993 and 1995, investors who applied for license to operate IBs failed due to non-compliance with the Central Bank of Nigeria (CBN) requirements. However, Former Habib Bank Plc. became a trailblazer by securing the CBN license and commenced Islamic window operation in 1996, which eventually collapsed. Notwithstanding this sad development, Jaiz International Plc. also secured license to commence operation of a full-fledged non-interest bank (i.e. Jaiz Bank Plc.) in 2003, but it did not commence operation because of a sudden policy change on recapitalization on the part of the CBN. Nevertheless, an Approval in-Principle (AIP) was granted for full operation of Jaiz Bank Plc. upon meeting the CBN mandatory capital requirements and this led to having the first Islamic bank in the country. As such, at the end of 2012, an additional two conventional banks were granted licenses to provide Islamic financial services i.e. Stanbic IBTC Bank and Sterling Bank. As rightly noted by Adeola (2009), Lotus capital could be considered as the contemporary pioneer of Islamic financial institution in Nigeria which is duly registered with the Securities and Exchange Commission (SEC). Also, the first *Shari'ah*-compliant mutual fund in Nigeria was launched in 2008 known as the Lotus Capital Halal Fund. Furthermore, 2008 witnessed the formation of the Islamic Finance Working Group, which brought together the main stakeholders such as the Nigerian Deposit Insurance Corporation (NDIC), National Insurance Commission (NAICOM), National Pension Commission (PENCOM), Debt Management Office (DMO), market operators interested in offering Islamic finance products and a representative of the CBN as an observer (Mustafa and Adebayo, 2015; Sanusi, 2011; Umar, 2011).

Again, in January 2009, the CBN joined the Islamic Financial Services Board (IFSB) as a full-council member. This membership paved the way for presentation of comments and suggestions on the first draft framework for the regulation and supervision of non-interest banks in Nigeria in 2009. Consequently, the CBN released a new banking model in August 2010, which designated non-interest banks among specialized banks. The two models are: (i) National non-interest bank of capital base of N10 billion with operation in every state of the federation including the Federal Capital Territory (FCT); and (ii) Regional non-interest bank with capital base of N5 billion and shall operate in a minimum of six states and maximum of twelve contiguous states of the federation (Sanusi, 2011; Umar, 2011). Figure 1 presents the new banking

model of the CBN. According to Adeola (2009), survey shows that 30% of Muslims in Nigeria desire *Shari'ah*-compliant financial products and another 50-60% will use them if they are price competitive. In the same vein, the general use of financial products in 2008 indicate that Savings account had 92%, usage of ATM had 64% and Current account had 37%. Mustafa and Adebayo (2015) and Adeola (2009) posit that Islamic finance is indeed the mechanism required to bridge the gap in access to financial services in the Nigerian economy. Therefore, with proper and adequate support the nascent Islamic finance industry in Nigeria is gradually growing and asserting its relevance and significance in the Nigerian economy.

FIGURE 1  
The Nigerian New Banking Models



Source: Adapted from CBN, 2011.

As such, the emergence and establishments of various Islamic financial institutions such as Lotus Capital Limited – a halal and ethical investment fund in 2004, the first Islamic microfinance i.e. Al-Barakah Microfinance in 2010 and now with the licensing of the second full-fledged Islamic bank – Tijarah Bank in 2017, suggest that Islamic finance has good prospects in the Nigerian economy. To this end, Islamic finance shall promote economic growth and financial inclusion in Nigeria through its developmental and social benefit focus and more equitable services and products, which are growthenhancing.

### 3. METHODOLOGY

#### 3.1 STATEMENTS OF HYPOTHESES AND MODEL SPECIFICATION

The main objective of this study is to empirically investigate the impacts of Islamic finance on economic growth and financial inclusion in selected Muslim countries, which has been designated as the nine core markets of Islamic finance. In this light therefore, the following two hypotheses are hereby formulated for validation.

H1: Islamic finance has positive impacts on economic growth in the selected Muslim countries.

H2: Financial inclusion is positively impacted upon by Islamic finance in the sample countries.

In view of the foregoing hypotheses, Simultaneous Equations Model (SEM) with panel data of 2011–2014 are adopted for robust estimation and validation of the hypotheses. The adoption of SEM for this study is in line with the position of scholars and writers such as Gyimah-Brempong (1992), Bushra (2005) and Mustafa and Abdul-Razak (2012), who posited that the best approach for understanding the interdependencies and interconnections that exist among variables of interest (like the case in this study), which give feedback loops, is to use SEM. This is because single equation overlooks these interdependencies. Against this background, this study gauged the Islamic Finance-Growth nexus and Islamic Finance-Financial inclusion nexus in selected Muslim countries known as the nine core markets of Islamic finance (although Bahrain is excepted from the analysis due to the problem of incomplete dataset). The use of panel data provides for variability, less collinearity and detailed information about the variables with more degree of freedom and estimation efficiency in contrast to time-series or cross-sectional data (Mustafa and Mobolaji, 2014). In this connection, the econometric model for the above SEM framework with natural logarithm (ln) function is hereby specified as follows.

$$(1) \quad \ln G_{it} = \beta_0 + \beta_1 \ln IFI_{it} + \beta_2 \ln FI_{it} + \beta_3 COR_{it} + \beta_4 GOV_{it} + \varepsilon_{it} \quad (1)$$

$$(2) \quad \ln FI_{it} = \alpha_0 + \alpha_1 \ln IFI_{it} + \alpha_2 \ln G_{it} + \alpha_3 \ln POP_{it} + \alpha_4 \ln EDU_{it} + \mu_{it} \quad (2)$$

Here  $\ln G$  and  $\ln FI$  are endogenous variables in the model; while  $\ln IFI$ ,  $COR$ ,  $GOV$ ,  $\ln EDU$  and  $\ln POP$  are exogenous variables; and  $\varepsilon$ ,  $\mu$ , and  $\emptyset$  are the stochastic error terms. In this vein,  $G$ =Economic growth;  $FI$ =Financial inclusion;  $IFI$ = Islamic financial instruments;  $COR$ = Corruption;  $GOV$ = Governance;  $EDU$ = Education; and  $POP$ = Population. Also, subscript  $i$  represents individual countries,  $t$  is time period ranging from 2011 to 2014. Therefore, equation 1 was used to estimate for hypothesis 1(H1) and equation 2 used to estimate for hypothesis 2(H2).

### 3.2 THE TWIN ISSUES OF IDENTIFICATION IN SEM FRAMEWORK

In the SEM framework, the fundamental issue to be considered before estimation is identification (Wooldridge, 2009). Identification refers to whether the parameters in the equation(s) can be estimated; there are two criteria for determining it i.e. the order condition (known as necessary condition) and the rank condition (known as necessary and sufficient conditions). Admittedly, the rank condition is difficult to state because of its complexity, which requires matrix algebra. The order condition, which is regarded as necessary condition, is straightforward to ascertain and it has been fulfilled considering the model specification above. The two equations in this SEM framework have similar outcomes i.e. two exogenous variables are excluded from the two equations each. This means that two exogenous variables are excluded and three retained with two endogenous variables in the entire model. This scenario in identification procedure connotes Just/equal identification as noted by Gujarati and Porter (2009) and Wooldridge (2009).

### 3.3 DEFINITION AND MEASUREMENT OF VARIABLES

This section presents definitions and measurements for the various variables utilized in this study and also, the sources of data for all the variables adopted. Essentially, the most important exogenous variable in this study is Islamic financial instruments (IFIs), which is proxied by the total size of assets of Islamic banks operating in a country. Table 1 presents summary information on the seven variables adopted.

The two endogenous variables in this study are economic growth and financial inclusion while Islamic financial instruments (IFIs) which represents Islamic finance proxied by the total size of

Islamic banks' assets serves as the main exogenous variable. The choice of the proxy for IFIs was due to absence of complete dataset for the known proxy for Islamic finance in the literature as related to the sampled countries. Similarly, the choice of the proxy adopted for financial inclusion in this study was informed by the inability to get complete dataset for the sampled countries using the popular proxy such as savings account. The choice of these proxies was thus dictated by exigency and accepting what was available for conducting the analysis at the time.

TABLE 1  
Definition and Measurement of Variables

| No. | Variable                      | Indicator/Proxy                       | Type of Variable | Sources of Data  |
|-----|-------------------------------|---------------------------------------|------------------|--|
| 1   | Economic Growth               | Real GDP                              | Endogenous       | World Bank & IMF   |
| 2   | Financial Inclusion           | ATM per 1,000 Adults                  | Endogenous       | World Bank & IMF   |
| 3   | Corruption                    | Corruption Perception Index (CPI)     | Explanatory      | Transparency International   |
| 4   | Governance                    | Rule of Law                           | Explanatory      | World Bank   |
| 5   | Education                     | Primary school enrolment (in numbers) | Explanatory      | World Bank & IMF   |
| 6   | Population                    | Population in total                   | Explanatory      | World Bank   |
| 7   | Islamic Financial Instruments | Total Size of Assets of Islamic Banks | Main Exogenous   | World Bank Islamic Finance Database & Central Banks Annual Reports |

Source: Compiled by the authors, 2017.

#### 4. DISCUSSION OF RESULTS

The main objective of this study is to gauge the impacts of Islamic finance on economic growth and financial inclusion in selected Muslim countries. Hence this study investigates the Islamic Finance-

Growth nexus and Islamic Finance-Financial inclusion nexus. The study adopted SEM framework with panel data of 2011-2014 utilizing random effects with General Least Squares (GLS) as estimating techniques in order to achieve this overall objective. The following results are hereby presented.

#### 4.1 ECONOMIC GROWTH AS AN ENDOGENOUS VARIABLE

TABLE 2  
Panel Result with Economic Growth as  
Endogenous Variable

| Variable            | Coefficient    | Z-ratio | p-value  |
|---------------------|----------------|---------|----------|
| Islamic finance     | .036<br>(.010) | 3.47    | 0.001*** |
| Financial inclusion | .109<br>(.038) | 2.90    | 0.004*** |
| Corruption          | .000<br>(.003) | 0.10    | 0.924    |
| Governance          | .004<br>(.002) | 1.83    | 0.067*   |

Source: Computation Results using STATA by authors, 2017.

Notes: The standard errors are reported in parentheses. With the exception of Corruption, which is insignificant, the parameters for Islamic finance and Financial inclusion are both significant at the 1% significance level (SL) while Governance is at 10% SL.

From the results presented in Table 2, it is evident that Islamic finance (proxy by total assets of Islamic banks) impacts positively and significantly on economic growth at the 1% significance level. This suggests that every one percentage change/increase in Islamic finance activities in the sample countries results in 0.036 percent increase in economic growth. In this regard, this finding is consistent with earlier findings by Furqani and Mulyany (2009), Abdullah et al. (2013) as well as Imam and Kpodar (2015). Also, emanating from the results is that financial inclusion has positive and significant impacts on economic growth at the 1% significance level. In the same vein, governance variable proxy by rule of law has positive and significant impacts on economic growth of the sample countries, although, at 10% significance level (SL). Corruption variable has zero coefficient, which suggests zero percentage impact on the economic growth of the sampled countries and also, it is not

significant. The fitness of the model is reported as approximately 61% at the 1% significance level (see Appendix 1).

The relevance of these findings for Nigeria is that even though IF is at its evolutionary stage in the country, the enormous potentials of the industry could lead to “virtuous cycle effects” between IF and the Nigerian economy whether in the short-run or long-run. Also, good governance proxy by rule of law implies that the growth of any country must be supported by good governance, with serious detest for impunity. Thus, putting in place the appropriate and robust legal and institutional frameworks with political backing shall set the stage for the Nigerian economy to reap abundant gains from proper operation of IF. As rightly noted by Sanusi (2011), given the abundant market prospects of IF in Nigeria, the country has the potential and capacity to become the center of IBF in Africa. Admittedly, this golden opportunity would translate into countless gains in view of the multiple impacts of IF on the host economy. Such gains include: poverty reduction, financial inclusion, infrastructure development, employment generation, wealth creation and development in the real sectors of the economy, among others.

#### 4.2 FINANCIAL INCLUSION AS AN ENDOGENOUS VARIABLE

The results presented in Table 3 indicate that only one of the four explanatory and exogenous variables has positive and significant impacts on the endogenous variable of interest. Economic growth is seen impacting positively and significantly on financial inclusion at the 1% significance level. This implies that one percent increase in economic growth is definitely going to lead to 1.197 percentage change in financial inclusion in the sampled countries (see Appendix 2 for more results). On the other hand, Islamic Finance (IF), which is our major exogenous variable impacts positively on financial inclusion but is not significant. This finding lends credence to previous findings by Nawaz (2018), Nazar (2017) and Abul Razak et al. (2017). The implication of this finding is that IF, even though it has positive and significant impact on economic growth (i.e. from Table 2), its real impact on financial inclusion is absent as presented in Table 3. This could suggest that the share of IF in total real GDP is low in those countries or perhaps, the in-depth diversification of Islamic financial instruments such as *Qarḍul-ḥasan*, *Muḍārabah*, *Mushārahah* and a host of others, are not much connected to the poor and vulnerable groups. These financial instruments have the

economic potency to provide a more comprehensible framework to enhance financial inclusion as noted by Sadr (2011) and Iqbal and Mirakhor (2012).

TABLE 3  
Panel Result with Financial Inclusion as  
Endogenous Variable

| Variable        | Coefficient     | Z-ratio | p-value  |
|-----------------|-----------------|---------|----------|
| Islamic finance | .028<br>(.049)  | 0.57    | 0.572    |
| Economic growth | 1.197<br>(.038) | 4.97    | 0.000*** |
| Population      | -.623<br>(.499) | -1.25   | 0.212    |
| Education       | .047<br>(.412)  | 0.11    | 0.909    |

Source: Computation Results using STATA by authors, 2017.

Notes: The standard errors are reported in parentheses. With the exception of Economic growth, which is significant at the 1% significance level, the parameters for Islamic finance, Population and Education are insignificant.

The sampled countries and even Nigeria must adopt what Bank Negara Malaysia (2015) assumed as the basis for the successful achievement of financial inclusion i.e. (i) effective usage of financial service by all citizens; (ii) convenient access to financial services; and (iii) enhanced quality of financial services. All these requirements could be facilitated by IBs in those countries. More particularly, education, which is not significant in the result could also be targeted by IBs in terms of scholarships award to the poor and the vulnerable groups such as orphans in the sampled countries. It must be noted that a significant improvement in financial inclusion through impacting measures such as education will directly contribute to economic growth as evident in Table 2. Therefore, for Nigeria to benefit optimally from IF in terms of contributing to her economic growth and enhancing financial inclusion, massive supports are needed, especially from the government at all levels, more particularly in Muslim populated states in the northern part of Nigeria. As pointed out by Mustafa and Solarin (2015), the gains Malaysia now derive from IF are due to good governance through the leadership focus and doggedness of Malaysian patriots, which led to diversification and promotion of IF as a major player in the



economy. As a matter of urgency, in the diversification policy of the Federal Government of Nigeria, IF needs a robust and dynamic space to contribute to Nigerian development, since it has become clear that Islamic finance holds enormous potentials for economic development of its host countries.

## 5. CONCLUSION AND RECOMMENDATIONS

From the foregoing presentations and discussions, it is evident that investigating the impacts of IF on economic growth and financial inclusion in the core markets of IF as noted by the World Islamic Banking Competitiveness Report (2016) has been accomplished in this paper. The research moves a step further to examine some of the lessons for Nigeria as the largest economy on the African continent. Admittedly, embarking on this study becomes imperative given that no study is available on the sampled countries to the best of our knowledge as it relates to the three primary variables of interest investigated and more especially, as it relates to Nigeria. Basically, the major findings emanating from this study indicate that IF has positive and significant impacts on economic growth; its impacts on financial inclusion is also positive but not significant in the selected Muslim countries. These findings validate the two hypotheses for this study. Another important finding in this study is that there exist “virtuous cycle effects” between economic growth and financial inclusion i.e. both variables impact on each other positively and significantly at the 1% significance level. This finding is indeed an interesting one, especially for Nigeria, which implies that genuine growth should trickle down and one of the indices to gauge it is financial inclusion. As rightly noted by Bank Negara Malaysia (2015), “With proper infrastructure and regulations in place, IF will eventually contribute to a more inclusive economic growth” (p. 1).

Against this background, this study recommends that governments of the sampled countries should continue to strengthen and promote the growth of IF for enhanced developmental opportunities and gains. Also, the Nigerian government should learn from the sampled countries how to diversify the economy by incorporating IBF in the economy. In this connection therefore, the Nigerian government must provide concrete supports to IBF operations by instituting a robust institutional framework and enduring political backing, so that Nigeria can optimize the gains of IBF, especially in economic growth and financial inclusion, which

are germane to economic development as in the sampled countries. Furthermore, Islamic banks and other Islamic financial and economic institutions should be given necessary attention and priority, to enable their smooth establishment and operations, which will allow them to contribute meaningfully to the Nigerian economy. To this end, integrating IBF into the Financial System Strategy (FSS) for achieving vision 20:2020 (i.e. Nigeria becoming one of the 20 biggest economies in the world by the year 2020) shall entrench and consolidate the important position of IBF in Nigeria and further deepen financial development as the case in Malaysia, Saudi Arabia, UAE, Indonesia, Pakistan and a host of other rapid growth markets.

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## APPENDIX 1

### Results of Random-effects GLS Regression with Economic Growth as the Dependent Variable

|                               |               |                    |          |
|-------------------------------|---------------|--------------------|----------|
| Number of obs                 | = 31          | Number of groups   | = 8      |
| Group variable                | : id          | Obs per group: min | = 3      |
| R-sq: within                  | = 0.8149      | avg                | = 3.9    |
| Between                       | = 0.0000      | max                | = 4      |
| Overall                       | = 0.0029      | Wald chi2(4)       | = 60.66  |
| Random effects u_i ~ Gaussian |               | Prob > chi2        | = 0.0000 |
| corr(u_i, X)                  | = 0 (assumed) |                    |          |

| lnrgdp | Coef.    | Std. Err. | z     | p>z   | [95% Conf. Interval] |
|--------|----------|-----------|-------|-------|----------------------|
| Inifi  | .035851  | .010340   | 3.47  | 0.001 | .015584 .056117      |
| Infi   | .109379  | .037694   | 2.90  | 0.004 | .035501 .183257      |
| cor    | .000285  | .002992   | 0.10  | 0.924 | -.005578 .006149     |
| gov    | .004015  | .002196   | 1.83  | 0.067 | -.000289 .008319     |
| _cons  | 25.01310 | .303491   | 82.42 | 0.000 | 24.418272 .607930    |

Source: Generated by the authors, 2017.

## APPENDIX 2

Results of Random-effects GLS Regression with Financial Inclusion  
as the Dependent Variable

|  |   |             |                    |   |        |  |
|--|---|-------------|--------------------|---|--------|--|
| Number of obs                            | = | 30          |                    |   |        |  |
| Group variable                           | : | id          | Number of groups   | = | 8      |  |
| R-sq: within                             | = | 0.3448      | Obs per group: min | = | 3      |  |
| between                                  | = | 0.9140      | avg                | = | 3.8    |  |
| overall                                  | = | 0.8560      | max                | = | 4      |  |
| Random effects u <sub>i</sub> ~ Gaussian |   |             | Wald chi2(4)       | = | 40.09  |  |
| corr(u <sub>i</sub> , X)                 | = | 0 (assumed) | Prob > chi2        | = | 0.0000 |  |

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| Infi   | Coef.     | Std. Err. | z     | p>z   | [95% Conf. Interval] |           |
|--------|-----------|-----------|-------|-------|----------------------|-----------|
| Inifi  | .027720   | .049038   | 0.57  | 0.572 | -.068393             | .123833   |
| Inrgdp | 1.197261  | .240730   | 4.97  | 0.000 | .725439              | 1.669083  |
| Inpop  | -.623479  | .499373   | -1.25 | 0.212 | -1.602232            | .355274   |
| Inedu  | .047027   | .412416   | 0.11  | 0.909 | -.761293             | .855347   |
| _cons  | -18.77859 | 5.49406   | -3.42 | 0.001 | -29.5467             | -8.010435 |

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Source: Generated by the authors, 2017.