

Islamic Finance and Economic Growth: Empirical Evidence from Panel ARDL Approach

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Abstract

This paper applied the pooled Mean Group (PMG) /ARDL approach to examine the effect of Islamic finance on economic growth of Brunei, Indonesia, Jordan, Kuwait, Malaysia, Nigeria, Oman, Pakistan, Saudi Arabia, Sudan, Turkey and United Arab Emirates. Using variables such as gross domestic product growth rate as the dependent variable, Total Assets of Islamic Banks, Total Revenue of Islamic Banks, Total Islamic Banks financing and Sukuk Holdings as the independent variables for the period 2014Q1 – 2022Q4. Panel unit root test was carried out to ascertain that no variable was integrated of order 2. To achieve these four different types of panel unit root tests Im, Pesaran and Shin, ADF-Fisher, PP-Fisher and Levin Lin Chu tests were applied. The estimated pooled Mean Group (PMG) model established the existence a negative but significant long-run relationship between Islamic finance and economic growth of the selected countries with the exception of total assets of Islamic banks which shows a positive and statistically significant relationship with economic growth. The validity of this finding was supported by the error correction coefficient which was negative and statistically significant. Consequently, to achieve growth in GDP the study recommends that policymakers should focus on implementing policies that promote a conducive environment for Islamic banking activities and stimulate demand for Sharia-compliant financing. Another key policy recommendation is to develop a supportive regulatory framework that accommodates Islamic finance principles and facilitates the growth of Islamic banking operations.

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Keywords: Islamic Finance, Economic Growth, Sukuk, Panel ARDL.

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1. Introduction

Economic growth, the cornerstone of prosperous societies, relies on robust financial systems that facilitate investment, entrepreneurship, and wealth creation. Amidst diverse financial paradigms, Islamic finance emerges as a unique model deeply intertwined with principles of economic development and social equity. Whereas, Islamic finance operates within the framework of Sharia law, emphasizing ethical conduct, risk-sharing, and asset-backed transactions while prohibiting interest (*riba*) and speculative activities. This distinctive approach not only fosters financial stability but also promotes inclusive growth by channeling capital towards productive sectors and fostering entrepreneurship. Against the backdrop of a rapidly evolving global economy, understanding the dynamics between Islamic finance and economic growth unveils not only the potential synergies but also the challenges and opportunities inherent in harnessing Islamic finance as a catalyst for sustainable and inclusive development (Kettell, 2010).

Furthermore, the relationship between Islamic finance and economic growth has been a subject of increasing interest and debate in both academic and policy circles. Islamic finance, rooted in Sharia principles, offers a distinctive framework that emphasizes equity, fairness, and risk-sharing while prohibiting interest (*riba*) and speculative activities. As an alternative financial system, it has gained prominence not only in Muslim-majority countries but also in diverse global contexts, attracting attention for its potential to foster inclusive and sustainable economic development (Kettell, 2010).

Conventional economic theory often assumes a positive correlation between financial development and economic growth, with well-functioning financial systems facilitating capital allocation, investment, and entrepreneurial activity. However, the conventional model does not fully capture the nuances of Islamic finance, which operates under different principles and norms. Therefore, there is a need for empirical research to explore the specific mechanisms through which Islamic finance influences economic growth dynamics. The existing literature on Islamic finance and economic growth has produced mixed findings, reflecting the complexity of the relationship and the diversity of contexts in which Islamic finance operates (Ahmed & Rosly, 2013). While some studies suggest a positive impact of Islamic finance on economic growth through enhanced financial inclusion, stability, and resource allocation (Ariff, 2012), others highlight challenges such as regulatory frameworks, governance issues, and lack of integration with global financial markets (Kabir & Lewis, 2007).

In this context, panel data analysis offers a valuable methodological approach to examine the relationship between Islamic finance and economic growth across multiple countries. The panel Autoregressive Distributed Lag (ARDL) approach, in particular, allows for the investigation of both short- and long-term relationships while accounting for country-specific heterogeneity and potential cross-sectional dependencies (Pesaran et al., 2001).

Islamic finance has garnered increasing attention as a potential driver of economic

growth and development, particularly in the context of Muslim-majority countries and beyond. Rooted in Sharia principles, Islamic finance offers an alternative framework that emphasizes ethical conduct, equity, and risk-sharing, while prohibiting interest (*riba*) and speculative activities. Despite its growing prominence, the empirical evidence regarding the relationship between Islamic finance and economic growth remains inconclusive and subject to debate.

While conventional economic theory posits a positive correlation between financial development and economic growth, the applicability of this relationship to Islamic finance is not straightforward. Islamic financial institutions and instruments operate under distinct principles and norms, which may lead to different dynamics compared to conventional financial systems (Ahmed & Rosly, 2013). Therefore, there is a need for rigorous empirical research to examine the specific mechanisms through which Islamic finance influences economic growth dynamics.

Existing empirical studies on Islamic finance and economic growth have produced mixed findings, highlighting the complexity of the relationship and the diversity of contexts in which Islamic finance operates. Some studies suggest a positive impact of Islamic finance on economic growth, attributing this effect to factors such as enhanced financial inclusion, stability, and resource allocation (Ariff, 2012). However, other research points to challenges such as regulatory frameworks, governance issues, and the lack of integration with global financial markets, which may hinder the realization of Islamic finance's growth potential (Kabir & Lewis, 2007).

To address these issues and provide a comprehensive analysis of the relationship between Islamic finance and economic growth, this paper adopts a panel data approach, specifically employing the Autoregressive Distributed Lag (ARDL) model. Panel data analysis enables researchers to examine variations across countries and over time, capturing the heterogeneity of national contexts in which Islamic finance operates. The ARDL model, in particular, allows for the investigation of both short- and long-term relationships while accounting for country-specific heterogeneity and potential cross-sectional dependencies (Pesaran et al., 2001). This paper is guided by the questions thus; Is there a long-run relationship between Islamic finance and economic growth of the selected countries? What is the short-run impact of Islamic finance on economic growth of the selected countries? Does Sukuk holdings influence economic growth of the selected countries? Does total assets of Islamic banks affects economic growth of the selected countries?

1.1 Literature Review

Ahmad et al. (2012) examined the effects of macroeconomic factors on sukuk issuance in Malaysia from 1996 to 2011 by employing vector autoregressive (VAR) modeling with aggregate-level data. The findings show that the GDP, the consumer price index (CPI), and the producer price index (PPI) are the main factors influencing sukuk issuances. This information has significant policy implications

for policymakers seeking to modernize the Islamic capital market's operational features.

In the same context, Said and Grassa (2013) examined the possible interconnexions between macroeconomic, financial, legal, and institutional factors and SMD on the one hand, and between financial crises and sukuk on the other hand. The primary findings demonstrated that a few key macroeconomic and institutional factors trade openness, GDP per capita, economic size, and regulatory quality had a major beneficial impact on the growth of the sukuk market, while the financial crisis appears to have a negative impact on SMD.

More recently, Smaoui and Khawaja (2017) attempt to empirically investigate the structural, financial, developmental, institutional, and macroeconomic determinants of SMD. It is significant to emphasize that the authors' use of financial parameters is restricted to those that gauge the size of the stock and bond markets, as well as the banking industry. Using a panel of thirteen Sukuk-issuing nations and the system general method of moment (system-GMM), the authors demonstrate that a combination of structural, institutional, and financial factors seem to have a major impact on SMD.

In order to examine the macroeconomic factors that influence SMD in the nations that make up the Gulf Cooperation Council (GCC), Al-Raeai et al. (2019) create a conceptual model. The authors demonstrate how macroeconomic variables have been increasingly important in fostering sukuk markets in GCC nations. To draw in additional investors, they must adhere to solid macroeconomic policies in their marketplaces.

Later, Al-Raeai et al. (2019) empirically examined the influence of macroeconomic factors and political risk on SMD in selected GCC countries using pooled ordinary least square (POLS) and generalized least squares (GLS) estimation techniques over the period 2001–2016. The results demonstrate that the primary drivers of SMD are currency rates, trade openness, and the size of the banking sector; stock market capitalization and saving rates, on the other hand, do not significantly contribute to the development of the sukuk markets in the GCC nations. Ultimately, the most significant finding is the correlation that exists between political risk and SMD.

By applying the stochastic frontier approach to estimate technical efficiency at the country level for a sample of Islamic banks from 70 countries between 2000 and 2005, Gheeraert and Weill (2015) found that the development of Islamic banking promotes macroeconomic efficiency in a non-linear relationship. Even when Islamic banking is becoming more and more developed, efficiency is only enhanced up to a point; after that, efficiency starts to decline.

Using content analysis approach, Aman et al. (2019) theoretically investigated the determining factors likely to contribute to SMD. The writers paid particular attention to the macroeconomic, financial, and dynamics of foreign capital inflows with regard to SMD. They come to the conclusion that there is no clear correlation between these variables and SMD. Covering the most Sukuk issuers' countries, the study of Mirza and Sultana (2020) examined the determinants of SMD over the period 2003–2012. The findings demonstrated that a variety of factors influence

how the sukuk market develops. Economic variables that support the expansion of the Sukuk market include GDP per capita, economic scale, trade openness, and the proportion of Muslims in the population. Similarly, nations with more established sukuk markets are those that have adopted a shariah legal origin or a mixed common law-shariah law legal origin, as well as those with higher regulatory quality rankings. But the financial crisis has a significant detrimental impact on the sukuk market's expansion. In line with the financial sector development plans within 2030 vision objectives, Alnagar et al. (2021) identify the level of impact of five challenges on Saudi SMD. Aside from the legislative framework, the findings indicated that the other four challenges completed yield curve, shariah governance, secondary market activation, and credit rating had statistically significant impacts on the growth of the Saudi Arabian sukuk market.

Basyariah et al. (2021) analysed the impact of macroeconomic and institutional stability on global SMD while controlling to the effects of population. GMM approaches were applied by the authors to annual data from 2002 to 2017. The primary findings indicate that while inflation and currency rates have no effect on SMD, GDP per capita and the rule of law index have positive and significant effects on the growth of the sukuk market. These outcomes also support earlier research showing that, for economic growth, inflation may be kept under control up to a point. The literature cited above has looked into the institutional and macroeconomic factors that influence SMD. However, financial factors—and particularly financial risk components are rarely given much thought in this research. Furthermore, it highlights the inadequacies in the empirical study on the financial determinants of SMD, particularly in the GCC nations that rely significantly on oil revenues, which makes them more susceptible to changes in oil prices and exacerbates budget deficits. Given the benefits of sukuk over bonds, governments in the Gulf Cooperation Council (GCC) should diversify their economies by fostering sukuk markets as substitute funding sources for long-term infrastructure projects and other profitable ventures. This will lessen their reliance on bank financing and oil exports, enhancing their financial stability.

Mimouni et al. (2019) in their analysis finds that the growth of Sukuk markets reduces Islamic banks' profitability as assessed by NIM (net interest margin) and NPM (net profit margin) or even ROA (Return on Asset), but has no impact on that of conventional banks. Smaoui and Ghouma (2020) similarly demonstrate that the development of the Sukuk market has had a detrimental effect on Islamic banks' capital ratios. They contend that Islamic banks are now more competitive as a result of the expansion of Sukuk, which has led to lower capitalization levels.

Studies exploring the possibilities of Islamic financial sector to positively contribute to growth were done by Furqani and Mulyany (2009), Nagaoka (2011), Abduh and Omar (2012), Abduh et al. (2012), Abdul Manap et al. (2012), and Yusof and Bahlous (2013), Kassim (2016), Zarrouk et al. (2017), Smaoui and Nechi (2017), and Boukhatem and Moussa (2018), and Chowdhury et al. (2018), Ledhem and Mekidiche (2020), Ullah et al. (2021), Gwadabe and Ab Rahman (2020), Anwar et al. (2020), Juhro et al. (2020), Mensi et al. (2020), Alafif and Shaheen (2021), Ali

(2021), Siddiqui et al (2021), Hassan et al. (2021), Benbekhti et al (2021), Zahid and Arshad (2021), Tan and Shafi (2021), Gani and Bahari (2021), and Arsyianti and Kassim (2021). On the contrary, some studies that explore the possibilities of Islamic finance to contribute negatively or insignificantly to economic growth were done by Goaid and Sassi (2010), Barajas et al. (2013), Bm and Uddin (2016), Echchabi et al. (2018), and Khasanah and Wicaksono (2021).

2. Preliminary Notes

The methodology adopted for this research is the panel ARDL approach with the dataset that covers 9 years from 2014Q1 to 2022Q4. The sample covers 12 countries mainly Brunei, Indonesia, Jordan, Kuwait, Malaysia, Nigeria, Oman, Pakistan, Saudi Arabia, Sudan, Turkey and United Arab Emirates. As depicted in figure 1 below this paper examined empirically the nexus between Islamic finance and economic growth using total assets, total revenue, total financing of Islamic banks, sukuk holdings as independent variables, and gross domestic product as dependent variable. These variables were incorporated into this research because they cover the financial instruments that are Shariah-compliant as well as give the overall understanding of how Islamic finance works. The data on the gross domestic product was collected from World Bank Development Indicators (2023) while data on total assets, total revenue, total financing of Islamic banks, and sukuk holdings of Islamic banks were extracted from Islamic Financial Services Board Database.

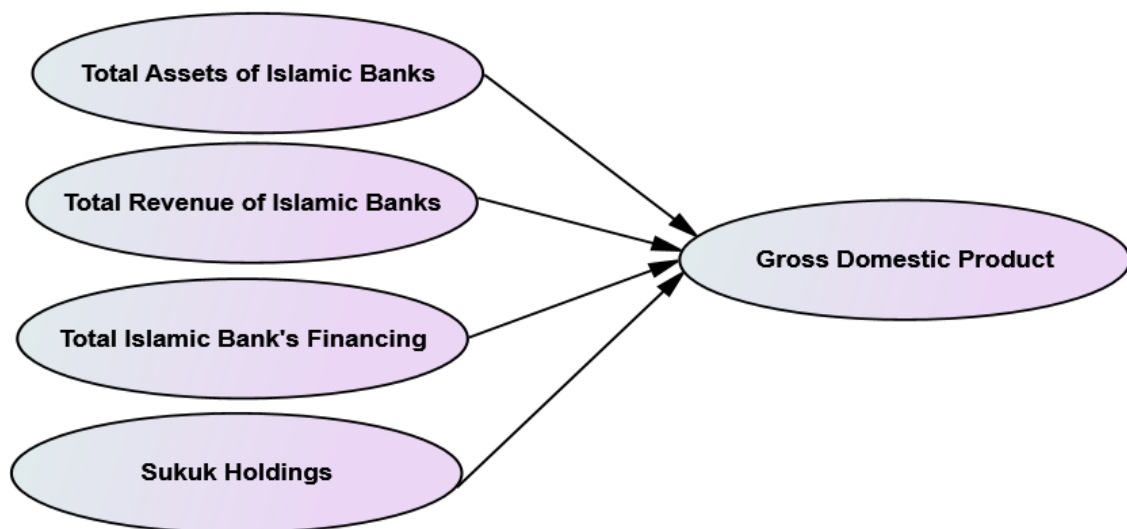


Figure 1: Conceptual Framework

2.1 ARDL Pooled Mean Group Estimation

As mentioned earlier we applied the ARDL approach which implies auto-regressive distributed lag which was developed by Im *et al.*, (2003) and examines lagged values. The ARDL is basically a co-integration method. The PMG/ARDL approach has been employed by researchers such as (Lee and Wang, 2015; Šonje *et al.*, 2014; Asghar *et al.*, 2020; Dogan *et al.*, 2014). As such we apply the PMG/ARDL approach to examine the long-term and short-term nexus that differ across nations in the panel dataset composition as developed by Pesaran *et al.*, (1999) it is expressed as

$$\Delta y_{i,t} = \phi_i EC + \sum_{j=0}^{q-1} \Delta X_{i,t-j} \beta_{i,j} + \sum_{j=1}^{p-1} \lambda_{i,j} * \Delta y_{i,t-j} + \varepsilon_{i,t} \quad (1)$$

$$EC_{i,t} = y_{i,t-1} - X'_{i,t} \theta, \quad (2)$$

Where

$\Delta y_{i,t}$ = the dependent variable (GDP)

t = time period otherwise the scope of the study, t= 1, 2,.....T

i= Sampling dimension, i=1, 2,.....N or (cross-section)

p,q = optimal lag orders.

$X_{i,t}$ = vector of K x 1 regressors that makes area to be solely I(0) or I(1) or co-integrated.

$\lambda_{i,j}$ = The lagged dependent variable's coefficient

$\beta_{i,j}$ = K x 1 coefficient vectors

$\varepsilon_{i,t}$ = Error correction term

ϕ_i = Speed of adjustment

$\phi_i = 0$ shows the existence of long-run nexus amongst the variables.

$\phi_i =$ negative and significant statistically it implies that in the case of the disturbance the indices converge to long-run equilibrium.

θ From (eq. 2) signifies the group specific speed of adjustment coefficient (anticipated that $\theta < 0$).

$y_{i,t-1} - X'_{i,t} \theta =$ ECT (Error Correction Term)

2.2 Model Specification

The model applied in this research to analyze the nexus between Islamic finance and long-run economic growth is specified thus;

$$GDPG_{i,t} = \gamma\alpha_{0i} + \gamma_{1i}\ln TAIB_{i,t} + \gamma_{2i}\ln TRIB_{i,t} + \gamma_{3i}\ln TIBF_{i,t} + \gamma_{4i}\ln SUKH_{i,t} + \mu_i + \varepsilon_{i,t} \quad (3)$$

Where

GDPG = Gross Domestic Product Rate

TAIB = Total Assets of Islamic Banks

TRIB = Total Revenue of Islamic Banks

TIBF = Total Islamic Banks Financing

SUKH= Sukuk Holdings

μ_i = disturbance term

$\varepsilon_{i,t}$ = error term accounting for unexpected disturbance in GDP

Ln = logarithm

γ_0 = intercept

γ_1 - γ_4 = coefficients of the 4 variables included in the model

i = country-specific factors

t = time period

2.2.1 Apriori Expectation

This refers to the supposed relationship between and or among the dependent or independent variables of the model as determined by the postulations of economic theory. Here, the researcher determine whether the variables conforms to expectations or whether there is a deviance. The table below summarizes the a priori expectation of the parameters in the research.

Table 1: Apriori Expectation

Indices	Measurement	Expected Signs
TAIB	Total Assets of Islamic Banks	Positive (+)
TRIB	Total Revenue of Islamic Banks	Positive (+)
TIBF	Total Islamic Banks financing	Positive (+)
SUKH	Sukuk Holdings	Positive (+)
GDP	GDP Growth Rate	Dependent Variable

Source: Author's Compilation (2024)

3. Main Results

3.1 Correlation Analysis

Table 2: Correlation Matrix

Variables	GDPG	TAIB	TRIB	TIBF	SUKH
GDPG	1.000000				

TAIB	0.901596	1.000000			
	0.0577	-----			
TRIB	0.815824	0.943629	1.000000		
	0.0163	0.0000	-----		
TIBF	0.922508	0.992412	0.942449	1.000000	
	0.0110	0.0000	0.0000	-----	
SUKH	0.936386	0.962801	0.902468	0.961131	1.000000
	0.0046	0.0000	0.0000	0.0000	-----

Source: Author's Compilation (2024)

We used the correlation matrix table above to test for correlation between the variables used in the research to show that the regressors do not have perfect or exact linear representations of one another. Looking at the table we look out for correlation statistic of 0.80 and above between the explanatory variables. It is an indication of a linear relationship between the variables. If that occurs, we do not include both regressors in the same model. Based on the above result we can say that the independent variables are not linearly dependent on one another. Therefore, the model can pass the multicollinearity test.

3.2 Panel Unit Root Test

Table 3: Panel Unit Root Test Results

	Level				First Difference			
	ADF -Fisher	Im, Pesaran and Shin	PP-Fisher	Levine, Lin-Chu	ADF-Fisher	Im, Pesaran and Shin	PP-Fisher	Levine, Lin-Chu
GDPG	-4.798953***	-10.3265***	-7.2622***	-5.7033***	-17.7358***	-15.6991***	-8.6340***	-14.9776***
TAIB	-2.584373*	12.9370	0.8157	5.9128	-20.86343***	-10.4097***	-1.4953***	12.9038***
TRIB	-3.371178**	9.3119	13.1067	4.10403	-18.8358***	-15.0541***	-4.6378***	2.3005***
TIBF	-2.721989*	3.8021	1.4386	-1.9290***	-20.90711***	-18.4358***	-0.7017***	27.9343***
SUKH	-2.754218*	-6.3907**	1.6207	8.0243	-20.80737***	-13.9666***	-3.6249***	-67.1246***

Note: *, **, *** indicates significance at 10%, 5% and 1% respectively

Source: Author's Estimations, 2024

Table 3 reports the results of panel unit root tests which indicate that all the variables in used in the research are stationary at first difference with constant and trend except GDPG which was stationary at level. We proceed to apply the Panel ARDL technique because the variables have varying degrees of integration. The panel ARDL approach has many benefits, chief among them being the ability to estimate various variables with varying orders of stationarity, as in table 3. In other words, the variables may be or may comprise a mixture of I(0) and I(1) variables. The can be all I(0) variables or can be all I(1) variables but cannot be I(2) stationary at second difference. On top of that the parameters of interest in ARDL gives the long-run coefficients, short-run coefficients and also shows the speed of adjustment.

3.3 Optimal lags Selection

Using the unrestricted model and Akaike Information Criteria (AIC), the most common lag for each variable across the countries to represent the lags for the model was selected and presented in Figure 2 below:

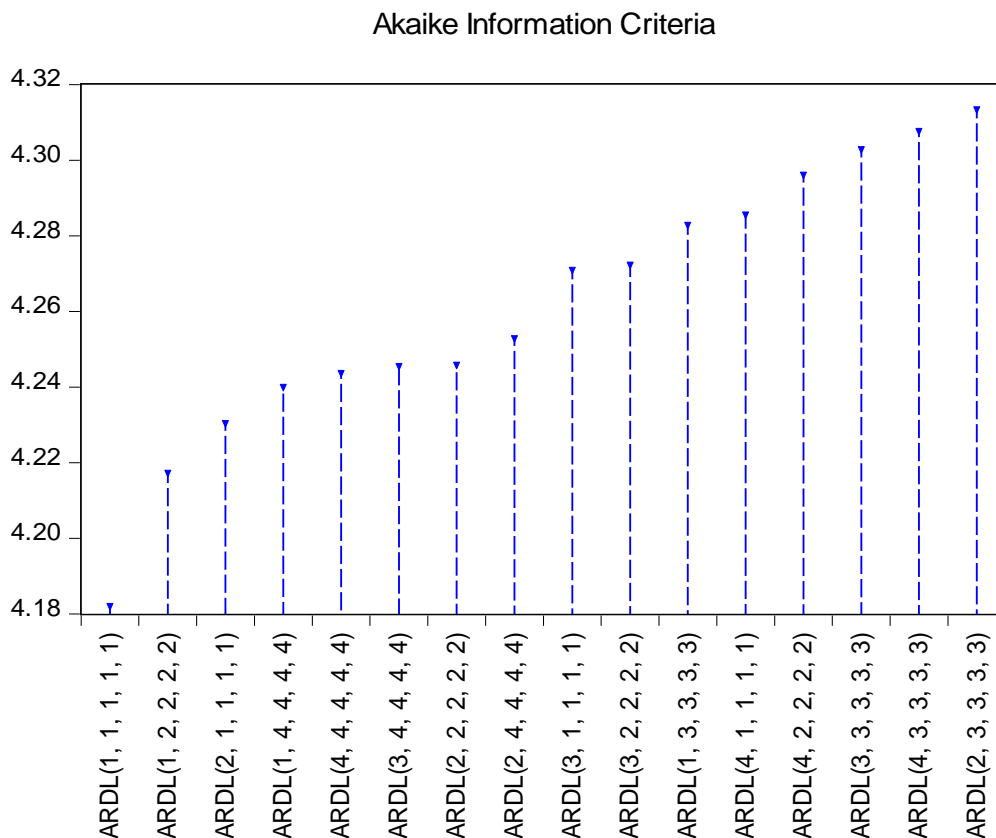


Figure 2: Optimal lags Selection

Source: Author's Estimations, 2024

3.4 Panel ARDL Estimates of Selected Countries

Table 4: Panel ARDL Estimates of Selected Countries

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
Long Run Equation				
LnTAIB	26.48834	8.889819	2.979627	0.0031
LnTIBF	-15.42261	7.506842	-2.054474	0.0407
LnSUKH	-1.315725	0.732798	-1.795480	0.0734
LnTRIB	-2.267625	1.123020	-2.019220	0.0442
Short Run Equation				
COINTEQ01	-0.154078	0.027689	-5.564501	0.0000
D(LnTAIB)	-2.908344	7.897960	-0.368240	0.7129
D(LnTIBF)	3.580727	1.791735	1.998470	0.0464
D(LnSUKH)	-0.842447	0.931053	-0.904832	0.3662
D(LnTRIB)	-0.558857	0.731587	-0.763896	0.4454
C	-16.56370	2.931830	-5.649611	0.0000

Source: Author's Estimations, 2024

The outcome of the Pooled Mean Group Estimation of ADRL displays the rate of adjustment as well as the long- and short-term coefficients between the real gross domestic product (GDPG) and independent variables. Over an extended period, the findings indicate that four variables total Islamic bank financing (LnTIBF), total Islamic bank revenue (LnTRIB), and sukuk holdings (LnSUKH) have a statistically significant negative impact on the real gross domestic product (GDPG) at a rate of 5%, while total Islamic bank assets have a positive impact on GDPG. In particular, the total financing provided by Islamic banks (LnTIBF) yielded a negative coefficient value of -15.42261, with a significant p-value at (0.0407) less than 0.05.

This indicates that, over the long term, there is a significant and negative relationship between LnTIBF and the gross domestic product growth rate (GDPG). Similar to this, sukuk (LnSUKH) has a negative coefficient value (-1.315725) with a significant p-value at (0.0734), indicating a long-term, significant, and negative link between sukuk (LnSUK) and gross domestic product (GDPG).

Conversely, one variable, the assets of Islamic banks (LnTAIB), had a positive coefficient value (26.48834), with a p-value that is significant at (0.0031) \geq 0.05. This indicates that, over the long term, the assets of Islamic banks (LnTAIB) have a significant positive relationship with the gross domestic product (GDPG). In other words, a one percent change in the total revenue of Islamic banks (LnTRIB) can reduce GDPG by 2.3 percent, and one percent improvement in the assets of Islamic banks (LnTAIB) can increase GDPG by 26.5% in the countries that were selected. In addition, a 1% increase in sukuk holdings (LnSUKH) will result in a 1.3% decline in the gross domestic product growth (GDPG) of the chosen nations.

Based on these findings, policy makers should focus on improving the financial and regulatory framework while utilizing the potential of Islamic instruments to further develop financing and investment profiles over time and improve the quality of Islamic financial institutions, which in turn advances the development of Islamic finance in the selected nations.

There is no bias due to omitted variables, as evidenced by the coefficient of convergence's adjustment speed, which is around -0.15 and both negative and significant.

With the exception of total Islamic bank financing (LnTIBF), which is positive and statistically significant in explaining GDPG in the short run, all explanatory factors are negative and statistically insignificant in impacting.

3.5 Hypotheses Testing

This research has been conducted to study the impact of Islamic finance on economic growth in 12 selected countries (Brunei, Indonesia, Jordan, Kuwait, Malaysia, Nigeria, Oman, Pakistan, Saudi Arabia, Sudan, Turkey and United Arab Emirates). The gross domestic product (GDPG) has been taken as dependent variable, the Islamic bank's total assets (LnTAIB), total revenue of Islamic banks (LnTRIB), total Islamic bank's financing (LnTIBF) and sukuk holdings (LnSUKH) are taken as independent variables.

H0₁: Islamic finance and economic growth of the selected countries do not have a long-run relationship.

As per the findings of this study only Total Assets of Islamic Banks has a positive and statistically significant effect on growth of the selected countries while all other variables in terms of TRIB, TIBF and SUKH are all negative but statistically significant. This indicates that there is a long run relationship between Islamic finance and growth in the long run although the impact is negligible as such we reject the null hypothesis and accept the alternative hypothesis which states otherwise.

H0₂: There is no short-run impact of Islamic finance on economic growth of the selected countries.

As per the findings of this study only TIBF Total Islamic Bank's Financing has a positive and statistically significant effect on growth while all other variables in terms of TRIB, TAIB and SUKH are all negative and statistically insignificant in the short-run. This indicates that there is no short run relationship between Islamic finance and growth in the short run as such we accept the null hypothesis and reject the alternative hypothesis which states otherwise.

H0₃: Sukuk holdings has no influence on economic growth of the selected countries.

According to the findings of the study sukuk holdings has a negative but statistically significant impact on economic growth of the selected countries in the long run as such we conclude that sukuk holdings has an influence on economic growth although the impact is negligible as such we reject the null hypothesis and accept the alternative hypothesis.

H0₄: total assets of Islamic banks does not affect economic growth of the selected countries.

Based on the study's results, we reject the null hypothesis and adopt the alternative, which contends that the total assets of Islamic banks have a positive and statistically significant long-term impact on the growth of the chosen countries.

As per findings of the study, the results there is a significant positive relationship between Islamic bank's asset and gross domestic product (GDPG) in long run, is consistent with the results of Ansari and Rehman (2012) who stated that the bank's assets can increase economic growth (GDPG). As a result, the concept has some support. According to some research, there may be a relationship between the gross domestic product (GDPG) and the assets of Islamic banks (LnTAIB). In the short term, however, this relationship may not be positive because Islamic banks' products are still in the early stages of development, which lowers the quality of their total assets and hinders economic growth. The reason behind this could be the selected countries including (Brunei, Indonesia, Sudan, Pakistan, and Nigeria) are not much developed in Islamic banking, globally these countries have negligible Islamic banking share and their economy is independent of Shariah compliant banking. But these Islamic institutions would benefit the economy once they matured and became visible on a global scale.

Results have shown that Islamic bank financing (LnTIBF) has a favorable short-term impact on economic growth (GDPG). This study is in line with the studies of (Abduh and Omar, 2012; Kassim, 2016; Farahani and Dastan, 2013; Elhachemi and Othman, 2016; Yusof and Bahlous, 2013) on same relationship and their findings and reasons are fully supported that Islamic bank's financing (LnTIBF) and economic growth (GDPG) are positively and significantly interlinked. As a result, there is strong evidence for a short-term positive association between the gross domestic product (GDPG) and Islamic bank financing (LnTIBF). This suggests that Islamic bank financing can be used to support economic growth in the chosen countries.

Similarly, it was found that sukuk holdings has significant negative relationship with gross domestic product (GDPG) in long run. This is in line with the findings of (Said and Grassa, 2013) who found sukuk market and economic growth have negative relationship.

4. Conclusion

This paper examined the impact of Islamic finance on the economic growth of a few chosen nations using the Panel ARDL technique. For the period of 2014Q1–2022Q4 variables such as the gross domestic product growth rate, Sukuk Holdings, total assets, total revenue, and total financing of Islamic banks were included as independent variables. Although the association is small, the projected results showed that Islamic financing and the economic growth of the chosen countries do have a long-term relationship. The study's conclusion, however, showed that while Islamic bank financing (LnTIBF) has a favorable short-term impact on economic growth (GDPG), there is a strong positive association between Islamic bank assets and gross domestic product (GDPG) over the long term. Lastly, it was discovered that there is a long-term, substantial negative correlation between sukuk ownership and gross domestic product (GDPG). The statistical significance and negative error correction coefficient bolstered the validity of this finding. The findings of this paper would have significant contributions to the literature, researchers, and regulators, it also provides insight to the policymakers and practitioners. Based on results, it can be said that Islamic finance has effectively played its major role as financial intermediaries, which means developing countries can possibly handle their weak economies through expansion of Islamic finance, by utilizing Islamic financial engineering to derive novel Islamic financial products or services and marketing strategies; e.g. improvement of infrastructure as well as human capital to cater the growing demand of Islamic financial instruments in the future. Considering Islamic banking system and Islamic capital markets as potential tools may lead to financial stability and eventually economic growth.

Based on the results the following policy recommendations are proffered thus;

- i. Diversification of Asset Classes: the Islamic banks of the selected countries are encouraged to diversify their asset portfolios across various sectors and asset classes to mitigate risks and enhance returns. Policymakers can provide incentives for banks to invest in sectors critical for economic development, such as infrastructure, renewable energy, healthcare, and education. This diversification can help Islamic banks maintain stable asset growth while contributing to broader economic development goals.
- ii. To enhance the total financing of Islamic banks, policymakers should focus on implementing policies that promote a conducive environment for Islamic banking activities and stimulate demand for Sharia-compliant financing. One key policy recommendation is to develop a supportive regulatory framework that accommodates Islamic finance principles and facilitates the growth of Islamic banking operations. This includes updating regulations to ensure clarity and consistency in Sharia compliance requirements, streamlining approval

- processes for Islamic financing products, and providing regulatory incentives to encourage Islamic banks to expand their lending activities.
- iii. To improve the total revenue of Islamic banks, policymakers should focus on implementing policies that promote innovation, diversification, and efficiency in their operations. One key policy recommendation is to support product innovation and development within Islamic banks, encouraging them to offer a wider range of Sharia-compliant financial products and services tailored to the needs of their customers. Policymakers can provide incentives, such as tax breaks or subsidies, to encourage Islamic banks to invest in research and development and develop innovative solutions in areas such as digital banking, wealth management, and fintech. Additionally, policymakers should promote the diversification of revenue streams by encouraging Islamic banks to expand into fee-based income sources, such as wealth management, investment advisory, and insurance products.
 - iv. Support Sukuk Market Development: Governments can play a key role in developing the Sukuk market by issuing sovereign Sukuk and promoting Sukuk issuance for infrastructure projects. They can also facilitate the creation of a secondary market for Sukuk trading by implementing supportive regulations and providing liquidity support. Additionally, policymakers can encourage the development of innovative Sukuk structures to attract a wider investor base.

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