Interaction between Islamic Financial Development and Economic Growth: Empirical Evidence from Indonesia

Ambariyanto[1], Muslich Anshori[2], Imron Mawardi[3], R Moh Qudsi Fauzi[4]

[1,2,3,4] Airlangga University

Article Information

A B S T R A C T

Financial development and economic growth have been thoroughly analyzed in the literature extensively. The discussion revolved on whether the financial sector leads the real sector in the process of economic development or whether it is the other way around. There is now no consensus on the causal relationship between financial development and economic growth. So, it is necessary to determine the relationship between financial development and economic growth in order to make accurate economic growth estimations. This paper examines an interaction model between Islamic financial development and economic growth that assumes the consumption of real resources by the financial sector. This research used Hadri Lagrange-Multiplier to investigate association's path between variables. As a result, the interaction between Islamic financial development and economic growth may be unidirectional. However, the Islamic financial system is unsustainable, the Islamic financial market's contribution remains modest, and this could not eventually contribute to economic growth significantly. In addition, the results of this study reveal that the development of Islamic financial institutions in Indonesia has not yet had a significant effect on the welfare of Indonesian society. Due to rising demand for financial services, it was believed that economic growth drives finance in developing nations. Moreover, Economic growth fosters competition among financial intermediaries, resulting in more efficient financial transactions and, consequently, increased growth.

Keywords: *Islamic Financial Development, Islamic Banks, Economic Growth.*
JEL Classification Code: E44, E42, O23

INTRODUCTION

Financial development and economic growth have been thoroughly analyzed in the literature extensively. The discussion revolved on whether the financial sector leads the real sector in the process of economic development or whether it is the other way around. There is now no consensus on the causal relationship between financial development and economic growth. So, it is necessary to determine the relationship between financial development and economic growth in order to make accurate economic growth estimations.

In developing countries, banks play a significant role by serving as a conduit for the successful mobilization of funds from surplus sectors of an economy for onward lending to deficit sectors for productive investments, which would promote employment and economic growth (Azolibe et al, 2022). Keh et al. (2022), in the long-run, suggests the existence of an asymmetry relationship between banking sector development and economic growth. The development of the banking sector has no short-run asymmetric interaction with economic growth, while the development of the stock market has no short-run or long-run asymmetric association with economic growth. The ARDL test validates the association between financial development indicators and economic growth over the long term. Both bank-based and market-based indicators of financial development have a favorable impact on India's economic growth, according to a comprehensive examination of the data. The empirical findings of the study give considerable policy insights for India. While the Indian financial industry is dominated by financial institutions, the success of the banking sector is essential to the economic growth process (Sehrawat and Giri, 2015).

Xu & Gui (2021) has been demonstrating that the influence of finance on the economy is nonlinear. When financial development outweighs the needs of the real sector, an economy is confronted with the issue of "too much finance," which can lead to rent-seeking, asset price bubbles, and even financial crises. China appears to have followed the 'too much finance' pattern during the past decade, in which a rapidly rising financial sector coexisted with a slowly expanding economy. In addition, the two financial development variables examined (total loans and private credit) tend to have opposing effects on economic growth. Current research indicates that the impact of finance on economic growth is diminishing (Rousseau & Wachtel, 2011) and becoming negative once financial development above a certain threshold (Arcand et al., 2015). Using a large database of financial development for 91 countries from 1973 to 2004, Abiad et al., (2008) demonstrates that the finance – growth nexus is indeed evolving. In particular, it demonstrates that financial depth as usually defined is no longer a significant predictor of long-term growth.

Many research re-examines the empirical relationship between financial and economic development, taking their dynamics into consideration and distinguishing between stock market and banking sector development. Peia & Roszbach (2015) investigates the co-integration and causality between finance and economic growth for 22 developed nations. This research finding reveal that causation patterns are contingent on whether a country's financial development is driven by the stock market or the banking sector. It shows that stock market expansion tends to generate economic growth, whereas a reverse causality exists between banking sector growth and production growth. At advanced levels of economic development, the direction of causality between finance and growth is likely to be different. Using cross-provincial

data from 1978 to 2010, empirical analysis reveals that finance has a substantial positive influence on growth in provinces with high incomes, but a strong negative influence on growth in provinces with low incomes. The outcomes are consistent with an alternative financial development indicator (Chen, Wu & Wen, 2013). Specifically, Demetriades & Rousseau (2016) demonstrate that financial depth is no longer a key long-term growth predictor. Instead, this research finds evidence that specific financial reforms have substantial growth consequences, which can be good or negative depending on the quality of bank regulation and supervision.

The study that conducted by Deidda (2006) proposes a possible explanation for the interaction nature of the relationship between economic and financial development based on the absorption of resources by the financial sector and continuous returns to the accumulation of physical capital by the production sector. Hondroyiannis et al. (2005) and Van Nieuwerburgh et al. (2006) analyzed the long-run relationship between financial development and growth using VAR models. Hondroyiannis et al. (2005) analyzed the case of Greece from 1986 to 1999. They discovered a long-run correlation between financial progress and economic growth. In the case of Belgium, Van Nieuwerburgh et al. (2006) confirmed that both bank and stock market funding had a long-run impact on economic growth. Romeo-Avila (2007) additionally confirmed the positive influence of money on expansion. He explored the relationship between finance and growth, focusing on the impact of financial deregulatory policies and banking law harmonization on European Union economic growth. The study demonstrates that financial intermediation enhances economic growth positively through three mechanisms. Kenourgios and Samitas (2007) investigated the long-run relationship

between finance and economic growth in Poland and concluded that credit to the private sector has been one of the most important long-term growth drivers.

Arestis et al. (2001) limited their research to only five developed nations for which quarterly data was available. They confirmed that the expansion of the banking sector and stock markets had a substantial impact on economic growth in these nations. Fase & Abma (2003) claimed that the expansion of the financial system could stimulate economic expansion. In this instance, the financial sectors operate as a supply leading to shift resources from the conventional, low-growth industries to the modern, high-growth sectors, and to support and boost entrepreneurial activity in these modern sectors. Abu-Bader and Abu-Qarn (2008) investigated the relationship between financial development and economic growth in Egypt between 1960 and 2001. The researchers utilized Granger causality tests. They reached the conclusion that financial development boosts economic growth either by enhancing investment efficiency or capital accumulation.

In 1992, the financial sector of Indonesia introduced a dual banking system. This allows both the ordinary banking system and the Sharia bank to operate concurrently. Since the enactment of Law No. 21/2008, it is predicted that the banking industry in Indonesia would expand dramatically. Thus, the Islamic banking industry is expected to contribute positively to Indonesia's economic progress. Some research focused on Islamic bank-economic growth nexus. Abedifar et al. (2016) state that Islamic banks should have a favorable impact on financial deepening and intermediation. Abduh & Omar (2012) find from their research that there is a reciprocal relationship between Islamic bank financing and economic growth. This conclusion indicates that Islamic bank financing can stimulate economic growth,

and it can stimulate the financing of Islamic bank respectively. In addition, this research demonstrates that the positive association between the financing of Islamic bank and economic growth implied that Islamic banking have an effective intermediary function, which can link parties with excess funds to parties with scarce funds.

Purpose of study Ledhem & Mekidiche (2020) is o investigate the link between the financial performance of Islamic finance and economic growth in all of Malaysia, Indonesia, Brunei, Turkey and Saudi Arabia within the endogenous growth model framework. Applied dynamic panel system GMM to estimate the impact of the financial performance of Islamic finance on economic growth using quarterly data (2014:1-2018:4). CAMELS system parameters were employed as variables of the financial performance of Islamic finance and gross domestic product (GDP) as a proxy of economic growth. The sample contained all Islamic banks working in the five countries. The findings demonstrated that the only significant factor of the financial performance of Islamic finance, which affects the endogenous economic growth, is profitability through return on equity (ROE). The experimental findings also indicated the necessity of stimulating other financial performance factors of Islamic finance to achieve a significant contribution to economic growth.

In a study, Rabaa & Younes (2016) surveyed the influence of the financial performance of Islamic Banks on the economic growth in terms of financial liberalization through the use of Islamic banks in all of Abu Dhabi, Saudi Arabia, Bahrain, Great Britain and Tunisia over the period 2001–2012. They used panel fixed effect and GLS regression with variables of GDP, return on assets (ROA), return on equity (ROE), a ratio of the performance of Zakat, a ratio of Islamic earnings vs. not Islamic earnings, industrial production index (IPI), consumer price index (CPI)

and money market rate. They resolved that Islamic banking performance had a significant influence on economic growth.

Tabash (2019) also came to a similar conclusion, which found that there is a constructive significant relationship between financial performance of Islamic banks and economic growth in the UAE; he used pooled ordinary least square with variables of GDP, ROA, ROE and the net revenue margin (NRM) on a sample of all full-sized active Islamic banks in the UAE covering a period from 2000 to 2014. In the same vein, Alkhazaleh (2017) demonstrated the correlation between the financial performance of commercial banks in Jordan and economic growth. He used (ROA), deposits and credit facilities as independent variables, and GDP as a dependent element. He used the pooled regression examination to test the associations between variables. He settled that commercial banks' performance contributes to the economic growth in Jordan. In another empirical study of evaluating how profitability which is the main proxy for the financial performance in the banking sector influences Nigeria's economic growth.

Adekola (2016) showed the existence of a straight connection between banks' profitability and economic growth in Nigeria. He used a pooled regression technique for all banks occupied in Nigeria under the period 2005–2014 using the GDP, ROE and return on capital employed (ROCE). In a similar study, Yazdani (2011) explored the effect of private banks' financial performance on economic growth in Iran. He adopted GDP, ROA, cash and investments as research variables. His results showed that bank performance had a positive effect on the economic growth of Iran. Concerning studies of the financial performance of Islamic finance determinants measured by the profitability, Khan et al. (2014) have examined factors that affect Islamic banking profitability which

was adopted as a measure for the financial performance in Pakistan. They employed a sample of five Islamic banks in Pakistan from 2007 to 2014. They employed capital adequacy ratio, bank size, nonperforming loans (NPL) ratio, gearing ratio, asset composition, operational efficiency, asset management, deposit ratio, (GDP) and (CPI) as exogenous variables, ROE, ROA, earnings per share (EPS) as endogenous variables. Their results showed that the profitability of Islamic banking was impacted by bank-specific aspects such as asset management, NPL ratio, deposit ratio and exterior factors such as CPI.

Djalilov & Piesse (2016) have investigated bank financial performance with profitability determinants in the early transition countries of Central and Eastern Europe; they applied GMM system, random-effects regression on a sample of 275 banks from 16 transition economies, eight are from the ex-Soviet Union, other countries are from the CEE and the States of Baltic covering the period of 2000-2013. They adopted capital, credit risk, cost, bank size, bank market share, GDP growth, inflation, government spending, fiscal freedom, monetary freedom as independent variables, and ROA as the dependent variable. They noticed that the effect of credit risk on bank profitability in the early transition countries was favorable, and government spending and well-capitalized banks in the early transition countries were more competitive.

In another special case of Indonesia, Setyawati et al. (2017) evaluated both of internal and external factors affecting the financial performance of Islamic banking. They applied panel multiple regression on a sample of all the Islamic banks in Indonesia for a period ranging from 2004 to 2012 and adopted internal determinants (NPF, capital strength (CS), external determinants (GDP, inflation, dummy variable of the financial crisis) as independent variables, and ROA as a dependent variable. Their

findings revealed that the performance of Islamic banks has been greatly affected by nonperforming finance and inflation, and has been much better since the crisis. Alharbi (2017) studied the determinants of the financial performance of Islamic banks through profitability using a simple of 110 Islamic banks in 25 countries that were members in the Organization of Islamic Cooperation (OIC) from 1992 to 2008 by applying panel fixed-effects regression; he used all of Islamic banks profitability, return on assets average (ROAA), internal variables (operating income (OOI), capital ratio), external variables (GDP per capita, GDP and oil) and regulation variables of bank taxation and financial structure (market capitalization to GDP) as independent variables, and net profit revenue average over earning assets as the dependent variable. His results indicated that equity, bank size, operating income, oil prices and GDP per capita had a positive impact on Islamic banks.

Study of Zarrouk et al. (2016), they investigated whether Islamic banks profitability is motivated by the same factors of conventional banks in the MENA. They used panel system GMM on a simple of 51 Islamic banks in all of Jordan, UAE, Turkey, Egypt, Yemen, Kuwait, Sudan, Bahrain, Saudi Arabia and Qatar from 1994 to 2012, and they adopted bank-specific factors (risk and solvency, efficiency ratios, liquidity, asset quality, annual stock data and capital), macroeconomic factors (gross domestic product, consumer price index, investment ratio of GDP, dummy variable of inflation) as exogenous variables and profitability ratios (ROA, ROE, NPM) as dependent variables. They resolved that profitability was affected by the asset quality, cost-effectiveness and capitalization of both banks. Another similar study of Olson and Zoubi (2017), they examined whether the global financial crisis (GFC) led to the convergence of the financial performance

of Islamic and commercial banks in the MENASA region (22 countries) from 1996 to 2014, and they applied dynamic panel model using performance ratio which is the ROA as an endogenous variable, bank-specific accounting ratios such as ROE and financial variables as independent variables; they stated that Islamic banks firstly weathered the outbreak of the global financial crisis better than conventional banks in 2007-2008. Regarding studies that have used CAMELS model to measure and analyze the banking financial performance, most of them have found that the CAMELS is pretty useful in terms of arbitrating the financial performance.

Rashid & Jabeen (2016) examined the determinants of both Islamic and commercial banks in Pakistan; they have created the financial performance index (FPI) based on CAMELS ratios and then applied the calculated index on the CAMELS determinants. They applied GLS regression on an unbalanced yearly panel data covering the period 2006–2012. Operating efficiency, reserves and overheads were found to be significant factors in the performance of conventional banks, while operating efficiency, market concentration, and deposits were significant at explaining Islamic bank performance. Similarly, Rashid et al. (2015) assessed the financial performance of Islamic banks and conventional banks in Pakistan using the CAMELS system to assemble the FPI. Their results demonstrated that the financial performance of Islamic banks was better in 2012 comparing to 2006. Another study of Rodica & Oana (2014) used CAMELS approach to detect the development of the banking system in Romania for the period of pre-crisis before 2007 and post-crisis after 2007; the study concluded that there are cross-sectional effects between the banking indicators that contributed a cautionary signal about the evolution of the banking system. Another similar study of Karim et al. (2018), they used all of

CAMELS model and Z-score to measure the stability of 50 banks in Malaysia from 1999 to 2015; they found that both Islamic and commercial banks were satisfactorily listed on a general bank solidity scale.

An additional study of Masood et al. (2016), they applied the CAMELS rating model to evaluate the performance of the operating Islamic banks in Pakistan for the year 2015. They found that two of the Islamic banks had a good position, while the others were in a reasonable position. Another equivalent study, Rostami (2015) applied CAMELS model to assess the Iranian bank performance for the period of 2009–2014. The results indicated that CAMELS is an effective tool to judge the bank performance. In the same frame, Rozzani and Rahman (2013) examined the performance of both the Islamic and conventional banks in Malaysia between 2008 and 2011.

Their results showed that performance levels were extremely parallel for both the conventional and Islamic banks. Concerning studies of Islamic finance and economic growth nexus, Kassim (2016) explored the effect of Islamic finance on the performance of important macroeconomic indicators on a sample of all Islamic banks in Malaysia covering a quarterly period from 1998 to 2013 by applying the ARDL approach.Kassim (2016) adopted industrial production index (IPI) as a proxy for economic growth and total deposit of the Islamic banks, total financing by Islamic banks, gross fixed capital formation, general government expenditure and inflation as independent variables. The results revealed that by funding investment projects, Islamic banking system contributes to the real economy. Besides, Boukhatem and Moussa (2018) presented clear empirical evidence that the implementation of the Islamic financial system has stimulated economic growth in the 13 selected MENA region; they applied panel cointegration and FMOLS

regression on a sample of Islamic banks in the MENA region for a period ranged from 2000–2014, and they used GDP per capita growth as dependent variable and loans by Islamic banks/GDP, education, inflation, government consumption/GDP, trade openness, domestic credits to private sector/GDP, regulatory quality and rule of law as independent variables.

The finding of research that shows the correlation between Islamic banking and economic growth positively was then established by Farahani & Dastan (2013), Imam & Kpodar (2016), Zirek et al. (2016). They found that Islamic bank financing had a role in both long-run and short-run economic growth importantly. In addition, Imam & Kpodar (2016) determined that Islamic banking is more capable of accumulating capital and has a higher level of financial inclusion than traditional banking. Conversely, Hachicha & Amar (2015) argue that Malaysian Islamic bank financing had no beneficial impact on economic expansion over the long run based on a different set of findings. Due to the orientation of Islamic banking activities toward short-term financing, the favorable impact of Islamic bank financing on economic growth was only temporary. Hayati (2014) analyzed on the impact of Islamic banking in Indonesia's economic growth indicated that Islamic banking's contribution to the country's economic growth was relatively minimal. Meanwhile, the total assets of Islamic banking had no effect on the economic growth of Indonesia. Islamic banking has the capacity to promote inclusive economic expansion (Fasih, 2012).

On the basis of prior studies, greater investigation into the implications of Islamic bank financing on Indonesia's economic growth is required. Hence, there are not a great number of research on the relationship between Islamic financing and economic growth in empirical studies. This study aims to fill the void left by earlier studies to show evidence in Indonesia empirically. This study will examine the relationship of Islamic bank financing on Indonesia's economic growth using data from 33 provinces. This paper aims to demonstrate and assess the interaction between Islamic financial development and inclusive economic growth in Indonesia.

METHODOLOGY

The first step in the analysis of this study was to test the unit root panel. The tests used in testing the unit root panels consist of two types, namely the common unit root - Levin, Lin, and Chu (LLC) an IPS (Baltagi, 2005). The panel unit root test is more robust and reliable than the unit root test which is applied to time series data because the information on the existing time series data is complemented by the available cross-section data. Therefore, unit root panels are used to improve the quality of the data tested in a particular study.

Levin et al., (2002) test assume that all panels have the same autoregressive parameters, require strongly balanced panel data, and add models with lags of the dependent variable. The research hypothesis of the LLC unit root test is as follows, H0 there is a unit root, H1 there is no unit root. H0 is rejected if the probability of LLC is lower than 1 percent, 5 percent, and 10 percent, while H0 is not rejected if the probability of LLC is greater than 1 percent, 5 percent, and 10 percent. If H0 is not rejected, it means that the variable is not stationary.

The process of differentiating needs to be done on panel data if the data is not stationary. The distinction in question is the process of converting time series data into stationary, with the original series being changed to a different series. The following is the first differencing formula for unit cross-section,

$$\Delta Y_{i,t} = Y_{i,t} - Y_{i,t-1}$$

Note:

$\Delta Y_{i,t}$: The first discriminating variable for the i-th individual at the t time

$Y_{i,t}$: Individual variable i-th time t

$Y_{i,t-1}$: Individual variable i-th time (t-1)

If in the first distinction, the data is still not stationary, then a second distinction must be made in the following form:

$$\Delta^2 Y_{i,t} = \Delta Y_{i,t} - \Delta Y_{i,t-1}$$

Note:

$\Delta^2 Y_{i,t}$: The distinguishing variable for the i-th individual at the t time

$\Delta Y_{i,t}$: The first discriminating variable for the i-th individual at the t time

$\Delta Y_{i,t-1}$: The first discriminating variable for the ith individual at the time (t-1)

This research conducted by using secondary data on financial and macroeconomic aggregates from Financial Service Authority (OJK) and Central Bureau of Statistics (BPS) with the type of panel data from 33 provinces in Indonesia during the period 2013 - 2017. This research analyzes Islamic banks' financing credited to the private sector through various types of financing as a proxy for the development of the Islamic financial system (DIFS), as well as economic growth (Eg) and logarithm of real GDP (LRG) as proxies for real economic development. The study employed Hadri Lagrange-Multiplier test

which assumes that the disturbance terms are normally distributed. The tests may be used in conjunction with heterogonous panel data to distinguish series that appear to be stationary, series that appear to have a unit root, and series for which we are unsure whether they are stationary or integrated (Hadri, 2000). In addition, this paper conducted Dumitrescu & Hurlin Granger non-causality test that assumes there can be causality for some individuals but not necessarily for all (Dumitrescu & Hurlin, 2012), in determining the relationship between financial development and economic growth. Dumitrescu & Hurlin (2012) developed a panel data causality estimation model with a short observation period. Dumitrescu & Hurlin (2012) calculated the p-value and critical value based on the bootstrap procedure.

RESULTS AND DISCUSSION

The first is to explain the results of descriptive statistics. Descriptive statistics is a means of describing features of a data set by generating summaries about data samples. Descriptive statistics is a branch of statistics that aims at describing and summarizing the characteristics of data. It is used for the collection, representation, and formation of data. It comprises three main categoriesnfrequency distribution, central tendency, and variability. Descriptive statistics helps facilitate data visualization and analysis by providing measures of center such as the mean, median, and mode, and measures of variability such as the range, standard deviation, and variance.

Table 1.
Descriptive Statistic

Variable	Mean	Min	Max	Std. Deviation
DIFS	1,57103	0,14	17,55	1,69028
Eg	4,88318	-15,72	21,76	3,27472
LRG	11,82285	9,68	14,42	1,16564

Note: the development of the Islamic financial system (DIFS), as well as economic growth (Eg) and logarithm of real GDP (LRG)

Table 1 shows that the average DIFS, Eg, and LRG are 1.57; 4.88; and 11.82. The minimum value of DIFS, Eg, and LRG is 0.14; -15.72; and 9.68. The maximum value of DIFS, Eg, and LRG is 17.55; 21.76; and 14.42. The standard deviation values for the DIFS, Eg, and LRG variables are 1.69; 3.27; and 1.16.

Table 2.
Panel Unit Root Test- Levin, Lin, and Chu (LLC)

Variable	LLC		IPS	
	I(0)	I(1)	I(0)	I(1)
DIFS	0,0678*	0,0000***	0,0781*	0,0000***
Eg	0,5546	0,0000***	0,9876	0,0000***
LRG	0,0021***	0,0000***	0,0321**	0,0000***

Source: Analysis Results

Table 2 shows that the development of the Islamic financial system (DIFS) and the logarithm of real GDP (LRG) variables are stationary at the level, but economic growth (Eg) is not stationary at the level. Therefore, it is continued with the first. difference level stationary test. At the first difference level, all variables have an LLC probability of less than 1 percent, so the null hypothesis stating that there is a unit root can be rejected, therefore these variables are free from the unit root problem

Table 3
Dumitrescu & Hurlin Non Causality

Variabel	Prob
Eg → DIFS	0,0000
LRG → DIFS	0,0000

Source: Analysis Results

Table 3 provides statistics and probability values derived from the null hypothesis of non-causality. There is a unidirectional between LRG and economic growth and Islamic bank development, as observed. The null hypothesis is rejected, and it can be inferred that the increased economic growth has contributed to Islamic financial system. This research finding favored unidirectional causality and supported the demand-following hypothesis, according to which economic expansion caused the development of financial sectors. According to this view, the faster the growth of real national income, the greater the demand by businesses for external funds (the savings of others) and, consequently, financial intermediation, as firms will be less able to finance expansion with internally generated depreciation allowance and retained earnings. Hence, the financial system can support and sustain the top growth industries. This study differs from earlier research. El-Galfy & Khiyar (2012), Kalim et al. (2016), and Boukhatem & Moussa (2018) demonstrate that Islamic bank financing has a favorable effect on economic growth. Previous research indicates that Islamic bank funding can enhance economic growth when supported by clear national legislation. According to Ang and Warwick (2007), there is a unidirectional causal relationship between economic growth

and financial development in Malaysia, and financial liberalization policies have a positive influence on fostering financial sector development.

In Indonesian Islamic banking, mudharabah contracts are utilized less frequently as the primary tool for profit and loss sharing. These conditions also revealed by Hachicha and Amar (2015), that Islamic banking is still oriented toward short-term financing or tends to finance consumptive channel rather than productive one. Meanwhile, the investment-funding variable produces a different outcome than the two prior independent variables (working capital financing and consumer financing) that do not have a substantial impact on economic growth. Hachicha and Amar (2015) find that investment funding and economic growth have a negative correlation. Due to the orientation of Islamic banking, which tends to execute short-term financing via Murabaha contracts, economic growth in Malaysia had little long-term effect on Islamic bank funding, according to the study.

Moreover, the data demonstrate a unidirectional causal relationship between real GDP and Islamic bank financing and investment. Hence, real GDP contributes to the Indonesia's Islamic financial system. However, based on a report by the financial service authorities, Murabahah contracts keep dominating Islamic banking financing activities, which accounted for more than fifty percent of the total financing channeled (Financial Service Authority, 2021). Additional issues stemming from the business category given by Islamic bank financing may explain why there is no correlation between Islamic bank financing and Indonesia's economic growth. Notwithstanding this, Léon and Weill (2018) assert that the development of Islamic banking has a positive effect on access to credit when conventional banking development is minimal. Consider taking proactive economic, infrastructure, and institutional measures to facilitate the development of Islamic finance. (Sarwer et al., 2013; Kassim, 2016; Yüksel & Canoz, 2017; Boukhatem & Moussa, 2018). In addition, Islamic financial development has not affected significantly to economic growth, due to the low share of Islamic financing in Indonesia's financial market.

CONCLUSION

This research investigates the relationship between Islamic financial development and economic growth in Indonesia from 2011 to 2020 based on provincial data. This study seeks to address a crucial question whether financial development leads the real sector in the process of economic development or it is the other way around. As a result, it shows that unidirectional relationship between economic growth, as well as real GDP, and Islamic financial system. Due to rising demand for financial services, it was believed that economic growth drives finance in developing nations. Moreover, Economic growth fosters competition among financial intermediaries, resulting in more efficient financial transactions and, consequently, increased growth.

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