



Islamic financing and economic growth: An empirical evidence from Aceh province, Indonesia

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Abstract

This study aims to examine the impact of Islamic financing on economic growth. Utilizing panel data from 17 districts and cities in Aceh, the research employs a panel regression model with a fixed effects approach to analyze the functional relationship between these variables. The findings indicate that Islamic financing does not significantly stimulate economic growth. This underscores the need for financing strategies that can drive increased output across various sectors of the regional economy. Prioritizing the allocation of Islamic financing to sectors with the highest potential to contribute to economic growth should be a key focus moving forward.

Keywords: Economic growth, islamic financing, panel regression

Introduction

Inclusive economic growth and the reduction of income inequality are two main pillars of sustainable economic development. Efforts to achieve these goals are highly relevant in the context of Indonesia, particularly in the province of Aceh, which has a unique economic history and dynamics. The implementation of Islamic finance in Aceh presents a promising approach to achieving more equitable and fair economic growth. This is driven by the Islamic values underpinning the Islamic financial system, which not only seeks financial profit but also considers social aspects and the welfare of the community (Kassim, 2016)^[8].

Recent data shows that economic growth in the districts/cities of Aceh still faces various challenges. According to the Aceh Central Statistics Agency (BPS Aceh), the province's economic growth rate in 2022 was recorded at 3.4%, which is below the national average. Additionally, the poverty rate in Aceh reached 15.92% in the same year, one of the highest in Indonesia. On the other hand, Islamic finance has shown significant development, with an increase in the number of Islamic banks and financing products offered in various districts/cities. For instance, Bank Aceh Syariah reported a 12% increase in financing disbursement in 2022, reflecting growing public trust in the Islamic financial system (BPS Aceh, 2022; Bank Aceh Syariah, 2022)^[1, 3].

Related research has shown various findings regarding the impact of Islamic finance on economic growth. Boukhatem & Ben Moussa (2017)^[2] found that Islamic banks have a positive contribution to economic growth in MENA countries by enhancing financial inclusion and supporting small and medium-sized enterprises. Gheeraert & Weill (2015)^[6] stated that the development of Islamic banking can improve macroeconomic efficiency through the provision of more inclusive and ethical financing. A study by Imam & Kpodar (2016)^[7] also showed that countries with more developed Islamic banking sectors tend to experience faster economic growth. These findings support the hypothesis that Islamic finance can play a significant role in advancing regional economies (Boukhatem & Ben Moussa, 2017; Gheeraert & Weill, 2015; Imam & Kpodar, 2016)^[2, 6, 7].

This study introduces a novel perspective by examining the impact of Islamic bank financing on economic growth at the

district and city levels in Aceh, a region that has been underexplored in existing literature. Employing panel data, the research offers a more detailed and comprehensive analysis of the role Islamic finance plays in shaping the economic dynamics of Aceh. The findings are anticipated to contribute significantly to academic discourse while also providing valuable insights for policymakers and Islamic finance practitioners. These insights can serve as a foundation for developing strategies to foster regional economic development, as highlighted by Kuanova *et al.* (2021)^[9].

The usefulness of this research lies in its potential to provide strong empirical evidence on the effectiveness of Islamic finance in promoting economic growth in Aceh. Thus, this research can serve as a reference for local governments, financial institutions, and other stakeholders in developing policies that support a more inclusive and sustainable Islamic financial system. Furthermore, the findings from this study can offer valuable insights for economic development efforts in other regions with similar characteristics (Gazdar *et al.*, 2018; Mensi *et al.*, 2019)^[4, 10].

Literature review

The relationship between Islamic finance and economic growth has garnered significant attention in recent years. Boukhatem & Ben Moussa (2017)^[2] analyzed the impact of Islamic banks on Gross Domestic Product (GDP) growth across several countries in the Middle East and North Africa (MENA) region. Their findings revealed that Islamic banks positively influence economic growth, particularly by promoting financial inclusion and supporting small and medium-sized enterprises (SMEs). This suggests that a more advanced Islamic banking system can facilitate higher economic growth in these countries.

Previously, Gheeraert (2014)^[5] investigated the role of Islamic finance in fostering the development of the banking sector. The study found that Islamic finance significantly contributes to the growth of the banking sector, which, in turn, bolsters economic development. Similarly, Gheeraert & Weill (2015)^[6] explored the link between Islamic banking development and macroeconomic efficiency. Their research indicated that the advancement of Islamic banking is strongly associated with improved economic efficiency,

primarily due to its provision of more inclusive and ethical financial services.

Imam & Kpodar (2016) [7] also examined the influence of Islamic banking on economic growth and discovered that countries with well-developed Islamic banking sectors tend to experience faster economic expansion. This underscores the potential of Islamic banking as a tool for fostering economic growth, particularly in countries with large Muslim populations. Furthermore, Gazdar *et al.* (2018) [4] investigated the interplay between oil price volatility, Islamic finance development, and economic growth in GCC countries. Their findings highlighted the stabilizing role of Islamic finance, demonstrating that its development helps mitigate the adverse effects of oil price fluctuations on economic growth.

Mensi *et al.* (2019) [10] employed a panel smooth transition model to explore the influence of Islamic banking development and key macroeconomic variables on economic growth. Their findings indicate that the growth of Islamic banking has a significant positive effect on economic growth, particularly in countries with high levels of Islamic financial penetration. This is consistent with Kassim's (2016) [8] study on Malaysia, where Islamic finance has played a crucial role in advancing economic growth by offering sustainable and inclusive financing solutions. Collectively, the existing literature underscores the potential of Islamic finance as a vital instrument for fostering sustainable economic growth across various nations.

However, not all studies concur on the uniformly positive impact of Islamic finance on economic growth. For instance, Gheeraert (2014) [5] observed that while Islamic finance supports the development of the banking sector, its direct impact on economic growth may not always be significant or consistently positive. In some contexts, the strict adherence to Shariah principles can constrain financial and investment flexibility, potentially impeding innovation and broader economic development. Similarly, Gheeraert & Weill (2015) [6] noted that in certain countries, Islamic banking has not reached sufficient maturity to meaningfully enhance macroeconomic efficiency. In fact, it may even slow down more established conventional financial processes in some cases.

Additionally, Mensi *et al.* (2019) [10] found that the impact of Islamic banking development on economic growth can vary significantly depending on a country's macroeconomic conditions and political stability. In nations with unstable political environments or highly developed conventional financial systems, the contribution of Islamic banking to economic growth may be less pronounced. Furthermore, the presence of Islamic banks in such contexts can sometimes lead to financial system fragmentation, reducing the efficiency of resource allocation. These findings emphasize the importance of contextual factors and the need for tailored strategies in developing Islamic banking sectors to ensure their positive contribution to economic growth.

Data and econometric model

Our research study utilizes secondary data sourced from the Indonesian Central Bureau of Statistics (BPS) and the Indonesian Islamic Banking Statistics Report. The data is in the form of panel data from 17 districts in Aceh over the period 2016-2022. These districts include Aceh Barat, Aceh Selatan, Aceh Singkil, Aceh Tengah, Aceh Tenggara, Aceh

Timur, Bireuen, Pidie, Simeulue, Gayo Lues, Aceh Barat Daya, Aceh Jaya, Nagan Raya, Aceh Tamiang, Bener Meriah, Pidie Jaya, and Subulussalam. The operationalized variables consist of the realized financing disbursed by Islamic banks, measured in rupiah per capita and economic growth, measured in percentage. Given that our research data is panel data, the econometric model applied to analyze the functional relationships between the variables is panel regression, as presented in Models 1.

$$EG_{it} = \alpha + \beta \log IF_{it} + e_{it} \tag{1}$$

where EG_{it} represents the economic growth rate in district i during period t , and $\log IF_{it}$ is the logarithmic value of islamic financing in district i during period t . α is the constant, β is the estimated coefficient of $\log IF_{it}$, and e is the error term.

The use of panel regression as a data analysis model provides three approaches: common effect, fixed effect, and random effect. The test results indicate that among these three approaches, the fixed effect approach has better estimation accuracy compared to the other two approaches. Therefore, the interpretation of the statistical results and the discussion on the impact of Islamic financing on economic growth rely on this approach.

Result and discussion

As previously explained, this study operationalizes two economic variables: Islamic bank financing and regional economic growth at the district/city level in Aceh. Islamic financing refers to the funds disbursed by Islamic banks to the community, measured in thousand rupiahs per capita. Meanwhile, economic growth is proxied by the growth of GRDP (Gross Regional Domestic Product) per capita, which is measured in percentages.

The research findings indicate that the economic growth rate in Aceh Province varies across districts. On one hand, there are areas with high economic growth, while on the other, there are regions with relatively lower growth. Along with these differences in economic growth also varies between districts. During the same period, the distribution of Islamic bank financing across districts and cities also differed. The descriptive statistics for these three variables are presented in Table 1.

Table 1: The result of descriptive statistics and correlation matrix

Descriptive statistics		
	Islamic financing (IDR 000 per capita)	Economic growth (%)
Mean	3,667.77	3.535
Median	3,167.21	4.040
Maximum	25,717.15	13.230
Minimum	1,027.86	-1.180
Observations	119	119
Correlation matrix		
Islamic financing	1.000	
Economic growth	-0.176	1

Source: Author's calculation by E-Views

To estimate the impact of Islamic financing on economic growth, panel regression was employed, formulated in Model 1. As explained in the data and model analysis section, the panel regression model provides three approaches: common effect, fixed effect, and random effect.

The test results indicate that among these three approaches, the fixed effect approach has better estimation accuracy compared to the other two approaches. Therefore, the interpretation of the statistical results and the discussion on the impact of Islamic financing on economic growth rely on this approach.

The panel regression results regarding the impact of Islamic financing on economic growth show an estimated coefficient of -2.331 with a p-value of 0.000 (< 0.05). This indicates that Islamic financing is not capable of promoting economic growth. In fact, an increase in Islamic financing does not correspond to an increase in economic growth. Regions with relatively higher realizations of Islamic financing experience relatively lower economic growth, while regions with relatively lower realizations of Islamic financing experience relatively higher economic growth. This suggests a negative relationship between Islamic financing and economic growth. For more details on the panel regression results regarding the impact of Islamic financing on economic growth, see Table 2.

Table 2: The result of panel estimation

Constant & predictors	Dependent Variable: EG _{it}		
	Estimate coefficient	T-test	P-value
Constant	22.304	6.366	0.000
logIF _{it}	-2.331	-5.362	0.000
Goodness of fit test			
R ²	0.333		
Adj. R ²	0.221		
F-stat (p-value)	2.967 (0.001)		
DW-stat	2.341		
Residual normality			
JB-test (p-value)	30.214 (0.000)		

Source: Author’s calculation by E-Views

As shown in Table 2 above, the realization of Islamic financing in Aceh does not have a significant impact on economic growth. In other words, an increase in Islamic financing does not lead to an increase in community income. This finding contrasts with the study by Yusoff & Wilson (2018) ^[11] on the Malaysian economy, which demonstrated that Islamic financing has a positive contribution to economic growth. Malaysia has successfully integrated Islamic financing into its national economic system, supported by favorable regulations and a robust ecosystem for the development of Islamic products. Key factors supporting this success include strong government support, adequate infrastructure, and high public awareness of Islamic financing. The lack of influence of Islamic financing on economic growth in the districts and cities of Aceh also diverges from the findings of Rahman & Arif (2019) ^[12], which indicated that Islamic financing can drive growth in the micro, small, and medium enterprises (MSME) sector, which in turn can contribute to regional economic growth.

The inability of Islamic financing to drive economic growth in Aceh can be analyzed from two perspectives. First, one of the main factors may be related to the implementation and penetration of Islamic financing itself. Although Aceh is known for its implementation of Islamic law, the adoption and utilization of Islamic financing products may not yet be optimal. This could be due to a lack of understanding and awareness among the public about Islamic financing products, or perhaps because of a lingering preference for

conventional financing products that are considered more familiar.

Second, the structure and composition of the economy in Aceh need to be considered. If the sectors targeted by Islamic financing are not those that contribute significantly to economic growth, the impact will be limited. For instance, if Islamic financing is mostly channeled to micro and small sectors, while the sectors that significantly contribute to the Gross Regional Domestic Product such as agriculture, fisheries, and energy remain largely untouched, the effect on economic growth will be minimal.

Conclusions and recommendations

The presence of Islamic banks in Aceh is expected to enhance regional economic growth. This study aims to investigate the impact of Islamic financing on regional economic growth within the context of the districts in Aceh province. Using panel data of 17 districts from the province, our research reveals that Islamic financing does not drive economic growth. This indicates that while Islamic financing has economic benefits for the community, its overall impact on increasing economic output remains limited.

Based on the conclusions above, several recommendations can be provided to enhance the effectiveness of Islamic financing in supporting economic growth in Aceh. The following considerations should be taken into account: firstly, there needs to be an improvement in access to and education about Islamic financing. Local governments and Islamic financial institutions should collaborate to provide comprehensive educational programs to the community about the benefits and usage of Islamic financial products. Additionally, economic infrastructure, such as roads, electricity, and information technology, must be improved to support more efficient and productive economic activities. Secondly, the diversification of Islamic financing products is necessary to better meet the specific needs of the community and the potential economic sectors in Aceh. Islamic financial institutions should develop innovative products that can reach the agriculture, fisheries, and creative industries. Collaboration between the government, Islamic financial institutions, and the private sector is also crucial to creating an ecosystem that supports inclusive and sustainable economic growth.

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