Muqtasid: Jurnal Ekonomi dan Perbankan Syariah, 16(1), 2025:1-17
P-ISSN: 2087-7013 | E-ISSN: 2527-8304
https://ejournal.uinsalatiga.ac.id/index.php/muqtasid
http://dx.doi.org/10.18326/muqtasid.v16i1.1-17

Islamic finance and economic growth in Indonesia: Analyzing short-and long-term effects

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Abstract

This research examines the impact of Islamic finance on Indonesia's economic growth. Using quarterly time series data on Islamic banking, Islamic mutual funds, Islamic pawnshops, ***Zakat, Infaq***, and ***Shadaqah*** (ZIS) from 2014 to 2022 (36 observations), and applying the Error Correction Model (ECM), the study evaluates both short- and long-term effects. The results show that, in the short term, only Islamic banking financing has a significant positive effect, while Islamic mutual funds, Islamic pawnshops, and ZIS are not significant. In the long term, Islamic banking, Islamic pawnshops, and ZIS contribute positively and significantly to economic growth. These findings support financial intermediation and Islamic social finance theory, indicating that Islamic financial institutions channel funds into the economy, with effects that vary over time. They also highlight the role of Islamic finance in promoting financial inclusion, supporting micro and small enterprises, and improving welfare through income redistribution. This study suggests that policymakers should reinforce the regulatory framework for Islamic finance. Despite its lack of short-term significance, their long-term benefits underscore the necessity for policies to facilitate their growth and integration into the broader financial system.

Keywords: islamic finance, islamic institution, economic growth, error correction model (ECM)

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Introduction

Islamic economics plays a pivotal role in shaping the economic landscape by promoting principles of equity, justice, and social welfare. At its core, Islamic economics seeks to ensure a fair distribution of wealth and resources, thereby reducing income inequality and poverty (Jaas, 2022; Nasrat et al., 2023; Siddiqui, 2011). Moreover, sharia-compliant financial services, such as Islamic banking and mutual funds, operate on profit-and-loss sharing models that encourage risk-sharing and ethical investments (Lukonga, 2023).

Unlike conventional banking systems, which primarily rely on interest-based transactions, Islamic financial institutions emphasize partnerships and joint ventures, in which both profits and losses are shared between parties (Bitar et al., 2017; Hanif, 2011). This approach promotes a more responsible and ethical financial system in which investments are made in ventures that comply with Islamic ethical standards. Consequently, it contributes to a more stable and resilient financial system by reducing the likelihood of speculative bubbles and financial crises. This contributes to improving the real sector and enhances process innovation, which in turn increases goods and services production and encourages economic growth (Haruna et al., 2024). These principles align economic activities with moral and ethical values, ultimately leading to more inclusive, sustainable economic growth that benefits all segments of society.

The development of Islamic financial institutions has been remarkable over the past few decades (Rethel, 2011), reflecting a growing demand for Sharia-compliant financial products and services. In Indonesia, the establishment of Islamic banks, mutual funds, and pawnshops has expanded significantly, supported by regulatory frameworks that encourage the growth of Islamic finance. Even during the COVID-19 pandemic, Indonesia's Islamic institutions' financial assets (excluding Islamic stocks) grew 15.87% (yoy) to US$151.03 billion (OJK, 2022). These frameworks have provided a solid foundation for the development of a robust Islamic financial sector, facilitating the creation and operation of institutions that adhere to Islamic principles. Institutions such as Islamic banks and Indonesia's National Zakat Agency (BAZNAS) have played a crucial role in mobilizing Islamic financial resources and integrating them into the broader financial system, thereby enhancing the accessibility and reach of sharia-compliant financial services nationwide.

The proliferation of these institutions has not only provided Muslims with financial services aligned with their religious beliefs. However, it has also attracted a diverse customer base seeking ethical and socially responsible investment options. The ethical underpinnings of Islamic finance, which emphasize fairness, transparency, and risk-sharing, have broad appeal in an increasingly socially conscious market. As a result, the growth of Islamic financial institutions highlights the increasing importance and potential of Islamic finance in the global financial landscape (Rethel, 2011). This expansion

underscores Islamic finance's ability to meet the needs of a wide array of investors and consumers, demonstrating its viability as a mainstream financial option that can contribute to the overall stability and inclusivity of the global economy.

Despite the significant progress, Islamic economics and financial institutions face several challenges that hinder their full potential (Ebrahim & Joo, 2001; Samad, 2012). One of the primary problems is the low level of awareness and understanding of Islamic financial principles among the general population and financial professionals. This often results in limited adoption and skepticism regarding the efficacy of sharia-compliant financial products. Additionally, the regulatory and legal frameworks in many countries are still evolving, creating inconsistencies and uncertainties that can impede the growth of Islamic finance. The need to standardize and harmonize Sharia interpretations across jurisdictions poses a challenge to the uniform application of Islamic financial principles. Addressing these issues requires concerted efforts from regulators, industry practitioners, and scholars to enhance education, regulatory clarity, and global cooperation in Islamic finance.

Furthermore, the range of products and services offered by Islamic banks is often narrower than that of conventional banks, which can deter potential customers seeking a broader array of financial solutions (Alzahrani, 2019). This limitation can make Islamic banks less competitive and less attractive to a wider audience (Kazak et al., 2023). Additionally, Islamic banks face challenges related to human resources, as there is often a shortage of professionals who are both well-versed in sharia principles and skilled in modern banking practices. This gap in expertise can impact the operational efficiency and innovation capacity of Islamic financial institutions. The lack of qualified human resources in this industry can be an obstacle to growth and sustainability (Jan et al., 2021). To overcome these challenges, comprehensive training programs and educational initiatives are needed to develop a workforce proficient in Islamic finance. By addressing these limitations, Islamic financial institutions can enhance their competitiveness and better meet their customers' needs.

Islamic finance, encompassing Islamic banking financing, Islamic mutual funds, Islamic pawnshops, and ZIS, has substantial potential to boost economic growth by promoting financial inclusion, ethical investment, and equitable wealth distribution. ZIS directly addresses poverty and inequality by redistributing wealth to support the underprivileged, thereby enhancing human capital and stimulating grassroots economic activity. Islamic banking financing encourages entrepreneurship and business expansion through profit-and-loss sharing schemes, fostering innovation and economic resilience. Islamic mutual funds attract ethical investors, pooling capital for large-scale, sustainable projects that drive economic development. Islamic pawnshops provide accessible, interest-free financial solutions, enabling broader participation in economic activities. Together, these components of Islamic finance create a robust, inclusive financial system

that supports sustainable and equitable economic growth, aligning financial practices with social justice and ethical principles (Haruna et al., 2024; Muye & Hassan, 2016; Razak & Asutay, 2022).

Researching the influence of Islamic economics on economic growth is crucial for several reasons. Firstly, it provides empirical evidence on the effectiveness of Islamic financial instruments in promoting sustainable economic development, which can guide policymakers in formulating strategies that leverage these tools for economic growth. Secondly, it helps identify the strengths and weaknesses of current Islamic financial practices, offering insights into areas that require improvement and innovation. Thirdly, understanding the impact of Islamic economics on economic growth can foster greater acceptance and integration of Sharia-compliant financial products in the mainstream financial system, enhancing financial inclusion and stability. Ultimately, such research contributes to a deeper understanding of how Islamic economic principles can be harnessed to achieve broader economic and social objectives, benefiting not only Muslim-majority countries but the global economy.

Numerous studies have found a positive relationship between Islamic financial institutions, especially Islamic banking, and economic growth (see Boukhatem & Moussa, 2018; Hassan et al., 2023; Imam & Kpodar, 2016; Ledhem & Mekidiche, 2022a; Majid & Kassim, 2015; Mensi et al., 2020). However, existing literature remains limited in two key respects. First, most prior studies focus narrowly on Islamic banking, overlooking other Islamic financial institutions. Second, most studies rely on standard regression approaches that cannot distinguish between short-run dynamics and long-run equilibrium relationships. To fill these gaps, this study offers two distinct contributions. First, it provides a more comprehensive examination of Indonesia's Islamic financial sector by simultaneously incorporating Islamic banking financing, Islamic mutual funds, Islamic pawnshops, and ZIS as explanatory variables. Second, this study employs the Error Correction Model (ECM), which enables simultaneous estimation of short- and long-term effects, thereby providing a more nuanced and dynamic understanding of how Islamic financial institutions contribute to economic growth across different time horizons.

Method

This research aims to examine and provide empirical evidence on the influence of Islamic finance on Indonesia's economic growth, using quarterly data from 2014 to 2022. Given the use of time-series data, it is essential to assess data stationarity to mitigate the risk of spurious regression (Gujarati, 2018). Should the data exhibit non-stationarity, indicative of a unit root, subsequent steps will involve evaluating the degree of integration. Following this, a cointegration test will be conducted to assess long-term equilibrium, and an Error Correction Model (ECM) analysis will be conducted to assess

short-term deviations from equilibrium (Liu et al., 2024). The analytical framework will commence with a unit root test, with further assessment of the degree of integration if non-stationarity is detected. Subsequently, a cointegration test and ECM approach will be employed to provide insights into the long-term balance and short-term dynamics of the relationship between Islamic finance and Indonesia's economic growth.

To assess the stationarity of the research data, the Augmented Dickey-Fuller (ADF) test will be employed. The ADF test can be conducted in three ways: (a) at the level, (b) using first difference data, and (c) using second difference data. If the calculated ADF statistic exceeds the critical value, the data can be deemed stationary; conversely, if the ADF statistic is lower than the critical value, the data is considered non-stationary (Apergis & Payne, 2009). Time series data often presents challenges such as autocorrelation, which renders the data non-stationary. Consequently, achieving stationarity eliminates autocorrelation. Should the data remain non-stationary, further testing for a higher degree of integration will be conducted to achieve stationarity, followed by an Engle-Granger (EG) Cointegration test to assess the long-term relationship between variables (Akinyemi, 2023).

The ECM serves as a technique to address short-term imbalances towards long-term equilibrium, incorporating deviations from current long-term conditions in the short term (Phillips, 1989). In this study, the ECM will be utilized, acknowledging the tendency of economies to experience imbalances. It is assumed that economic agents continuously encounter discrepancies between planned and actual outcomes, often due to the presence of shock variables. By employing the ECM, this research aims to analyze and correct short-term deviations from long-term equilibrium, thereby providing insights into the dynamic relationship between Islamic finance and Indonesia's economic growth. The relationship between variables can be formulated as follows:

$$Growth_t = f(IB_t, IMF_t, IPS_t, ZIS_t) \quad \text{i}$$

The long-term equation in this research is:

$$Growth = \beta_0 + \beta_1 LOG\_IB + \beta_2 LOG\_IMF + \beta_3 LOG\_IPS + \beta_4 LOG\_ZIS \quad \text{ii}$$

Then the short-term equation is written as follows:

$$Growth = \beta_0 + \beta_1 DLOG\_IB + \beta_2 DLOG\_IMF + \beta_3 DLOG\_IPS + \beta_4 DLOG\_ZIS + ECT(-1) \quad \text{iii}$$

The dependent variable is Indonesia's economic growth (Growth), measured by the annual growth rate of real Gross Domestic Product (GDP). The independent variables are Islamic financial institutions, including Islamic banking (IB), Islamic mutual funds (IMF), Islamic pawnshops (IPS), and the Indonesian ***Zakat*** Institution (ZIS). All independent variables are consistently proxied by the total funds channeled to the economy by each type of institution. Specifically, Islamic banking is measured by the total financing disbursed by the consolidated Islamic banking industry, including 13 Islamic Commercial Banks (BUS),

20 Islamic Business Units (UUS), and 167 Islamic Rural Banks (BPRS). Islamic mutual funds are proxied by the total net asset value of 274 Islamic mutual fund products traded in the Islamic capital market, representing funds invested in Sharia financial instruments. Islamic pawnshops are measured by the total financing distributed through Sharia service units of PT Pegadaian. Meanwhile, ZIS are proxied by the total distribution of ***zakat, infaq***, and ***sadaqah*** funds managed by official institutions such as BAZNAS.

Result and Discussion

Stationarity Test Results (Unit Root Test)

The first stage of the ECM process is ensuring data stationarity, which is crucial for accurate, reliable results. This is typically achieved by applying the Augmented Dickey-Fuller (ADF) test. This widely used statistical test helps determine whether a time series variable is non-stationary and possesses a unit root. Ensuring stationarity is essential because non-stationary data can lead to spurious regression results that mislead the interpretation of relationships between variables. The ADF test tests the null hypothesis that a unit root is present in an autoregressive model. If the test rejects the null hypothesis, the data is considered stationary.

Table 1 shows that all data tested for stationarity at the level, such as Islamic banking financing, Islamic mutual funds, Islamic pawnshops, and ZIS, have not reached stationarity. This is caused by the absolute ADF statistic being lower than its 5% critical value and the probability exceeding 0.05. Based on these results, it can be concluded that, at this level of confidence, these variables exhibit unit roots or are not stationary.

Table 1. ADF Stationarity Test Results at Level

Variable	Augmented Dickey-Fuller Test			
	Level	Probability	CV 5 %	Conclusion
Growth	-1.139115	0. 6891	-2.948404	Not Stationary
LOG_IB	-2.374058	0.1565	-2.954021	Not Stationary
LOG_IMF	-1.439162	0.5516	-2.951125	Not Stationary
LOG_IPS	-1.036423	0.7288	-2.951125	Not Stationary
LOG_ZIS	0.641953	0.9882	-2.981038	Not Stationary

Source(s): Authors' calculations.

Integration Degree Test Results

The data in the research do not exhibit stationarity or a unit root; a stationarity test will be carried out by differentiation, also known as the degree-of-integration test. The Augmented Dickey-Fuller (ADF) test is then processed at the first or second level of differentiation. The test results are presented in Table 2.

Table 2. Results of ADF Stationarity Testing at the Second Difference Level

Variable	Augmented Dickey-Fuller Test			
	Second Difference	Probability	CV 5 %	Conclusion
Growth	-7.966826	0.0000	-2.960411	Stationary
LOG_IB	-7.496028	0.0000	-2.954021	Stationary
LOG_IMF	-3.158457	0.0344	-2.981038	Stationary
LOG_IPS	-7.499864	0.0000	-2.954021	Stationary
LOG_ZIS	-8.720410	0.0000	-2.981038	Stationary

Source(s): Authors' calculations.

The ADF Stationarity Testing shows that all variables in the study are stationary at the second level of differentiation. This is evidenced by the fact that the absolute ADF statistic exceeds the 5% Mackinnon critical value, and the probability value is less than 0.05.

Cointegration Test Results

After verifying that all research variables do not exhibit unit roots or stationarity and have a uniform level of integration, the next step is to test whether the model exhibits a long-term relationship. This research uses the Engle-Granger cointegration test.

Table 3. Engle-Granger (EG) Cointegration Test Results

Test critical values	T-Statistic	Probability
Augmented Dickey-Fuller	-3.493276	0.0141
1% Level	-3.632900	
5% Level	-2.948404	
10% Level	-2.612874	

*MacKinnon (1996) one-sided p-values

Source(s): Authors' calculations.

Table 3 shows the absolute value of ADF > Critical Values (CV) 5% is -3.493276 > -2.948404. In addition, the probability value is 0.0141, indicating rejection of H_0. This shows that the residuals of the equation exhibit stationary properties at an integration order of 2. Thus, each variable can be considered cointegrated or exhibit a long-term relationship. From the cointegration test results, it cannot be concluded that there is a short-term relationship between these variables, even though there are indications of a long-term relationship. Therefore, to assess the existence of a relationship between variables in short-term research, testing using the ECM test is needed.

Long-Term Estimation Results

Table 4 shows that the long-term constant is -2.002533, indicating that, when the independent variable remains constant, economic growth decreases by 2.002533%. The

long-term coefficient determined by LOG_IB is 11.88422 with a significance level of 0.0420 at α 0.05%. This shows that there is a long-term correlation between economic growth and Islamic banking financing. Specifically, if Islamic banking financing increases by 1%, then economic growth is estimated to increase by 11.88422% over the next 9 years.

Table 4. Long Term Estimation

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LOG_IB	11.88422	5.602920	2.121077	0.0420
LOG_IMF	-15.06850	4.549403	-3.312192	0.0024
LOG_IPS	11.28136	8.137203	2.615316	0.0136
LOG_ZIS	8.830006	5.000006	-1.765269	0.0074
C	-2.002533	63.51124	-1.924907	0.0635

Source(s): Authors' calculations.

The long-term coefficient from LOG_IMF is -15.06850, with a significance level of 0.0024 at the 0.05% confidence level. This shows a long-term correlation between economic growth and Islamic mutual funds. If the value of Islamic mutual funds increases by 1%, economic growth is projected to decrease by 15.06850% over 9 years. The long-term value coefficient for LOG_IPS is 11.28136, with a p-value of 0.0136 at the 0.05% significance level. This shows that there is a long-term correlation between economic growth and Islamic pawnshops. Thus, every 1% increase in the Islamic pawnshop variable is estimated to increase economic growth by 11.28136% in 9 years. The LOG_ZIS coefficient is 8.830006 with a p-value of 0.0074, indicating significance at the α level of 0.05%. This shows that there is a long-term relationship between economic growth and ZIS, meaning that a 1% increase in ZIS can boost economic growth by 8.830006% over 9 years.

Short Term Estimation Results

The short-term equation is known as the ECT value, a variable that measures economic growth in Indonesia. This can indicate whether the model specification is good by the significance level of the error correction coefficient. If ECT is significant and the ECT coefficient is negative, then the model specification is valid.

Table 5. Short Term Estimates

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LOG_IB)	10.1135	23.5339	-0.429742	0.0206
D(LOG_IMF)	-8.556429	10.08163	-0.848715	0.403
D(LOG_IPS)	12.4254	38.35351	0.32397	0.7483
D(LOG_ZIS)	2.210006	2.640005	0.083475	0.934
ECT(-1)	-0.645075	0.178107	-3.621832	0.0011
C	-0.001416	1.294333	-0.001094	0.9991

Source(s): Authors' calculations.

The ECT coefficient is -0.645075, indicating that economic growth reaches balance within one year. The ECT coefficient is negative, indicating that the variables Islamic banking financing, Islamic mutual funds, Islamic pawnshops, and ZIS are above their equilibrium values. So, the variables, Islamic banking financing, Islamic mutual funds, Islamic pawnshops, and ZIS will increase in the coming period. To adjust for imbalances in the short and long term, the ECT probability value of 0.0011 is sufficient to achieve significance at the 5% confidence level. Therefore, it can be concluded that the ECM model used in this research has met validity.

The short-term coefficient value of DLOG_IB is 10.11350, with a probability of 0.0206, indicating significance at the α level of 0.05. This suggests a short-term equilibrium between sharia banking financing and economic growth. In contrast, the short-term coefficient for DLOG_IMF is -8.556429, with a p-value of 0.4030, indicating no significant relationship between the Islamic mutual fund variable and economic growth at the α level of 0.05. Similarly, the coefficient value for DLOG_IPS in the short term is 12.42540, with a probability of 0.7483, further indicating insignificance at the α level of 0.05. This shows no significant short-term relationship between sharia pawnshop variables and economic growth. Finally, the short-term coefficient for DLOG_ZIS is 2.210006, with a probability of 0.9340, suggesting no significant relationship between the ZIS variable and economic growth at the α level of 0.05, thereby implying the absence of a short-term equilibrium between the two.

Islamic Bank on Economic Growth

The positive and significant impact of Islamic banking financing on economic growth, both in the short and long terms, can be explained within the framework of financial intermediation theory. Islamic banks act as intermediaries, mobilizing funds from surplus units to deficit units through Sharia-compliant financing contracts. An increase in financing implies a greater flow of funds into productive economic activities, such as investment, business expansion, and consumption, which in turn stimulates aggregate demand and enhances output. In addition, the profit-and-loss-sharing principles embedded in Islamic finance encourage risk-sharing and promote more efficient resource allocation, thereby supporting sustainable economic growth in both the short and long run. Empirically, this finding is consistent with the research by Kazak et al. (2023), which demonstrates that Islamic banking financing exerts a positive and significant influence across both time frames. Furthermore, Billah et al. (2024) noted that Islamic banking financing has a substantial positive impact on Indonesia's long-term economic growth. Supporting this, studies by Doruk (2023), Marzuki et al. (2023), and Adalessossi (2023) also confirm that Islamic banks' financing distribution positively affects GDP and stimulates economic activity.

Islamic banks cater to a segment of the population that may avoid conventional banking for religious reasons. By offering Sharia-compliant financial products, these banks enhance financial inclusion, allowing more individuals and businesses to participate in the formal financial system. This increased participation boosts savings, investments, and overall economic activity. Islamic banking principles emphasize profit-and-loss sharing, which encourages a more equitable distribution of risk between lenders and borrowers. Financial products such as ***mudarabah*** (profit-sharing) and ***musharakah*** (joint venture) align the interests of both parties, promoting responsible borrowing and lending. This alignment reduces the likelihood of financial crises and contributes to economic stability. Additionally, by focusing on real economic activities and avoiding speculative transactions, Islamic banks promote investments that lead to tangible economic growth. This emphasis on real assets and productive ventures helps build infrastructure, create jobs, and enhance economic resilience.

Islamic Mutual Fund on Economic Growth

The insignificant short-run effect and the negative long-run impact of Islamic mutual funds on economic growth can be understood through the lens of financial intermediation and capital market development theory. In principle, mutual funds function as indirect financial intermediaries that channel savings into financial assets rather than directly into real sector activities. In the short term, this mechanism may not immediately translate into real economic expansion, as investments are often concentrated in secondary markets and financial instruments, resulting in limited direct impact on output. Moreover, the lack of promotion and the tendency toward low investor interest among Indonesians are evident in the difference in Net Asset Value (NAV) between conventional and Islamic mutual funds, with the former being higher.

In the long run, the negative effect may reflect inefficiencies in fund allocation or the dominance of portfolio investment in less productive or speculative assets, which can crowd out real-sector investment. Additionally, if Islamic mutual fund investments are heavily concentrated in a limited set of Sharia instruments, this may reduce diversification and limit their contribution to broader economic growth. Stricter investment criteria, including prohibitions on certain sectors such as conventional banking, gambling, and others. This can reduce the diversity of investments available in a portfolio, thereby reducing diversification potential. Therefore, an increase in Islamic mutual funds does not necessarily lead to higher economic growth and may even exert a negative effect over time. This finding is consistent with research by Yesuf and Aassouli (2020), El-Masry et al. (2016), and Reddy et al. (2017), which indicates that Islamic mutual funds exert an influence, albeit not significantly. Likewise, Chowdhury et al. (2024) found that Islamic mutual funds do not have a significant effect on short-term economic growth.

Islamic Pawnshops on Economic Growth

The insignificant short-run effect and the positive long-run impact of Islamic pawnshops on economic growth can be explained through the framework of financial inclusion and microfinance theory. Islamic pawnshops primarily provide short-term, collateral-based financing to underserved, liquidity-constrained individuals and microenterprises. In the short term, this type of financing is often used for consumption purposes or urgent liquidity needs, which limits its direct contribution to productive investment and aggregate output. As a result, Islamic pawnshops do not have a significant immediate impact on economic growth.

However, in the long run, repeated access to such financing can enhance financial inclusion, support micro- and small-business activities, and facilitate grassroots-level capital accumulation. As these small-scale economic activities expand over time, they contribute to increased income generation, employment, and overall economic development. Therefore, the role of Islamic pawnshops becomes increasingly pronounced over the long term, with a positive and significant impact on economic growth. The results of this research align with those of Razak and Asutay (2022), who state that Islamic pawnshops have a significant positive effect on long-term economic growth in Indonesia.

ZIS on Economic growth

The contribution of ZIS to economic growth can be explained within the framework of redistribution theory and Islamic social finance. ZIS functions as a redistributive instrument, transferring resources from higher-income to lower-income groups, thereby increasing purchasing power, stimulating consumption, and promoting inclusive economic development. However, the effectiveness of ZIS depends not only on the amount collected but also on how efficiently it is distributed and whether it is allocated for consumptive or productive purposes.

The results show that, in the short term, ZIS has no significant effect on economic growth. This can be explained by the fact that ZIS is mainly allocated to essential consumption, including basic goods and household necessities, thereby limiting its direct contribution to productive economic activities and aggregate growth. As a result, the effect of ZIS on economic growth is not immediate but occurs with a time lag. This finding is supported by Syakir et al. (2021), who find no significant effect of ZIS on Indonesia's economic growth. Saad et al. (2014) also state that, despite high levels of ZIS collection, distribution is not optimal, thereby limiting the economic impact of zakat.

Moreover, ZIS distribution can be categorized into two types, namely consumptive and productive, both of which have the potential to generate multiplier effects in the economy. However, in practice, the distribution of ZIS in Indonesia remains uneven across institutions. Despite the presence of many zakat institutions, there is no uniformity in

collection and distribution efforts, and each institution tends to prioritize different allocations. These disparities may reduce ZIS's overall effectiveness in stimulating economic activity, particularly in the short term. In addition, data limitations, where this study relies only on central BAZNAS data, may not fully capture the total distribution of ZIS across institutions, thereby potentially underestimating its actual impact on economic growth.

In the long term, when ZIS is allocated more effectively, particularly toward productive activities such as microbusiness support, education, and capacity building, it can enhance income generation, improve human capital, and sustain economic growth. Therefore, ZIS exhibits a positive and significant impact on economic growth in the long run. This finding is supported by Ali et al. (2022), who show that zakat assistance positively and significantly affects economic well-being and functions as an effective income transfer mechanism.

Conclusion

This study evaluates the impact of Islamic finance, specifically Islamic banking, Islamic mutual funds, Islamic pawnshops, and ZIS, on Indonesia's economic growth in both the short and long term using the ECM approach. The findings indicate that, in the short term, Islamic banking financing positively and significantly influences economic growth, while Islamic mutual funds, Islamic pawnshops, and ZIS do not show significant effects. In the long term, Islamic banking financing, Islamic pawnshops, and ZIS contribute positively and significantly to economic growth.

These findings support financial intermediation theory and Islamic social finance theory, suggesting that Islamic financial institutions contribute to economic growth by channeling funds into the economy. However, their impacts differ across time horizons. The results also highlight that redistribution-based instruments, such as ZIS, tend to produce delayed effects, underscoring the importance of distinguishing between short- and long-term transmission mechanisms in Islamic finance.

Given the significant positive impact of Islamic banking financing on economic growth in both the short and long term, policymakers should strengthen the regulatory framework supporting Islamic banking, ensuring robust governance, transparency, and risk management practices. Furthermore, public awareness campaigns should be implemented to increase the adoption of Islamic financial services. Although Islamic mutual funds, Islamic pawnshops, and ZIS do not show significant short-term effects, their positive long-term contributions suggest that policies promoting their development and integration into the broader financial system can enhance their overall impact.

This study has several limitations. First, the analysis is based on aggregated national-level data, which may not fully capture variations across regions or institutions. Second,

the measurement of ZIS is limited to available institutional data, which may not reflect the total distribution of zakat funds in Indonesia. Future research is therefore encouraged to employ more disaggregated data at the regional or institutional level to capture better heterogeneity in the impact of Islamic finance on economic growth. In addition, further studies could incorporate more comprehensive measures of ZIS, including data from multiple zakat institutions, to better reflect its actual economic contribution. Expanding the sample period and employing alternative econometric approaches may also improve the robustness and generalizability of the findings.

References

Adalessossi, K. (2023). Impact of E-Banking on the Islamic bank profitability in Sub-Saharan Africa: What are the financial determinants? ***Finance Research Letters, 57***(March), 104188. https://doi.org/10.1016/j.frl.2023.104188.

Akinyemi, Y. C. (2023). Air cargo demand in Africa: Application of cointegration and error correction modelling techniques. ***Journal of Air Transport Management, 109***(October 2022), 102399. https://doi.org/10.1016/j.jairtraman.2023.102399.

Al Fathan, R., & Arundina, T. (2019). Finance-growth nexus: Islamic finance development in Indonesia. ***International Journal of Islamic and Middle Eastern Finance and Management***, ***12***(5), 698–711. https://doi.org/10.1108/IMEFM-09-2018-0285.

Alhammadi, S. (2022). Analyzing the role of Islamic finance in Kuwait regarding sustainable economic development in COVID-19 era. ***Sustainability (Switzerland), 14***(2), 701. https://doi.org/10.3390/su14020701.

Ali, A. F. M., Zal, W. A. A., Hamid, N. A., Anuar, T. F. T., Salleh, H. M., & Siti, S. A. (2022). The moderating effect of zakāh distribution on the economic well-being of the poor: An analysis in Kelantan, Malaysia. ***Journal of King Abdulaziz University, Islamic Economics, 35***(1), 75–97. https://doi.org/10.4197/Islec.35-1.5.

Alzahrani, M. (2019). Islamic corporate finance, financial markets, and institutions: An overview. J***ournal of Corporate Finance, 55***(November 2018), 1–5. https://doi.org/10.1016/j.jcorpfin.2018.11.008.

Apergis, N., & Payne, J. E. (2009). Energy consumption and economic growth in Central America: Evidence from a panel cointegration and error correction model. ***Energy Economics, 31***(2), 211–216. https://doi.org/10.1016/j.eneco.2008.09.002.

Billah, M., Hadhri, S., Hoque, M. E., & Balli, F. (2024). A multi-dimensional connectedness and spillover between green bond and Islamic banking equity: Evidence from country level analysis. ***Pacific Basin Finance Journal, 83***, 102258. https://doi.org/10.1016/j.pacfin.2024.102258.

Bitar, M., Madiès, P., & Taramasco, O. (2017). What makes Islamic banks different? A multivariate approach. ***Economic Systems, 41***(2), 215–235. https://doi.

org/10.1016/j.ecosys.2016.06.003.

Boukhatem, J., & Moussa, F. B. (2018). The effect of Islamic banks on GDP growth: Some evidence from selected MENA countries. ***Borsa Istanbul Review, 18***(3), 231–247. https://doi.org/10.1016/j.bir.2017.11.004.

Chowdhury, M. I. H., Balli, F., & de Bruin, A. (2024). Investment styles of Islamic equity funds. ***International Review of Economics and Finance, 89***(PB), 172–187. https://doi.org/10.1016/j.iref.2023.10.012.

Doruk, Ö. T. (2023). Does Islamic banking reduce the risks of COVID-19 for SMEs? Novel evidence for SME financing in the pandemic period for an emerging market. ***International Journal of Disaster Risk Reduction, 91***(February). https://doi.org/10.1016/j.ijdrr.2023.103664.

Ebrahim, M. S., & Joo, T. K. (2001). Islamic banking in Brunei Darussalam. ***International Journal of Social Economics, 28***(3–4), 314–337.

El-Masry, A. A., de Mingo-López, D. V., Matallín-Sáez, J. C., & Tortosa-Ausina, E. (2016). Environmental conditions, fund characteristics, and Islamic orientation: An analysis of mutual fund performance for the MENA region. ***Journal of Economic Behavior and Organization, 132***, 174–197. https://doi.org/10.1016/j.jebo.2016.10.015.

Gujarati, D. (2018). Econometrics by Examples. In ***Analytical Biochemistry (Vol. 11, Issue 1)***. Palgrave Macmillan.

Hałaj, G., Martinez-Jaramillo, S., & Battiston, S. (2024). Financial stability through the lens of complex systems. ***Journal of Financial Stability, 71***(December 2023), 101228. https://doi.org/10.1016/j.jfs.2024.101228.

Hamdan, R. S., & Al-Malkawi, H.-A. N. (2024). Performance of mutual fund during the global financial crisis: Evidence from Saudi Arabia. ***BUiD Doctoral Research Conference 2023, 455–463.*** Springer Nature Switzerland. https://doi.org/10.1007/978-3-031-56121-4_43.

Hanif, M. (2011). Differences and similarities in Islamic and conventional banking. ***International Journal of Business and Social Science, 2***(2), 55–70. https://doi.org/10.4337/9781783476138.00010.

Haruna, A., Oumbé, H. T., Kountchou, A. M., & Kakeu, C. B. P. (2024). Can Islamic finance enhance the innovation capacity of Cameroonian SMEs? Empirical evidence based on a multivariate probit approach. ***Borsa Istanbul Review, 24***(1), 187–200. https://doi.org/10.1016/j.bir.2023.11.006.

Hassan, M. K., Kazak, H., Adıgüzel, U., Gunduz, M. A., & Akcan, A. T. (2023). Convergence in Islamic financial development: Evidence from Islamic countries using the Fourier panel KPSS stationarity test. ***Borsa Istanbul Review, 23***(6), 1289–1302. https://doi.org/10.1016/j.bir.2023.09.006.

Herianingrum, S., Supriani, I., Sukmana, R., Effendie, E., Widiastuti, T., Fauzi, Q., & Shofawati, A. (2024). Zakat as an instrument of poverty reduction in Indonesia.

Journal of Islamic Accounting and Business Research, 15(4), 643–660. https://doi.org/10.1108/JIABR-11-2021-0307.

Hoepner, A. G. F., Rammal, H. G., & Rezec, M. (2011). Islamic mutual funds' financial performance and international investment style: Evidence from 20 countries. ***European Journal of Finance, 17***(9–10), 829–850. https://doi.org/10.1080/1351847X.2010.538521.

Imam, P., & Kpodar, K. (2016). Islamic banking: Good for growth? In ***IMF Working Papers (Vol. 59, Issue December)***. https://doi.org/10.1016/j.econmod.2016.08.004.

Jan, A. A., Lai, F.-W., & Tahir, M. (2021). Developing an Islamic corporate governance framework to examine sustainability performance in Islamic banks and financial institutions. ***Journal of Cleaner Production, 315***, 128099. https://doi.org/10.1016/j.jclepro.2021.128099.

Jaas, A. (2022). The importance of the Islamic economy and finance in combating poverty and unemployment. ***Technium Business and Management, 2***(1), 68–79. https://doi.org/10.47577/business.v2i1.6241.

Kazak, H., Uluyol, B., Akcan, A. T., & İyibildiren, M. (2023). The impacts of conventional and Islamic banking sectors on real sector growth: Evidence from time-varying causality analysis for Turkiye. ***Borsa Istanbul Review, 23***, S15–S29. https://doi.org/10.1016/j.bir.2023.09.004.

Ledhem, M. A., & Mekidiche, M. (2022a). Islamic finance and economic growth: the Turkish experiment. ISRA ***International Journal of Islamic Finance, 14***(1), 4–19. https://doi.org/10.1108/IJIF-12-2020-0255.

Ledhem, M. A., & Mekidiche, M. (2022b). Islamic securities (□ukūk) and economic growth: New empirical investigation from Southeast Asia using non-parametric analysis of MCMC panel quantile regression. ***Islamic Economic Studies, 29***(2), 119–138. https://doi.org/10.1108/ies-06-2021-0020.

Liu, S., Wang, D., Xing, R., Ren, J., & Lu, W. (2024). Research on error correction model of surface acoustic wave yarn tension transducer based on DOA–SVR model. ***Measurement: Journal of the International Measurement Confederation, 226***(December 2023). https://doi.org/10.1016/j.measurement.2024.114126.

Lukonga, I. (2023). Monetary policy implications of central bank digital currencies: Perspectives on jurisdictions with conventional and Islamic banking systems. ***IMF Working Papers*** 2023, 060, https://doi.org/10.5089/9798400236532.001.

Majid, M. S. A., & Kassim, S. H. (2015). Assessing the contribution of Islamic finance to economic growth: Empirical evidence from Malaysia. ***Journal of Islamic Accounting and Business Research, 6***(2), 292–310. https://doi.org/10.1108/JIABR-07-2012-0050.

Marzuki, M. M., Majid, W. Z. N. A., & Rosman, R. (2023). Corporate social responsibility and Islamic social finance impact on banking sustainability post-COVID-19 pandemic.

Heliyon, 9(10), e20501. https://doi.org/10.1016/j.heliyon.2023.e20501.

McKinnon, R. I. (1973). ***Money and capital in economic development***. Brookings Institution.

Mensi, W., Hammoudeh, S., Tiwari, A. K., & Al-Yahyaee, K. H. (2020). Impact of Islamic banking development and major macroeconomic variables on economic growth for Islamic countries: Evidence from panel smooth transition models. ***Economic Systems, 44***(1), 100739. https://doi.org/10.1016/j.ecosys.2019.100739.

Muhammad, M., Khan, A., & Rehman, H. A. (2019). Islamic Finance and Economic Growth. ***Islamic Banking and Finance Review, 6,*** 23–38. https://doi.org/10.32350/ibfr.2019.06.02.

Muhammadi, F., Razif, N. F. M., & Rahim, R. A. B. A. (2021). Al-Rahn in Malaysia and Indonesia: Legal history and upcoming trajectory. ***Asy-Syir'ah: Jurnal Ilmu Syari'ah dan Hukum, 55***(1), 153-179. https://doi.org/10.14421/ajish.v55i1.1019.

Mukhlisin, M., Ismail, N., & Fikri, R. J. (2022). Mind the gap: Theories in Islamic accounting and finance, Islamic economics, and business management studies. ***ISRA International Journal of Islamic Finance, 14***(3), 333–348. https://doi.org/10.1108/IJIF-11-2019-0175.

Muye, I. M., & Hassan, A. F. S. (2016). Does Islamic insurance development promote economic growth? A panel data analysis. ***Procedia Economics and Finance, 35***(October 2015), 368–373. https://doi.org/10.1016/s2212-5671(16)00045-9.

Nasrat, N., Hamidi, R., Mubashir, A. R., & Safı, S. (2023). Ways to reduce poverty in the economic system of Islam. ***Integrated Journal for Research in Arts and Humanities, 3***(4), 113–120. https://doi.org/10.55544/ijrah.3.4.15.

OJK. (2022). Indonesian Sharia Financial Development Report. In ***Indonesian Sharia Financial Development Report***. https://ojk.go.id/id/kanal/syariah/data-dan-statistik/laporan-perkembangan-keuangan-syariah-indonesia/Pages/Laporan-Perkembangan-Keuangan-Syariah-Indonesia-2022.aspx

Phillips, P. C. B. (1989). Error Correction and Long Run Equilibrium in Continuous Time. ***Cowles Foundation Discussion Paper***, 882R.

Razak, A. A., & Asutay, M. (2022). Financial inclusion and economic well-being: Evidence from Islamic Pawnbroking (Ar-Rahn) in Malaysia. ***Research in International Business and Finance, 59***(September 20.21), 101557. https://doi.org/10.1016/j.ribaf.2021.101557

Reddy, K., Mirza, N., Naqvi, B., & Fu, M. (2017). Comparative risk adjusted performance of Islamic, socially responsible and conventional funds: Evidence from United Kingdom. ***Economic Modelling, 66***(July), 233–243. https://doi.org/10.1016/j.econmod.2017.07.007.

Rethel, L. (2011). Whose legitimacy? Islamic finance and the global financial order. ***Review of International Political Economy, 18***(1), 75–98. https://doi.org/10.1080/09692290902983999.

Saad, R. A. J., Aziz, N. M. A., & Sawandi, N. (2014). Islamic Accountability Framework in the Zakat Funds Management. ***Procedia - Social and Behavioral Sciences, 164***(August), 508–515. https://doi.org/10.1016/j.sbspro.2014.11.139.

Samad, A. (2012). Are Islamic bank promises delivered or failed? Evidence from cross country Islamic banks. ***Banks and Bank Systems***, ***7***(3), 97-102.

Shaw, E. S. (1973). ***Financial deepening in economic development***. Oxford University Press.

Siddiqui, S. (2011). Islamic Economic System and Poverty Reduction. SSRN Electronic Journal, 1-10. https://doi.org/10.2139/ssrn.1332618.

Surya, B., Menne, F., Sabhan, H., Suriani, S., Abubakar, H., & Idris, M. (2021). Economic growth, increasing productivity of SMEs, and open innovation. ***Journal of Open Innovation: Technology, Market, and Complexity, 7***(1), 1–37. https://doi.org/10.3390/joitmc7010020.

Syakir, M. F., Risfandy, T., & Trinugroho, I. (2021). CEO's social capital and performance of zakat institutions: Cross-country evidence. ***Journal of Behavioral and Experimental Finance, 31***, 100521. https://doi.org/10.1016/j.jbef.2021.100521.

Widiastuti, T., Mawardi, I., Zulaikha, S., Herianingrum, S., Robani, A., Al Mustofa, M. U., & Atiya, N. (2022). The nexus between Islamic social finance, quality of human resource, governance, and poverty. ***Heliyon, 8***(12), e11885. https://doi.org/10.1016/j.heliyon.2022.e11885.

Yesuf, A. J., & Aassouli, D. (2020). Exploring synergies and performance evaluation between Islamic funds and socially responsible investment (SRIs) in light of the Sustainable Development Goals (SDGs). ***Heliyon, 6***(8), e04562. https://doi.org/10.1016/j.heliyon.2020.e04562.