

The contribution of Islamic social finance to economic growth in Indonesia

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Abstract

Purpose – This study aims to identify the contribution of Islamic social finance (Zakat, Infaq, and Shadaqah or ZIS) to economic growth in Indonesia, both in the long-term and short-term models. Based on previous studies, government expenditure; investment; and trade openness are also included in the model as control variables.

Methodology – Annual time series data for 21 years from 2002 to 2022 were analyzed using the Error Correction Model (ECM) approach to determine the long-term and short-term effects of independent variables on economic growth.

Findings – The main findings of this study confirm that Islamic social finance (ZIS) is a financial instrument that benefits the economy. ZIS can be an alternative fund for overcoming various problems of the Muslim Ummah and revitalizing the economy, even more so in a country with a majority Muslim population like Indonesia where ZIS instruments such as Zakat are obligatory to be issued to able-bodied Muslims. The study results show that the effect of ZIS on economic growth in Indonesia is felt in the long term, while in the short term, it has no significant impact.

Implication – This research provides insight for related parties (especially National Board of Zakat/Badan Amil Zakat Nasional, BAZNAS) further to optimize the potential of ZIS into productive sectors to improve the economy.

Originality – Most previous studies used panel data with a limited period to estimate the effect of Islamic social finance on economic growth, while this research utilized time series data with the ECM approach for a longer period.

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Introduction

Economic growth is a benchmark that describes success in the economic development process of a country. Economic development is defined as the state's efforts to develop the economy in a better direction to improve people's welfare (Alghina et al., 2019). Economic growth measures the development of a country's economy from one period to the next period by looking at the country's ability to produce the product (goods or services) (Lewis, 2013). Suppose the quantity and quality

of goods produced by a country in the current period increases from the previous period. In that case, there is an increase in production output, indicating good economic growth in that country. The indicator used to measure economic growth at the country level is the Gross Domestic Product (GDP). GDP can be measured from the aggregate demand side by the amount of consumption issued by each state component (e.g., public; government; private sector; and trade openness) and the aggregate supply side in the form of output produced from each business field post.

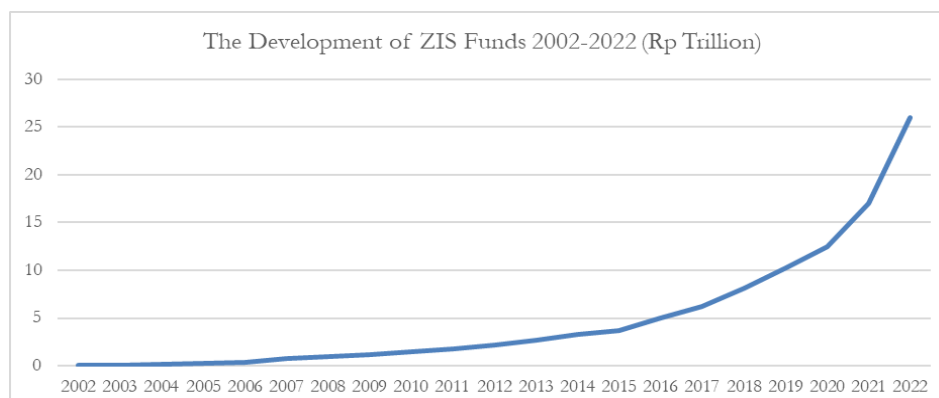
According to the Central Bureau of Statistics (BPS) (2022), the economic growth of Indonesia - as measured by GDP growth over the last 21 years (2002-2022) – has fluctuated (See Figure 1). During this period, Indonesia's economic growth was recorded around 4-6% per year, except for 2020 and 2021. The 2020 period was the initial period of the Covid-19 pandemic attacking the world economy, and the 2021 period was the initial period of economic recovery. Indonesia's economic growth declined from the previous period during the global economic crisis in 2008-2009.



Source: BPS data 2002-2022, processed

Figure 1. The Development of Indonesia's Economic Growth 2002-2022 (in %)

In Muslim-majority countries such as Indonesia, Islamic finance that originates from the public, such as *Zakab*, *Infaq*, and *Shadaqah* (ZIS), also has the potential funds to increase economic growth. *Zakab* is the third pillar in Islam, where every able Muslim must pay *zakat*, while *Infaq* and *Shadaqah* are recommended. ZIS can be another source of funding for the state to increase economic growth. Along with the increasing Muslim population in Indonesia, the amount of ZIS funds collected has also increased. According to the BAZNAS, ZIS funds collected in 2022 will reach IDR 26 trillion (BAZNAS, 2022). This amount has increased rapidly compared to 2 decades ago, which was only IDR 68.38 billion. The ZIS funds collected also increased yearly from 2002-2022 (See Figure 2). Even so, the ZIS funds collected are still far from the potential of reaching IDR 217 trillion per year.



Source: BAZNAS data 2002-2022, processed

Figure 2. The Development of ZIS Funds 2002-2022 (Rp Trillion)

Considering the potential of Islamic social finance funds (e.g ZIS), which can contribute to the country's economy, previous research has proven this empirically. Most studies focus on Muslim-majority countries such as Pakistan (Azam et al., 2014), Malaysia (Khasandy & Badrudin, 2019), eight selected Muslim countries (Jedidia & Guerbouj, 2020), and Indonesia (Alghina et al., 2019; Arwani & Wahdati, 2020; Athoillah, 2018; Munfaati & Noviarita, 2023; Putriani et al., 2020; Ridlo & Wardani, 2020; Ridlo et al., 2021; Ridwan & Pimada, 2019; Suhendar et al., 2022; Supratman & Asih, 2022; Suprayitno, 2020; Triyawan et al., 2022; Wardani & Al Arif, 2021). Although research on the contribution of ZIS on GDP growth continues to grow, most studies use panel data with limited period research. In addition, there are differences in research results in previous studies.

Therefore, considering that ZIS funds have the opportunity to increase economic growth and there is a research gap in previous studies, this study aims to determine the contribution of Islamic social finance represented by *Zakab*, *Infaq*, and *Shadaqah* to the GDP growth in Indonesia. This study uses a different methodological approach than previous studies, which mostly used panel data. This study utilizes annual time series data using the Error Correction Model (ECM) approach to analyze the long-term and short-term effects of ZIS funds on economic growth in Indonesia over a fairly long period (2002-2022). In addition, three other factors that influence economic growth according to Growth Theory (e.g., investment, government spending, and trade openness) are also tested in this study.

Literature Review

The Economic Growth Theory

Economic growth is generally defined as increasing the production of goods and services in a region within a certain period (Rosser, 2013). In Keynesian Growth Theory, the economic situation in a region is largely determined by aggregate demand, namely all expenditures spent by all levels of society to buy goods or services. If aggregate demand exceeds aggregate supply (all output produced), then the price of goods will rise due to a situation of production shortage. Conversely, if the aggregate supply is greater than the aggregate demand, there will be overproduction which causes the prices of goods and services to fall (Terra et al., 2021).

In an open economic system, Keynesian Growth Theory suggests that economic growth is strongly influenced by public consumption, company investment, government spending, and trade openness activities (export-import). In this case, Keynes developed a macroeconomic equation model as follows:

$$Y = C + I + G + (X - M) \quad (1)$$

Where:

Y : Economic growth

C : Public consumption

I : Investment

G : Government spending

X : Export

M : Import

The equation model above explains that if there is an increase in public consumption activities, investment by companies, government spending, and net exports, there will be an increase in the production of goods or services which are the main indicators of economic growth and vice versa.

According to the theory of economic growth, aggregate demand - a characteristic of economic growth in an open economic system - is influenced by four factors: public consumption, government spending, investment, and trade openness (Terra et al., 2021). These four factors are important in increasing the goods and services a country produces. If the public's consumption or purchasing power increases, it is a sign of an increase in product demand so that companies can increase their production of goods and services to meet demand (Kassi et al., 2019). In an economic

system, government spending can affect economic growth because some of the funds allocated by the government are used for infrastructure and economic access so that economic activities can run and companies can be more productive in producing goods and services (Onifade et al., 2020). In addition, investment activities can generate investments that can increase capital stock. With an increase in capital stock, companies can increase the productivity and quality of a product (Dinh et al., 2019). In addition, trade openness (export-import) can also affect a country's economic growth, especially if that country exports more products to other countries than imports. If the number of exports increases, it can mean that the demand for goods or services from other countries has increased. To meet the demand for foreign products, domestic companies must increase the production of goods and services (Raghutla, 2020).

Islamic Social Finance and Economic Growth

Islamic social finance is a part of Islamic finance that adheres to Islamic principles and laws. More specifically, Islamic social finance aims to provide Islamic financial services aimed at vulnerable communities so that they can achieve social and economic welfare (Hamed, 2020). Islamic social finance generally consists of three instruments: *Zakat*, *Infaq*, *Shadaqah* (ZIS), *waqf*, and Islamic microfinance (Hamed, 2020).

ZIS is an Islamic social financial instrument that has the potential to overcome the problems of the Ummah, such as poverty, and even the opportunity to generate economic growth in a country (Ridlo & Wardani, 2020). The amount of ZIS funds in Indonesia is increasing every year because Indonesia is the largest Muslim country population at this time. Based on BAZNAS data, the potential for ZIS funds in Indonesia reaches IDR 217 trillion per year or 3.4 percent of GDP. This value is predicted to continue to increase in line with increasing economic growth (Beik & Arsyianti, 2016). ZIS funds can be another financial instrument that can be used to increase economic growth. The ZIS funds can technically stabilize the financial condition of ZIS recipients to enable them to meet their basic needs (Putriani et al., 2020).

The ZIS distribution can influence the components of aggregate demand (eg public consumption, investment, and government spending), which are characteristic of economic growth (Jedidia & Guerbouj, 2020). First, the ZIS funds, which are distributed to the poor encourage an increase in their consumption. ZIS also creates an equal income distribution between the rich and the poor. In this case, the rich can help the poor meet their needs to reduce poverty (Ibrahim & Shahrudin, 2015). Second, ZIS funds can be allocated to productive investments through economic development projects that comply with Islamic law and prioritize the welfare of the people (Choudhury & Harahap, 2008). The existence of the obligation to pay Zakat and the prohibition of interest in it can stimulate investment activity because the funds that are not invested will sooner or later run out entirely (Jedidia & Guerbouj, 2020). Third, the ZIS Fund can also be another alternative that replaces some government spending while simultaneously increasing government spending (Shirazi, 2014).

Previous research regarding the influence of Islamic social finance, such as ZIS on economic growth has been developed in many countries, such as Pakistan (Azam et al., 2014), Malaysia (Khasandy & Badrudin, 2019), eight selected Muslim countries (Jedidia & Guerbouj, 2020), and Indonesia (Alghina et al., 2019; Arwani & Wahdati, 2020; Athoillah, 2018; Munfaati & Noviarita, 2023; Putriani et al., 2020; Ridlo & Wardani, 2020; Ridlo et al., 2021; Ridwan & Pimada, 2019; Suhendar et al., 2022; Supratman & Asih, 2022; Suprayitno, 2020; Triyawan et al., 2022; Wardani & Al Arif, 2021). Most studies find that Islamic social financial instruments (e.g ZIS) have a positive and significant effect on economic growth, but on the other hand, Islamic social finance has no significant effect (Munfaati & Noviarita, 2023; Ridlo & Wardani, 2020). ZIS negatively influences economic growth (Khasandy & Badrudin, 2019; Suhendar et al., 2022).

Based on the results of a theoretical study regarding the effect of Islamic social finance (ISF) in the form of ZIS on economic growth and supported by the results of previous studies, this research develops the following hypothesis:

H₁: ISF or ZIS has positive and significant effect on Indonesia's economic growth during 2002-2022

H₀: ISF or ZIS has no significant effect on Indonesia's economic growth during 2002-2022

Research Methods

Annually time series data with 21 years period from 2002-2022 is used in this study. Secondary data sources come from BPS and BAZNAS. The data collection technique uses documentation techniques in which raw data is obtained by downloading data from the official BPS and BAZNAS websites and then tabulated according to the specified variable measurements. Economic growth is the dependent variable, and Islamic social finance is represented by *Zakat*, *Infaq*, and *Shadaqah* (ZIS) as the independent variable. ZIS data is obtained from the BAZNAS annual report. In the last annual report, BAZNAS published data on ZIS funds from 2002-2021, while data for 2022 has yet to be published. Data for 2022 was obtained by researchers from the BAZNAS website, which stated that ZIS funds in 2020 collected IDR 26 trillion (baznas.go.id). The technique for calculating ZIS funds is to add up each ZIS component in the form of *Zakat*, *Infaq*, and *Shadaqah*. In addition, investment, government spending, and trade openness are positioned as control variables. All variables are explained in detail in Table 1.

Table 1. Summary of Operational Variables

Type of Variables	Name (Symbol)	Variable Definition	Hypothesis	Source of Data
Dependent	Economic Growth (LogGDP)	The logarithm of the annual total GDP at Current Prices (ADHB) by expenditure	-	BPS
Independent	Islamic Social Finance (LogZIS)	The logarithm of the total annual collection ZIS funds	LogZIS (+)	BAZNAS
Control	Investment (LogINV)	The logarithm of the total annual Gross Domestic Fixed Capital Formation	Log(INV) (+)	BPS
	Government Expenditure (LogGOV)	The logarithm of total annual government spending	LogGOV (+)	BPS
	Trade Openness (LogTRADE)	The logarithm of the total value of annual exports and imports	Log(TRADE) (+)	BPS

This study used the Error Correction Model (ECM) for analyzing the data because the data is of secondary data type. The ECM method is used to see the effect of explanatory variables on the long and short-term dependent variables. The use of ECM for time series data in the econometric analysis is appropriate because this method can identify many variables to analyze economic phenomena in the long term. In addition, ECM can also examine the consistency of the model with econometric theory and can overcome the problem of non-stationary time series variables and linear regression. Before the ECM test, the data must meet the data stationarity and cointegration assumptions. In addition, if all variables are stationary at the same level of difference, then the ECM model can be applied. This study develops long-term and short-term equation models in the ECM method as follows:

The Long-Term ECM Equation Model

$$\text{Log}(GDP)_t = \beta_0 + \beta_1 \text{Log}(ZIS) + \beta_2 \text{Log}(INV) + \beta_3 \text{Log}(GOV) + \beta_4 \text{Log}(TRADE) + e_t \quad (2)$$

The Short-Term ECM Equation Model

$$D(\text{Log}(GDP))_t = \beta_0 + \beta_1 D(\text{Log}(ZIS)) + \beta_2 D(\text{Log}(INV)) + \beta_3 D(\text{Log}(GOV)) + \beta_4 D(\text{Log}(TRADE)) + \gamma e_{t-1} + v_t \quad (3)$$

Where: Log(GDP), Log(ZIS), Log(INV), Log(GOV), and Log(TRADE) are the dependent and independent variables. D(Log(GDP)), D(Log(ZIS)), D(Log(INV)), D(Log(GOV)), and D(Log(TRADE)) are the differences between the dependent and independent variables. β_0 is a

constant. $\beta_1, \beta_2, \beta_3, \beta_4$ are the regression coefficients. e_t is the residual from the long-term ECM model. γe_{t-1} is the long-term residual of period t-1. v_t is the short-term ECM equation error.

Results and Discussion

Unit Root Test Results

Table 2. Unit Root Test Results

Variable	Prob. (Level)	Prob. (1 st Difference)	Prob. (2 nd Difference)
Log(GDP)	0.0322*	0.1977	0.0003*
Log(GOV)	0.0002*	0.9728	0.0005*
Log(INV)	0.0018*	0.4039	0.0001*
Log(TRADE)	0.0664*	0.0042*	0.0052*
Log(ZIS)	0.9891	0.0162*	0.0000*

*) Significance at 5%

The results of the unit root test using the Individual Fisher-ADF method show that at the level, there is one variable that is not stationary, namely ZIS (0.9891 > 5%), while at the 1st difference level, the only variables that are stationary are Log(TRADE) and Log(ZIS). Meanwhile, at the 2nd difference level, all variables are stated to be stationary, proven by a probability value of < 5%, so the assumption of data stationarity has been fulfilled (See Table 2).

Cointegration Test Results

Table 3. Cointegration Test Results

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.945457	135.9843	69.81889	0.0000*
At most 1 *	0.894376	80.71754	47.85613	0.0000*
At most 2 *	0.730526	38.00796	29.79707	0.0045*
At most 3	0.479259	13.09360	15.49471	0.1114
At most 4	0.035972	0.696061	3.841466	0.4041

*) Significance at 5%

Cointegration test results show that the probability value in the none* column is 0.000 < 5% and the Trace Statistical value is > 5% Critical Value (135.9843 > 69.81889) (See Table 3). This shows the cointegration or long-term relationship of all the variables included in the model.

Long-Term ECM Test Results

Table 4. Long-Term ECM Test Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.512167	1.186696	2.116942	0.0503*
Log(ZIS)	0.091174	0.034081	2.675243	0.0166**
Log(GOV)	0.672994	0.227355	2.960103	0.0092***
Log(INV)	-0.088361	0.220045	-0.401559	0.6933
Log(TRADE)	0.232931	0.111179	2.095097	0.0524*

***) Significance at 1%, **) Significance at 5%, *) Significance at 10%

Table 4 shows the results of the long-term ECM test, the probability value of the Log(ZIS) variable shows a figure of 0.0166 < 5%, with a coefficient of 0.091174. This means that Islamic social finance as measured by ZIS has a positive and significant influence on economic growth in Indonesia in the long term. Thus, H1 is declared accepted and H0 is rejected. For every ZIS increase of 1%, in the long term, it will be followed by an increase in GDP of 0.091174%. Two other independent variables, namely Log(GOV) and Log(TRADE) have proven to have a positive and significant effect on economic growth in the long term, while the variable Log(INV) has not

proven to have a significant effect. This is evidenced by the respective probability values of $0.0092 < 1\%$ with a regression coefficient of 0.672994 for Log(GOV), $0.0524 < 10\%$ with a regression coefficient of 0.232931 for Log(TRADE), and $0.6933 > 1\%$, 5% and 10% for Log(INV). If the variable government spending increases by 1%, then in the long run there will be an increase in GDP of 0.672994%, while if there is an increase in the value of trade openness by 1%, then in the long-term GDP will also increase by 0.232931%. In this study, a constant of 2.512167 means that if the four independent variables have a value of 0, then the economic growth variable has a value of 2.512167. The R-square and Adjusted R-square values show a number of 0.997. That means the four independent variables in the model can describe the economic growth variable by 99.7%, while the other 0.3% is explained by other variables not examined in this study. The probability value of the F-statistic with the F-statistic of 1683,040 shows $0.000 < 5\%$, which means that all explanatory variables have a significant effect on economic growth if tested simultaneously.

Short-Term ECM Test Results

Table 5. Short-Term ECM Test Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.018522	0.005751	3.220412	0.0062***
D(Log(ZIS))	0.011318	0.037287	0.303547	0.7659
D(Log(GOV))	0.215703	0.131749	1.637227	0.1239
D(Log(INV))	0.194576	0.140243	1.387417	0.1870
D(Log(TRADE))	0.173349	0.048484	3.575387	0.0030***
Resid01(-1)	-0.516518	0.160750	-3.213176	0.0063***

***) Significance at 1%, **) Significance at 5%, *) Significance at 10%

Source: Secondary data processed, 2023

Table 5 shows the short-term ECM regression estimation model, the Islamic social finance variable in the form of ZIS [D(Log(ZIS))] does not show a significant effect on GDP growth. This is indicated by the probability values of $0.7659 > 1\%$, 5% , and 10% , even though the regression coefficient is positive. Thus, H_0 is accepted, and H_1 is rejected. The government spending variable [D(Log(GOV))] has no significant effect on economic growth in the short term because the probability value of this variable is $0.1239 > 10\%$, although the regression coefficient is 0.215703. The investment variable [D(Log(INV))] does not show a significant effect on GDP growth in the short term because the probability value of this variable is $0.1870 > 1\%$, 5% , and 10% . Meanwhile, the probability value of the trade openness variable [D(Log(TRADE))] is $0.0030 < 1\%$ with a regression coefficient of 0.173349, which means that in the short term, trade openness has a positive and significant effect on GDP growth. If the value of trade openness increases by 1%, then in the short term, GDP will increase by 0.173349%. Based on the short-term ECM regression estimation results, the probability value for Resid01(-1) is $0.0063 < 1\%$, with a regression coefficient of -0.516518. This indicates that the model is valid. The Adjusted R-square value of 0.864013 indicates that in the short-term ECM model, all independent variables included in the model can explain the economic growth variable of 86.4013%, while the rest is explained by other variables not examined in this study. Prob (F-Statistics) with an F-Statistics value of 25.14384 shows the number $0.000002 < 1\%$, so all independent variables significantly affect economic growth in the short-term model if tested simultaneously.

Discussion

The results of this study show that in the long term, ZIS funds have a positive and significant effect on GDP growth in Indonesia. For every ZIS increase of 1%, it will be followed by an increase in GDP of 0.091174% in the long term. Based on the tabulated data results, the amount of ZIS funds collected has increased significantly in the last 21 years. If in 2002, ZIS funds collected were only IDR 68.38 billion, then in 2022, the amount will increase to IDR 26 trillion. According to Beik & Arsyanti (2016), increased ZIS funds will be followed by increased economic growth. ZIS funds can be distributed to Muslim communities in need. With the distribution of the ZIS funds, the

Muslim community who cannot afford it can still meet their needs so that consumption activity which is an indicator of economic growth, continues (Jedidia & Guerbouj, 2020). ZIS encourages the consumption of poor Muslim communities and creates income equality (Ridlo et al., 2021). Besides that, according to (Alghina et al., 2019), ZIS can also be distributed as business capital to MSME actors through BAZNAS. With the distribution of ZIS funds, MSME actors can increase their business production so that, in the long run, the aggregate number of products (goods and services) produced by business actors can be increased.

Nonetheless, in the short term, ZIS funds do not significantly affect economic growth in Indonesia. This is possible because the ZIS funds in Indonesia tend to be allocated more to the consumer sector, so the effect on economic growth is less impactful in the short term (Triyawan et al., 2022). Although the ZIS funds have increased yearly, the percentage increase has yet to be consistent and is still far from its potential. This is because the awareness of the Muslim community in paying ZIS is still low, and the proportion of zakat givers and recipients is still unequal, with a ratio of 862 ZIS givers to 1,292,246 ZIS recipients (Munfaati & Noviarita, 2023).

Government spending as a control variable positively and significantly impacts GDP growth in the long term. If the variable government spending increases by 1%, then GDP will increase by 0.672994% in the long run. Based on the tabulated data results, government spending has significantly increased in the last 21 years. In 2002, recorded government spending was only IDR 132 trillion, but in 2022 the amount will increase by IDR 1500 trillion. This research proves that in the long term, government spending can create a total output level for the provision of public goods that are used as competitive production inputs to increase economic growth in the long term (Chu et al., 2020).

Nonetheless, in the short term, the variable government spending has no significant effect on increasing economic growth in Indonesia. This is possible because some government spending allocations in the short term tend not to be on target, and using funds tends to be inefficient (Olaoye & Afolabi, 2020). This impacts the funds allocated that are not on target so that, in the short term, they do not provide maximum results for economic growth (Munfaati, 2023).

The results of other studies prove that investment (the control variable) has no significant effect on GDP growth in the long or short term. Generally, investment has a long-term relationship with economic growth (Dinh et al., 2019). Investment can be in the form of additional stock of machinery and equipment, housing stock, or reserves (inventory). Investment in machinery and equipment has a stronger effect on economic growth than other investment components (Meyer & Sanusi, 2019). However, this physical investment is not the only determinant of economic growth. Literature on economic growth also finds evidence of the importance of human capital in increasing economic growth. The data shows that although the value of the investment as measured by the formation of gross domestic fixed capital tends to increase every year (except during the Covid-19 period), most of the investment is directed at the physical sector so that it does not have a significant impact on GDP growth (Azam et al., 2014) and (Triyawan et al., 2022). The results of the data tabulation show that in times of "crisis" (eg the Covid-19 pandemic), investment tends to follow economic growth—not ahead of it, and to decide on investment, entrepreneurs will look at growth prospects this year.

Trade openness can contribute to economic growth in many ways. The control variable in trade openness positively and significantly influences long-term and short-term economic growth. The results of the data tabulation show that the value of trade openness in both exports and imports tends to increase every year. If the value of exports and imports increases by 1%, then in the long and short term, the value of GDP increases by 0.232931% and 0.173349%, respectively. Thus, the high value of imports allows countries to expand business locally to increase sales. The high demand for a country's imports does not necessarily mean a failure to produce because economic growth demands the provision of materials, machinery, and other productivity measures (Jouini, 2015).

On the other hand, if a country exports machinery at a higher rate, that is also a good sign. High exports ensure productivity which is the hallmark of economic growth. Increasing export figures also means dominating regional or foreign markets (Manwa et al., 2019). In addition, the existence of trade openness also allows for the transfer of technology from one country to another,

or vice versa, so that with this technology, companies can increase their productivity (Jedidia & Guerbouj, 2020).

Conclusion

The findings of this study confirm that Islamic social finance (ZIS) is a financial instrument that benefits the economy. The study results show that the effect of ZIS on economic growth in Indonesia is felt in the long term, while in the short term, it has no significant impact. ZIS can be an alternative fund for overcoming various problems of the Muslim Ummah and revitalizing the economy even more so in a country with a majority Muslim population like Indonesia where ZIS instruments such as Zakat are obligatory to be issued to able-bodied Muslims. In addition, along with the increasing Muslim population in Indonesia, ZIS funds are predicted to continue to increase. Nonetheless, this research suggests that stakeholders managing ZIS funds continue increasing the Muslim community's awareness in paying ZIS. This is because the amount of ZIS fundraising in Indonesia still needs to reach its potential. In addition, in the future the distribution of ZIS funds will not only focus on the consumptive side which is concerned with meeting the necessities of life but it can also be allocated more to productive sectors such as MSME.

This research has several limitations. *First*, Islamic social financial instruments in this study are represented only in *Zakat, Infaq, and Shadaqah*. The types of Islamic social finance are quite diverse. Apart from ZIS, there are other Islamic social finance instruments such as waqf, and Islamic microfinance. However, because researchers encountered difficulties in accessing data related to Waqf and Islamic microfinance, these two types of Islamic social financial instruments were not included in the model. These two types of Islamic social financial instruments also have the potential to increase economic growth. Therefore, further research can include Islamic waqf and microfinance instruments to represent Islamic social finance. *Second*, because this research is only limited to Islamic social finance, further research can also include other dimensions of Islamic finance, such as Islamic commercial finance in the form of Islamic Banking or Sukuk. *Third*, it would be better if the data processing used provincial panel data in Indonesia with a longer research period in order to explain more specifically, the effects of Islamic social finance variables on economic growth at the regional level.

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Author Contributions

Conceptualization: Siswantoro
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 Formal analysis: Siswantoro, Ihsanul Ikhwan
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 Supervision: -
 Validation: Siswantoro, Ihsanul Ikhwan
 Visualization: Ihsanul Ikhwan
 Writing – original draft: Siswantoro, Ihsanul Ikhwan
 Writing – review & editing: Siswantoro, Ihsanul Ikhwan

References

Alghina, N. M., Permata, P., & Aryo, B. (2019). The impact of zakat, infaq, shodaqoh (ZIS), unemployment and poverty on the economic growth in Indonesia (2011-2017). *In 2018 International Conference on Islamic Economics and Business (ICONIES 2018)*, 101, 210–214.

<https://doi.org/10.2991/iconies-18.2019.40>

- Arwani, A., & Wahdati, A. (2020). The effect of zakat, infak, sedekah (ZIS), human development index and unemployment on Indonesia's economic growth. *Al-Tijary: Jurnal Ekonomi Dan Bisnis Islam*, 5(2), 159–173. <https://doi.org/http://dx.doi.org/10.21093/at.v5i2.2220>
- Athoillah, M. A. (2018). The zakat effect on economic growth, unemployment, and poverty in the island of Java: Panel data analysis 2001-2012. *Ekspansi: Jurnal Ekonomi, Keuangan, Perbankan, dan Akuntansi*, 10(2), 205–230. <https://doi.org/https://doi.org/10.35313/ekspansi.v10i2.1211>
- Azam, M., Iqbal, N., & Tayyab, M. (2014). Zakat and economic development: Micro and macro level evidence from Pakistan. *Bulletin of Business and Economics (BBE)*, 3(2), 85–95. <https://bbejournal.com/index.php/BBE/article/view/207>
- Beik, I. S., & Arsyianti, L. D. (2016). *Ekonomi Pembangunan Syariah*. PT. Raja Grafindo Persada.
- Central Bureau of Statistics, BPS. (2022). *Laju pertumbuhan PDB Indonesia menurut pengeluaran (Persen) 2002-2022*. <https://www.bps.go.id/indicator/169/108/1/-seri-2010-4-laju-pertumbuhan-pdb-menurut-pengeluaran.html>
- Choudhury, M. A., & Harahap, S. . (2008). Interrelationship between zakat, Islamic bank and the economy: A theoretical exploration. *Managerial Finance*, 34(9), 610–617. <https://doi.org/https://doi.org/10.1108/03074350810890967>
- Chu, T. T., Hölscher, J., & McCarthy, D. (2020). The impact of productive and non-productive government expenditure on economic growth: an empirical analysis in high-income versus low-to middle-income economies. *Empirical Economics*, 58, 2403–2430. <https://doi.org/https://doi.org/10.1007/s00181-018-1616-3>
- Dinh, T. T. H., Vo, D. H., The Vo, A., & Nguyen, T. C. (2019). Foreign direct investment and economic growth in the short run and long run: Empirical evidence from developing countries. *Journal of Risk and Financial Management*, 12(4), 176. <https://doi.org/https://doi.org/10.3390/jrfm12040176>
- Hamed, M. M. (2020). The role of Islamic social finance in mitigating humanitarian crises. *European Journal of Islamic Finance*, 16. <https://doi.org/https://doi.org/10.13135/2421-2172/4937>
- Ibrahim, S. M., & Shahrudin, A. (2015). In search of an effective zakat institution management in Kano state Nigeria. *Journal for Studies in Management and Planning*, 1(7), 242–258. <http://internationaljournalofresearch.org/index.php/JSMaP>
- Jedidia, K. Ben, & Guerbouj, K. (2020). Effects of zakat on the economic growth in selected Islamic countries: empirical evidence. *International Journal of Development Issues*, 1446–8956. <https://doi.org/10.1108/IJDI-05-2020-0100>
- Jouini, J. (2015). Linkage between international trade and economic growth in GCC countries: empirical evidence from PMG estimation approach. *The Journal of International Trade and Economic Development*, 24(3), 341–372. <https://doi.org/https://doi.org/10.1080/09638199.2014.904394>
- Kassi, D. F., Sun, G., Gnangoin, Y. T., Edjoukou, A. J. R., & Assamoi, G. R. (2019). Dynamics between financial development, energy consumption and economic growth in Sub-Saharan African countries: Evidence from an asymmetrical and nonlinear analysis. *Munich Personal RePEc Archive (MPRA)*. <https://core.ac.uk/download/pdf/211630612.pdf>
- Khasandy, E. A., & Badrudin, R. (2019). The influence of zakat on economic growth and welfare society in Indonesia. *Munich Personal RePEc Archive*, 91574. <https://mpra.ub.uni-muenchen.de/91574/>
- Lewis, W. A. (2013). *Theory of economic growth*. Routledge.

- Manwa, F., Wijeweera, A., & Kortt, M. . (2019). Trade and growth in SACU countries: a panel data analysis. *Economic Analysis and Policy*, 63, 107–118. <https://doi.org/https://doi.org/10.1016/j.eap.2019.05.003>
- Meyer, D. F., & Sanusi, K. A. (2019). A causality analysis of the relationships between gross fixed capital formation, economic growth and employment in South Africa. *Studia Universitatis Babeş-Bolyai Oeconomica*, 64(1), 33–44. <https://doi.org/https://doi.org/10.2478/subboec-2019-0003>
- Munfaati, A., & Noviarita, H. (2023). Effects of zakat and government debt on the Indonesian economy. *Al-Kharaj: Jurnal Ekonomi , Keuangan & Bisnis Syariah*, 5(2), 772–788. <https://doi.org/10.47467/alkharaj.v5i2.1327>
- National Zakat Agency, BAZNAS. (2022). *Statistik zakat nasional*. <https://baznas.go.id/index.php/szn/statistik-zakat-nasional>
- Olaoye, O., & Afolabi, O. (2020). Government spending and economic growth: A trivariate causality testing. *African Journal of Economic and Management Studies*, 12(2), 250–268. <https://doi.org/https://doi.org/10.1108/AJEMS-07-2020-0334>
- Onifade, S. T., Çevik, S., Erdoğan, S., Asongu, S., & Bekun, F. V. (2020). An empirical retrospect of the impacts of government expenditures on economic growth: new evidence from the Nigerian economy. *Journal of Economic Structures*, 9(1), 1–13. <https://doi.org/doi.org/10.1186/s40008-020-0186-7>
- Putriani, D., Ghani, G. M., & Kartiwi, M. (2020). Exploration of agent-based simulation: The multiplier effect of zakah on economic growth. *Journal of Islamic Monetary Economics and Finance*, 6(3), 667–688. <https://doi.org/https://doi.org/10.21098/jimf.v6i3.1110>
- Raghuatla, C. (2020). The effect of trade openness on economic growth: Some empirical evidence from emerging market economies. *Journal of Public Affairs*, 20(3), 2081. <https://doi.org/https://doi.org/10.1002/pa.2081>
- Ridlo, M., Muthohar, A. M., & Masruhan, M. (2021). The impact of zakah, islamic financing, sukuk and inflation on national economic growth with poverty as a moderation variable. *Falah: Jurnal Ekonomi Syariah*, 6(1), 17–29. <https://doi.org/https://doi.org/10.22219/jes.v6i1>
- Ridlo, M., & Wardani, L. D. (2020). The effects of investment, monetary policy, and ZIS on economic growth in Indonesia. *Indonesian Journal of Islamic Economics Research*, 2(2), 95–103. <http://e-journal.iainsalatiga.ac.id/index.php/ijier>
- Ridwan, M., & Pimada, L. M. (2019). Zakat distribution and macroeconomic performance: Empirical evidence of Indonesia. *IJSCM: International Journal of Supply Chain Management*, 8(3), 952–957. <http://excelingtech.co.uk/>
- Rosser, J. B. (2013). *From catastrophe to chaos: a general theory of economic discontinuities*. Springer Science & Business Media.
- Shirazi, N. S. (2014). Integrating Zak_at and Waqf into the poverty reduction strategy of the IDB member countries. *Islamic Economic Studies*, 22(1), 79–108. <https://platform.almanhal.com/Files/Articles/46356>
- Suhendar, M. I., Setyowati, E., & Rosyadi, I. (2022). Influence of distribution of zakat, infaq and shadaqah (ZIS), inflation and human capital on economic growth in Indonesia 2002-2021. *Fair Value: Jurnal Ilmiah Akuntansi dan Keuangan*, 4(9), 4130–4140. <https://journal.ikopin.ac.id/index.php/fairvalue>
- Supratman, I., & Asih, V. S. (2022). The effect of zakat and poverty on economic growth in West Java. *Indonesian Journal of Economics and Management*, 3(1), 87–98. <https://doi.org/https://doi.org/10.35313/ijem.v3i1.4645>
- Suprayitno, E. (2020). The impact of zakat on economic growth in 5 states in Indonesia. *International*

Journal of Islamic Banking and Finance Research, 4(1), 1–7.
<http://www.cribfb.com/journal/index.php/ijibfr>

Terra, F. H., Ferrari Filho, F., & Fonseca, P. C. (2021). Keynes on state and economic development. *Review of Political Economy*, 33(1), 88–102. <https://doi.org/10.1080/09538259.2020.1823072>

Triyawan, A., Arie, S., Ahmad, N., Haris, A., & Abdul, N. (2022). Does investment, zakat, infak and shadaqah and inflation influence the economic growth?: Evidence from Indonesia. *Iqtishodia: Jurnal Ekonomi Syariah*, 7(1), 8–19. <https://doi.org/https://doi.org/10.35897/iqtishodia.v7i1.731>

Wardani, I. I., & Al Arif, M. N. R. (2021). The effect of sharia bank financing, zakat, and education expense, on economic growth and human development index in Indonesia 2015-2019. *Ekonomika Syariah: Journal of Economic Studies*, 5(1), 1–10. <https://doi.org/http://dx.doi.org/10.30983/es.v4i2.3716>