SKIEJ Sunan Kalijaga Islamic Economics Journal
e-ISSN: 2829-9574
Vol. 4 No.2 (21-32) 2025

Impact of Islamic Economic Growth, Financial Literacy, and Inflation on Gini Ratio in Indonesia (2013-2023)

[1]Hadraji Mufti Abizar Al Ghiffari, [2]Riswanti Budi Sekaringsih
[1,2]UIN Sunan Kalijaga Yogyakarta, Faculty of Economics and Islamic Business
[1]23108010002@student.uin-suka.ac.id, [2]riswanti.sekaringsih@uin-suka.ac.id

Abstrak: This study aims to analyze the effect of Islamic economic growth, financial literacy, and inflation on income inequality in Indonesia as measured by the Gini Ratio during the period 2013-2023. The method used is multiple linear regression and quadratic regression to identify the non-linear relationship between the independent variables and the Gini Ratio. The results show that financial literacy has a significant negative effect on income inequality, while inflation shows no significant effect. Islamic economic growth shows an inverted U shape quadratic relationship, which means that initially an increase in Islamic economic growth increases inequality, but after a certain point it decreases it. These findings suggest the importance of improving people's financial literacy and strengthening an inclusive Islamic economy to promote equitable income distribution in Indonesia.
Keywords: Islamic Economic Growth, Financial Literacy, Inflation, Income Inequality, and Quadratic Regression

Introduction

Income inequality remains one of the main challenges hindering the realization of sustainable economic development in Indonesia. This inequality is reflected in uneven development outcomes that occur both socially - such as inequality between economic classes - and geographically, such as development inequality between urban and rural areas or between Java and outside Java. Although Indonesia's macroeconomic Gross Domestic Product (GDP) growth has stabilized at around 5% per year over the past decade, this achievement has not fully impacted all levels of society equally (BPS, 2023). This indicates that economic growth has been non-inclusive, with the rich enjoying more of the fruits of development than the poor.

In dealing with the problem of inequality, Islamic economics comes as an alternative approach that is not only oriented towards market efficiency, but also emphasizes the principles of justice, balanced distribution of wealth, and protection of weak economic groups. Islamic economics places justice as the main pillar in economic

Article History
Received: June, 2025
Accepted: November, 2025
10.14421/skiej.2025.4.2.2588

activity, in accordance with the principles of maqashid sharia. Indonesia itself is experiencing rapid progress in this sector. Based on the annual report of the Global Islamic Economy Indicator (GIEI), Indonesia recorded a surge in achievement by moving up from 10th to 4th place globally in Islamic economic development. This reflects the increasing contribution of the halal economic sector to the national economy (Dinar Standard, 2022).

Furthermore, the Islamic financial sector in Indonesia-which includes Islamic banking, Islamic capital markets, and sharia-based non-bank financial institutions-shows a consistent positive growth trend of around 9-14% per year during the period 2013-2023 (KNEKS, 2022). However, this quantitative growth does not necessarily reflect qualitative success in terms of equitable distribution of benefits. If the growth of the Islamic economy is only enjoyed by certain segments of society and is not accompanied by the expansion of access and understanding of Islamic financial services, then the potential of the Islamic economy in overcoming inequality may be limited.

In this context, financial literacy is a crucial aspect that cannot be ignored. The high level of financial inclusion may not show real progress if it is not accompanied by an increase in public understanding of the financial products and services they use. According to the Financial Services Authority (OJK), the level of financial inclusion of the Indonesian people in 2022 has reached 85.10%. However, the level of financial literacy is only at 49.68%. This considerable difference indicates that most people use financial products passively without understanding their characteristics, benefits and risks (OJK, 2022). This condition can make people vulnerable to making inappropriate financial decisions, such as getting into consumptive debt or investing in illegal instruments, which in turn deepens economic inequality.

In addition, inflation is another macroeconomic factor that affects income inequality. High inflation will affect low-income groups more because the majority of their income is used for consumption of basic goods. When the prices of these goods increase, the purchasing power of the poor tends to decline more sharply than that of the middle and upper income groups. For example, in 2022, Indonesia's inflation reached 5.51%, the highest since 2015. This increase was driven by soaring fuel prices as well as strategic food

Article History
Received: June, 2025
Accepted: November, 2025
10.14421/skiej.2025.4.2.2588

items, which have a large contribution to the expenditure of poor households (Bank Indonesia, 2023). In such a situation, low financial literacy leaves people without effective strategies to protect their income or manage consumption efficiently, further exacerbating inequality.

Based on this background, this study is highly relevant to examine simultaneously the effect of three important variables-i.e. Islamic economic growth, financial literacy, and inflation-on income inequality in Indonesia, as measured by the Gini Ratio. Unlike the conventional approach that relies solely on linear regression models, this study also incorporates quadratic regression models to identify possible non-linear relationship patterns. U-curve or inverted U patterns are common in the relationship between growth and inequality, as explained in the Kuznets hypothesis. With this approach, it is hoped that a more comprehensive understanding of the dynamics of the relationship between variables can be found, which can form the basis for formulating more effective policy strategies in reducing income inequality in Indonesia.

Literature Review

Inequality Theory and Gini Ratio

Income inequality is a classic problem in economic development that signifies the unequal distribution of wealth among individuals or community groups (Todaro & Smith, 2020). It can hinder sustainable development because it creates social injustice, widens the gap between rich and poor, and weakens the purchasing power of the lower classes (Snowdon & Vane, 2005). One indicator often used to measure inequality is the Gini Ratio, a statistical measure based on income distribution developed by Corrado Gini (World Bank, 2023). A Gini ratio of 0 indicates perfect income distribution, while a value of 1 indicates perfect inequality, where one party controls all national income (BPS, 2023).

In Indonesia, the Gini Ratio has tended to stagnate in the range of 0.37 to 0.39 in the last five years, despite consistent economic growth (BPS, 2023). This shows that economic growth has not fully impacted on welfare equality. Classical economic theory argues that growth will trickle down, but in reality income distribution is still dominated

Article History
Received: June, 2025
Accepted: November, 2025
10.14421/skiej.2025.4.2.2588

by the upper economic groups (Todaro & Smith, 2020). Therefore, the analysis of the Gini Ratio as a dependent variable is important in understanding the effectiveness of economic policies on income distribution. High inequality also has the potential to increase social instability and weaken the long-term economic foundation (Blinder, 2021).

Financial Literacy and Income Inequality

Financial literacy refers to an individual's ability to understand basic financial concepts, make sound financial decisions, and manage financial resources wisely (Lusardi & Mitchell, 2014). A high level of financial literacy enables people to actively participate in the financial system, including saving, investing and avoiding harmful financial practices such as consumptive debt (Atkinson & Messy, 2012). In developing countries, financial literacy has been shown to play an important role in reducing income inequality as it helps people manage their income more efficiently (Grohmann et al., 2018). However, in Indonesia, the results of the National Survey on Financial Literacy and Inclusion in 2022 showed that the level of financial literacy of the community was only 49.68%, much lower than the level of financial inclusion which reached 85.10% (OJK, 2022).

This gap shows that while many people access financial services, they do not have sufficient understanding to use them optimally. This can result in the misuse of financial products, increase the risk of personal bankruptcy, and deepen the inequality gap. Low financial literacy also makes people vulnerable to inflation and other macroeconomic changes. Therefore, financial literacy needs to be viewed as an important tool in the national economic equity strategy.

Inflation and Distribution Income

Inflation is a general increase in the prices of goods and services over a period of time, which directly reduces people's purchasing power (Blinder, 2021). The effect of inflation is uneven across income groups; low-income people are more affected as they spend a larger proportion of their income on basic needs (Todaro & Smith, 2020). In the Keynesian framework, inflation also causes income redistribution from workers to capital owners through declining real wages and speculative profits (Snowdon & Vane, 2005).

Article History
Received: June, 2025
Accepted: November, 2025
10.14421/skiej.2025.4.2.2588

Therefore, inflation can exacerbate inequality if not countered by appropriate policy interventions. Previous research shows that inflation in developing countries tends to be positively correlated with the Gini Ratio, especially in the short run (Li & Zou, 2002). This is because the upper economic groups have more ability to hedge against inflation through investment in real or financial assets, while the lower groups can only survive with minimal consumption. In the context of Indonesia, inflation spiked to 5.51% in 2022, the highest level in seven years (Bank Indonesia, 2023).

Quadratic Relationships in Economics

In many economic phenomena, the relationship between variables is not always linear, but can be quadratic or form an inverted U/U curve (Wooldridge, 2019). One well-known theory that describes quadratic relationships is the Kuznets Hypothesis, which states that in the early stages of economic development, inequality increases, but after a certain turning point, inequality begins to decline as per capita income increases (Kuznets, 1955). Quadratic regression models are used to capture this kind of relationship by including the square of the independent variable as an additional predictor (Gujarati & Porter, 2009).

In the context of this study, it is possible that the growth of the Islamic economy was initially enjoyed only by the upper economic groups, thus increasing inequality, but after wider access, inequality began to decline. Similarly, financial literacy at the initial stage is only enjoyed by the highly educated, but if it is disseminated evenly, the effect can reduce the Gini Ratio.

Methodology

This study uses secondary quantitative data obtained from official publications of relevant government agencies and financial institutions, such as the Central Statistics Agency (BPS), Bank Indonesia (BI), the Financial Services Authority (OJK), and the National Committee for Sharia Economics and Finance (KNEKS). The data collected includes the Gini Ratio as the dependent variable, as well as Islamic economic growth, financial literacy, and inflation as independent variables. The data is taken on an annual basis for the period 2018 to 2022.

Article History
Received: June, 2025
Accepted: November, 2025
10.14421/skiej.2025.4.2.2588

Gini Ratio data is obtained from the annual report of the National Socio-Economic Survey (Susenas) by BPS. Meanwhile, Islamic economic growth data is measured based on the contribution of halal sectors to Gross Domestic Product (GDP) reported by KNEKS. Financial literacy is taken from the results of the National Survey of Financial Literacy and Inclusion (SNLIK) published by OJK. Inflation data is obtained from the annual national inflation report by Bank Indonesia. The selection of annual data is done to adjust to the availability of consistent publications during the period under study (BPS, 2023; BI, 2023; OJK, 2022; KNEKS, 2022).

The analysis techniques used in this research are multiple linear regression analysis and quadratic regression. Linear regression analysis is used to measure the extent to which the variables of Islamic economic growth, financial literacy, and inflation directly affect the Gini Ratio. The multiple linear regression model is formulated as follows:

$$\mathbf{Gini = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon}$$

Notes:

Gini = Gini Ratio (income inequality)

X_1 = Sharia Economic Growth

X_2 = Financial Literacy

X_3 = Inflation

ε = Error term

In addition to the linear model, a quadratic regression model was also used to test the non-linear relationship between the independent variable and the dependent variable. This is to capture the possibility of a U-curve or inverted U relationship as assumed in the Kuznets theory. The quadratic model is written as:

$$\mathbf{Gini = \beta_0 + \beta_1 X + \beta_2 X^2 + \beta_3 X_3 + \varepsilon}$$

The quadratic model is applied mainly for the Islamic economic growth and financial literacy variables that could theoretically have a non-linear relationship to inequality. Tests are conducted with statistical software such as EViews, with F-test and t-test to measure the significance of the model and variables. Classical regression

Article History
Received: June, 2025
Accepted: November, 2025
10.14421/skiej.2025.4.2.2588

assumptions such as normality, multicollinearity, and heteroscedasticity are also tested to ensure the validity of the results (Gujarati & Porter, 2009; Wooldridge, 2019).

Discussion

Multiple Linear Regression Output

Regression analysis is one of the most commonly used methods to examine the relationship between the dependent variable and one or more independent variables. In this study, multiple linear regression models were estimated using the Ordinary Least Squares (OLS) method to determine the effect of Islamic economic growth, financial literacy, and inflation on the dependent variable. This method provides unbiased and consistent coefficient estimates, assuming that the classical assumptions of linear regression are met. The estimation was done with the help of EViews software, and the regression results are presented in the following table. The results include the coefficient value, standard error, t-statistic value, as well as the probability value (p-value) used to assess the statistical significance of each independent variable.

Tabel 1. Multiple Linear Regression Test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C (Intercept)	0.424	0.006	66.20	0.000
Islamic Economic Growth	0.0013	0.0021	0.645	0.540
Financial Literacy	-0.0003	0.0001	-4.89	0.002
Inflasi	0.00005	0.0003	0.197	0.850
R-squared	0.976			
Adjusted R-squared	0.927			
F-statistic	20.34			0.046

The multiple linear regression model in this study is estimated using the Ordinary Least Squares (OLS) method to analyze the effect of the three independent variables-i.e. Islamic economic growth, financial literacy, and inflation-on the dependent variable, namely the Gini Ratio as an indicator of income inequality.

The R-squared value of 0.976 indicates that 97.6% of the variation in the Gini Ratio can be explained by the three independent variables used in the model. Meanwhile, the Adjusted R-squared value of 0.927 indicates that the model still has a strong level of

Article History
Received: June, 2025
Accepted: November, 2025
10.14421/skiej.2025.4.2.2588

adjustment despite being corrected for the number of predictor variables. This indicates that the model is quite accurate and reliable in explaining the dynamics of income inequality in Indonesia during the study period.

The F-test yields an F-statistic value of 20.34 with a significance level of p = 0.046, which is below the 5% significance limit (α = 0.05). This indicates that simultaneously, the three independent variables together have a significant effect on the Gini Ratio. In other words, this regression model is suitable for use in drawing conclusions.

Sharia Economic Growth has a coefficient value of 0.0013 with a p-value of 0.540. Although the direction of the coefficient is positive (which means that in theory an increase in Islamic economic growth correlates with an increase in the Gini Ratio), this result is not statistically significant because the p-value is far above 0.05. This indicates that in the linear model, Islamic economic growth has no significant effect on income inequality over the period 2013-2023. This may be because Islamic economic growth has not been spread evenly or enjoyed by all levels of society.

Financial Literacy shows a negative and significant effect, with a coefficient value of -0.0003 and a p-value of 0.002. This result indicates that every 1 point increase in the financial literacy index will decrease the Gini Ratio by 0.0003 points, with a 95% confidence level. In other words, the higher the financial literacy of the society, the smaller the level of income inequality. This corroborates the findings in previous literature that financial literacy can improve economic decision-making, increase productive financial inclusion, and reduce economic disparities between groups.

Inflation, in this model, has a coefficient of 0.00005 with a p-value of 0.850. The positive coefficient suggests that inflation could theoretically worsen income inequality, but due to the very high p-value (>>0.05), the effect of inflation is not statistically significant in this model. This could be due to various factors, including government compensation mechanisms (such as subsidies or social assistance) that reduce the direct impact of inflation on low-income groups during the observation period.

Article History
Received: June, 2025
Accepted: November, 2025
10.14421/skiej.2025.4.2.2588

Quadratic Regression Output

A quadratic regression test was conducted to evaluate the effect of Islamic economic variables, financial literacy, and inflation on the dependent variable, while capturing possible non-linear relationships. The model includes quadratic variables of Islamic economy and financial literacy to identify more complex relationship patterns. The estimation results show that the model has a very good fit with an R-squared value of 0.994 and adjusted R-squared of 0.976, and the F-statistic is significant at the 5% level. Furthermore, the coefficients of the variables and their squares provide insights into the dynamics of the effects that are not always linear, which will be analyzed in more detail in the following sections:

Tabel 2. Quadratic Regression Output Test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C (Intercept)	0.3288	0.0416	7.9138	0.0002
Islamic Economic Growth	0.0330	0.0138	2.3999	0.0533
(Islamic Economic Growth)²	-0.0029	0.0012	-2.3191	0.0595
Financial Literacy	-0.0007	0.0001	-3.9846	0.0072
Inflasi	0.0006	0.0003	1.8357	0.1161
R-squared	0.9960			
Adjusted R-squared	0.9932			
F-statistic	366.94			0.0000
C (Intercept)	0.3288	0.0416	7.9138	0.0002

The quadratic regression model in this study is estimated using the Ordinary Least Squares (OLS) method to examine the non-linear relationship between the independent variables - mainly Islamic economic growth - and the dependent variable, namely the Gini Ratio as an indicator of income inequality.

The estimation results show that the R-squared value is 0.9960 and the Adjusted R-squared is 0.9932. This means that about 99.6% of the variation in the Gini Ratio can be explained by the independent variables in this model, namely Islamic economic growth (X1), the square of Islamic economic growth ($X1^2$), financial literacy, and inflation. The very high Adjusted R-squared value (99.32%) also shows that the model remains valid

Article History
Received: June, 2025
Accepted: November, 2025
10.14421/skiej.2025.4.2.2588

even after adjusting for the number of predictors. In other words, the model has a very strong goodness of fit.

Furthermore, the F-test results show an F-statistic value of 366.94 with Prob(F-statistic) = 0.0000, which indicates that the overall regression model is statistically significant at the 99% confidence level. This means that the combination of all the independent variables included in the model jointly affect the Gini Ratio significantly.

Sharia Economic Growth (X1) has a positive coefficient of 0.0330 and a probability value of 0.0533. Meanwhile, the square of the variable ($X1^2$) has a negative coefficient of -0.0029 with a probability value of 0.0595. Both probability values are slightly above the conventional significance limit of 5%, but still within the range that can be considered marginally significant or almost statistically significant.

The combination of a positive linear coefficient and a negative quadratic coefficient suggests a non-linear relationship pattern in the shape of an inverted U curve. This pattern reflects that in the early stages, an increase in Islamic economic growth can actually worsen income inequality. However, after passing a certain turning point, further increases in Islamic economic growth begin to reduce the level of inequality. This finding is consistent with the Kuznets hypothesis, which states that inequality tends to increase in the early phase of economic development, and decrease as the economy reaches a more mature stage.

Financial Literacy shows a negative and statistically significant effect, with a coefficient of -0.0007 and a p-value of 0.0072. This result shows that an increase in people's financial literacy contributes significantly to reducing the Gini Ratio or income inequality. The higher the level of financial literacy, the greater the ability to manage finances wisely, avoid consumptive debt, and access productive formal financial services. This is in line with the literature that emphasizes the importance of financial capability in supporting inclusive economic development.

Inflation has a positive coefficient of 0.0006, which in theory suggests that inflation has the potential to increase income inequality. However, the p-value of 0.1161 indicates that this effect is not statistically significant at the 95% confidence level. This means that

Article History
Received: June, 2025
Accepted: November, 2025
10.14421/skiej.2025.4.2.2588

there is not enough evidence in this model to suggest that inflation has a real influence on the Gini Ratio over the study period. Most likely, the effect of inflation on inequality has been dampened by fiscal policies or social assistance provided to low-income earners, hence the statistically insignificant impact.

Conclusion

This study shows that financial literacy has a significant effect in reducing income inequality in Indonesia. Meanwhile, Islamic economic growth shows a non-linear (quadratic) relationship with the Gini Ratio, where in the early stages of growth it can actually increase inequality, but decreases after a certain point. On the other hand, inflation is shown to have no significant effect on income inequality over the period 2013-2023.

These results suggest that improving people's financial literacy is essential to minimize social inequality. In addition, strengthening the Islamic economy must be done inclusively and equitably, so that the benefits can be felt by all levels of society and not only concentrated in certain groups.

The government and stakeholders need to expand public access to Islamic financial products and improve the quality of financial education, especially for lower economic groups. Financial literacy programs must be tailored to the needs and abilities of the community so that the impact is more equitable. In addition, effective inflation control is essential to protect the purchasing power of the poor. Fiscal and monetary policies should also be geared towards maintaining price stability and promoting equitable and sustainable economic inclusion.

Article History
Received: June, 2025
Accepted: November, 2025
10.14421/skiej.2025.4.2.2588

References

Atkinson, A., & Messy, F.-A. (2012). *Measuring financial literacy: Results of the OECD / International Network on Financial Education (INFE) pilotstudy*.OECDPublishing. https://www.oecd.org/finance/financial-education/measuringfinancialliteracy.htm

Bank Indonesia. (2023). Indonesia economic report *2022*. https://www.bi.go.id

Blinder, A. S. (2021). *Understanding the inflation experience of low-income households*. Brookings Institution.

Central Bureau of Statistics. (2023). Expenditure inequality of Indonesia's population September *2022*. https://www.bps.go.id

DinarStandard. (2022). *State of the global Islamic economy report 2022*. https://salaamgateway.comGrohmann, A., Klühs, T., & Menkhoff, L. (2018). Does financial literacy improve financial inclusion? Cross-country evidence. *World Development, 111*, 84–96. https://doi.org/10.1016/j.worlddev.2018.06.020

Gujarati, D. N., & Porter, D. C. (2009). *Basic econometrics* (5th ed.). McGraw-Hill.

National Committee for Sharia Economics and Finance. (2022). Sharia economic and financial report *2022*. https://kneks.go.id

Kuznets, S. (1955). Economic growth and income inequality. *The American Economic Review, 45*(1), 1–28. https://www.jstor.org/stable/1811581

Li, H., & Zou, H. F. (2002). Inflation, growth, and income distribution: A cross-country study. *Annals of Economics and Finance, 3*(1), 85–101.

Lusardi, A., & Mitchell, O. S. (2014). The economic importance of financial literacy: Theory and evidence. *Journal of Economic Literature, 52*(1), 5–44. https://doi.org/10.1257/jel.52.1.5

Financial Services Authority. (2022). National survey on financial literacy and inclusion *2022*. https://www.ojk.go.id

Snowdon, B., & Vane, H. R. (2005). *Modern macroeconomics: Its origins, development and current state*. Edward Elgar Publishing.

Todaro, M. P., & Smith, S. C. (2020). *Economic development* (13th ed.). Pearson.

Wooldridge, J. M. (2019). *Introductory econometrics: A modern approach* (7th ed.). Cengage Learning. World Bank. (2023). *World development indicators*. https://databank.worldbank.org

Article History
Received: June, 2025
Accepted: November, 2025
10.14421/skiej.2025.4.2.2588