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The Influence of Islamic Philanthropy, Macroeconomics, Socio-Demography, on Poverty in Muslim Minority Provinces in Indonesia (2019-2023)

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ARTICLE INFO

Keywords:

Poverty; Islamic Philanthropy; Human Development Index; Population; Macroeconomic Factors; Socio-Demographic Factors; Muslim-Minority Regions; Indonesia

ABSTRACT

Poverty in Indonesia's Muslim-minority provinces remains a multidimensional issue influenced by economic, social, and welfare distribution factors. This study aims to analyze the effects of Islamic philanthropy, macroeconomic conditions, and socio-demographic factors on poverty during 2019–2023. Using panel data regression with secondary data from BPS, BAZNAS, and related institutions, the results show that *infaq* and *sadaqah*, population size, and the Human Development Index significantly affect poverty, while *zakat*, *DSKL*, *GRDP*, *APBD*, social assistance, education, economic growth, minimum wage, inflation, and unemployment do not. These findings highlight the importance of human development and community-based Islamic philanthropy in poverty reduction policies.

ABSTRAK

Kemiskinan di provinsi berpenduduk Muslim minoritas di Indonesia merupakan masalah multidimensional yang dipengaruhi faktor ekonomi, sosial, dan distribusi kesejahteraan. Penelitian ini bertujuan menganalisis pengaruh filantropi Islam, kondisi makroekonomi, dan faktor sosiodemografi terhadap kemiskinan periode 2019–2023. Dengan menggunakan regresi data panel berdasarkan data sekunder dari BPS, BAZNAS, dan instansi terkait, hasil penelitian menunjukkan bahwa *infak* dan *sedekah*, jumlah penduduk, serta Indeks Pembangunan Manusia berpengaruh signifikan terhadap kemiskinan, sedangkan variabel lainnya tidak signifikan. Temuan ini menegaskan pentingnya pembangunan manusia dan filantropi Islam berbasis masyarakat dalam kebijakan pengentasan kemiskinan.

Introduction

Poverty remains a major unresolved issue in Indonesia's economic development. Although the poverty rate has shown a downward trend since the pandemic and currently stands at around 9–10%, this decline has not been evenly distributed across regions (Kemenkeu RI, 2023).

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DOI: 10.29406/jmm.v22i1.8891

This disparity indicates that poverty is not merely an economic issue but a multidimensional phenomenon influenced by structural, social, and welfare distribution factors (Bersisa & Heshmati, 2021). Until now, poverty alleviation approaches have largely relied on macroeconomic indicators such as economic growth, inflation, and Regional Gross Domestic Product (RGDP). Theoretically, economic growth is expected to reduce poverty by increasing household income. However, several studies indicate that this relationship is not always consistent. Economic growth that is not accompanied by income redistribution tends to fail to significantly reduce poverty (Safuridar, 2017). Furthermore, high inflation can worsen the conditions of low income households due to a decline in purchasing power (Abdi & Nor, 2025; Mardiatillah et al., 2021). This suggests that macroeconomic approaches have not yet been fully capable of comprehensively explaining the dynamics of poverty.

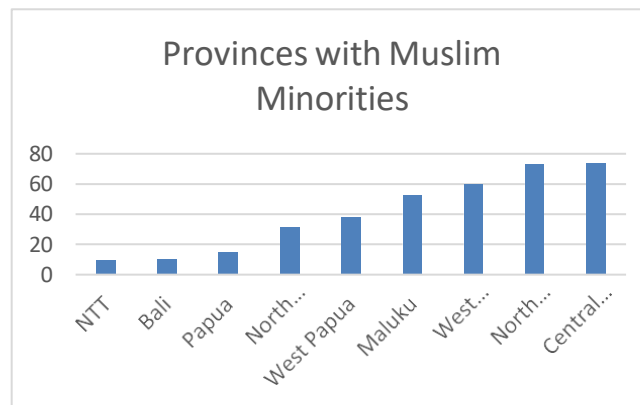


Figure 1. Data on Provinces with Minority Populations in Indonesia
Source: BAZNAS (2021)

Socio-demographic factors such as the Human Development Index (HDI), education, the open unemployment rate (OUR), and population size also play a significant role in influencing poverty. Improving the quality of human resources through education and health care has been shown to reduce poverty. Conversely, population growth that is not balanced by the availability of jobs has the potential to increase poverty (Aderounmu et al., 2021; Zaman et al., 2023). Nevertheless, empirical findings regarding socio-demographic variables also yield mixed results, thus failing to provide consistent conclusions (Hayati & Chandriyanti, 2025; Kholis & Gunarto, 2025). Islamic philanthropy serves as an alternative instrument in poverty alleviation efforts through wealth redistribution mechanisms. Instruments such as zakat, infak, sedekah, and other religious social funds (DSKL) are believed to be capable of assisting poor communities (Karim, 2015; Mahmudah, 2019). However, the effectiveness of Islamic philanthropy is not uniform across all regions. In areas with a Muslim minority population, the collection and distribution of philanthropic funds tend to be more limited due to demographic and social factors (Amran & Addary, 2025; Badan Pusat Statistik, 2021). This situation results in the role of Islamic philanthropy in reducing poverty being suboptimal, thus requiring a more context-specific analysis.

A number of previous studies have examined the factors influencing poverty, from macroeconomic, sociodemographic, and Islamic philanthropy perspectives. However, most studies still analyze these variables in isolation. Furthermore, existing research findings show inconsistencies, both in terms of significance and the direction of variable effects (Prasetyo & Cahyani, 2022). On the other hand, studies specifically focusing on regions with Muslim minority populations remain very limited, even though these regions possess distinct social and economic characteristics compared to those with Muslim majorities. Based on this, there are three primary gaps in this research. First, the scarcity of studies integrating macroeconomic, socio-demographic, and Islamic philanthropy factors into a single analytical model. Second, the inconsistency of previous research findings in explaining the determinants of poverty. Third, the scarcity of studies specifically examining poverty in regions with Muslim minority populations. Therefore, this study aims to analyze the influence of Islamic philanthropy, macroeconomic factors, and socio-demographic factors on poverty levels in provinces with Muslim minority populations in Indonesia. This study is expected to provide a theoretical contribution to the development of poverty studies based on a multidimensional approach, as well as offer more contextually relevant policy implications for poverty alleviation efforts.

Literatur Review

Poverty in Indonesia

Poverty is a complex phenomenon that is not only related to limited income but also reflects an individual's inability to adequately meet basic needs. The Central Statistics Agency defines poverty as a condition in which a person falls below the poverty line that is, is unable to meet minimum food and non-food needs (Ferezagia, 2018). From a development perspective, poverty cannot be separated from the issues of unemployment and inequality, as emphasized in the theories of Keynes and Seers, which state that the success of development is determined by

a country's ability to simultaneously reduce poverty, unemployment, and inequality (Prasetyo & Cahyani, 2022). Conventional approaches that focus on economic indicators often fail to fully explain the dynamics of poverty. Poverty is multidimensional, thus requiring an approach capable of integrating various interacting factors. Within this framework, poverty is influenced not only by economic growth but also by the quality of human resources and the mechanisms of welfare distribution within society.

Islamic Philanthropy

Islamic philanthropy is a social instrument with significant potential to reduce poverty through wealth redistribution mechanisms. Instruments such as zakat, infak, sedekah, and other religious social funds (DSKL) not only have a religious dimension but also serve as tools for the equitable distribution of welfare (Karim, 2015; Mahmudah, 2019). In the view of Yusuf Qardhawi, zakat serves as a social instrument capable of reducing inequality and empowering the poor (Radita et al., 2025a). Increased collection and distribution of Islamic philanthropic funds are expected to contribute to poverty reduction through both direct transfer mechanisms and economic empowerment. This is reflected in empirical findings showing that the management of zakat and other philanthropic instruments has a negative impact on poverty levels (Yarda et al., 2025). However, other research results indicate inconsistencies, particularly in regions with Muslim minority populations, where limitations in fund collection and social dynamics pose major obstacles to optimizing distribution (Izzuddin & Aziz, 2019). These findings indicate that the effectiveness of Islamic philanthropy is highly contextual and influenced by social structures and institutional capacity. Thus, the relationship between Islamic philanthropy and poverty is not universal but depends on regional conditions, particularly in areas with Muslim minority populations.

Macroeconomic Factors

Macroeconomic factors are the primary determinants traditionally used to explain poverty. Indicators such as economic growth, inflation, and GRDP are believed to be closely linked to poverty rates. Theoretically, an increase in GRDP reflects higher economic activity and is expected to create jobs and raise household incomes (Safuridar, 2017). However, this relationship is not always consistent in empirical studies. Some studies indicate that GDP has a negative effect on poverty (Sari & Syafiuddin, 2024), while others find no significant effect (Ramli & Karmila, 2025). This suggests that economic growth does not automatically lead to equitable distribution of prosperity. Similarly, high inflation tends to increase poverty by reducing people's purchasing power (Mardiatillah et al., 2021). Additionally, fiscal policies such as local government spending and minimum wages are expected to sector. Meanwhile, population growth has a complex relationship, where an increase in population size can become an economic burden if not balanced by improvements in human capital quality and the availability of jobs (Zaman et al., 2023). Social assistance programs are also a crucial instrument in reducing poverty, although their effectiveness heavily depends on program targeting and sustainability (Putra & Purnamadewi, 2015). This indicates that socio-demographic factors have a significant reduce poverty through government intervention. However, their effectiveness is often limited due to misdirected targeting and the dominance of the informal sector in the economy (Huda & Karsudjono, 2019). Thus, macroeconomic variables exhibit relationships that are not always linear and tend to depend on existing economic distribution and structure.

Social and Demographic Factors

Socio-demographic factors play a significant role in explaining poverty, particularly through human capital and demographic pressures. The Human Development Index (HDI), a composite indicator encompassing education, health, and living standards, shows a negative correlation with poverty (Hayati & Chandriyanti, 2025; Reavindo, 2021). This suggests that improvements in human capital contribute to increased productivity and economic opportunities. On the other hand, the open unemployment rate (OUR) and population size also influence poverty. Unemployment tends to exacerbate poverty due to limited access to income (Aderounmu et al., 2021). However, in the context of developing countries, unemployment indicators do not always reflect real economic conditions due to the dominance of the informal influence but are not always consistent across various regional contexts.

Theoretical Synthesis and Research Framework

Based on this literature review, it can be concluded that poverty is the result of a complex interaction between macroeconomic, socio-demographic factors, and social distribution mechanisms such as Islamic philanthropy. However, most previous studies still employ a fragmented approach that isolates these three dimensions, thus failing to comprehensively capture the interrelationships and interactions among variables. Furthermore, existing research findings show inconsistencies regarding both the significance and direction of variable effects, indicating a lack of strong empirical consensus regarding the determinants of poverty. These limitations suggest that one-dimensional approaches, particularly those focusing solely on economic growth, are insufficient to explain the multidimensional nature of poverty. Studies on poverty in regions with Muslim minority populations remain relatively limited. Yet, these regions possess distinct characteristics regarding social structure, access to economic resources, and the effectiveness of Islamic philanthropic instruments. These contextual differences have the

potential to influence the relationships among the variables under study, making it impossible to generalize findings from studies conducted in regions with Muslim majorities.

This study frames poverty within a multidimensional framework that integrates macroeconomic, sociodemographic, and Islamic philanthropy factors into a single analytical model. This approach aims not only to fill a gap in the literature but also to make a theoretical contribution toward developing a more comprehensive perspective on poverty, while simultaneously challenging the assumption that economic growth automatically reduces poverty. Therefore, empirical testing is needed to capture the simultaneous interaction of these three factors, particularly in regions with Muslim minority populations, in order to gain a more contextual and accurate understanding of the determinants of poverty in Indonesia.

Research Methods

This study employs an explanatory quantitative approach to analyze the effects of Islamic philanthropy, macroeconomic factors, and sociodemographic factors on poverty rates. This approach was chosen because it allows for the empirical testing of causal relationships among variables through panel data analysis a combination of cross-sectional and time-series data thereby capturing variations across regions and over time simultaneously. The study population includes all provinces in Indonesia. The research sample was determined using purposive sampling, specifically by selecting provinces categorized as regions with a Muslim minority population and consistent data availability throughout the study period. Based on these criteria, N provinces were identified with an observation period spanning 2019–2023 ($T = 5$), resulting in a total of $N \times 5$ observations in this study. The 2019–2023 study period was chosen to capture economic dynamics before, during, and after the COVID-19 pandemic, which caused significant disruptions to poverty conditions and the distribution of welfare in Indonesia.

The data used are secondary data obtained from official sources, including the Central Statistics Agency (BPS), the National Zakat Agency (BAZNAS), and local government financial reports. The variables used in this study consist of dependent and independent variables. The dependent variable is the poverty rate, measured based on the percentage of the poor population in each province. The independent variables consist of three main groups. First, Islamic philanthropy variables, which include zakat, infaq, and sadaqah, as well as other religious social funds (DSKL), measured in rupiah. Second, macroeconomic variables, which consist of economic growth (percentage), inflation (percentage), Regional Gross Domestic Product (RGDP) (constant rupiah), Regional Revenue and Expenditure Budget (APBD) (rupiah), and the provincial minimum wage (rupiah). Third, socio-demographic variables, which include the Human Development Index (HDI) (index), average years of schooling (years), open unemployment rate (percentage), population size (people), and social assistance (rupiah). All monetary variables are expressed in constant prices (base year as per official publications) to avoid inflationary distortions, and are transformed into natural logarithms (ln) to enhance variance stability and allow for the interpretation of coefficients as elasticities. Variables in the form of percentages and indices, such as inflation, economic growth, HDI, and open unemployment rate, are not transformed into logarithms to maintain a more direct interpretation. Education variables use the average years of schooling (AYS) indicator.

The panel data regression model used in this study can be formulated as follows:

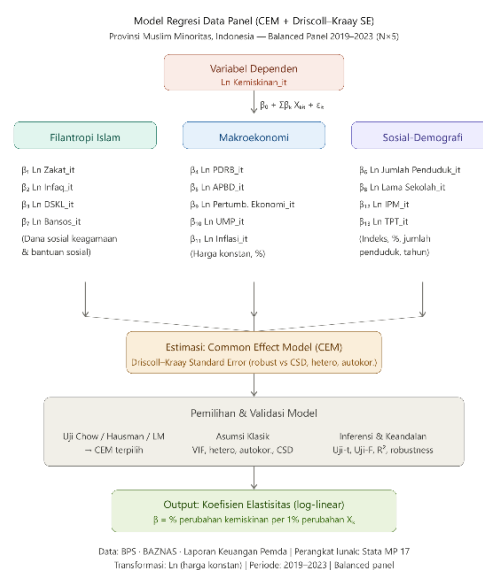


Figure 2 Panel Data Regression Model

The selection of the panel data regression model was conducted using the Chow, Hausman, and Lagrange Multiplier (LM) tests. The test results indicate that the Common Effects Model (CEM) is the most appropriate model. Empirically, the results of the Chow and LM tests indicate that the CEM outperforms the Fixed Effects Model (FEM) and the Random Effects Model (REM). In addition to being based on statistical test results, the selection of the CEM is also supported by methodological considerations. This model assumes that differences in characteristics across cross-sectional units are relatively insignificant or negligible in the context of this study. In this study, provinces with a Muslim minority population are assumed to have relatively homogeneous structural characteristics, particularly regarding limited access to Islamic philanthropy and patterns of socio-

economic distribution. Furthermore, the use of CEM aims to estimate the average effect of independent variables on poverty, rather than to identify the specific effects of each province. The classical assumption tests conducted include the multicollinearity test (Variance Inflation Factor/VIF), the heteroscedasticity test, the autocorrelation test, and the cross-sectional dependence test. The test results indicate that there are no issues with multicollinearity, heteroscedasticity, or autocorrelation. However, cross-section dependence was found, indicating inter-provincial linkages, whether through regional economic integration or similar responses to national policies.

To address these issues, this study employs the Driscoll Kraay standard errors approach, which is robust to heteroscedasticity, autocorrelation, and cross-sectional dependence, thereby yielding more reliable estimates. Additionally, to enhance the validity of the results, a limited robustness test was conducted by comparing the estimation results across alternative model specifications. The test results indicate that the direction and significance of the coefficients are relatively consistent, thereby supporting the stability of the model used. This study has limitations, particularly regarding potential endogeneity in several variables, such as social assistance and Islamic philanthropy, which may have a bidirectional relationship with poverty. This study employs a reduced-form approach, assuming that independent variables influence poverty in the short term. This limitation is acknowledged as an opportunity for further research using more complex causal approaches. Hypothesis testing was conducted using the (partial) t-test and the (simultaneous) F-test with a significance level of 5%. Additionally, the model's goodness of fit was evaluated using the R^2 and adjusted R^2 values. The entire data analysis process was conducted using StataMP17 software to ensure the accuracy and consistency of the estimation results.

Result and Discussion

Analysis Results

Table 2. Model Analysis Results

Model	Prob
CEM	0.0002
FEM	0.1635
REM	0.0000

Source: StataMP17

It is known that the probability value in the Common Effect Model (CEM) is $0.0002 < \text{Prob } 0.005$, and in the Random Effect Model it is $0.000 < 0.05$; both probability values are less than 0.005. The results indicate that these models are significant in explaining the relationship between the independent and dependent variables. Meanwhile, the probability value in the Fixed Effect s Model (FEM) is $0.1635 > \text{Prob } 0.005$, indicating a value that is significantly larger compared to the other models. This condition indicates that the Fixed Effect Model is less appropriate for use in this study

Selection of Panel Data Regression Models

The results of the panel data regression model selection are shown in the following table

Table 3. Model Selection Results

Model	Comparison	Results	Decision
		Prob > 0.05	
Chow Test	0.1635		CEM is better than the FEM model
Hausman Test		Prob > 0.05	
	0.8594		REM is better than the FEM model
		Prob > 0.05	
LM Test	1.0000		CEM is better than the REM model

Source: StataMP17 (processed data results)

The results indicate that the Common Effect Model (CEM) is appropriate for this study, with an R-squared value of 0.5978. This model was selected because it effectively captures the persistent differences in characteristics among Muslim-minority provinces in Indonesia during the 2019–2023 study period. Through the use of the CEM model, the estimation of the influence of Islamic philanthropy, macroeconomic, and socio-demographic variables on poverty can be conducted more accurately.

Assumption Testing

The results of the assumption tests for Heteroscedasticity, Serial Autocorrelation, and Cross-section Dependence are presented in the following table

Table 4. Assumption Test Results

Model	Comparison	Results	Decision
Heteroscedasticity Test	0.2025	Prob < 0.05	No Heteroscedasticity
Serial Autocorrelation Test	0.1792	Prob > 0.05	No Serial Autocorrelation
Multicollinearity Test	2.23	VIF < 10	No Multicollinearity
Cross-sectional Dependence Test	0.0003	Prob < 0.05	Cross-sectional Dependence Present

Source: StataMPI17 (processed data results)

Based on the results of the assumption tests, the research model indicates the presence of cross-section dependence, meaning there is a relationship or correlation among units in the panel data. The assumption of independence among units is not met. This study uses the Driscoll–Kraay Standard Error approach to produce standard error estimates that are more robust to cross-section dependence.

Simultaneity Test

H0: The model does not fit, or there are no significant variables

H1: The model fits or at least one independent variable

Table 5. Results of the Simultaneous Test

Model	Prob
CEM	0.0002

Source: StataMPI17 (processed data results)

Prob value = 0.0002 < alpha (0.05), so reject H0 and conclude that H1 is accepted with a model fit or at least 1 independent variable having an effect.

Partial Test / t-test

The results of the partial test in the Random Effects Model for the variables $\ln_infaqdansodaqoh$, $\ln_jumlahpenduduk$, and $\ln_ipm$ show that the calculated t-value and p-value are less than α (5%). All three variables have a significant effect on poverty. Meanwhile, $\ln_zakat$, $\ln_dskl$, $\ln_pdrb$, $\ln_apbd$, $\ln_bansos$, $\ln_lamasekolah$, $\ln_pe$, $\ln_ump$, $\ln_inflasi$, and $\ln_tpt$ showed calculated values and p-values greater than α (5%) (not significantly influencing poverty).

Table 6. Results of the Partial Test

Variable	P> t
$\ln_zakat$	0.211
$\ln_infaqandsadaqah$	0.022
$\ln_dskl$	0.334
$\ln_GDP$	0.418
$\ln_apbd$	0.547
$\ln_population$	0.000
$\ln_social_assistance$	0.231
$\ln_school_years$	0.773
$\ln_income$	0.145
$\ln_minimum_wage$	0.211
$\ln_inflation$	0.119
$\ln_HDI$	0.003
$\ln_unemployment$	0.824

Source: StataMPI17 (processed data results)

Regression Equation

Poverty = $-.0441892 * \ln_zakat - .070466 * \ln_infaqdansodaqoh + .0222644 * \ln_dskl - .4546749 * \ln_GDP + 0.0753254 * \ln_APBD + 0.3569941 * \ln_population + 0.2104032 * \ln_social_assistance - 0.5365365 * \ln_school_years + .3727715 * \ln_unemployment - .1244018 * \ln_minimum_wage + .3914583 * \ln_inflation - 12.27234 * \ln_human_development_index - .0120741 * \ln_employment_rate$.

DISCUSSION

The Impact of Islamic Philanthropy on Poverty

The results of this study indicate that Islamic philanthropy variables have varying effects on poverty levels in provinces with Muslim minority populations in Indonesia. Theoretically, Islamic philanthropy functions as a mechanism for wealth redistribution through social instruments such as zakat, infak, sedekah, and other religious social funds, which aim to assist impoverished communities. However, the empirical results of this study indicate that the effectiveness of each Islamic philanthropy instrument is not uniform in reducing poverty. The zakat variable shows a coefficient value of -0.0441892 with a probability of $0.211 > 0.05$. This result indicates that zakat has a negative relationship with poverty, but it is not statistically significant. This means that an increase in zakat tends to be followed by a decrease in poverty levels, but its impact is not yet strong enough empirically. This condition may be caused by limitations in the collection and distribution of zakat in Muslim minority areas, where the number of zakat payers is relatively smaller compared to Muslim-majority areas. Additionally, the suboptimal institutional capacity of zakat management bodies also prevents zakat distribution from having a tangible impact on poverty reduction. These findings align with the study (Izzuddin & Aziz, 2019), which states that zakat management in Muslim-minority regions still faces limitations in effectively collecting and distributing zakat funds.

The variables for infak and sedekah show a coefficient value of -0.070466 with a p-value of $0.022 < 0.05$. These results indicate that infak and sedekah have a significant negative effect on poverty. This means that an increase in infak and sedekah tends to significantly reduce poverty levels. This finding suggests that more flexible community-based social assistance mechanisms can have a direct impact on the poor. Zakat and sadaqah can be distributed more quickly and are not tied to specific formal mechanisms, making them more responsive to community needs. In the context of regions with Muslim minorities, distribution mechanisms based on community solidarity are more effective in directly assisting vulnerable groups. These research results align with the study (Karunia et al., 2024), which states that infak and sedekah play a role in improving the economic well-being of the community, assisting the underprivileged, and directly improving the financial conditions of the community. The other religious social fund (DSKL) variable shows a coefficient value of 0.0222644 with a probability of $0.334 > 0.05$. These results indicate that DSKL has a positive relationship with poverty, but it is not statistically significant. This finding suggests that DSKL has not yet been able to produce a tangible impact on poverty reduction during the study period. This situation may be due to the distribution of religious social funds not being directly focused on poverty alleviation programs, but rather being used for various other social and religious activities. Consequently, the impact of DSKL on the poor is less evident empirically. These results align with the study (Rahmani & Putra, 2025), which found that the distribution of religious social funds remains limited and has not reached all groups of the poor equally.

The results of this study indicate that the effectiveness of Islamic philanthropy in reducing poverty is significantly influenced by distribution mechanisms and the social characteristics of the study area. In the context of provinces with Muslim minorities, flexible, community-based philanthropic instruments such as infak and sedekah have proven to be more effective than formal instruments such as zakat and DSKL.

Macroeconomic Influences on Poverty

The results of the study indicate that macroeconomic variables have varying effects on poverty rates in provinces with Muslim minority populations in Indonesia. The variables used in this study include inflation, economic growth, Regional Gross Domestic Product (GRDP), Regional Revenue and Expenditure Budget (APBD), and Provincial Minimum Wage (UMP). In general, the research results indicate that most macroeconomic variables have not had a significant impact on poverty during the 2019–2023 study period. This suggests that economic growth and regional economic policies have not yet been fully effective in directly reducing poverty in the study areas. The inflation variable shows a coefficient value of 0.3914583 with a probability of

$0.119 > 0.05$. This result indicates that inflation has a positive relationship with poverty, but it is not statistically significant. This means that an increase in inflation tends to be followed by an increase in the poverty rate, although its influence is not yet strong enough empirically. Theoretically, rising inflation can reduce purchasing power, particularly among low-income groups, thereby potentially increasing poverty. However, during the study period, inflation rates remained relatively stable, so its impact on changes in poverty levels was not yet significantly evident. This result aligns with the study (Abdi & Nor, 2025), which states that inflation has not been proven to have a significant influence on poverty levels. The economic growth variable shows a coefficient value of 0.3727715 with a p-value of $0.145 > 0.05$. This result indicates that economic growth has a positive relationship with poverty, though it is not statistically significant. This finding suggests that the economic growth observed has not yet been fully inclusive and has not been able to improve the well-being of the poor population evenly. This situation indicates that an increase in regional economic activity does not automatically lead to an increase in income for the lower socioeconomic groups. These research findings are consistent with the study (Prasetyoningrum & Sukmawati, 2018), which states that economic growth does not always have a direct impact on reducing poverty, especially when the benefits of economic development have not been distributed evenly.

The GRDP variable shows a coefficient value of -0.4546749 with a probability of $0.418 > 0.05$. These results indicate that an increase in GRDP tends to be followed by a decrease in the poverty rate; however, this effect is not statistically significant. Theoretically, an increase in GRDP reflects an increase in regional economic activity, which is expected to boost community income and reduce poverty. However, the findings of this study indicate that the increase in GRDP has not yet been fully felt by the poor, particularly in remote areas or regions with limited economic access. These results align with the study (Ramli & Karmila, 2025), which found that GRDP has not yet yielded tangible impacts on poverty reduction because the benefits of economic development have not been distributed evenly. The APBD variable shows a coefficient value of 0.0753254 with a probability of $0.547 > 0.05$. These results indicate that the APBD has a positive relationship with poverty, but it is not statistically significant. This suggests that increases in the regional budget have not been fully effective in reducing poverty. This may be due to regional expenditure allocations that are not yet focused on poverty alleviation programs or are not effectively targeting poor communities. This finding differs from the research by Isra (Huda & Karsudjono, 2019), which states that the APBD is a crucial instrument for local governments in improving community welfare through economic interventions and social development.

The UMP variable has a coefficient of -0.1244018 with a p-value of $0.211 > 0.05$. These results indicate that an increase in the UMP tends to be followed by a decrease in the poverty rate; however, this effect is not statistically significant. This suggests that the increase in the minimum wage has not yet been able to have a tangible impact on poverty reduction in the study area. This may be because the majority of the poor work in the informal sector, which is not fully subject to minimum wage policies. Consequently, the increase in the UMP is felt more by formal sector workers than by the poor who rely on daily income. These findings align with the study (Ferezagia, 2018), which states that the poor in Indonesia generally rely more on informal sector income than on the formal wage system. These findings indicate that macroeconomic variables have not yet had a significant impact on poverty reduction in provinces with Muslim minority populations in Indonesia. These findings indicate that economic growth and regional economic policies have not yet been fully inclusive and have not been able to reach poor communities equitably. Therefore, poverty reduction requires not only increased economic growth but also a more equitable distribution of development and more targeted economic policies.

The Impact of Socio-Demographic Factors on Poverty

The results of the study indicate that sociodemographic variables have a relatively more consistent influence on poverty rates than macroeconomic variables. The sociodemographic variables in this study include the Human Development Index (HDI), average years of schooling, the open unemployment rate (OUR), population size, and social assistance (bansos). In general, the research results indicate that the quality of human resources and demographic conditions have a fairly strong correlation with changes in poverty rates in provinces with Muslim minority populations in Indonesia. The Human Development Index (HDI) variable shows a coefficient value of -12.27234 with a probability of $0.003 < 0.05$. These results indicate that the HDI has a negative and significant effect on poverty. This means that improvements in human development quality tend to be followed by a tangible reduction in poverty rates. This finding suggests that aspects of education, health, and living standards play a crucial role in reducing poverty. Communities with better education and health outcomes tend to have higher productivity and economic opportunities, thereby enhancing their quality of life. These research results align with the study (Hayati & Chandriyanti, 2025), which states that an increase in the HDI contributes to reducing poverty because healthier and better-educated communities have greater opportunities to achieve a better quality of life. The variable “average years of schooling” shows a coefficient value of -0.5365365 with a probability of $0.773 > 0.05$. These results indicate that average years of schooling has a negative relationship with poverty, though it is not statistically significant. This means that an increase in average years of schooling tends to be followed by a decrease in poverty rates, but this effect is not yet strong enough empirically. This suggests that formal education has not yet fully become an effective instrument in reducing poverty in the study area. This may be influenced by limited employment opportunities, low educational quality, and a mismatch between education and labor market needs. These results differ from Todaro’s study in (Al Mustakim & Rizal, 2022), which found that education has a significant impact on reducing poverty at the national level.

The open unemployment rate (OUR) variable shows a coefficient value of -0.0120741 with a p-value of $0.824 > 0.05$. This result indicates that the OUR has a negative relationship with poverty, but it is not statistically significant. This finding suggests that the open unemployment rate has not been able to empirically explain changes in poverty rates in the study area. This condition may be caused by the dominance of the informal sector in the community’s economic activities. Some members of the community still have sources of income even though they are not recorded in formal employment, so the open unemployment rate does not fully reflect the community’s actual economic conditions. This result aligns with the view of the International Labour Organization (ILO), which states that the TPT indicator primarily describes formal unemployment and is less capable of representing the economic conditions of communities in regions with a dominant informal sector. The population variable shows a coefficient value of 0.3569941 with a probability of $0.000 < 0.05$. This result indicates that population size has a positive and significant effect on poverty. This means that an increase in population size tends to be followed by a tangible rise in poverty rates. This condition indicates that population growth not

balanced by improvements in human capital quality, employment opportunities, and income distribution can increase economic pressure on the community. As the population grows larger, the demand for jobs, education, healthcare, and other basic needs also increases. These findings align with the study (Zaman et al., 2023), which states that population growth is closely linked to increased economic pressure and poverty in the community. The social assistance (bansos) variable shows a coefficient value of 0.2104032 with a p-value of $0.231 > 0.05$. This result indicates that social assistance has a positive direction of relationship with poverty, but it is not statistically significant. This suggests that social assistance programs have not yet been able to produce a tangible impact on reducing poverty in the study area. This may be due to various factors, such as inaccuracies in targeting aid recipients, limited aid amounts, and the fact that social assistance has not been fully utilized to improve the long-term welfare of the poor. Additionally, social assistance tends to be consumptive and short-term in nature, so its impact on reducing structural poverty remains relatively limited. The results of this study indicate that socio-demographic factors have a relatively stronger influence on poverty compared to macroeconomic factors. Variables related to human capital, such as the Human Development Index (HDI), have been shown to have a significant impact on poverty reduction, whereas demographic factors such as population size actually significantly increase poverty. These findings suggest that poverty reduction does not depend solely on economic growth but is also heavily influenced by the quality of human resources and the social conditions of the community.

Conclusion and Suggestion

Conclusion

This study examined the effects of Islamic philanthropy, macroeconomic factors, and socio-demographic factors on poverty in Muslim-minority provinces in Indonesia during the 2019–2023 period. The findings reveal that infaq and sadaqah, population size, and the Human Development Index (HDI) significantly influence poverty levels. Infaq and sadaqah contribute to poverty reduction through flexible and community-based redistribution mechanisms, while improvements in HDI are associated with lower poverty rates. Conversely, population growth tends to increase poverty when it is not accompanied by adequate employment opportunities and human capital development. Meanwhile, zakat, other religious social funds (DSKL), GRDP, regional budget (APBD), social assistance, average years of schooling, economic growth, provincial minimum wage, inflation, and open unemployment rate were found to have no statistically significant effect on poverty. These findings suggest that poverty in Muslim-minority provinces is influenced more by human development and effective social redistribution than by conventional macroeconomic indicators alone.

Suggestion

Based on these findings, the government should prioritize policies that strengthen human development through improved access to quality education, healthcare, and employment opportunities, as HDI has proven to be a significant determinant of poverty reduction. Islamic philanthropic institutions are also encouraged to enhance the effectiveness of infaq and sadaqah management and distribution by expanding community-based empowerment programs targeted at vulnerable groups in Muslim-minority regions. Furthermore, policymakers should pay greater attention to demographic pressures by promoting inclusive economic opportunities that can absorb population growth productively. Future studies are recommended to incorporate broader geographical coverage, longer observation periods, and alternative econometric approaches that address potential endogeneity issues to provide a more comprehensive understanding of poverty determinants in Indonesia.

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