The Effect of Zakat Distribution and Human Development Index (HDI) on Poverty Levels in Indonesia

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Abstract: This study aims to determine the in luence of zakat and Human Development Index (HDI) distribution on the poverty level in Indonesia. For analysis, this study uses panel data. Data was taken from 2021 to 2023 from all provinces in Indonesia. The calculation of the panel's data regression shows that the distribution of zakat has a negative effect on the Poverty Level and the Human Development Index (HDI) has a positive effect on the poverty level, From 2021 to 2023, the variables of zakat distribution and HDI have a simultaneous and signi icant in luence on the Poverty Level in Indonesia.

Keywords: Zakat distribution, Human Development Index (HDI), Poverty Level.

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A. INTRODUCTION

Poverty is one of the fundamental problems that is the center of government attention in every country. An important aspect to support poverty reduction strategies is the availability of accurate poverty data. Poverty measurement is often difficult to conduct because it highly depends on the indicators used, which generally focus on inadequate living conditions. Good measurement data can be used to assess government policies towards poverty, compare poverty across time and regions as determined by the intention of the poor to improve their conditions (Masfufah, 2022). Poverty is a fundamental problem that concerns almost all countries, including Indonesia. Poverty reduction strategies require accurate data to support effective policies. Apart from income-based measurements, the quality of human life is also measured through the Human Development Index (HDI), which encompasses the dimensions of health, education, and decent living standards (BPS, 2023).

Poverty reduction correlates closely with HDI improvement (Suliswanto, 2022). The reduction of poverty cannot be separated from efforts to improve the quality of human resources as reflected in the HDI value, so poverty alleviation strategies must go hand in hand with improving community capabilities in the dimensions of health, education, and economy (Nurwati, 2022). Beyond developing civilization and knowledge, poverty is not always associated with income or wealth. The reflection of poverty cannot be separated from the opinion of Sharia objectives or Macedonian Sharia. Various Sharia law lessons are closely related to poverty issues such as zakat (Bank Indonesia, 2016). However, low poverty levels are related to the measurements or indicators used. In Indonesia, there is an official stitution that measures poverty, namely the Central Bureau of Statistics (Aris, et al 2021). The

empowerment of Zakat, which is highly expected to provide beneficial value to the community (mustahik), depends on the ability of zakat administrators to understand three dimensions of empowerment: civic competence, socio-political capability, and participatory competence. From these capabilities, it is hoped that a development process will emerge that begins with individual growth which then develops into greater social change (January 2018).

To alleviate poverty, many efforts are made, especially for basic needs, public services, educational services, etc. Islam has provided different poverty solutions, especially for Muslims to work and for performance fund returns in Zakat. From the perspective of Islamic economics, one effort to overcome poverty is zakat. Poverty Reduction is described as positive changes in poverty levels measured by indicators such as beginner levels, access to education and health (Widiastuti, 2021). The distribution of Zakat funds, which is continuously increasing each year, shows that zakat collection has been optimal so that it can reduce poverty rates and encourage the growth of the Indonesian economy (Fitriyani, 2020). Studies show that there is a reciprocal relationship between zakat distribution and HDI improvement. Targeted zakat distribution can increase community access to education and health, which are the main components in HDI calculation (Rahman, 2023). Productive zakat programs have been proven to provide a dual impact by not only reducing poverty directly but also improving the quality of life of beneficiaries in the long term, which is reflected in the increase in HDI values (Beik & Arsyianti, 2022). Research conducted focuses on Zakat research. The results of research conducted by (Ade Yunita Mafruhat Risda Ridwanayati, 2023) entitled 'The Effect of Zakat Infaq Shadaqah on Poverty Reduction in Indonesia in 2010-2020, (Risda Ridwanayati, 2023) stated that Zakat, Infaq and Shadaqah have a significant effect on Poverty Reduction in Indonesia in 2010-2020. In addition, research results (Murobbi, 2021) show that the receipt of zakat funds has a significant effect on poverty reduction in Indonesia.

On the contrary, the receipt of Infaq and alms funds does not have a significant effect on poverty reduction. Testing on inflation shows that inflation does not have a significant effect on poverty, contradicting the hypothesis that states otherwise. This research will provide a new perspective by analyzing the influence of Zakat in depth on poverty alleviation efforts during the most recent period, 2021-2023. Although there have been several studies in Indonesia regarding the influence of Zakat in alleviating poverty with different years, none have analyzed this 2021-2023 period. The purpose of this research is to determine the effect of Zakat distribution on poverty rate reduction in Indonesia.

B. METHOD

This study aims to analyze the effect of zakat distribution and the Human Development Index (HDI) in efforts to alleviate poverty in Indonesia. The research methodology is systematically designed to ensure replicability and to guarantee that the results are scientifically accountable. Therefore, the method used in this study is based on structured and objective principles of quantitative research. The method employed in this study is multiple linear regression analysis to determine and observe the influence of zakat distribution and

HDI on poverty levels in Indonesia. The data used in this study are secondary data obtained from the Central Bureau of Statistics (Badan Pusat Statistik) and publications by the National Zakat Agency (BAZNAS).

This study uses a quantitative approach with a cross-sectional data analysis method. The population in this study comprises all provinces in Indonesia, totaling 34 provinces. The sample is taken from data on zakat distribution, HDI, and poverty levels in each province. Data processing is carried out using regression analysis to test the influence of zakat distribution and HDI on poverty levels. The regression model used will identify the relationship between the dependent variable (poverty) and the independent variables (zakat distribution and HDI). The regression model employed in this study is a Panel Data Regression Model.

$$Yit = \beta 0 + \beta 1 Xit + \beta 2 Zit + \beta 3 IPMit + \varepsilon it$$

Where:

Yit = Poverty level in Indonesia in the years 2021–2023

Xit = Zakat distribution in Indonesia in the years 2021–2023

Zit = Other control variables

IPMit = Human Development Index in the years 2021–2023

Ɛit = Error term

C. RESULTS AND DISCUSSION

The results of model calculations that have been tested using the Eviews 12 program which aims to determine the estimation model selected in the assumption test:

1. Multicollinearity Test

One of the reasons for conducting a multicollinearity test is to assess the relationship between the independent variables. If there is a correlation between the variables, this may indicate the presence of multicollinearity. To detect multicollinearity, we can perform a correlation test. Using the correlation matrix, we can determine whether there is a relationship among the independent variables or a multicollinearity problem. If the correlation value exceeds 0.80, then this indicates the presence of multicollinearity (Soemantri, 2019).

Table 1. Correlation test results

	Distribution of Zakat	**HDI**
Distribution of Zakat	1,000000	0.198690
HDI	-0,198690	1,000000
R-Square	0.443243	

Source: data processed (eviews 12)

The correlation matrix in Table 1. shows that the correlation value is not more than 0.80, which indicates that there is no multicollinearity.

2. Heteroscedasticity Test

The Heteroscedasticity test serves to assess differences in the residual variances of all observations in the regression model. When the residual variances of two instances are identical, this is called homoscedasticity. Conversely, heteroscedasticity occurs when the residual variances of the two events are different. To test for heteroscedasticity, the Glesjer Test is used. If the chi-squared probability value is higher than α 0.05, then the model will be determined (Soemantri, 2019).

Table 2. Probability value of Glesjer tes

Variable	Prob
C	0.0007
Distribution of Zakat	0.04367
HDI	0.0036

Source: data processed (eviews 12)

Analysis results shown in table 1. The coefficient of determination or R-Square shows a figure of 0.4432, which means that 44.32 percent of the variation in the level of poverty can be explained by the independent variables in this study, Zakat Distribution (X1) and the Human Development Index (X2), while the remaining 55.68 percent is explained by other factors not included in this study. Based on the results of data processing table 2. Shows that the Prob value of 0.0007 <0.05 So this illustrates that the independent variables of zakat distribution (X1) and Human Development Index (X2) affect the poverty rate (Y).

3. Panel Data Regression Model

To see the impact of the variables of zakat distribution (X1) and HDI (X2) on the poverty rate (Y), regression equations are used to speed up and provide more accurate results using the help of the Eviews 12 program. The results are as follows:

Table 3. Panel data regression results

Variable	Coifisien
Distribution of Zakat	-0.0404**
	(0.022)
HDI	-0.0090***
	(0.0000)
Poverty Level	75.2430***
	(0.0000)
R-Square	0.44
F- Statistics	6,883**
Total Observation	34

Description: Significant Level 1%(<0.001)***, 5%(<0.05)**, 10%(<0.1)*

Source: data processed (Eviews 12)

Based on the panel data regression results shown in table 3. Then the Regression equation is as follows: Y_{it}=75.2430-0.0404-0.0090. So from the results of the equation it can be seen that the regression constant value of 75.2430 indicates that if the distribution of zakat (X1) AND HDI (X2) is zero, then the poverty rate will be equal to the constant value of 75.24 percent, and the negative regression coefficient value of the zakat distribution variable is -0.0404 which means that if the distribution of zakat decreases by 1%, the poverty rate will increase by 0.0404% assuming other variables are considered constant or fixed. As well as the negative HDI variable regression coefficient value of -0.0090 which indicates that if the Human Development Index decreases by 1%, the Poverty Rate will increase by 0.0090%, still with the same assumption when other variables are considered constant or fixed. The results of this study are in line with the results of research conducted by nataja, s.y (2025) which states that zakat distribution and human development index have a negative and significant effect on poverty rate. This result indicates that zakat distribution policy and increasing HDI are two effective strategies to reduce poverty level. This research supports the role of zakat as one of the instruments of social development.

D. CONCLUSIONS AND SUGGESTIONS

Based on the research findings, it can be concluded that zakat distribution and the Human Development Index (HDI) have a negative and significant effect on poverty levels in Indonesia. This means that the greater the amount of zakat distributed and the higher the HDI, the lower the poverty rate tends to be. The panel data regression model used indicates that approximately 44% of the variation in poverty levels can be explained by these two variables, while the remainder is influenced by other factors outside the model. As a suggestions, the optimization of zakat distribution should continue to be improved so that its impact on poverty alleviation becomes more evident. In addition, improving the quality of life through education, healthcare, and economic access as components of HDI should remain a key focus for government policies and relevant institutions to ensure more significant and sustainable poverty reduction.

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