## Optimizing Zakat Distribution: An Examination of Poverty, Income, and Unemployment in Kudus City

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## Abstract

This study explores the optimization of zakat distribution in Kudus City, focusing on the effects of poverty, income, and unemployment. Employing a quantitative research method and the analysis of secondary data, this investigation employs EViews 10 for the examination of pertinent variables. Results from Kudus City indicate that the "Number of Poor Population," income, and unemployment significantly affect the "Zakat Almsgiving Funds." Notably, there is a negative correlation with the "Number of Poor Population" and a positive correlation with income and unemployment levels. These outcomes offer crucial insights for policy formulation and the enhancement of zakat distribution efficacy.

Keyword: poverty, income, unemployment, zakat almsgiving

### Abstrak

Penelitian ini bertujuan mendalami optimalisasi distribusi zakat di Kota Kudus dengan mengeksplorasi dampak kemiskinan, pendapatan, dan pengangguran. Adapun metode penelitian yang digunakan yaitu metode kuantitatif dengan data sekunder. Sedangkan teknik analisis data dilakukan dengan menggunakan EViews 10 untuk menganalisis variabel-variabel terkait. Hasil penelitian di Kabupaten Kudus menunjukkan bahwa "Jumlah Penduduk Miskin," pendapatan, dan pengangguran memiliki pengaruh signifikan terhadap "Dana Pentasyafuran Zakat," dengan korelasi negatif pada "Jumlah Penduduk Miskin," dan pengaruh positif pada pendapatan serta pengangguran. Temuan ini memberikan pandangan berharga untuk perencanaan kebijakan dan distribusi zakat yang lebih efektif.

Kata Kunci: kemiskinan, pendapatan, pengangguran, pentasyarufan zakat

## Introduction

Poverty represents a critical challenge for many Indonesian cities, including Kudus City. Addressing this issue necessitates varied strategies, among which zakat fund distribution commands significant attention. Zakat, beyond being a religious duty, serves as a pivotal Sharia economic tool for poverty alleviation.

The effective distribution of zakat is central to poverty reduction efforts. Studies on zakat institutions, such as Baznas in Siak Regency, illustrate that zakat, through initiatives targeting consumption, social welfare, health, and education, can substantially enhance community welfare (Kartius et al., 2023). While financial limitations restrict housing program implementations, ongoing evaluation and the improvement of reporting mechanisms are essential for ensuring zakat's effective delivery to the mustahik (Vegirawati et al., 2023). The commendable performance of Baznas in Asahan Regency, characterized by an efficient ACR, highlights the critical need for proficient zakat distribution. This success story exemplifies how elevating distribution efficiency and quality is instrumental in magnifying zakat's positive impact on community poverty challenges (Putri & Tarigan, 2022).

Zakat Management Organizations (LAZ) are instrumental in collecting, managing, and distributing zakat as part of efforts to mitigate poverty and enhance community welfare (Mustofa, 2021). Serving as intermediaries between muzakki (zakat contributors) and mustahik (zakat beneficiaries), LAZ ensures the strategic allocation of zakat funds in alignment with religious guidelines. Furthermore, LAZ is tasked with community socialization to heighten awareness regarding zakat's significance and management methodologies.

Concurrently, the government's role in the zakat context includes formulating regulations and policies that bolster the sustainability of Zakat Management Organizations (LAZ) and guarantee transparency and accountability in zakat fund management (Maulina et al., 2023). The government can offer incentives or support to LAZ, thereby enhancing their operational efficiency and effectiveness. Additionally, the government can ensure that collected zakat is allocated to development programs in alignment with the national development agenda.

Earlier research by Alifia & Burhan (2020) demonstrated that the distribution of Zakat, Infaq, and Sadaqah (ZIS) positively influences poverty levels in Indonesia. Proper zakat fund distribution is understood to provide aid to those in need, elevate living standards, and reduce economic disparities, thereby fostering a balanced and equitable social environment. However, a study by Widiastuti & Kosasih (2021) indicated that the increase in ZIS distribution has not yet reached statistical significance. Nonetheless, the findings posit that poverty reduction through zakat remains a viable prospect.

Even though previous studies have shed light on the positive impact of zakat distribution, a comprehensive exploration into the factors influencing zakat utilization is still required. This research will probe the relationship between poverty levels, income, and unemployment and the patterns of zakat utilization in Indonesia. By discerning the influence of these variables, this study aims to lay the groundwork for robust policy-making to facilitate more efficient zakat distribution.

By gaining a comprehensive understanding of the factors impacting zakat utilization and identifying areas of distribution that require enhancement, this study is expected to significantly contribute to poverty reduction efforts in Kudus City through the effective harnessing of zakat potential.

## **Literature Review**

Like many other regions, Kudus City grapples with poverty, necessitating the identification of effective strategies. Zakat distribution emerges as a potential tool for economic transformation in the city. Zakat is acknowledged not only as a religious obligation but also as an economic instrument capable of making a considerable contribution to mitigating poverty.

Zakat serves as one of the pillars of the economic mechanism adhering to Sharia principles, operating beyond its religious mandates. Research by Alifia & Burhan (2020) discusses the positive impact of zakat distribution, specifically Zakat, Infaq, and Sadaqah (ZIS), on poverty levels in Indonesia. Effective zakat fund distribution can provide assistance to those in need, enhance living standards, and diminish economic disparities. This fosters a more balanced and equitable social environment, bolstering poverty reduction efforts across various societal segments.

However, studies like the one conducted by Widiastuti & Kosasih (2021) highlight challenges in achieving statistical significance in the improvement of ZIS distribution. While their findings suggest that zakat has the potential to significantly reduce poverty levels, they underscore the need for more comprehensive research and policy implementation involving a variety of stakeholders, including the government, zakat management organizations, and the community. A primary challenge identified is the distribution pattern's tendency towards consumptive rather than productive programs, underscoring the necessity to increase productive zakat distribution for a more substantial impact on poverty alleviation (Rosadi & Athoillah, 2016).

To bridge the gaps identified in existing research, this study will investigate how zakat distribution patterns are influenced by poverty levels, income, and unemployment. Drawing on the "Income Distribution Theory," this research aims to develop a thorough understanding of the interrelationships among these variables. By exploring the dynamics between poverty, income, and unemployment, this study intends to lay the foundation for future zakat distribution policies, contributing to the ongoing debate on effective poverty alleviation strategies in Indonesia.

The "Income Distribution Theory" offers a framework for analyzing how zakat, as an economic redistributor, can influence income distribution and aid in poverty reduction. Grounded in the work of Piketty, this theory help contextualize economic inequality and the necessity for efficient redistribution strategies. Incorporating this theoretical framework, the study seeks to elucidate the complex interplay between poverty, income, and unemployment in the allocation of zakat in Kudus City.

## **Research Methods**

This study employs a quantitative methodology to examine the correlations between key variables related to zakat and economic development in Kudus. It relies on secondary data sourced from BAZNAS Kudus and BPS Kudus, utilizing time series data from 2019 to 2021. This dataset comprises independent variables such as the number of poor individuals, income, and unemployment rates, with the Zakat Allocation Fund serving as the dependent variable. For data analysis, the statistical software EViews 10 was selected to test hypotheses, develop regression models, and interpret findings. Chosen for its advanced capabilities in time series and regression analysis, EViews 10 facilitates a detailed examination of the impact of zakat on economic variables. This study leverages EViews 10 for extensive time series data analysis, aiming to offer deep insights into the interplay between zakat and economic development in the region. Through this approach, the research is anticipated to significantly enhance our understanding of zakat's role in local economic advancement.

## **Result and Discussion**

BAZIS Kudus was established in 1994, primarily tasked with managing zakat, infaq, and sadaqah. By 2018, it underwent a rebranding to become BAZDA, under the leadership of Drs. H. Abdul Hamid, in alignment with Law No. 38 of 1998 on Zakat Management. Over the course of 28 years, BAZNAS has compiled an extensive record of legal and operational activities. With the support of both the community and government, the Kudus Regency Government formalized the establishment of BAZNAS Kudus on April 24, 2018, through a decree based on Law No. 23 of 2013 on Zakat Management. The official establishment, however, took place in February 2019. BAZNAS Kudus was granted office space by the Kudus Regency Government in Megawon Baru Village, Jati District. Equipped with these facilities, BAZNAS Kudus is dedicated to enhancing the management of Zakat, Infaq, and Sadaqah (ZIS).

## **Normality Test Results**

The objective of the normality test is to verify the normal distribution of the variables in the regression model. The residuals are deemed normally distributed if the significance value exceeds the significance threshold (> 0.05).



 Table 1.

 Normality Test Results Normal Probability Plot Graph

Source: Primary Data processed by Eviews 10, 2022

As shown in Table 4.4, the significance value of 0.659676 exceeds 0.05. Consequently, based on the Jarque-Bera Probability value, the data fulfill the classical assumption of normal distribution.

### **Autocorrelation Test**

The purpose of the autocorrelation test is to investigate the correlation between residuals across different observations within a regression model. The Breusch-Godfrey test, employed for this analysis, indicates autocorrelation if the probability value is less than 0.05. On the other hand, a probability value greater than 0.05 denotes the absence of autocorrelation. This test is crucial for detecting serial correlation within a regression model and assessing the autocorrelation among the observed variables.

# Table 2.Autocorrelation Test

F- Statistic	0.911307	Prob. F(2,5)	0.4598	
Obs*R-Squared	2.938573	Prob. Chi-Square(2)	0.2301	
Source: Primary Data processed by Eviews 10, 2022				

The results yield a probability value of 0.2301, which surpasses the 0.05 threshold. This indicates the absence of autocorrelation, signifying that the dependent variable does not correlate with its own prior or subsequent values.

## **Heteroskedasticity Test**

The test for heteroskedasticity is pivotal in validating the adherence to classical assumptions in regression analysis. Heteroskedasticity, characterized by a non-

uniform variance of residuals across all observations in a regression model, can significantly impact the model's reliability. The Glejser test is employed to ascertain the presence of heteroskedasticity, which is a critical factor for the integrity of regression models.

Hypotheses:

 $H_0$  = The regression model exhibits no signs of heteroskedasticity.

 $H_1$  = The regression model exhibits signs of heteroskedasticity.

A p-value exceeding 0.05 suggests the absence of heteroskedasticity symptoms, warranting the acceptance of  $H_0$ . Conversely, a p-value below 0.05 necessitates the rejection of  $H_0$ , indicating the presence of heteroskedasticity symptoms in the research model.

Heteroskedasticity Test				
F-statistic	2.782659	Prob. F (3,7)	0.1196	
Obs*R-squared	5.983052	Prob. Chi-Square (3)	0.1124	
Scaled explained SS	2.348106	Prob. Chi-Square (3)	0.5034	

Table 2

Source: Primary Data processed by Eviews 10, 2022

The Glejser method's heteroskedasticity test results, with a p-value of 0.1124, affirm the acceptance of  $H_0$ , indicating no evidence of heteroskedasticity within the study.

## Multiple linear regression analysis

The objective of employing multiple linear regression analysis is to explore the linear relationship between three independent variables and one dependent variable. Utilizing Eviews 10, the analysis produced the following results:

Variable	Coefficient	Prob.
С	1.470000	0.0000
Poverty	-0.671412	0.0000
Income	1.291281	0.0000
Unemployment	0.780988	0.0000

Table 4.
Multiple Regression Analysis

Source: Primary Data processed by Eviews 10, 2022

The derived regression equation model from the multiple regression analysis is as follows:

 $X_2$  : Income  $X_3$  : Unemployment  $\pounds$  : Error

Analysis Interpretation:

- The constant coefficient (1.470000) implies that, with all variables, Number of Poor Population (X<sub>1</sub>), Income (X<sub>2</sub>), and Unemployment (X<sub>3</sub>), held constant, there is a baseline effect of 1.470000 on (Y).
- 2) The coefficient for Number of Poor Population ((X<sub>1</sub>)) at -0.671412 indicates that an increase in (X<sub>1</sub>) by one unit decreases (Y) by 0.671412.
- The coefficient for Income ((X<sub>2</sub>)) at 1.291281 demonstrates that an increase in (X<sub>2</sub>) by one unit raises (Y) by 1.291281.
- 4) The coefficient for Unemployment ((X<sub>3</sub>)) at 0.780988 shows that an increase in (X<sub>3</sub>) by one unit elevates (Y) by 0.780988.

## Individual Parameter Significance Test (T-Statistic Test)

The T-Statistic Test is primarily utilized to ascertain the individual impact of an independent variable (X) on a dependent variable. The process is outlined as follows:

- Should the calculated t-value be less than the table t-value or the significance level exceed 0.05, the alternative hypothesis (Ha) is dismissed, indicating acceptance of the null hypothesis (Ho). This suggests that variable X does not singularly influence variable Y.
- 2) Conversely, if the calculated t-value surpasses the table t-value or the significance level is below 0.05, the null hypothesis (Ho) is rejected in favor of the alternative hypothesis (Ha), implying that variable X individually impacts Y.

## Table 5.

Partial Test (T-Test)

Variable	T – statistic	Prob.
С	14.93447	0.0000
Poverty	-1.61E+13	0.0000
Income	1.44E+13	0.0000
Unemployment	2.15E+13	0.0000

Source: Primary Data processed by Eviews 10, 2022

From the table above, the following conclusions can be drawn:

- The Probability Value for the Poverty Variable, with a calculated t-value of 0.0000, which is less than the table t-value or deemed as significant as 0.05, leads to the rejection of Ho and acceptance of Ha. This signifies that an increase in poverty negatively impacts zakat almsgiving funds.
- 2) The Probability Value for the Income Variable indicates a calculated t-value of 0.0000, less than the table t-value or considered as significant as 0.05, resulting in the rejection of Ho and acceptance of Ha. Consequently, it is inferred that income positively influences zakat almsgiving funds.
- 3) The Probability Value for the Unemployment Variable, showing a calculated tvalue of 0.0000, which is less than the table t-value or as significant as 0.05, leads to the rejection of Ho and acceptance of Ha. This implies that unemployment has a positive effect on zakat almsgiving funds.

## Simultaneous Parameter Significance Test (F-Statistic Test)

The F-Statistic Test primarily illustrates the collective influence of multiple independent variables  $(X_1, X_2, X_3)$  on the dependent variable (Y). The findings, analyzed using Eviews 10, are as follows:

## Table 6.

Simultaneous Test (F-Test)

R-squared	0.964467	Mean dependent var	8.92E-19
Adjusted R-squared	0.956571	S.D. dependent var	8.88E-19
S.E of regression	1.85E-19	Sum squared resid	3.08E-37

F - statistic122.1431Durbin - Watson stat0.760191Prob (F- statistic)0.000000

Source: Primary Data processed by Eviews 10, 2022

The analysis is summarized as follows:

- If the calculated F-value exceeds the table F-value or the significance level is below 0.05, the null hypothesis (Ho) is rejected, endorsing the alternative hypothesis (Ha) that the variables X collectively impact variable Y.
- 2) If the calculated F-value is less than the table F-value or the significance level exceeds 0.05, the alternative hypothesis (Ha) is rejected, implying the null hypothesis (Ho) is accepted and that the variables X do not collectively influence Y.

Based on the regression results, with a probability value of the calculated F being 0.000000, which is less than the table F-value or as significant as 0.05, it is concluded that the variables, namely number of poor population ( $X_1$ ), income ( $X_2$ ), and unemployment ( $X_3$ ), collectively affect the Zakat fulfillment funds variable (Y), leading to the rejection of Ho.

## Discussion

## Poverty and Zakat Distribution in Kudus

The results of hypothesis testing reveal a significant impact of the "Number of Poor Population" variable on the "Zakat Alleviation Funds," as demonstrated by an extremely low probability value (p-value < 0.0001). This leads to the rejection of the null hypothesis (H<sub>0</sub>), laying a solid foundation for the existence of a relationship between the two variables. This conclusion is further bolstered by a notable t-statistic value, which indicates a negative correlation between the "Zakat Almsgiving Funds" and the "Number of Poor Population." Specifically, an increase in these funds is associated with a significant reduction in poverty levels, whereas a decrease in the funds corresponds to an increase in poverty. Thus, this study makes a substantial contribution to the understanding of zakat distribution dynamics and poverty alleviation efforts.

Further, research conducted by Alifia & Burhan (2020) supports the notion that the disbursement of Zakat, Infaq, and Sadaqah (ZIS) plays a pivotal role in diminishing poverty levels in Indonesia. Conversely, the study by Widiastuti & Kosasih (2021) suggests that, despite a lack of statistical significance, the negative trend in ZIS disbursement effects hints at a potential reduction in poverty levels, warranting further investigation in a more extensive context.

Research by Tamimi et al. (2023) sheds light on the notion that alterations in the disbursement of Zakat, Infaq, and Sadaqah (ZIS) could lead to a positive and significant impact on poverty levels over the long term, albeit not significantly in the short term. Hence, it is derived from these studies that ZIS plays a vital role in poverty alleviation, albeit its effective implementation may necessitate a considerable period to yield significant outcomes.

### Income and Zakat Almsgiving in Kudus

The t-test results conclusively show that the income variable significantly affects the zakat almsgiving funds in Kudus Regency. A low probability value (p < 0.0001) underscores that the correlation between income and zakat almsgiving funds is statistically substantial and not merely coincidental. Analysis of income data reveals that income fluctuations directly influence the ebb and flow of zakat almsgiving funds in Kudus Regency. A positive coefficient (1.44E+13) signifies a direct relationship, indicating that an uptick in income aligns with an increase in zakat almsgiving funds, while a downturn in income leads to a corresponding reduction in these funds.

Therefore, these findings underscore the critical role of income in shaping the level of zakat almsgiving funds in Kudus Regency. Moreover, the positive impact observed suggests that an enhancement in income levels can significantly contribute to bolstering zakat funds within the region.

Conversely, in the context of Malang City, a distinct study underscores the pivotal role of income in influencing the decision of muzakki (zakat contributors) to contribute their zakat through Zakat Management Organizations (LAZ). At an individual level, a person's income significantly encourages the choice of LAZ as the preferred institution for zakat contribution. This demonstrates that the higher an individual's income, the more likely they are to opt for LAZ as their channel for zakat payment in Malang City (Hamidah, 2020).

In contrast, in Makamhaji Village, Kartasura, research indicates that income, belief, and religiosity collectively impact the inhabitants' decision to remit income zakat. The research model markedly aids in comprehending the influence of trust and religiosity on boosting zakat collection at the village level. These insights reveal that variables such as income, belief, and religiosity mutually reinforce in guiding the villagers' decision to contribute income zakat. Hence, this study not only delineates the impact of each variable independently but also unveils the intricate interplay among these factors in the realm of income zakat contribution within the local community (Sumadi & Priliastuti, 2021).

## Unemployment and Zakat Almsgiving in Kudus

Derived from the t-test findings, it is evident that the unemployment variable significantly impacts zakat almsgiving funds. The exceedingly low probability value (p < 0.0001) underscores that the association between unemployment and zakat almsgiving funds is not merely coincidental but is underpinned by a strong statistical foundation.

Moreover, the T-statistic value of 2.15E+13 highlights that the unemployment variable markedly exerts a positive effect on zakat almsgiving funds. This indicates that an escalation in the unemployment rate is directly proportional to an increase in zakat almsgiving funds within the region. Inversely, a reduction in the unemployment rate corresponds to a decrease in these funds by an equivalent measure.

These findings elucidate that the unemployment rate has a constructive effect on the volume of zakat almsgiving funds. This implies that fluctuations in the unemployment rate can significantly influence the quantum of funds amassed for zakat almsgiving purposes in the region.

In another study, it is highlighted that the unemployment rate and the distribution of Zakat, Infaq, and Sadaqah (ZIS) funds significantly impact the poverty levels in South Kalimantan, with both factors exerting a substantial influence concurrently. This means that the combined effect of these variables plays a crucial role in determining poverty dynamics (Ramadhani & Dahliana, 2022).

Unemployment can influence zakat contributions in various ways. For instance, unemployed individuals, having little to no income, may find it challenging to contribute zakat. Furthermore, a high unemployment rate within a region can negatively impact zakat collection potential, as individuals experiencing financial difficulties may transition from being zakat contributors to beneficiaries.

## Conclusion

The research conducted in Kudus Regency reveals that the "Number of Poor Population," income, and unemployment significantly affect the "Zakat Almsgiving Funds." There is a negative correlation with the "Number of Poor Population," indicating that an increase in zakat funds corresponds to a reduction in poverty levels. The income variable positively influences zakat funds, suggesting that higher income levels can enhance zakat collection. Similarly, unemployment positively impacts zakat funds, with an increase in the unemployment rate leading to an increase in zakat allocation. These results underscore the importance of effective zakat management and economic strategies aimed at increasing income and reducing unemployment as means to alleviate poverty in the region. These findings offer crucial insights for the formulation of more effective zakat policies and their distribution.

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