

Contribution of Islamic Social Finance Instruments to Social Inequality in Indonesia

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Abstract

Of the many social problems experienced around the world, inequality is one of the main issues, including in Indonesia. In addition to government assistance, Islam provides solutions to this problem through the instruments of zakat, infaq, and sadaqah as forms of wealth/income redistribution. Given that Indonesia is a country with a Muslim majority, there is considerable potential to address this issue. Therefore, this study aims to determine the impact of the distribution of zakat, infak, and sedekah on social inequality, with PDRB as the intervening variable. The research design uses a quantitative research method with secondary data from 2020–2024. This study focuses on regions with the highest inequality in Indonesia over the past five years, namely Yogyakarta, Jakarta, Gorontalo, West Java, Papua, Southeast Sulawesi, West Nusa Tenggara, West Papua, and South Sulawesi. Data were analyzed using panel regression techniques with the assistance of the *Eviews 12* program. The study results indicate that the effectiveness of zakat, infak, and sedekah distribution can significantly reduce social inequality when both are integrated. However, when tested separately, only zakat distribution can reduce social inequality with a significant value, while infak and sedekah cannot. Meanwhile, GRDP does not contribute to inequality, and this variable is also not influenced by zakat and infaq sadaqah in other regressions. Thus, GRDP, in its role as a mediator between zakat and infaq sadaqah on inequality, also yields insignificant values.

Keywords: *ZIS; GRDP; Social Inequality.*

A. INTRODUCTION

Economic growth is often used as a measure of development success in a country. This is because a growing economy is always developing and improving. However, this is not always true. As stated by Lestari and Auwalin (2022), positive economic growth does not always guarantee the resolution of various issues within a country, such as issues of justice and welfare. Many countries may have good economic growth rates, but many of their citizens still do not feel the benefits of this growth. Dienillah and Sudarmawan (2022) state that economic growth can be considered high-quality if it is accompanied by a reduction in inequality, as inequality is one of the indicators used to assess whether economic development is occurring evenly or not. Additionally, Sukwika (2018) states that development that focuses solely on economic growth has the potential to create new problems in society, one of which is inequality. Inequality is a social issue still faced by many countries worldwide, including Indonesia. The cause of inequality is when there are differences in income distribution, resulting in a gap between high-income and low-income communities. According

to Naidoo and Wills (in Warwick & Booth, 2013), social inequality is defined as differences in income, resources, power, and status within a community. Inequality also occurs when the government, as the policy maker, tends to focus solely on economic growth, annual income increases, and the development of various infrastructure projects without considering the gaps between different social groups. This is why inequality is classified as a social issue, as it often results in injustice when contributing to society across various aspects of life.

One way to see how unequal income is among people is to use the Gini ratio. The Gini coefficient is an indicator that reflects the overall level of expenditure in a society and can be used to measure income/expenditure among residents in a particular area. When the Gini index value is 0, it can be said that there is perfect equality or no social inequality in a region. On the other hand, if the Gini index value approaches 1, it can be said that social inequality in that region is very high. Michael Todaro, an Italian development economist, further classified inequality as high when a region's Gini Ratio is between 0.50 and 0.70. A region is said to have moderate inequality when the Gini Ratio is between 0.36 and 0.49. Meanwhile, low inequality or relative equality is said to be relatively high (equal) if the Gini value is between 0.20–0.35. In this case, it is impossible for a region or area to have a Gini Ratio that truly reaches 0 or 1 (Heryanah, 2017). The following is data on social inequality in Indonesia from 2020–2024.



Source: Badan Pusat Statistik, data processed in 2025

Figure 1. Indonesia's Gini Index (2020–2024)

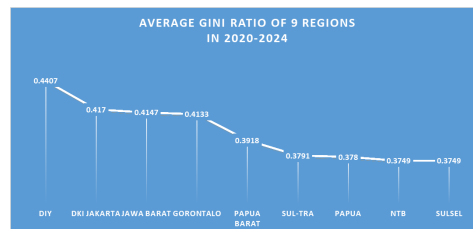
Based on the data above, it can be seen that social inequality in Indonesia in 2020–2024 falls into the category of moderate inequality because the value is in the range of 0.36–0.49. This proves that social inequality is still a serious problem in Indonesia. Even Lestari and Auwalin (2022) point out that the issue of inequality requires special attention, as inequality can be one of the factors contributing to other societal problems, such as poverty, crime, unemployment, and so on. As found in the research by Kousar et al. (2019), which revealed that both in the short and long term, income inequality is the main contributor to poverty. Therefore, growth policies that favor the poor and rationalize income distribution in a country are needed for long-term sustainability. Regarding this issue, Islam views that when a society has groups with different income levels, the existence of such groups cannot be denied. Therefore, Islam never advocates efforts to eliminate poverty. As stated by Beik and Arsyanti (2015), Islam consistently provides solutions to minimize poverty levels so that well-being in life can be achieved. The solution offered by Islam is to use the principle of wealth/income redistribution. In this case, high-income groups can voluntarily redistribute their wealth or income to be shared and given to low-income groups. Al-Ayyubi and Rasyida (2021) also argue that the principle of wealth/income redistribution can solve this problem. According to Fitri et al. (2021), while wealth is indeed important in the economy, what is more essential is how that wealth is distributed. Without a fair and equitable distribution mechanism, wealth risks circulating only among high-income groups, thereby exacerbating inequality and hindering the equitable distribution of well-being.

Then, Islam provides a framework for this by establishing provisions for the payment of zakat, infaq, and sadaqah (ZIS). Syafiq (2015) states that zakat, infaq, and sadaqah are teachings in Islam that have two dimensions of purpose, namely the divine dimension and the humanitarian or social dimension. Lestari and Auwalin (2022) define zakat, infaq, and sadaqah (ZIS) as part of Islamic philanthropic instruments that can contribute to improving community welfare if managed optimally. According to Legowati et al. (2024), the collection of ZIS funds presents a significant opportunity to promote more equitable income distribution, improve community welfare, and reduce social inequality. In this context, Indonesia has the potential to generate substantial ZIS revenues, given that 87.08% of the Indonesian population is Muslim (Dukcapil in ANTARA, 2024). With such a large population, Indonesia should be able to address poverty issues, as there is significant potential from the collection of zakat, infak, and sadaqah in 2020, estimated to reach 327 trillion rupiah (Pusat Kajian Strategis BAZNAS, 2024).

In relation to social inequality, there are other variables that influence the level of inequality, which is one of the macroeconomic indicators, namely Gross Regional Domestic Product (GRDP) per capita, where the higher the value in a region, the higher the level of welfare in that region. However, Sianturi and Bustamam (2024) also point out that the disparity in RDP levels between districts or cities is one of the factors contributing to economic inequality, as this is where inequality becomes evident. On the other hand, GRDP is also related to zakat. This is because GDP/GRDP, which is often

used as a measure of economic growth, can be influenced by many factors, one of which is zakat. Several studies have proven that zakat not only has an impact on reducing inequality, but this Islamic economic instrument can also contribute to supporting economic growth in a region. This can occur because the distribution of zakat to the mustahik (those entitled to receive zakat) will increase aggregate demand, thereby influencing economic growth. Wiranatakusuma and Habibullah (2024) also revealed that an increase in zakat collection can drive economic growth by increasing consumer demand through increased purchasing activity. Zakat can increase the purchasing power parity of the less fortunate and can subsequently be used to obtain goods or services. In line with the opinion of Jedidia and Guerbouj (2020), who state that zakat distribution and aggregate demand can influence economic growth: first, zakat can increase consumption among the poor; second, zakat can increase investment; third, zakat can represent the budget and increase government spending. Therefore, Choriyah et al. (2020) emphasize to zakat payers that paying zakat is not only a religious obligation but also has a positive impact on national development.

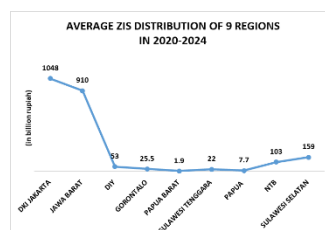
Topics related to the relationship between zakat and inequality, the relationship between zakat and GRDP, and the relationship between GRDP and inequality have also been studied in various countries such as Malaysia (Ibrahim et al. (2020); Laallam et al. (2020); Ashfahany et al. (2023)), Pakistan (Jaffer (2020)), Japan (Kato (2022)), Tunisia (Jedidia and Guerbouj (2020)), Barcelona (Claveria (2025)), Turkey (Destek et al. (2020)), Georgia (Gondauri (2024)), Greece (Tsitouras and Papapanagos (2025)), Karountzos et al. (2024), Karountzos et al. (2024)), Spain (Halili and Gonzalez (2025)), Saudi Arabia (Muis et al. (2024)), and South Korea (Lee and Lee (2024)). Therefore, in this opportunity, the researcher attempts to make Indonesia the object of research, but not at the national level, instead focusing on the regions with the highest inequality in the country.



Source: Badan Pusat Statistik, data processed in 2025

Figure 2. Average Gini Index for 9 Regions (2020-2024)

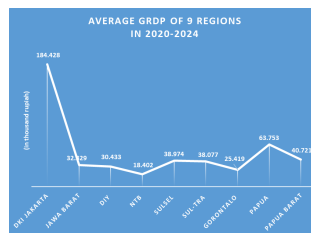
According to the data presented, DIY has consistently ranked first in terms of the highest inequality in Indonesia from 2020 to 2024, followed by DKI Jakarta, Gorontalo, West Java, West Papua, Southeast Sulawesi, Papua, West Nusa Tenggara, and South Sulawesi. These nine regions are the areas with the highest inequality in Indonesia over the past five years. Therefore, this study attempts to use these regions, which, based on the Gini coefficient data, are the areas with the highest inequality in Indonesia. Additionally, the author seeks to examine the distribution of ZIS in each region to analyze whether the distribution of ZIS contributes to social inequality in those areas.



Source: Statistik Zakat Nasional, compiled in 2025

Figure 3. Average Distribution of ZIS in 9 Regions (2020-2024)

The graph of the average distribution of ZIS shows variations between regions. Regions with high averages reflect optimization of distribution, while regions with low averages indicate the need for improvements in distribution strategies so that the benefits of ZIS are more evenly felt by mustahik. Based on the graph above, DKI Jakarta and West Java lead with the highest distribution values compared to other regions. Conversely, the lowest ZIS distribution occurs in West Papua. With this data, the author aims to explore whether the distribution of zakat, infak, and sadaqah can reduce inequality in certain regions or whether it fails to have a significant impact. Not only that, the researcher also analyzed the per capita GDP data of each region, which will serve as a mediating variable in this study.



Source: Badan Pusat Statistik, data processed in 2025

Figure 4. Average Gross Regional Domestic Product of 9 Regions (2020-2024)

Based on the graph, DKI Jakarta has the highest average GRDP, reaching Rp184 million, far exceeding other regions. Papua and West Papua also recorded relatively high GRDP values. Conversely, NTB and Gorontalo showed the lowest average GRDP, below Rp30 million, indicating that economic activity in these regions is still low. With the GRDP values for each region, researchers attempted to explore whether the values of these macroeconomic variables could influence the existing inequality.

The urgency of studying this topic in this research aims to explore the extent to which the distribution of zakat, infaq, and sadaqah has an influence on reducing social inequality through GRDP as a mediating variable. The use of GRDP as a mediating variable is based on the assumption that well-distributed zakat can enhance regional economic activity, reflected in increased GRDP. Additionally, as previously analyzed, GRDP has been proven to reduce social inequality levels. Thus, in this study, GRDP plays a strategic role as an indirect channel in the relationship between zakat, infak, and sadaqah with social inequality. Thus, the findings of this study are expected to contribute strategic recommendations for zakat management institutions and policymakers in designing more effective, targeted, and sustainable distribution patterns.

B. LITERATURE REVIEW

Welfare Theory

In his book, Pigou argues that economic welfare is part of social welfare that can be measured through the distribution of income, consumption, and production in society. In his view, income distribution is often unfair in a free market economy. Therefore, an active role by the government, such as taxation or redistribution, is necessary to optimize social welfare among the people. One of his main principles is the concept of marginal utility of income, where one unit of income will provide greater benefits to the poor than to the rich. His idea in the book states that "A certain increase in the income of the poor will result in a greater increase in their economic welfare than the same increase in the income of the rich." In the Islamic context, zakat as an economic instrument not only serves a religious function but also performs a redistributive function aligned with Pigou's thinking. Zakat takes a portion of wealth from the affluent (the wealthy) and distributes it to eight eligible groups (mustahiq), the majority of whom are the poor, those burdened by debt, and those without a steady income. Thus, zakat plays its role as an economic instrument that supports the improvement of collective well-being, not just individual well-being, thereby reducing social inequality and strengthening economic well-being (Pigou, 1920).

Zakat

In Islam, there are many important pillars, one of which is zakat. Literally, zakat means growth (an-numuw), purification (at-thaharatu), and blessing (albarakatu). As part of the pillars of Islam, zakat is an obligation, as defined by Hafidhuddin (in Dienillah and Sudarmawan, 2022) as the duty of an individual to set aside a portion of their wealth that meets certain criteria and distribute it to those entitled to receive it (mustahik) according to established rules. From an economic perspective, zakat plays a significant role as it is closely tied to the Islamic economic system. According to Widiastuti (2020), zakat is part of fiscal policy in Islamic economics aimed at building a balanced society, both materially and spiritually. From a macroeconomic perspective, zakat has important impacts such as promoting distribution efficiency, maintaining economic stability, ensuring social welfare, promoting income equality, and supporting economic growth. This distribution plays a role in enhancing economic development and improving the standard of living of the community.

Infaq Sadaqah

Derived from the Arabic word "anfaqa," which means to set aside wealth for a specific purpose. Terminologically, Dienillah and Sudarmawan (2022) define infaq as the act of spending or setting aside part of one's wealth or income for purposes recommended in Islamic teachings, without any specific amount that must be spent. Unlike zakat, infaq does not have any restrictions on wealth or time (nishab and haul). Generally, infaq is intended for those in need, such as infaq for disasters, infaq for orphan support, infaq donations for humanitarian aid, and many more. Purwanti (2020) concludes that infaq is all types of wealth spent by a Muslim, whether for personal, family, or community purposes.

Meanwhile, charity comes from the Arabic word "shadaqa," which means "true." According to Widiastuti (2020), charity is a form of worship manifested in voluntary giving in the way of Allah SWT, performed by a Muslim without any specific restrictions or conditions regarding the amount or form. Purwanti (2020) expands the definition of charity, stating that it does not have to be in the form of material goods or money, but can be manifested in various forms of kindness such as a smile, removing obstacles from the road, providing physical assistance, reciting prayers (tasbih, takbir, tahmid, tahlil), encouraging good deeds (amar ma'ruf), preventing evil (nahi munkar), kind words, and bringing happiness to others as long as it is in accordance with Allah's pleasure. In general, charity can be understood as any form of good deed done sincerely to obtain the pleasure of Allah SWT.

Gross Regional Domestic Product

Per capita GRDP serves as one of the benchmarks for assessing the level of community welfare. Regions with high per capita GRDP tend to have better levels of community welfare. This indicator reflects the extent of goods and services production available to meet the consumption needs of the local population. GRDP is calculated using two approaches: first, based on current prices, which uses current market values and reflects actual economic conditions; second, based on constant prices, which uses fixed prices from a base year to assess economic growth unaffected by inflation. The current price approach is useful for observing the structure and changes in the regional economy, while the constant price approach is more appropriate for analyzing growth over time (Badan Pusat Statistik, 2024).

Social Inequality

According to Naidoo and Wills (in Warwick & Booth, 2013), social inequality is defined as differences in income, resources, power, and status that exist within a community. According to Dewi (in Dienillah and Sudarmawan, 2022), inequality arises as a result of the failure of development that is not on target amid the tide of globalization, which places more emphasis on meeting the physical and psychological needs of society. Based on the above definitions, researchers conclude that social inequality describes striking differences between individuals or groups in various aspects of life. This inequality is not only economic but also includes access to opportunities and services, which is often triggered by development policies that do not fairly address all levels of society. One of the commonly used tools to describe income inequality is the Gini Index or Gini Ratio. This index, also known as the Gini Coefficient, was first developed by Corrado Gini, an Italian statistician, and introduced in 1912 (Violin and Lutfi, 2022). The Gini index coefficient ranges from 0 to 1, where a ratio close to 1 indicates a high level of inequality, and a ratio close to 0 indicates equality in the consumption and income of the population.

Maqashid Syari'ah

Maqashid as-syari'ah consists of two words, namely *maqashid*, which means purpose or intention, and *syari'ah*, which literally means the path to a spring, which is also interpreted as the path to the main source of life. According to Obid and Naysary (in Zulpahmi et al., 2022), the objectives of Islamic law serve as a tool to protect and preserve the welfare and interests of society. Ushul fiqh scholars agree that in order to achieve welfare in this world and the hereafter, there are five main aspects that must be protected, namely protecting religion (*hifz al-din*), life (*hifz al-nafs*), intellect (*hifz al-'aql*), offspring (*hifz al-nasl*), and wealth (*hifz al-mal*). When viewed through the lens of *maqashid syari'ah*, zakat, infak, and sadaqah all fall under the aspect of safeguarding wealth and life (*hifzul maal wan-nafs*). Islam mandates the payment of zakat, infak, and sadaqah to ensure that the wealth of Muslim communities is always utilized for good. Additionally, the wealth that is given away also safeguards the heart of its owner, keeping it in a state of goodness. By giving away their wealth for zakat, infak, and sadaqah, they avoid using their wealth in ways that are not good. Not only that, but that wealth will also safeguard its owner in the hereafter. Moreover, it is not only the soul of the wealth owner that is protected, but also the souls of those who receive the wealth, safeguarding them from feelings of envy, oppression, and isolation.

Hypothesis Development

In an economic context, zakat has a very close relationship with the economy. As Jaffer (2020) states, even though the nominal amount of zakat is very minimal, at 2.5% of net wealth per year, it can result in significant changes in the distribution of wealth. As per the research by Ibrahim et al. (2020), Jaffer (2020), Kato (2022), Kamal et al. (2021), Al-Ayyubi and Rasyida (2021), Dienillah et al. (2022), Khairunnisa and Ibrahim (2024), Qodiryani and Amelia (2022), Amani and Majid (2022), and Prihatini et al. (2021), which prove that zakat can reduce social inequality. Several of these studies confirm the opinion of Sari et al. (2020), who revealed that zakat is a social security instrument that functions to bridge the transfer of wealth from the rich to the poor.

H1: The distribution of zakat can influence social inequality.

Not only zakat, but infak and sadaqah also have a significant impact on inequality when compared to zakat, as shown in the studies by Dienillah and Sudarmawan (2022), Prihatini et al. (2021), and Amani and Majid (2022). In addition, research by Muttaqin and Safitri (2020) found that

infak has a negative effect on inequality, so that the distribution of infak proves that infak and sadaqah, when tested separately from zakat, are also able to reduce the level of inequality.

H2: The distribution of infak and sadaqah can influence social inequality.

Several studies have proven that zakat not only has an impact on reducing inequality, but this Islamic economic instrument is also capable of contributing to economic growth in a region. This can happen because the distribution of zakat to mustahik will increase aggregate demand, thereby influencing economic growth. Empirical studies discussing how zakat positively influences economic growth have been extensively explored by previous researchers (Laallam et al. (2020); Ashfahany et al. (2023); Caniago et al. (2024); Jedidia and Guerbouj (2020); Muis et al. (2024); Paulina et al. (2023); Badriyah and Munandar (2021); Purwanti (2020); and Sulaeman et al. (2021)), so Choiriyah et al. (2020) emphasized to muzakki that paying zakat is not only a religious obligation but also has a positive impact on national development.

H3: The distribution of zakat can influence economic growth (PDRB)

Not only zakat, but Badriyah and Munandar's (2021) research also found that infak and sadaqah integrated with zakat can also have a positive impact on economic growth. Similarly, Purwanti's (2020) research shows that an increase in infak and sadaqah integrated with zakat aligns with an increase in real GDP, thereby positively influencing economic growth.

H4: The distribution of infak and sadaqah can influence economic growth (PDRB)

In relation to social inequality, there are other variables that also influence the level of inequality, which is one of the macroeconomic indicators, namely the Regional Domestic Product (PDRB) per capita. Sianturi and Bustamam (2024) also revealed that differences in the level of GRDP between districts or cities are one of the factors causing economic inequality because that is where inequality is evident. Of course, there have been many studies that examine the GRDP variable and its influence on inequality in several studies. Some studies have shown that RDP can significantly reduce inequality, including those by Claveria (2025), Gondauri (2024), Tsitouras and Papapanagos (2025), Destek et al. (2020), Lestari and Auwalin (2022), Fadliansah et al. (2021), Prastiwi et al. (2020), and Sianturi and Bustamam (2024), GRDP has a significant negative impact on inequality. Thus, every increase in GRDP reduces the level of inequality in a region.

H5: Economic growth (GRDP) can influence social inequality

The use of GRDP as a mediating variable is based on the results of studies showing that well-distributed zakat can increase regional economic activity, as reflected in an increase in GRDP (Laallam et al. (2020); Ashfahany et al. (2023); Caniago et al. (2024); Jedidia and Guerbouj (2020); Muis et al. (2024); Paulina et al. (2023); Badriyah and Munandar (2021); Purwanti (2020); and Sulaeman et al. (2021)). Furthermore, as previously analyzed, PDRB has been proven to reduce social inequality (Claveria (2025), Gondauri (2024), Tsitouras and Papapanagos (2025), Destek et al. (2020), Lestari and Auwalin (2022), Fadliansah et al. (2021), Prastiwi et al. (2020), and Sianturi and Bustamam (2024)). Thus, in this study, PDRB plays a strategic role as an indirect channel in the relationship between zakat and social inequality.

H6: The distribution of zakat can influence social inequality through GRDP as a mediating variable

The use of GRDP as a mediating variable is based on the results of studies showing that the distribution of infak sadaqah integrated with zakat can enhance regional economic activity, as reflected in increased GRDP (Badriyah and Munandar (2021) and Purwanti (2020)). Additionally, as previously analyzed, GRDP has been proven to reduce social inequality levels (Claveria (2025), Gondauri (2024), Tsitouras and Papapanagos (2025), Destek et al. (2020), Lestari and Auwalin (2022), Fadliansah et al. (2021), Prastiwi et al. (2020), and Sianturi and Bustamam (2024)). Thus, in this study, GRDP plays a strategic role as an indirect channel in the relationship between zakat and social inequality.

H7: The distribution of infak and sadaqah can influence social inequality through GRDP as a mediating variable.

Dienillah and Sudarmawan (2022), Prihatini et al. (2021), and Amani and Majid (2022) revealed their research results showing that the ZIS variable has a negative effect on reducing inequality. This is supported by the large Muslim population in Indonesia and their compliance in paying ZIS, so that the process of receiving and distributing it continues to improve.

H8: The joint distribution of zakat, infak, and sadaqah can influence social inequality.

From the hypotheses formulated, it can be concluded that this study will examine the direct and indirect effects of zakat, infak, and sadaqah on social inequality through PDRB as a mediator. The research framework is as follows::

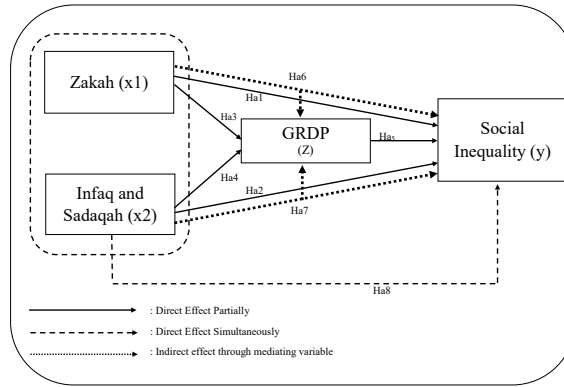


Figure 5. Research Model

C. METHODOLOGY OF RESEARCH

The approach used in this study is a quantitative approach, which relies on statistical data to enable objective calculation, analysis, and interpretation. The data used is secondary data processed using panel regression analysis techniques. Furthermore, the data was analyzed using E-Views 12 software to obtain accurate and measurable results. The population used in this study was the distribution of ZIS, Gini Ratio, and nominal GRDP per capita in the nine regions with the highest inequality in Indonesia, as published on the official websites of BAZNAS RI and the Central Statistics Agency. The sampling technique chosen in this study is Non-Probability Sampling, using a saturated sampling approach. This technique was used because all members of the population were included as samples in the study. The sample in this study consists of 45 data points for each variable, obtained from Statistik Zakat Nasional BAZNAS RI and the Badan Pusat Statistik (BPS) for the years 2020–2024.

Table 1. Sample List

No.	Region
1.	Daerah Istimewa Yogyakarta
2.	Daerah Khusus Ibukota Jakarta
3.	Gorontalo
4.	Jawa Barat
5.	Papua Barat
6.	Sulawesi Tenggara
7.	Papua
8.	Nusa Tenggara Barat
9.	Sulawesi Selatan

D. RESULTS AND DISCUSSION

Model Specification Test

The purpose of model specification testing is to determine the most relevant model that optimally represents the data among the three available alternatives, namely Common Effect, Fixed Effect, and Random Effect. To ensure that the model used is the most appropriate, further testing is required using the Chow test, Hausman test, and Langrange Multiplier test procedures. The prerequisites for model feasibility testing are as follows.

Table 2. Model Specification Prerequisites

Uji	p-value (Prob.) >0.05	p-value (Prob.) <0.05
Chow	CEM	FEM
Hausman	REM	FEM
Langrange Multiplier	CEM	REM

The table above shows the model specification requirements for these three tests. The Chow test is used to evaluate whether the panel regression model with the Fixed Effect approach is more appropriate than the Common Effect model, which does not use dummy variables. Furthermore, according to Munandar (2017), the basis for conducting the Hausman test is because the Least Squares Dummy Variables (LSDV) technique in the Fixed Effect model and Generalized Least Squares (GLS) in the Random Effect model are considered efficient estimation methods, whereas Ordinary Least Squares (OLS) used in the Common Effect model does not provide efficient estimates. The

Lagrange Multiplier (LM) test, according to Taufik (2024), is used as a test tool to assess whether the Random Effect model is more appropriate than the Common Effect model. The significance test for the Random Effect model was developed by Breusch-Pagan. After conducting the model specification test, the following results were obtained.

Table 3. Model Specification Test Results

Model formed	Path Regression		
	X → Y	X → Z	X Z → Y
<i>Chow</i>	FEM	FEM	FEM
<i>Hausman</i>	REM	FEM	REM
<i>Langrange Multiplier</i>	REM		REM

Source: E-Views processing results, 2025

Based on the Chow test results above, the regression between X and Y, the regression between X and Z, and the regression between XZ and Y show the same probability value, namely 0.0000. Since this value is smaller than $\alpha = 0.05$, H_0 is rejected. This indicates that the fixed effect model is more appropriate than the common effect model. The Hausman test results show differences in the three regression models tested. For the regression between X and Z, a probability value of 0.000 was obtained, which is smaller than $\alpha = 0.05$, so H_0 is rejected, and it can be concluded that the fixed effect model is more appropriate to use than the random effect model. Meanwhile, the regression between X and Y and the regression of XZ on Y show probability values of 0.2350 and 0.2462, respectively, which are greater than $\alpha = 0.05$. Therefore, H_0 is accepted, with the conclusion that the random effect model is more appropriate than the fixed effect model in these two regression models, so it can proceed to the Langrange Multiplier test. The regression model of the relationship between X and Z was not tested in the Langrange Multiplier test because the Chow and Hausman tests selected the fixed effect model, so there was no need to continue with the LM test (Candra and Irmeilyana, 2024; Kamagi et al., 2024; Yulianto and Romandilla, 2022). Thus, in this Langrange Multiplier test, only the regression of X on Y and the regression of XZ on Y were tested. Based on the results of the Breusch Pagan test, the p-value was found to be less than $\alpha = 0.05$, namely 0.0000, so that the two regression models tested gave a better random effect model decision than the common effect model.

Classic Assumption Test

Normality

This test is intended to identify whether the residual distribution in the regression model meets the assumption of normality. One method for testing the assumption of normality is to use the Jarque-Bera test (Mansuri, 2016). The assumption of normality is met when the significance value (p-value) is greater than the significance level (α) of 0.05.

Table 4. Normality Test Results

Uji Normalitas	Path Regression		
	X → Y	X → Z	X Z → Y
Prob.	0.154018	0.0000	0.275513

Source: E-Views processing results, 2025

Based on the above output, the Jarque Bera test results show that the normality of the regression of X on Y and the regression of XZ on Y produce p-values that are greater than $\alpha = 0.05$. Therefore, it can be concluded that the residuals produced in each regression follow a normal distribution. In this case, normality is satisfied. Meanwhile, the normality test of the regression of X on Z produces a Prob. of 0.0000, which is smaller than 0.05, so normality is not satisfied. However, there is a theory called the Central Limit Theorem, which states that the sample mean will follow a normal distribution if the sample size is large enough, even if the original data comes from different distributions. In other words, normality can be satisfied as long as the sample size is sufficiently large ($n \geq 30$) (Shige in Ifeanyichukwu et al., 2023; Kwak & Kim, 2017; Goldstein and California, 2005). Therefore, based on this theory, the normality assumption of the regression of X on Z is considered to be satisfied.

Multicollinearity

This test aims to detect significant linear correlations between independent variables. A model is considered valid if its independent variables do not show high correlations or are free from multicollinearity issues. This assumption can be fulfilled if the Variance Inflation Factor (VIF) value of each variable is below 10 (Ekawati, 2023).

Table 5. Multicollinearity Test Results

Variabel	Path Regression		
	X → Y	X → Z	X Z → Y
X1	7.49	2.78	2.28

X2	7.49	2.78	2.16
Z			1.24

Source: E-Views processing results, 2025

Based on the output results, all VIF values from the regression used in this study are below 10. This indicates that there is no multicollinearity in the model, so the assumption of non-multicollinearity has been fulfilled.

Heteroskedasticity

The heteroscedasticity test identifies whether the residual variance between observations in regression is constant (homoscedasticity) or variable (heteroscedasticity). Al-Hanif et al. (2023) state that one test that can be used to determine the presence of heteroscedasticity in a linear regression model is the Glesjer test.

Table 6. Heteroskedasticity Test Results

Uji Glesjer	Path Regression	
	<i>Obs* R-Square</i>	<i>Prob. Chi-Square</i>
X → Y	6.7469	0.0343
X → Z	2.613	0.2707
X Z → Y	22.21	0.0001

Source: E-Views processing results, 2025

After conducting the Glesjer test, the table above shows that the p-values produced in each regression yield different values. The regression of X on Z has a probability value (Prob.) Obs* R-Square > 0.05 (5%). Therefore, it can be concluded that the residuals produced in the regression have equal variance at each level of the independent variable. Therefore, in the regression of X on Z, it can be stated that Ha is rejected because there is no evidence of heteroscedasticity in the tested variables. Meanwhile, the regression of X on Y and the regression of XZ on Y produce a probability value (Prob.) Obs* R-Square < 0.05, indicating the presence of heteroscedasticity in the model. However, since both regressions use a random effect model, this phenomenon can be ignored. This is because the random effect model uses the Generalized Least Square (GLS) estimation approach, which is known to produce estimators that meet the Best Linear Unbiased Estimator (BLUE) criteria, making it effective in handling violations of the assumptions of homoscedasticity and autocorrelation (Kosmaryati et al., 2019). Therefore, it can be concluded that the assumption of non-heteroscedasticity in the regression of X on Y, and the regression of XZ on Y, is considered to have been met.

Autocorrelation

Autocorrelation is an assumption that states that there is no relationship between observations in a research model (Alamsyah et al., 2022). To detect whether there is autocorrelation in the model, one method that can be used is the Breusch-Godfrey test by looking at the probability value (Prob.) of Obs* R-Square (Kadafi and Murtala, 2020).

Table 7. Autocorrelation Test Results

Uji Breusch-Godfrey	Path Regression	
	<i>Obs* R-Square</i>	<i>Prob. Chi-Square</i>
X → Y	33.886	0.0000
X → Z	3.800	0.1495
X Z → Y	36.636	0.0000

Source: E-Views processing results, 2025

Based on the Breusch-Godfrey test, different p-values were obtained for each regression model. In the regression of X on Z, the p-value exceeded the significance threshold $\alpha = 0.05$. This led to the rejection of the alternative hypothesis (Ha), so it can be concluded that there were no signs of autocorrelation between observations in the data. Thus, the assumption of non-autocorrelation in this regression has been met. However, in the regression of X on Y and the regression of XZ on Y, the p-values were less than the significance threshold $\alpha = 0.05$, indicating the presence of autocorrelation in the model. However, since both regressions use a random effect model, this phenomenon can be ignored. This is because the random effect model uses the Generalized Least Squares (GLS) estimation approach, which is known to be able to address autocorrelation issues in time series data and correlation between observations in cross-sectional data. The GLS approach produces estimators that meet the criteria of the Best Linear Unbiased Estimator (BLUE), making it effective in addressing violations of the assumptions of homoscedasticity and autocorrelation (Kosmaryati et al., 2019; and Montgomery et al., 2012). Therefore, it can be

concluded that the assumptions of non-autocorrelation in the regression of X on Y and the regression of XZ on Y are considered to have been met.

Partial Test (t Test) Direct Effect

To test the individual influence of independent variables on dependent variables, assuming that other variables remain constant, a partial test is conducted. This test aims to assess the significance level of each independent variable. The hypotheses in the t-test are as follows:

1. H_0 is accepted and H_a is rejected if the probability value (significant) > 0.05 (α) and $|t_{hitung}| < t_{tabel}$ or $|t_{hitung}| > -t_{tabel}$, meaning that it indicates that the independent variable cannot individually influence the dependent variable.
2. H_a is accepted and H_0 is rejected if the probability value (significant) is < 0.05 (α) and $|t_{hitung}| > t_{tabel}$ or $|t_{hitung}| < -t_{tabel}$, meaning that the independent variable can individually influence the dependent variable (Yam and Taufik, 2021).

The t-test will show the results of the main objective of this study, namely the impact of the distribution of zakat, infaq, and alms on social inequality..

Table 8. Direct Effect t Test Results

Variable	Coef.	Std. Error	t-Statistic	Prob.
Regression X $\rightarrow$ Y				
Zakat (X₁)	-3.50E-14	1.60E-14	-2.1899	0.0341
Infaq Sadaqah (X₂)	1.19E-14	1.74E-14	0.6805	0.4999
Regression X $\rightarrow$ Z				
Zakat (X₁)	6.93E-06	9.35E-06	0.7409	0.4656
Infaq Sadaqah (X₂)	-5.86E-06	7.15E-06	-0.8201	0.4199
Regression Z $\rightarrow$ Y				
GRDP (Z)	9.52E-11	1.42E-10	0.6712	0.5058

Source: E-Views processing results, 2025

The interpretation of the hypothesis testing in the tables above is as follows:

1. The Zakat variable (X_1) has a probability value of $0.0341 < 0.05$, and a t-value of $[-2.1899] < -t_{table} [-2.018]$, so it can be concluded that H_{a1} is accepted, meaning that the Zakat variable (X_1) can partially contribute to Social Inequality (Y)
2. The probability value of the Infak Sadaqah variable (X_2) is $0.4999 > 0.05$ with a t-calculated value $[0.6805] < t_{table} [2.018]$, indicating that H_{a2} is rejected with the conclusion that the Infak Sadaqah variable (X_2) does not partially impact Social Inequality (Y)
3. The probability value generated by the Zakat variable (X_1) is $0.4656 > 0.05$ with a t-calculated value $[0.7409] < t_{table} [2.018]$, leading to the decision to reject H_{a3} with the conclusion that the Zakat variable (X_1) does not have a partial impact on per capita GRDP (Z)
4. The Infak Sadaqah variable (X_2) has a probability value of $0.4199 > 0.05$, and the t-calculated value $[-0.8201] > \text{the critical t-value } [-2.018]$, thus concluding that H_{a4} is rejected, meaning that the Infak Sadaqah variable (X_2) does not have a partial effect on per capita GRDP (Z).
5. The probability value of per capita GRDP (Z) is $0.5058 > 0.05$ with a t-value of $[0.6712] < t_{table} [2.018]$, so it can be concluded that H_{a5} is rejected, meaning that the Social Inequality variable (Y) is not influenced by the per capita GRDP variable (Z)

Mediation Test

The Sobel test is a measurement tool used to analyze the extent to which a mediating variable is able to channel the influence of an independent variable (X) to a dependent variable (Y). This test involves calculating the standard error of the indirect effect of X on Y through the mediator, which is then converted into a calculated Z value. The Z-score is compared to the critical threshold of 1.96 at a 5% significance level. If the calculated Z-score exceeds this value, the mediating variable is deemed to have a significant influence in bridging the relationship between the independent and dependent variables (Ekawati, 2023).

Table 9. Mediation Test Results

	Coef.	Std. Error	Sobel t-statistic	p-value
(Z)	9.52E-11	1.42E-10		
(X₁)	6.93E-06	9.35E-06	0.4971	0.6190
(X₂)	-5.86E-06	7.15E-06	-0.5189	0.6038

Source: Sobel-Test processing results, 2025

Based on the Sobel test in the table above, the following results can be observed:

1. The Sobel test statistics for the Zakat (X_1) variable show a calculated Z value of $0.49 < 1.96$ with a probability value of $0.6190 > 0.05$, thus leading to the rejection of H_{a6} , which means

that the PDRB (Z) is unable to mediate the relationship between the Zakat variable (X1) and the Social Inequality variable (Y).

2. The probability value of the Sobel test for the Infak Sadaqah variable (X2) is $0.6038 > 0.05$ with a calculated Z value of $-0.51 < 1.96$, therefore, it can be concluded that Ha7 is rejected, meaning that the mediating variable PDRB (Z) is unable to mediate the relationship between the variable Infak Sadaqah (X2) and the variable Social Inequality (Y).

Simultaneous Test

The F test or simultaneous test is used to analyze whether all independent variables can influence the dependent variable when tested simultaneously. The hypotheses used in the F test are as follows: .

1. H0 is accepted when the calculated F value is lower than the F table value and the significance level exceeds 5%. This means that, overall, the independent variables are not able to significantly influence the dependent variable.
2. Ha is accepted when the calculated F value is greater than the F table value and the significance level is below 5%. This means that, simultaneously (together), the independent variables are able to significantly influence the dependent variable (Ghozali, 2009).

Based on the results of the simultaneous test, the calculated F value is $5.548835 > 3.22$ with a probability value of $0.007272 < 0.05$, which decides to accept Ha8. Therefore, it can be concluded that together, the variables of Zakat (X1), Infak, and Sadaqah (X2) can contribute to the impact on social inequality. (Y).

Interpretation of Research Results

The Effect of Zakat on Social Inequality

In this study, it is proven that the results of the hypothesis test above show a relationship between the zakat variable and social inequality. So that H1 is accepted. From the above results, zakat proves its role as an instrument of welfare. In this context, zakat funds collected from wealthy groups (muzakki) and distributed to the eight eligible groups (mustahik) can directly increase their income and purchasing power (mustahik). Due to this partial transfer of wealth, the gap between the upper and lower groups can be reduced. This result agrees with Jaffer (2020), who said that although the nominal amount of zakat is very minimal at 2.5% of net worth per year, it can result in a strong change in the pattern of wealth distribution. In addition, of course, this is in line with the thinking of Pigou (1920), one of whose main principles is the concept of marginal utility of income, where one unit of income will provide greater benefits to the poor than the rich. This principle is the main basis for Pigou's argument on wealth redistribution, as transfers from those with low marginal utility (the rich) to those with high marginal utility (the poor) will improve the welfare of society as a whole. In addition, zakat also encourages economic empowerment through productive programs, one of which is business capital assistance that encourages mustahik to become more economically independent, which in the long run can reduce the number of poor people and reduce inequality. Of course, this is in line with Rawls' idea that the structure of a just society must raise the life expectancy of marginalized groups. Therefore, zakat can take its role as an instrument that is able to realize Rawls' principles of justice within the framework of Muslim society, where social solidarity and economic justice are important foundations of life (Rawls, 1971).

The Effect of Infaq Sadaqah on Social Inequality

Hypothesis testing above shows that infak sadaqah has no impact on social inequality. Therefore, these findings reject Ha2 with the conclusion that social inequality cannot be influenced by the distribution of infaq and sadaqah. This finding is similar to the research of Al-Ayyubi and Rasyida (2021) who also agree that infaq sadaqah is unable to affect social inequality. For this issue, the reason for the ineffectiveness of infaq sadaqah on inequality is that the amount of infaq sadaqah distribution recorded is not as large as the amount of zakat distribution. This is because people tend to collect infaq sadaqah in the form of direct/informal cash assistance to the needy without the intermediary of an official ZIS institution, so the infaq sadaqah data may not represent all community activities. In addition, the reason for the lack of effect of infak sadaqah on social inequality is because the majority of its functions are intended for consumptive humanitarian programs such as family logistics packages, food banks, humanitarian social assistance, assistance to Islamic social institutions, and assistance for people with disabilities. So that its function is still not maximized to be directed to productive economic sectors. Therefore, the impact on social inequality is still minimal or not yet visible. In addition, unlike zakat which has a fixed provision of 2.5% every year, its potential can be projected because it is systematic and sustainable. As for infaq and sadaqah, the potential cannot be projected because this collection is not bound by obligations and fixed provisions.

The Effect of Zakat on GRDP

The hypothesis that has been tested gives the result that zakat does not have a significant impact on GRDP per capita, thus rejecting Ha3. The reason for the lack of effect of zakat on GRDP is

because zakat acts more as an instrument of wealth distribution, but not maximally as the main driver of macroeconomic production/growth activities because it cannot instantly increase economic output. This result is also due to the nature and purpose of zakat emphasizes more on social aspects rather than macroeconomics so that the impact is more pronounced in social aspects rather than in increasing production output calculated in GRDP. Zakat is generally allocated for mustahik's basic consumption needs, such as food, clothing, education, and health, which although it can improve individual welfare, does not directly impact on increasing the production of goods and services which are the main components in the calculation of GRDP. Although there is productive zakat distribution, such as micro business assistance, it may be limited in scale when compared to the overall economic activity of an area and because it goes through a long process, resulting in its impact on GRDP is still not visible.

The Effect of Infak Sadaqah on GRDP

Hypothesis testing above has shown the result that Ha4 is rejected, which means that infak and sadaqah do not contribute to GRDP. The lack of effect of infak sadaqah on GRDP per-capita is because most of the infak sadaqah is still done informally and not through official institutions so that the recorded data does not cover community activities carried out outside these formal institutions. As for the infak sadaqah data that has been recorded, the scale is fluctuating considering that these funds are voluntary. In addition, the reason for the lack of effect of infak sadaqah on GRDP per capita is because its function is more dominantly allocated to consumptive humanitarian programs such as family logistics packages, food banks, humanitarian social assistance, assistance to Islamic social institutions, and assistance to persons with disabilities. So that its function is still not maximized to be directed to productive economic sectors. Therefore, the impact on GRDP is minimal or not yet visible.

The Effect of GRDP on Social Inequality

This result rejects Ha5 and concludes that GRDP per capita cannot influence social inequality. This result rejects Ha5 and concludes that GRDP per capita cannot influence social inequality. A number of findings similar to this study, namely the findings of Astuti and Hukom (2023), Mangundap et al. (2024), Nilasari and Amelia (2022), Raziq and Hasanah (2023), Rizkia and Andriyani (2022) and Sabillah (2023) provide findings that the GRDP variable does not have a significant impact on inequality. It can be concluded that GRDP only reflects the total aggregate output of production without showing how this output is distributed among the people. Therefore, an increase in GRDP is not necessarily enjoyed equally by all levels of society. In many cases, the benefits of growth tend to be enjoyed by certain groups of people, especially those who are in the formal sector, highly educated or have access to economic resources, as Sabillah (2023) found. Meanwhile, low-income groups only get a small share. Thus, the gap between the upper and lower groups is widening and inequality remains high.

The Effect of Zakat on Social Inequality through GRDP

This result provides a decision to reject Ha6, which means that it can be concluded that GRDP per capita is not able to mediate the relationship between zakat and inequality. Of course, this is a different result when in the previous test, zakat can affect inequality without mediation, while when the GRDP variable is involved as mediation, the result is the opposite. Thus, the researcher then concludes that the working mechanism of zakat and GRDP is different. Zakat can play a direct role in carrying out its redistribution function in reducing inequality from muzakki to mustahik, so its impact on inequality can be seen directly, not through economic output growth. Then in the previous test, zakat also gave insignificant results on GRDP because zakat plays more of a role as an instrument of wealth distribution, but it is not maximized as the main driver of production activities/macroeconomic growth because it cannot instantly increase economic output. Meanwhile, GRDP only describes the total production value of a region that does not reflect the distribution of income or welfare between community groups. Therefore, although zakat can reduce inequality, it does not need to affect GRDP to achieve its goal. Therefore, GRDP is not able to be a mediator that can bridge zakat in influencing inequality.

The Effect of Infak Sadaqah on Social Inequality through GRDP

In the relationship of infak sadaqah to GRDP per-capita, the results show no significant effect because the amount is not as large as zakat, thus rejecting Ha7. This is because infak sadaqah is still widely done by the community informally and not through official institutions so that the recorded data does not cover community activities carried out outside these formal institutions. Second, the infak sadaqah recorded is channeled more dominantly into the consumptive realm so that although it is socially beneficial, it does not contribute to increasing production output or long-term welfare. Meanwhile, in the previous objective, GRDP was also unable to influence inequality because this variable only describes the total value of production in a region, which does not reflect the distribution of income or welfare among community groups. As a result, since there is no significant effect between infak sadaqah on GRDP, and GRDP on inequality, GRDP is also unable to play its role as a

mediating variable in this hypothesis. Therefore, in the context of infaq sadaqah, it can be concluded that there is no effective direct or indirect effect to link it to inequality.

The Effect of Zakat, Infaq and Sadaqah on Social Inequality

After being tested together, zakat, infaq and sadaqah together are able to have an impact on social inequality. With this figure, Ha8 is accepted so that it can be concluded that social inequality can be influenced by zakat, infaq and sadaqah together. Of course, this finding is in line with the findings of Dienillah and Sudarmawan (2022), Prihatini et al. (2021) and Amani and Majid (2022) which state that when zakat is well integrated with infaq and sadaqah, its effect can be seen on social inequality.

This finding confirms the opinion of Syafiq (2015) who said that zakat, infaq, sadaqah are teachings in Islam that have two dimensions of purpose in them, namely the divine dimension and the humanitarian or social dimension. Likewise, Lestari and Auwalin (2022) interpreted zakat, infaq, and sadaqah (ZIS) as an instrument of Islamic philanthropy which in social life can play a role in improving community welfare if managed properly.

D. CONCLUSION

Based on the discussion that has been presented, it can be concluded that the social inequality analyzed in 9 regions can decrease with the optimal distribution of zakat. This is proven in the findings above. Meanwhile, infaq sadaqah and GRDP have not been able to contribute to inequality. In contrast to infak sadaqah when integrated with zakat, the results show a significant value. As in the context of GRDP that is influenced by zakat and infaq sadaqah, the results have not also shown a significant value. Thus, the role of GRDP as a mediation between the relationship between zakat and infaq sadaqah on social inequality also does not show a significant value. This result is expected to be a recommendation for zakat management institutions and the government in improving a more optimal ZIS distribution strategy. In addition, public education regarding the urgency of channeling ZIS to official institutions also needs to be improved in order to make people realize how important ZIS is to the economy if submitted to official zakat management institutions.

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