

Important role of *Zakat, Infaq, and Shadaqoh (ZIS)* in dynamic of economic and social: Simultaneous analysis in Indonesia

Moh. Hairus Zaman^{1*}, Diah Wahyuningsih², Hengky Setiawan³
Department of Magister of Economics, Faculty of Business and Economics,
Universitas Trunojoyo Madura, Indonesia, 69162
*Corresponding author: hairuszaman1@gmail.com

ABSTRACT

Distribution and realization of Zakat, Infaq, and Shadaqoh (ZIS) have experienced an increase during the year 2000 to 2022.

This study has investigated the relationship between Zakat, Infaq, and Shadaqoh (ZIS) to economic, income inequality and absorbing labour in Indonesia. The authors utilize the simultaneous equation method as well as data used in this study is the secondary data.

This study uses Two-Stage Least Square (2SLS) regression analysis to address endogenous problems and simultaneous bias to analyse variables complex such as ZIS, economic and social indicators.

The results of the study show several important findings. First, ZIS provides a positive contribution to the Gross domestic product (GDP), which implies that increasing ZIS reception can encourage economic growth. Second, ZIS contributes positively to absorbing employment, it shows the distribution of ZIS effectively can support reducing unemployment. However, the third finding identified that the impact of ZIS has insignificance on income inequality. It implies that managing ZIS needs to fix the strategy of ZIS distribution to be more even.

This finding has an implication that needs a strategy of ZIS distribution on the right targeted, economic empowerment program, as well as close collaboration among BAZNAS, the Government, and private sectors to maximalise the impact of ZIS.

Keywords:

Gross domestic product; Income inequality; Employment; ZIS, BAZNAS;

INTRODUCTION

Zakat, Infaq, and Shadaqoh (ZIS) represent fundamental principles of the Islamic faith that have exerted a significant impact on Indonesia (Usman et al, 2023). Indonesia boasts the largest Muslim population globally. The effective implementation of ZIS plays a pivotal role in fostering societal prosperity and enhancing socio-economic inclusivity (Anjelina et al, 2020).

*Within Indonesia, Zakat stands out as a key component of the Islamic economic framework and is officially managed by the state through the National Zakat Board of Indonesia (BAZNAS) along with other Zakat organizations. Conversely, the acts of *Infaq* and *Shadaqoh* play a crucial role in providing assistance to those in need and supporting various development initiatives (Dimas & Yolanda, 2023).*

*The function of ZIS within the Indonesian context extends beyond economic considerations to encompass a broad array of impacts on bridging the social-economic divide, mitigating poverty, and enhancing the accessibility of essential services such as education and healthcare (Amanda & Anwar Fathoni, 2023). *Zakat, Infaq, and Shadaqoh (ZIS)* not only hold significance as components of Islamic religious observance in Indonesia but also play a significant role in driving economic progress within the nation. Over the course of several decades, the proliferation of ZIS practices has emerged as a primary tool for encouraging governmental efforts to enhance economic-social integration and diminish disparities among different segments of the population.*

In Indonesia, the National Zakat Board of Indonesia (BAZNAS) and various Zakat organizations are instrumental in the acquisition, administration, and allocation of ZIS resources

towards numerous economic advancement initiatives. ZIS resources are a key factor in the funding of multiple projects including the poverty alleviation scheme, healthcare provision, and improvement of economic infrastructure in remote areas.

One of the pivotal aspects influencing the operational approach of ZIS in the economic advancement of Indonesia is the escalation in capital accessibility for enterprises and micro-financing. The implementation of productivity budget initiatives, endorsed by the ZIS Fund, has played a crucial role in facilitating avenues to elevate the financial status of underprivileged individuals and foster the expansion of the informal sector.

On the contrary, ZIS's activities have contributed to enhancing economic and social dimensions within societies by fostering skill development, promoting women's empowerment, and facilitating the establishment of essential social amenities like mosques, educational institutions, and healthcare facilities. These strategies are implemented to strengthen the overall welfare of the community and heighten the competitive advantage of local areas.

Thus, a profound comprehension pertains to the role of ZIS in the economic advancement of Indonesia. It is necessary to apprehend the intricacies of economic and social dynamics at either the local or national level. The primary aim of this study is to investigate the tangible effects of ZIS fund allocation on economic growth, income disparity, and workforce absorption in Indonesia, alongside its contribution to the attainment of sustainable development objectives set by the Indonesian government.

Despite the considerable potential of ZIS practices to bolster economic and social progress in Indonesia, significant challenges are prevalent. Various obstacles manifest in the management of ZIS funds in Indonesia, including disparities in fund distribution and collection, issues of accountability and transparency, limitations in institutional capacity, inadequate public awareness and comprehension, and adherence to Sharia principles.

The allocation and distribution of financial disparities present a significant obstacle in Indonesia. Discrepancies exist notably between rural and urban areas, as well as across various islands, which can impact the accessibility and effectiveness of ZIS funds. Moreover, challenges persist in enhancing accountability and transparency. Yet, there remain obstacles in ensuring the efficient and effective utilization of ZIS funds to bolster development initiatives aimed at the appropriate targets.

Conversely, certain ZIS management entities in Indonesia may encounter limitations in their capacity for administration, monitoring, and program assessment. These factors can impede the efficiency and outcomes of programs supported by ZIS funding. Additional challenges involve heightening public perception and awareness regarding the significance of ZIS practices, alongside ensuring active community involvement in the management and utilization of ZIS funds. Moreover, adhering to Sharia principles poses a significant challenge in the Indonesian context, necessitating that the management of ZIS funds aligns appropriately with these principles.

In order to address these challenges, collaboration among governmental bodies, managing institutions of *Zakat*, *Infaq*, and *Shadaqoh* (ZIS), and the private sector is imperative to devise effective strategies for the management and utilization of ZIS funds. The objective of this study is to scrutinize and pinpoint the profound challenges, while also assessing the endeavours undertaken to tackle these challenges. Moreover, this research offers recommendations concerning policy relevance to enhance the efficient administration of ZIS funds in Indonesia.

Prior empirical research has delved into the correlation between *Zakat*, *Infaq*, and *Shadaqoh* (ZIS) and various aspects such as economic growth, income inequality, and labour absorption. Still, further research potential exists in this particular area. Specifically, within the context of Indonesia, it is crucial to address certain limitations and deficiencies observed in previous studies, including the impact of ZIS on economic growth, the effects of ZIS fund distribution on income inequality, and the contribution of ZIS to labour absorption.

According to research done by Amanda & Anwar Fathoni, (2023) a technique employing multiple regression analysis revealed that ZIS funds exert a statistically significant positive effect on economic growth. Additional empirical investigations have been carried out by Permadi et al, (2023) utilizing a quantitative approach, the analysis conducted by Ashfahany et al, (2023) employed Granger causality data analysis techniques and co-integration tests to identify a unidirectional

causality relationship between the distribution of ZIS funds and economic growth in Indonesia. The study carried out in Indonesia, Malaysia, and Singapore examined the impact of Zakat distribution on economic growth through data panel regression analysis spanning from 2003 to 2000. Results of the study found that *Zakat* distribution in Indonesia, Malaysia, and Singapura has a positive impact on economic growth (Ashfahany et al., 2023). Another investigation was carried out by Suprayitno, (2018), aimed at scrutinizing the correlation between Zakat and the economic development in Peninsula Malaysia through the application of OLS, 2SLS, and ECM methodologies. The findings of the research indicate that both in the short run and long run, the allocation of Zakat exhibits a favorable impact on the economic advancement in Peninsula Malaysia.

Empirical evidence pertains to the impact of ZIS funds distribution on income inequality, with findings indicating an insignificant effect. Lestari & Auwalin, (2022) study across 34 provinces in Indonesia revealed that Zakat funds distribution, as measured by the BAZNAS wealth index, did not significantly influence income inequality. Conversely, Afandi et al, (2021) conducted research suggesting that Zakat funds play a role in diminishing income inequality, presenting contrasting results. Kamal et al, (2021) delved deeper into this matter by analyzing panel data from 12 Indonesian provinces spanning 2011 to 2016, ultimately determining that Zakat distribution contributes to the worsening of income inequality.

Ayuniyyah et al, (2018) have unearthed further empirical proof by means of a research endeavor aimed at investigating the repercussions of Zakat on poverty and income inequality, concentrating on a sample of 1,309 Zakat recipients chosen from the National Zakat Board of Indonesia (BAZNAS) in Bogor, Depok, and Sukabumi city.

The annual increase in ZIS funds is anticipated to contribute towards the mitigation of unemployment rates in Indonesia. As per Raies, (2020) the management of Zakat funds, as indicated theoretically, has the potential to create employment opportunities. The productivity of ZIS funds encouraged the growth of micro-businesses through development and employment (Faisal & Yuliani, 2018). These empirical pieces of evidence implied that ZIS funds collection has a potential impact on the absorption of labour.

To investigate the relationship between *Zakat*, *Infaq* and *Shadaqoh* (ZIS), economic growth, income inequality, and the absorption of labour need to be on the right methodology to address the endogeneities problems and simultaneous bias, which may be revealed. In this paper, 2SLS (two-stage least squares) is considered the right methodology and is innovative to analyse the relationship causal between variables that are complexities such as ZIS and economic indicators (Misno & Sulistianingsih, 2019).

The unique characteristic of the 2SLS method within the scope of this research resides in its application. There has been a lack of empirical studies addressing the effects of ZIS investments on the economic development, income disparity, and workforce engagement in Indonesia. Through addressing this deficiency and the previous absence of empirical evidence, the objective of this manuscript is to deliver a more comprehensive input to the knowledge of the consequences of ZIS on the economic growth, income inequality, and labor force participation in Indonesia. With the use of an exact strategy and the deployment of the fitting methodology, it is foreseen that this analysis will yield profound understandings and significance for policymakers, practitioners, and scholars focused on this particular area.

METHOD

The employment of time series data ranging from 2002 to 2022 is utilized in the study. Data concerning *Zakat*, *Infaq*, and *Shadaqoh* (ZIS) along with DKSL is obtained from the National Zakat Board of Indonesia (BAZNAS), while information on Indonesia's Gross Domestic Product (GDP), GDP per capita, Investment, Government Expenditure, Gini ratio, poverty rates, employment rates, and labor force is acquired from the official reports of the Central Bureau of Statistics (BPS). The analytical methodology applied in the manuscript encompasses the utilization of Two Stage Least Square (2SLS) technique to predict the parameters within the contemporaneous time series data. The model specification employed is a modification of the framework previously proposed by Achmad et al, (2023) and other relevant economic doctrines. The model specification equations are formulated as follows:

Structural equation: delineating the influence of ZIS fund distribution on the economy.

$$\text{LnGDP}_t = \alpha_0 + \alpha_1 \text{LnZIS}_t + \alpha_2 \text{LnINV}_t + \alpha_3 \text{LnGOV}_t + \varepsilon_t \quad (1)$$

Structural equation: impact the distribution of ZIS fund on income inequality:

$$\text{GINI}_t = \beta_0 + \beta_1 \text{LnZIS}_t + \beta_2 \text{LnINCOME}_t + \beta_3 \text{LnPOVERT}_t + \mu_t \quad (2)$$

Structural equation: impact the distribution of ZIS fund on employment rate

$$\text{LnEMP}_t = \gamma_0 + \gamma_1 \text{LnZIS}_t + \gamma_2 \text{LnLABFOR}_t + \pi_t \quad (3)$$

Where;

LnGDP is the natural logarithm of Gross domestic product (GDP with unit percent

LnZIS is the natural logarithm of realization of *Zakat, Infaq, and Shadaqoh* with unit percent

LnINV is the natural logarithm of investment rate with unit percent

LnGOV is the natural logarithm of government expenditure with unit percent

GINI is ratio gini index represent the income inequality

LnINCOME is the natural logarithm of income per capita with unit percent

LnPOVER is the natural logarithm of poverty rate with unit percent

LnEMP is the natural logarithm of employment rate with unit percent

LnLABOR is natural logarithm of labor force with unit percent

α, β, γ is symbol of intercept

ε, μ, π is symbol of error term

t is time

Variables are used in this paper that are identified based on simultaneous models 1, 2, and 3 with variable identification as follows; variables used are modifications of some variables that were gathered previously in several studies and theories. This paper uses unit percent with the purpose of different data not too large (Table 1). Endogenous variables consist of LnGDP, LnZAKAT, LnINCOME, and GINI variables. Exogenous or predetermined variables contain LnINV, LnGOV, GINI, LnPOVER, and LnLABFOR variables.

Table 1. Variable Definition

Variable	Definition	Unit	Source
LnGDP	the natural logarithm of Gross domestic product (GDP)	Percent	BPS
LnZIS	Realization of the natural logarithm of ZIS fund	Percent	BAZNAS
LnINV	Natural logarithm of investment	Percent	BPS
LnGOV	The natural logarithm of expenditure government	Percent	BPS
GINI	Index Gini ratio (income inequality)	Percent	BPS
LnINCOME	The natural logarithm of income per capita	Percent	BPS
LnPOVER	The natural logarithm of poverty rate	Percent	BPS
LnEMP	The natural logarithm of employment rate	Percent	BPS
LnLABOR	The natural logarithm of labor force rate	Percent	BPS

Order condition test

Based on the order condition, identification of the model occurs when equations 1, 2, and 3 meet the necessary criteria. The model indicates that $K-k > G-1$, indicating an over-identified model. When $K-k = G-1$, the model is precisely identified, whereas $K - k < G-1$ signifies an unidentified equation. The outcome of the order condition test is displayed in Table 2, where G represents the total number of endogenous variables in the simultaneous equation model, G is the number of endogenous variables in the discovered equation, K is the total number of variables determined in the model including the intercept, and k is the number of variables determined in the selected equation.

The results presented in Table 2 demonstrate that equations 1, 2, and 3 are over-identified, indicating that the third equation model has identification suitable for employment in The Stage Least Square approach.

Table 2. Result of rank order condition

Equation model	K	k	G	(K-k) (G-1)	Result
LnGDP	9	4	4	$5 > 3$	Over identified
LnGINI	9	4	4	$5 > 3$	Over identified
LnEmployment	9	3	4	$6 > 3$	Over identified

Note: When result of $(K-k) = (G-1)$ it means identified, when result of $(K-k) < (G-1)$ it means unidentified, when result of $(K-k) > (G-1)$ it means over identified

An additional challenge encountered in rigorous regression analysis is the issue of potential feedback. This scenario involves the independent variable's nature changing direction towards the variable it is meant to describe. The presence of feedback renders the OLS estimator unreliable. According to Chen, (2012) suggests that one approach to tackling feedback issues is the application of the 2SLS method. Initially, endogenous variables are estimated with all exogenous variables in the first stage. Following that, in the subsequent step, the approximations of inherent factors are incorporated again into the original model for a more extensive assessment.

RESULT AND DISCUSSION

BAZNAS and Zakat, Infaq and Shadaqoh (ZIS)

The National Zakat Board of Indonesia (BAZNAS) is a governmental entity without a specific structure that is tasked with the management of *Zakat, Infaq, and Shadaqoh (ZIS)* in Indonesia. Serving as an official and credible institution, it aims to maximize the potential of Zakat effectively. BAZNAS assumes a crucial role in the gathering and allocation of ummah funds towards various social and economic initiatives.

BAZNAS employs similar methods for the collection of ummah funds. For example, Zakat serves as a primary source for fund collection and is obligatory for financially capable Muslims. Moreover, BAZNAS accepts contributions such as *Infaq, Shadaqoh*, and other social welfare funds (DKSL) from the public. Additionally, BAZNAS engages in partnerships with multiple entities, including businesses, educational establishments, and social groups, to raise funds.

The fund has been accumulated and subsequently allocated through various programs and initiatives aimed at enhancing individuals' financial well-being, reducing poverty, and bolstering the economy. The distribution of the fund is overseen by BAZNAS and targets key areas such as healthcare, education, economics, and social welfare.

Based on Table 3, the number of ZIS fund accumulated has a gradually upward trend annually. The number of ZIS fund just was gathered around 154.783.000 rupiah in the year 2001 and surprisingly in the year 2019, the number of ZIS fund collection experience the sharply increasing approximately 4.306.077.286.000 rupiah. In last the period, the number of ZIS fund continue rising in 6.344.685.792.000 rupiah. This evidence show that people experience the increasing of trust to pay *Zakat, Infaq and Shadaqoh (ZIS)* through BAZNAS. Programs have been created by BAZNAS is considered success. The ZIS fund has been gathered and managed by BAZNAS assumed, it can make much benefit. So that the awareness of people participated to support the BAZNAS programs to address poverty problem has an increasing.

Within some problems have been launching by BAZNAS such as the healthcare initiative, BAZNAS offers financial support for services like medical assistance for underprivileged individuals, which includes the procurement of medication and medical equipment. Educational programs encompass scholarships and other forms of support extended to students from disadvantaged backgrounds. Economic endeavours focus on empowering individuals through financial backing for business ventures, skills development, and guidance for small-scale enterprises. Furthermore, social support provided by BAZNAS includes aid for disaster victims, food assistance, and other initiatives geared towards enhancing societal well-being.

Table 3. The number of *Zakat, Infaq and Shadaqoh (ZIS)* fund collection in Indonesia annually (Thousand Rupiah)

Year	<i>Zakat, Infaq and Shadaqoh (ZIS)</i>	Year	<i>Zakat, Infaq and Shadaqoh (ZIS)</i>
2001	154783	2012	50212436

2002	530538	2013	57504554
2003	1790673	2014	82264818
2004	2822265	2015	94068894
2005	31325397	2016	111690914
2006	17281039	2017	154128674
2007	14325014	2018	195092052
2008	18643469	2019	4306077286
2009	25258940	2020	5011978207
2010	27144292	2021	5667239266
2011	40265881	2022	6344685792

Realization of ZIS and other social activities fund (ZIS-DKSL)

Realization *Zakat, Infaq Shadaqoh*, and other social activities funds (DKSL) have been distributed by BAZNAS In Indonesia, it has spread across provinces in Indonesia. Based on Figure 1 in the attachment shows that four provinces have the largest average distribution of ZIS and other *ummah* funds from 2019 to 2022 such as DKI Jakarta, Jawa Barat, Jawa Tengah, and DIY Yogyakarta.

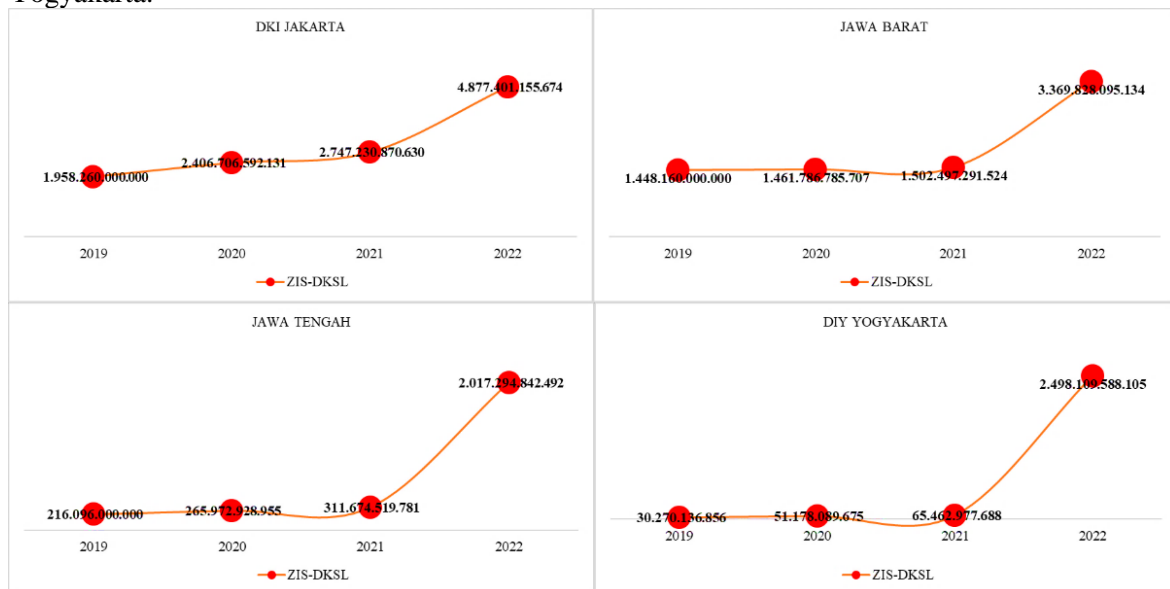


Figure 1. Provinces have largest distribution of ZIS-DKSL fund in Indonesia (Rupiah)

DKI Jakarta is one province that obtains the largest number of realizations of ZIS-DKSL in Indonesia. DKI Jakarta obtained the realization of ZIS-DKSL approximately 1,9 trillion rupiah in 2019. Furthermore, DKI Jakarta has increased by around more hundred percent over the period 2019 to 2022. On the other side, other provinces such as Jawa Barat, Jawa Tengah, and DIY Yogyakarta have sharply increased during the period 2019 to 2022. Even though, Jawa Tengah and DIY Yogyakarta have slightly declined in 2021. Jawa Barat obtained around 1,4 trillion and 3,3 trillion rupiah in 2019 and 2022 respectively. Jawa Tengah and DIY Yogyakarta were distributed approximately 216 billion and 30 billion in the year 2019 respectively. However, DIY Yogyakarta has a realization of ZIS-DKSL that sharply increased around 2,4 trillion rupiah in 2022 as well as has a higher realization of ZIS-DKSL than Jawa Tengah.

On the other hand, Figure 2 shows that several provinces have the lowest average distribution of ZIS-DKSL funds by BAZNAS, at least there are four provinces such as Maluku Utara, Bali, Kalimantan Tengah, and Maluku during the period 2019 to 2022. Maluku province is province had

the lowest realization ZIS-DKSL funds of around 4 billion rupiahs in 2019 and this province has deeply declined in 2022 to approximately 271 million rupiahs.

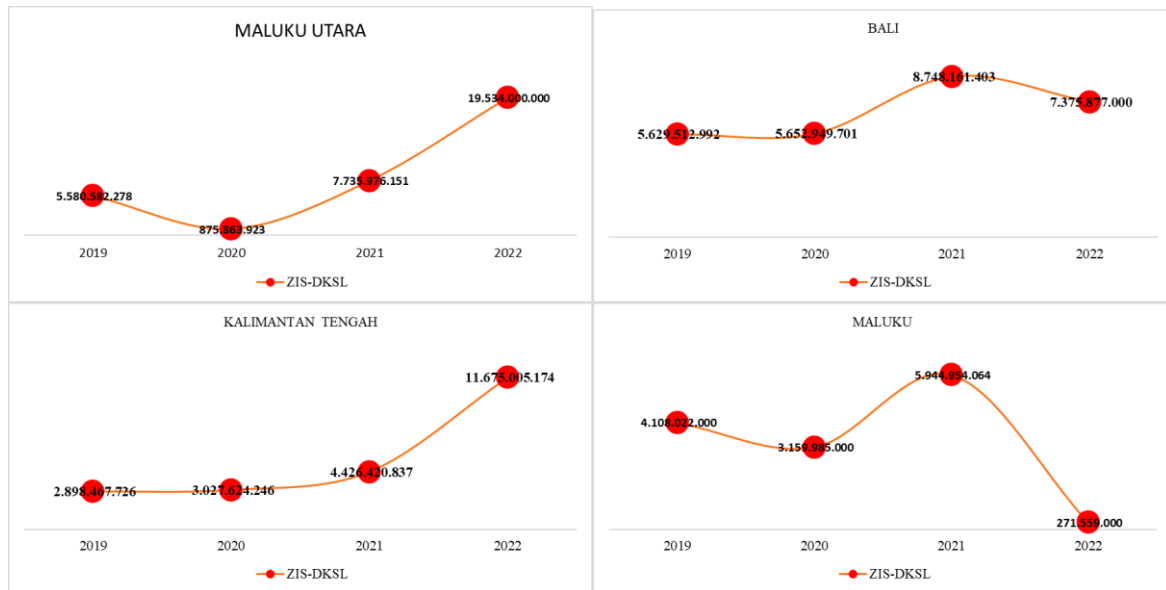


Figure 2. Provinces have lowest distribution of ZIS-DKSL fund in Indonesia (Rupiah)

However, other provinces such as Kalimantan Tengah, Bali, and Maluku Utara have experienced an increase in ZIS-DKSL fund distribution from 2019 to 2022. In 2019, The number of ZIS-DKSL fund realizations in Kalimantan Tengah, Bali, and Maluku Utara were around 2,8 billion, 5,6 billion, and 5,5 billion rupiah respectively. Kalimantan Tengah and Bali have slightly risen around 3 billion and 5,65 billion rupiah respectively in 2020. On the other side, Maluku Utara has experienced declining around 875 million in 2020. Nevertheless, Maluku Utara has a gradually increasing approximately 19 billion rupiah in 2022. In the last period, Kalimantan Tengah and Bali have a realization of ZIS-DKSL funds of around 11 billion and 7,3 billion rupiahs respectively.

Poverty, income inequality and employment

Poverty rate and income inequality still become basic problems in Indonesia's economic development. Based on data from the Central Bureau of Statistics (BPS) notes that around 26.161 million people in Indonesia are still poor with the highest poverty rate located at Jawa Barat, Jawa Tengah, Jawa Timur, and Sumatra Utara in the year 2022. Figure 3 shows that provinces that have the largest distribution of ZIS-DKSL funds experienced an increase in the poverty rate over the period 2019 and 2022.

DKI Jakarta has gradually increased the poverty rate from 2019 to 2022. In 2019, the poverty rate in DKI Jakarta was around 362 thousand people then there was an increasing approximately 502 thousand people in 2022. On the other side, Jawa Barat has gradually increased the poverty rate over the period 2019 to 2022. In 2019, the poverty rate in Jawa Barat was approximately 3,3 million people and 4 million people in 2022.

On the other hand, Jawa Tengah and DIY Yogyakarta have an almost similar trend. Both have increased the poverty rate from 2019 to 2021 as well as both have declined in 2022. Jawa Tengah and DIY Yogyakarta have the number of poverty rates approximately 3,6 million people and 441 thousand people in 2019 respectively. In the last period, it has a poverty rate of around 3,8 million people, and 455 thousand people in 2022.



Figure 3. The highest number of poverty rate in 4 DKI Jakarta, Jawa Barat, Jawa Tengah and DIY Yogyakarta Provinces (Thousand)

Figure 4 shows the different circumstances in which the lowest poverty rate occurred in Maluku Utara. The poverty rate in Maluku Utara has the number of poverty rate around 87 thousand people in 2019, this province deeply declined to around 80 thousand in 2022. Bali and Kalimantan Tengah have sharply increased the poverty rate over the period from 2019 to 2022. Both, Bali and Kalimantan Tengah have around 157 thousand and 131 thousand people respectively in 2019 as well as around 206 thousand and 145 thousand people respectively in 2022.

During the period 2019 to 2022, Maluku has a deeply declined the number of poverty rate. In the beginning period, the poverty rate in Maluku province was approximately 320 thousand people. This province has experienced declining around 291 thousand people in 2022. Nevertheless, Maluku is the province that has the highest poverty rate among certain four provinces.

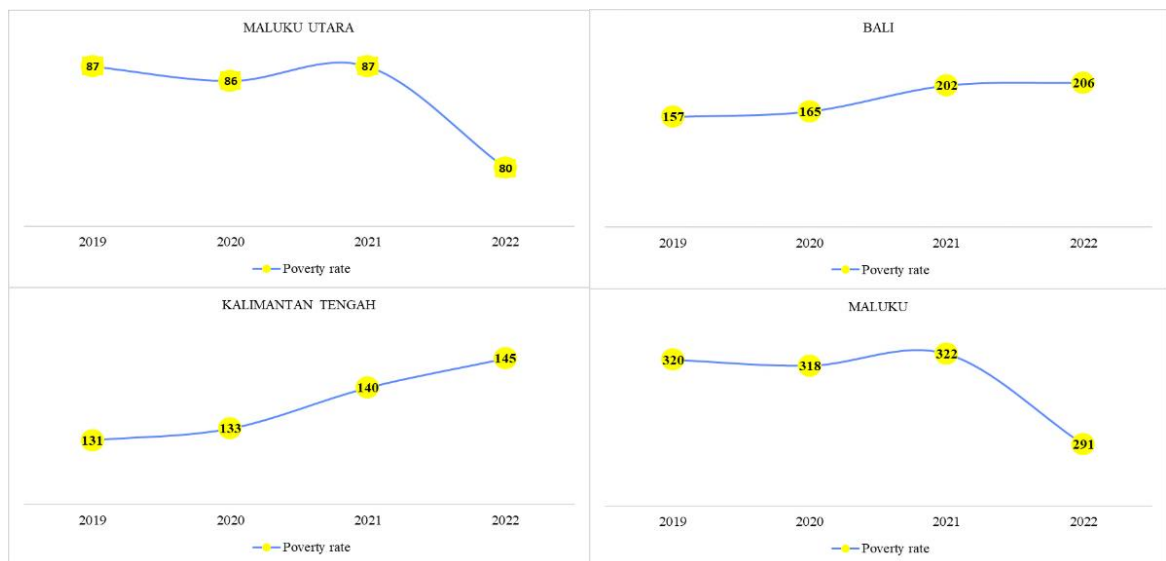


Figure 4. The lowest number of poverty rate in Maluku, Bali, Kalimantan Tengah and Maluku Utara Provinces (Thousand)

On the unemployment rate side, Figure 5 shows that among DKI Jakarta, Jawa Barat, Jawa Tengah, and DIY Yogyakarta Provinces which have the highest unemployment rates are Jawa Barat province, and lowest unemployment rate DIY Yogyakarta approximately 8,04% and 3,18 % respectively in 2019.

In the year 2020, DKI Jakarta had an increasing unemployment rate and that circumstance made DKI Jakarta have a higher unemployment rate than Jawa Barat. Other provinces also have experienced an increasing unemployment rate. Jawa Tengah and DIY Yogyakarta have an unemployment rate of approximately 6,48% and 4,57% respectively. During the period 2021 to 2022, those provinces have declined. DKI Jakarta and Jawa Barat have an unemployment rate of around 7,18 and 8,31% respectively. On the other side, Jawa Tengah and DIY Yogyakarta experienced around 5,57% and 4,06%, respectively.



Figure 5. Unemployment rate in DKI Jakarta, Jawa Barat, Jawa Tengah and DIY Yogyakarta Provinces (Percent)

On the other hand, Figure 6 shows the unemployment rate in Maluku, Bali, Kalimantan Tengah, and Maluku Utara provinces. Those provinces are provinces that have the lowest ZIS- DKSL fund distribution. The highest unemployment rate circumstance experienced by Maluku province was around 6,69% in 2019. Maluku has sharply increased the unemployment rate by around 7,57% in 2020. However, Maluku has declined approximately 6,93% in 2021 and slightly down in 2022 to around 6,88%.

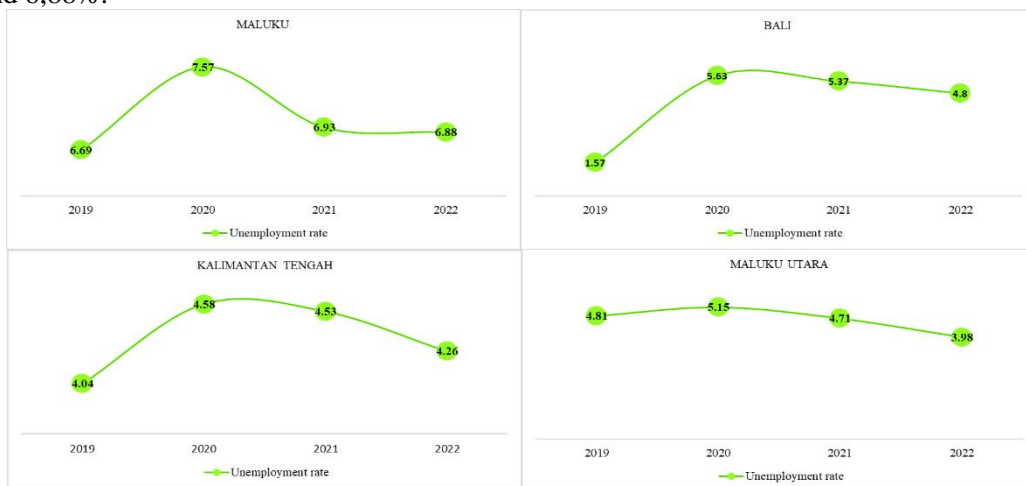


Figure 6. Unemployment rate in Maluku, Bali, Kalimantan Tengah and Maluku Utara Provinces (Percent)

Bali, Kalimantan Tengah, and Maluku Utara have increased the unemployment rate from 2019 to 2020. Those provinces have experienced a downward from 2020 to 2023. In the last period, Bali, Kalimantan Tengah, and Maluku Utara have an unemployment rate of approximately 4,8%, 4,26 %, and 3,98% respectively. In began period, Bali province had the lowest unemployment rate around 1,57 percent. However, Maluku Utara has the lowest unemployment rate approximately 3,98% in the year 2022.

Comparative income inequality between urban and rural area

Based on Figure 7 explains that income inequality has a steady trend in rural and urban Indonesia over the years 2019 to 2022. Gini ratio using the sizeable level of income quality in Indonesia. The ratio of the Gini index in urban areas was around 0.392 points and in rural areas around 0.382 points in 2019. At the same time, the index of ratio Gini in urban and rural areas in Indonesia is around 0.317 points.

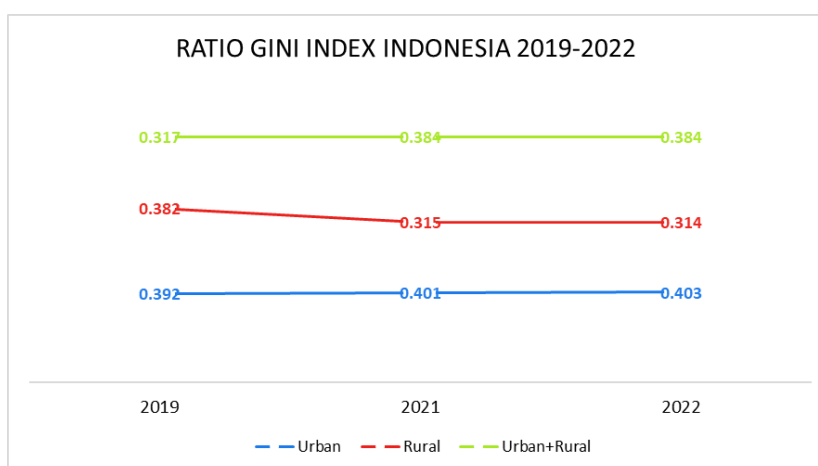


Figure 7. Index Gini ratio in Indonesia during 2019 to 2022

Another circumstance occurred in 2021, the ratio of the Gini index in urban and rural have increased to around 0.384. in urban areas have an increasing ratio of approximately 0.401 points. However, rural areas have a downward trend of around 0.315 points. That condition implied that income inequality in urban and rural increased generally. Even though, in rural areas have declined specifically. Furthermore, income inequality generally has a stagnant trend in numbers around 0.384 in 2022. Nevertheless, rural areas have slightly declined by 0.314 points. It implied that rural areas tend to have lower income inequality than urban areas.

Simultaneous analysis

The relationship between *Zakat, Infaq, and Shadaqoh* (ZIS) fund realization on the economy in Indonesia context has been presented in Table 4. The result of regression is provided in two columns namely Ordinary Least Square (OLS) and Two Stage Least Square (2SLS). The result of 2SLS regression as a comparison to show consistency result has strong estimates.

Based on Table 4, the estimated result in 2SLS shows that ZIS fund distribution has a positive significance on the economy with a coefficient estimate value is 0.105. it implies that each ZIS fund realization increases by 1%, it will be followed by an increase of Gross domestic product (GDP) approximately 0,10%. F -statistic value shows a significance around 10.58 that instrument variables used have quietly strong with endogen variable. In addition, independent variables increase the R-square coefficient to 93%. Even though, LnINVES and LnGOV show no significance. The direction of the coefficient can explain that both variables have a positive direction relationship. It implied that still appropriate theoretically.

Table 4. Relationship *Zakat Infaq* and *Shadaqoh* (ZIS) on economic

Variable	LnGDP	LnGDP
	OLS	2SLS
LnZIS	0.0915*** 11.49	0.105*** 5.54
LnINVES	0.00603 0.31	0.0284 0.66
LnGOV	0.144*** 4.53	0.111 1.54
_cons	30.73*** 48.13	31.24*** 21.99
N	18	18
F-statistic		10.58***
R2	0.989	0.93***

t statistics in parentheses * p<0.05, ** p<0.01, *** p<0.001

This empirical evidence shows that it is appropriate with previous studies. The realization of the *Zakat* fund has had a significant impact and is strong on the economy of Indonesia. ZIS fund can contribute to economic development as well as play an important role in establishing Islam's civilization through development processes (Amanda & Anwar Fathoni, 2023; Ashfahany et al., 2023; Permadi et al., 2023; Suprayitno, 2018). Indonesian Islam community has the largest population which is expected Islam can play an important role in economic development in Indonesia. Islam values as principles can be formulation of a development strategy to ensure development with justice and stability (Chapra, 1993). Purposing of development can produce wealth and security for people. Distribution of resources which is fairness to reduce income inequality. In this context, the country has an important role in ensuring development and producing prosperity. Table 5 shows the result of empirical evidence that ZIS fund distribution has not significantly influenced income inequality.

Results of OLS and 2SLS regression have proven that ZIS fund distribution has a negative direction. The results of all variables examined were consistent in both the OLS and 2SLS. F- statistic value shows that the instrument variable only has 7,4%. It implies instrument variable used has a weak correlation with the endogen variable. On the other side, independent variables have influenced around 89% significantly in the 2SLS equation model. This empirical evidence is appropriate with previous research conducted by Lestari & Auwalin, (2022) who found that the role of *Zakat fund* distribution in 34 provinces of Indonesia has an insignificantly impact on income inequality. Nevertheless, a Different statistical result was found by Afandi et al, (2021) that the distribution of zakat in Selangor Malaysia has a significant impact on reducing income inequality. Ayuniyyah et al, (2018) find a similar result that *Zakat* affects and reduces inequality in Bogor, Depok, and Sukabumi City.

Independent variables in Table 5 show that income per capita and the poverty rate have a significant influence on income inequality or the ratio of the Gini index in Indonesia. An interesting finding is income per capita has a positive impact on income inequality. It implies that GDP distribution in Indonesia is still inequality. In other words, GDP distribution is enjoyed by some people or elite groups who have direct access to the market. Table 5 shows that each income per capita increased by 1% implying that the income inequality rate increased by around 45%. It proves that income inequality in Indonesia is still becoming a primary development problem

Furthermore, the poverty rate variable hurts income inequality in Indonesia. Results of estimate regression show when the poverty rate increased by around 1 percent that would be followed by income inequality reduced 0, 000000000000003% (3.00e-15) ratio of the Gini index. This empirical study shows that the problem of income inequality circumstance is jeopardized and detrimental to Indonesia's development. The alleviated poverty rate can be reduced not implied income inequality reduced. The infrastructure project design has to ensure not only rising economic growth, but toward the development stage is more focused on high initial inequality would require deeply alleviating poverty (Lin, 2003).

Table 5. Relationship *Zakat Infaq* and *Shadaqoh* (ZIS) on income inequality

Variable	GINI	GINI
	OLS	2SLS
LnZIS	-0.536 (-1.00)	-0.0125 (-0.04)
LnINCOME	50.06*** 7.18	45.10*** 9.64
LnPOVER	-2.94e-15*** (-7.35)	-3.00e-15*** (-7.05)
_cons	-388.9*** (-7.31)	-356.4*** (-8.93)
N	22	22
F-statistic		7.40315***
R2	0.903	0.897***

t statistics in parentheses * p<0.05, ** p<0.01, *** p<0.001

According to BAZNAS, 2023 report the realization of *Zakat* in Indonesia's success in alleviating poverty is around 313.922 *mustahik* or poor people. This achievement increases by 43% (449.982 *mustahik* or poor people) in the year 2021. The contribution of the ZIS fund to the eradication of poverty continually increases by approximately 463.154 *mustahik* and some receivers of them around 194.543 *mustahik* have a status as extremely poor condition (Achmad et al, 2023).

On the other hand, the labor market circle could be one of the ways toward increasing income. Realization of ZIS fund in the design of the project should be created producing new employers that have high skill and ability standards. One way to support poor people is to enter those in the labor market circle. Table 5 reports that the realization of the *Zakat* fund on absorbing employment has a significant impact. Economic programs have been conducted by BAZNAS through economic empowerment via support in capital enterprises, skills training, and mentoring for small and micro businesses. Those projects have succeeded in absorbing employment.

Based on Table 6 reports that each increase in the realization of the *Zakat* fund by 1 percent would be followed by an increase 0,0036% in the level of employment. Simultaneously independent variables have 90% significance. On the other side, the result of the F-statistic shows around 140,16, which implies that instrument variables used have a strong correlation and significance on the endogen variable. These empirical evidences strengthen the result of previous research. Those explained that management of the ZIS fund could absorb labour, and the productivity of ZIS fund programs would emphasize the growth of micro business as well as help poor people enhance their life standards (Faisal & Yuliani, 2018; Raies, 2020). However, according to Zahra & Auwalin, (2020), the distribution of ZIS funds has a positive impact on unemployment in the short term in Indonesia, each increase in the ZIS distribution was followed by increasing in unemployment. However, influencing of distribution of ZIS funds has a different effect in the long term. The distribution of ZIS has a negative significance on unemployment. Research has been done by Athoillah, (2018). to observe *Zakat* and the poverty phenomenon in six provinces of Java Island from 2001 to 2021, finding that *Zakat* has insignificance in reducing unemployment.

Table 6. Relationship *Zakat Infaq* and *Shadaqoh* (ZIS) on absorbing employment

Variable	LnEMP	LnEMP
	OLS	2SLS
LnZIS	0.00368*** 5.3	0.00365*** 5.15
LnLABOR	1.450*** 10.76	1.435*** 14.68
_cons	-2.032** (-3.64)	-1.971*** (-4.93)
N	22	22
F-statistic		140.161***
R2	0.931	0.909

t statistics in parentheses * p<0.05, ** p<0.01, *** p<0.001

The distribution realization of *Zakat Infaq* and *Shadaqoh* and other ummah funds (ZIS-DKSL) shows that DKI Jakarta province has received the highest average of ZIS-DKSL realization compared with other provinces during the period 2019 to 2022. It shows the effectiveness and abilities of BAZNAS in the collection and distribution of Zakat funds in DKI Jakarta province. On the other side, Maluku Utara, Bali, Kalimantan Tengah, and Maluku provinces have in lowest average realization of ZIS funds and Maluku province is the lowest. Those circumstances identification that there are gaps in the distribution of ZIS funds that need to be paid attention to. Differentiation in receiving ZIS funds among provinces in Indonesia may be caused by several factors such as the number of *Muzakki* (Zakat Payer), the level of people's awareness would the obligation of *Zakat*, the effectiveness institution of Amil Zakat at the local level. Therefore, further efforts are required to increase people's awareness and participation in *Zakat payment*, as well as strengthen the capabilities of Zakat amil institutions in provinces with lower ZIS receipts.

Poverty conditions in each province vary significantly. Among provinces that have high average realization of ZIS and DKSL fund reception namely DKI Jakarta, Jawa Barat, Jawa Tengah, and DIY Yogyakarta, only Jawa Barat and Jawa Tengah provinces have the highest poverty rate while DKI Jakarta and DIY Yogyakarta have lower poverty rate. Even though Jawa Barat and Jawa Tengah have received excess ZIS funds and, a high poverty rate in both, these provinces sign that ZIS has have not fulfilled effectively in alleviating poverty. Factors such as distribution that is less targeted, management that is less efficient, or excess needed in both provinces may contribute to such results. Even though DKI Jakarta and DIY Yogyakarta provinces have larger *Zakat* fund receipts, those provinces succeed in maintaining a lower poverty rate. It is shown that *Zakat* funds can be distributed and managed well. To address these disparities are needed strategies more focus on the management and distribution of ZIS as well as empowerment programs that can enhance people's standard from effectively poverty condition.

The trend of ZIS consummation in businesses that have the smallest average consummations showed good growth in other conditions. From 2019 to 2022, Maluku, Bali, and Kalimantan Tengah endured adding ZIS- DKSL, showing an increase in mindfulness and participation of Muslim people in paying *Zakat* in these businesses. This increase could come the result of champagne strengthening and ferocious education by BAZNAS and other institutions of Amil Zakat. likewise, this important increase, although these businesses still admit lower ZIS finances, there are trend positive that can be continued and enhanced.

Nonetheless, the observation that the damage of this ZIS must be followed with the right distribution and effective commission programs to ensure that the ZIS fund that's entered is truly salutary for people who need it. BAZNAS in businesses across Indonesia needs to continue to strengthen capability in operation and distributed *Zakat*, as well as continue to strengthen mindfulness and participation of people in *Zakat*, *Infaq*, and *Shadaqoh* (ZIS) payment. With this way, the positive trend of ZIS fund receipting can continue and give a larger impact on poverty eradication and adding the wealth of people in all businesses.

Provinces with the highest average of ZIS realization exhibit a marginally concerning trend in terms of unemployment rate. From 2019 to 2022, DKI Jakarta, Jawa Barat, Jawa Tengah, and DIY Yogyakarta observed a rise in unemployment rate, albeit insignificant. The escalation in unemployment implies that despite the high receipt of ZIS, its efficacy in fostering employment opportunities may not be optimal. Several factors such as limited job prospects, insufficient skills for the labor market demand, and potentially unstable economic conditions could potentially contribute to the upsurge in unemployment within these regions.

Provinces such as Maluku, Bali, and Kalimantan Tengah, which exhibit the lowest realization of ZIS funds, also encountered a surge in the unemployment rate between 2019 and 2022. Conversely, Maluku Utara province displayed a contrasting pattern with a decrease in unemployment during the same timeframe. The reduction in unemployment within Maluku Utara province could signify the efficacy of local initiatives aimed at bolstering employment or empowerment schemes to enhance workforce participation.

These circumstances necessitate a more comprehensive emphasis on strategies employed in the utilization of ZIS funds. In addition to the distribution of ZIS for essential needs, it is imperative

to earmark these funds for skill development programs and initiatives aimed at enhancing economic empowerment, thereby fostering employment opportunities and bolstering individual autonomy. Collaboration between BAZNAS, the government, and the private sector is essential for the formulation and implementation of programs that can effectively mitigate unemployment. These initiatives encompass vocational training, provision of financial resources to businesses, as well as internships and partnerships with local companies to ensure that recipients of *Zakat, Infaq, and Shadaqoh* (ZIS) acquire relevant skills and access genuine employment prospects.

Integration of the ZIS program with the endeavor to enhance workforce participation is anticipated to mitigate unemployment, not solely in regions with the highest utilization of Zakat funds but also in regions with lower utilization. Nonetheless, these regions exhibit a rising trajectory. Moreover, the continual monitoring and assessment of these initiatives would be exceedingly crucial in guaranteeing that the decrease in unemployment is specifically addressed and in tailoring appropriate interventions based on feedback and performance outcomes.

The correlation between the implementation of *Zakat Infaq and Shadaqoh* (ZIS) and GDP yielded statistically significant and positive outcomes, whether assessed through Ordinary Least Squares (OLS) or Two-Stage Least Squares (2SLS) methodology. This finding suggests that the implementation of the ZIS fund effectively contributes to the increase in GDP, indicating economic expansion. This favorable outcome has recognized that ZIS serves as an economic tool that not only aids in poverty alleviation but also stimulates economic endeavors by boosting consumer spending and fostering investments in productive ventures.

However, upon examination of the impact of the ZIS fund on income inequality, the outcomes reveal a negative and statistically insignificant relationship. This suggests that although the ZIS fund may have the potential to mitigate income inequality, its effect is not sufficiently robust to bring about significant alterations between the years 2019 to 2022. Conversely, there is a positive and statistically significant correlation between income per capita and the Gini ratio, with a coefficient of approximately 45.10 in 2SLS analysis. This indicates that as income per capita rises, income inequality tends to increase. This phenomenon could be attributed to the excessive income growth experienced by affluent communities. Furthermore, this research identifies that poverty negatively impacts income inequality, albeit with a minor coefficient. This implies that while addressing poverty has a positive effect on reducing income inequality, its influence remains weak and requires strengthening.

The outcomes of the regression analysis conducted on the absorptive employment and ZIS fund reveal a noteworthy and favorable association with a coefficient value of 0.0036, suggesting that the ZIS fund plays a pivotal role in augmenting absorptive employment. Conversely, the labor force parameter demonstrates a substantial and positive impact on absorptive employment, indicating that the expansion of employment opportunities has contributed to the escalation of absorptive employment.

Conclusion

The ZIS fund's impact on GDP and job creation is generally positive, indicating its potential as a valuable tool for fostering economic expansion and decreasing unemployment. However, efforts to address income inequality within the ZIS fund still require enhancement in order to yield substantial outcomes in alleviating economic disparities. Consequently, there is a need for the ZIS fund distribution strategy to incorporate more focused initiatives aimed at effectively reducing income inequality and poverty.


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BIOGRAPHIES OF AUTHORS



Moh. Hairus Zaman  is a master student in Department of Economics, Faculty of Economic and Business, Universitas Trunojoyo Madura. He has an interesting to economics and Islam, because Islam not only as faith, but also can provide a breakthrough the improving standard of *ummah* living. He has a view of point that Islam could be translated becoming solution in real life, Islam not only bring lesson and values but also guidance *ummah* toward a path of salvation in world and hereafter. As an intellectual Muslim, he realizes that an intellectual has a huge responsibility to response the problems of *ummah* who occurred, particularly poverty and income inequality problem in this country. Several ways can be conducted to presence a notion through research, discussion and advocation. He can be contacted at email: hairuszaman1@gmail.com