

ZIS (Zakat, Infaq, and Sadaqah) and Economic Growth In Socio-Economic Dimension (Evidence : West Sumatera)

M. Reza Tawakkal¹, Rida Rahim^{2✉}, M. Fany Alfarisi³

^{1,2,3} Faculty of Economics, Andalas University, Padang, Indonesia

Correspondence Author: ridarahim@eb.unand.ac.id ✉

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Abstract: Penelitian ini bertujuan untuk mengetahui pengaruh dana ZIS dan pertumbuhan ekonomi terhadap permasalahan sosial ekonomi di Sumatera Barat. Untuk penelitian ini, data panel dikumpulkan dengan menggunakan metode purposive sampling. Studi ini terdiri dari 190 observasi. Data dikumpulkan dari 19 kabupaten/kota di Provinsi Sumatera Barat dari tahun 2013 sampai dengan tahun 2022. Penelitian ini menggunakan PLS sebagai metode regresi dan dilakukan uji pemilihan model regresi, uji asumsi klasik, dan pendekatan metode GLS. Temuan menunjukkan bahwa baik dana ZIS maupun pertumbuhan ekonomi memiliki peran yang signifikan dalam mengurangi kemiskinan, bahkan zakat lebih efektif untuk mengentaskan kemiskinan. Selain itu, kedua faktor tersebut memberikan dampak yang signifikan terhadap peningkatan kualitas hidup masyarakat. Hasil kajian tersebut dapat menjadi masukan bagi Pemprov Sumbar untuk meningkatkan penghimpunan dana ZIS yang pada gilirannya dapat mempercepat pengentasan kemiskinan dan mendorong pembangunan kualitas manusia.

Abstract: This research aimed to investigate the influence of ZIS funds and economic growth on socio-economic issues in West Sumatra. For this study, panel data was collected using purposive sampling method. The study comprised 190 observations. Data was collected from 19 districts/cities in West Sumatra province from 2013 to 2022. The study used PLS as the regression method and subjected it to regression model selection test, classical assumption test, and GLS method approach. The findings indicated that both ZIS funds and economic growth had a significant role in reducing poverty, even zakat was more effective for alleviating poverty. In addition, both factors had a significant impact on improving the quality of life of the community. The study results can serve as input for the West Sumatra provincial government to enhance the collection of ZIS funds, which in turn can accelerate poverty alleviation and promote human quality development.



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INTRODUCTION

Generally, an economic crisis resulted in a series of socio-economic issues in society. Several companies or sectors in the real economy were affected by financial crises, leading to layoffs or massive unemployment, reduced economic power, and lower quality of life and public health. The COVID-19 pandemic-triggered global

recession of 2020 was the deepest one since the Second World War. According to research and evidence by Ayhan & Paper (2021) the global recession was the fastest one. Crises such as COVID-19 could have a swift impact due to measures like stay-at-home regulations, temporary business closures, workforce infections, and uncertainty surrounding the short and long-

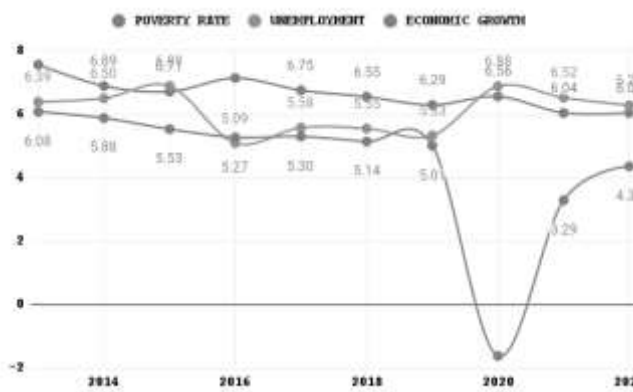
term economic policymakers need to create monetary a mitigating or man: et al., 2021).

According to Al Zakah”, zakat measurement in integrated into the implementation in had a positive effect development of (2020) supported

a socio-economic solution for society and could drive the economy of a nation. However, this could only be achieved when zakat funds were managed properly in accordance with shariah economic law principles

Several recent studies examined the impact of economic growth on poverty rates (Rahim et al., 2020; Mustika et al., 2019; Santos et al., 2019; Zhu et al., 2021; Benfica & Henderson, 2021; Haan et al., 2022). The impact of economic growth on unemployment rate (Rumbia et al., 2022; Thurlow et al., 2019; Imran et al., 2015; Chowdhury & Hossain, 2014). The impact of economic growth on the development of human quality, especially in terms of health and education (Wang et al., 2020; Croes et al., 2020; Stewart, 2019; Sarkodie & Adams, 2020; Nchofoung et al., 2021; Yaya et al., 2020). However, there was still a lack of studies on ZIS funds that explained the

outcome. Therefore,



relationship with social-community issues, ship between ZIS funds (Rahim et al., 2020; Masandy et al., 2019; 015; Qardawi, 2013), the quality of human ni et al., 2019; Rédha et Sidiq, 2020; Korayem & previous studies did not he substance of zakat as ic system that improved st on one or two proxies e.

According to the data released by the Ministry of Home Affairs as of December 2021, the Islamic population percentage in West Sumatra Province was higher than the national figure, standing at 97.6% (5.6 million people). When we compared the ADHK GRDP per capita of West Sumatra Province with those of other provinces in Indonesia from 2013 to 2022, it was only the 22nd among 35 provinces. The mean per capita income of West Sumatra residents in 2022 was only 32,377,514 rupiah/year. Nevertheless, the growth of Zakat, Infaq, and Sadaqah (ZIS) Fund was higher than the growth of per capita income of the people of West Sumatra. This phenomenon indicated that the awareness of the people of West Sumatera regarding the obligation of zakat was remarkably high, reflecting the majority of the Muslim population in West Sumatera (ranked as the 4th highest nationally in terms of ZIS fund collection).

Figure 1. Poverty rate, unemployment rate, and economic growth of Sumatera Barat from 2013-2022

Viewed from the economic and social dimensions of society, the trend of economic growth in West Sumatra from 2013 to 2022 decreased even before the economic crisis due to the COVID-19 pandemic. However, the percentage of poor people also decreased throughout these years (BPS, 2022).

Several journal sources had concluded that one way to reduce economic problems within the social community was through the payment of zakat (ZIS) and promoting economic growth. Not only was the word zakat mentioned in this letter, it was sounded 59 times in the Qur'an and mentioned by Allah SWT. The ultimate purpose of this zakat fund was to eradicate poverty and destitution in society. With that goal in mind, this study specifically examined the impact of ZIS and economic growth rates on socio-economic issues in West Sumatra Province.

METHOD

Quantitative methods were used in this research to test the relationship between research variables empirically, relying on statistical analysis (Sekaran, 2011). This study used panel data as the main type of data to assess all districts and cities (19 in total) in West Sumatra Province during the ten-year period between 2013 and 2022, which constituted 190 observations. A combination of cluster sampling, cross-section data, and time series was used as the sampling techniques in this study. Specifically, purposive sampling techniques in the form of panel data were used. Several official agencies of the Republic of Indonesia, such as Bank Indonesia (BI), the Central Bureau of Statistics (BPS), the National Zakat Agency (BAZNAS), and the National Development Planning Agency (BAPPENAS), were used as secondary data sources in this study.

Table 1. Definition of variables (source: Data processed, 2022)

NO	VARIABLE	DEFINITION	INDICATOR	SCAL E	SOURC E
<i>Independent Variable</i>					
1	ZIS (X_1)	The amount of zakat, infaq, and sadaqah funds in Sumatera Barat	Number of zakat fund managed by national zakat boar (BAZNAS) in Sumatera Barat at t-year	Ratio	Rahim et al., 2020
2	Economic Growth (X_2)	Real per capita gross domestic product at constant market prices	$EG = \frac{\text{percapita GDP}_t - \text{percapita GDP}_{t-1}}{\text{percapita GDP}_{t-1}}$ (per capita of GDP at constant market prices)	Ratio	Barro, 1995
<i>Dependent Variable</i>					
3	Poverty (Y_1)	Number of people below poverty line in Sumatera Barat	Percentage of poor population	Ratio	Rahim et al., 2020

4	Unemployment (Y ₂)	Unemployment covers population who were looking for work, population who were establishing a new business/firm/establishment, discouraged job seeker and those who were not actively looking for work with the reason of already having job but not starting to work	Percentage of Open unemployment rate	Ratio	Rahim et al., 2020
5	Human Development Index (Y ₃)	How people can access development results in obtaining income, health, education, and so forth.	HDI formed by three basic dimension : a long and healthy life, knowledge, and a decent standard of living	Ratio	UNDP, 1990

From the explanation of the research variables above, the form of the equation model used in this study was:

$$POV = \alpha + \beta_1 Ln(ZIS)_{i,t} + \beta_2 EG_{i,t} + \varepsilon_{i,t} \dots\dots\dots (1)$$

$$UNE = \alpha + \beta_1 Ln(ZIS)_{i,t} + \beta_2 EG_{i,t} + \varepsilon_{i,t} \dots\dots\dots (2)$$

$$LnHDI = \alpha + \beta_1 Ln(ZIS)_{i,t} + \beta_2 EG_{i,t} + \varepsilon_{i,t} \dots\dots\dots (3)$$

The dependent variables were poverty rate (POV), unemployment rate (UNE), and Human Development Index (LnHDI) expressed in natural logarithm form. The independent variables were ZIS Funds (LnZIS) in the form of natural logarithm, and economic growth of ADHK GRDP per capita (EG).

RESULTS AND DISCUSSION

Descriptive Analysis

Table 2 showed that this study employed panel model data. The cross-

For the analysis process, several stages and methods were used to achieve research objectives, including achieving a high level of accuracy and reducing bias in the estimation. The construction of the regression model was important and was tested using statistical methods. Some of the stages that were carried out included descriptive analysis, regression model testing, multi-collinearity testing, heteroscedasticity testing, correlation analysis between variables, f-test, and statistical t-test. The robustness of the initial model was also tested with a robustness check. The data processing and analysis were performed using STATA software.

sectional data in this study consisted of 19 regencies/cities (KAB_KOTA), and the time-series spanned from 2013 to 2022 (YEAR). The following is a description of the research sample used in the study:

Table 2. Descriptive statistic (source: Data processed, 2022)

Variable	Obs	Mean	Std. Dev.	Min	Max
POV	190	6.7273	2.5694	2.01	16.12
UNE	171	5.5708	2.3349	0.40	14.10

LnHDI	190	4.2640	0.0798	4.03	4.42
LnZIS	186	8.5180	0.8334	5.40	10.16
EG	190	30.5121	8.5221	15.78	53.61

Panel Data Regression Model Selection

The dependent variables or equations mentioned above used only the Chow and Hausman tests for all models, based on the

results of data processing and model selection through several regression model tests. The following recapitulates the chi2 probability values for each model:

Table 3. Regression model selection test results (source: Data processed, 2022)

Variabel	Chow Test	Hausman Test	LM Test	REGRESS.
	Prob>f	Prob>chi2	Prob>chi2	Conclusion
POV (Y1)	0.0000	0.9081	-	REM
UNE (Y2)	0.0000	0.0208	-	FEM
LnHDI (Y3)	0.0000	0.5827	-	REM

Multicollinierity

The purpose of this test was to determine whether there was a correlation between the independent variables in the regression model. A good regression model should have had no correlation between the independent variables. The test results were

presented in the VIF (Variance Inflation Factor) and tolerance values. If the tolerance value was greater than 0.10 or 10%, it indicated that there was no correlation or multicollinearity between the independent variables (Long & Freese, 2006).

Table 4. VIF test results for multicollinearity test (source: Data processed, 2022)

Variable	POV (Y1)		UNE (Y2)		LnHDI (Y3)	
	VIF	1/VIF	VIF	1/VIF	VIF	1/VIF
EG	1.00	0.9999	1.00	1.0000	1.00	0.9999
LnZIS	1.00	0.9999	1.00	1.0000	1.00	0.9999
Mean VIF	1.00		1.00		1.00	

According to Table 4, the tolerance value (1/VIF) of all variables was greater than 0.10, and the VIF value was less than 10, which meant that there was no multicollinearity problem between all independent variables.

Heteroscedasticity

Table 3 presented the results of the regression model tests for POV and LnHDI, and based on these results, the chosen regression model was the Random Effect

Model (REM), thereby eliminating the need to test for heteroscedasticity. In the case of panel data, the approach of the REM method was the same as the Generalized Least Squares (GLS) method, as it effectively addressed the issue of heteroscedasticity and autocorrelation in panel data (Gujarati, 2003). In the case of UNE, we chose the Fixed Effect Model (FEM) for the regression model, and it was crucial to test heteroscedasticity. Therefore, we carried out the Wald-test to investigate this issue. Table 4.4 indicated

that the chi2 probability value of 0.0000 was smaller than the alpha level of 0.005. It could be concluded that the research data had a heteroscedasticity problem. Gujarati (2003) suggested that one way to overcome

heteroscedasticity problems in panel data was to use robust and generalized least square (GLS) methods. GLS generated models free from autocorrelation and heteroscedasticity issue.

Table 5. Wald-test results for heteroscedasticity (source: Data processed, 2022)

Modified Wald test for groupwise heteroskedasticity in fixed effect regression model
H0: $\sigma(i)^2 = \sigma^2$ for all i
chi2 (18) = 415.55
Prob>chi2 = 0.0000

Analisis Regresi Data Panel

Table 6 displayed the panel data regression analysis conducted in the study. It was concluded that all models were constructed using the GLS estimation approach. Based on significance values <0.05 for LnZIS on POV and LnHDI, and EG on POV and LnHDI, it was concluded that Hypotheses 1, 3, 4, and 6 in the study were accepted. On POV, LnZIS and EG had negative coefficients, even constanta of LnZIS higher than EG while on LnHDI, LnZIS and EG had positive coefficients. For all models, the f-statistic values were <0.05.

The results showed that LnZIS and EG did not have a significant effect on UNE (>0.05). Therefore, Hypotheses 2 and 5 were rejected. The analysis indicated that the independent variable UNE in each research model did not affect LnZIS or EG.

The highest r-squared value in the estimated model was the third model of LnHDI at 56.3%, POV at 27.7%, and UNE at 6.5%. The variable LnHDI was the variable that was most effectively explained by both independent variables, LnZIS and EG, in this study, whereas the variable UNE was very weakly explained by the independent variables used in the research.

Table 6 indicated that the estimation of the constructed model had been done to deal with problems arising from heteroscedasticity, autocorrelation, multicollinearity, and things that caused the estimation results to be biased. To reinforce and enhance the accuracy of the estimation results, it was essential to verify their robustness in the next stage of analysis.

Table 6. GLS panel data regression analysis (source: Data processed, 2022)

Variable	POV	UNE	LnHDI
<i>LnZIS</i>	(-0.171)***	(0.133)	(0.008)***
<i>EG</i>	(-0.105)***	(-0.062)*	(0.005)***
Constant	0.012	0.034	0.000
	19.511	3.110	3.868
	0.490	1.454	0.012
Hausman Test	0.908	0.021	0.583

Wald test		0.000	
Mean VIF	1.00	1.00	1.00
Number of Observation	186	168	186
R2	0.277	0.065	0.563
Adj.R2	0.270	0.142	0.559
F-Stat.	0.000	0.000	0.000

Notes: *, **, *** Significant 10, 5 and 1 per cent levels, respectively. Standard error in the parenthesis

Robustness Check

To reduce errors in specifying the previous regression equation model, one needed to identify interactions between regressors. These interactions were known as multiplicative effects. This effect was commonly observed in econometric analysis, linear regression, and other statistical models where it was assumed that the effects of two or more variables were mutually influential or dependent on each other. In addition, errors when developing empirical models, such as omitting relevant/influential variables, including unnecessary variables, measurement errors, and the assumption of normally distributed residuals, could be avoided by identifying multiplicative effects (Gujarati, 2012).

The research conducted by Rahim et al. (2020) suggested a correlation between economic growth (GDP) and ZIS Funds. Furthermore, the study asserted that economic growth had the potential to moderately strengthen the negative relationship between ZIS Funds and poverty. Several studies also showed the effect of the relationship between these two variables (Antonio et al., 2021; Munandar et al., 2020; Novalia et al., 2020; Arwani & Wahdati, 2020; MG et al., 2019; Zahro, 2017; Azam et al., 2014; Mahat & Warokka, 2013; Qardawi, 2013; Yusoff, 2011; Yusoff, 2006). In conclusion, the equation form specification for this initial robust test was:

$$POV = \alpha + \beta_1(ZIS/EG)_{i,t} + \beta_2EG_{i,t} + \varepsilon_{i,t} \dots\dots\dots (4)$$

$$UNE = \alpha + \beta_1(ZIS/EG)_{i,t} + \beta_2EG_{i,t} + \varepsilon_{i,t} \dots\dots\dots (5)$$

$$LnHDI = \alpha + \beta_1(ZIS/EG)_{i,t} + \beta_2EG_{i,t} + \varepsilon_{i,t} \dots\dots\dots (6)$$

Once the equation model specification was checked, the next step was to verify the estimator's robustness. Gujarati (2012) identified three parameter estimation methods: the least-squares method (LS), maximum likelihood (ML), and the generalized method of moments (GMM). The previous analysis results were obtained using least-squares estimation. The GMM estimation approach was suitable for small or limited samples, asymptotic, and data distribution. Baltagi (2013) suggested GMM as a solution for analyzing unbalanced panel data. The GMM approach became increasingly popular in recent literature. For instance, Rahman et al. (2019) used GMM estimation with GDP as the dependent variable in one of their studies. The GMM approach was widely considered to be an efficient predictor for the problem of endogenous variables, where the value of each lag in the time series was random (endogeneity).

Previous studies showed that using dynamic estimators like GMM could lead to more efficient results and reduced biased estimates in comparison to static model estimation (Least Square) (Baltagi, 2013). Ultimately, robust testing was expected to improve the existing model's precision, thereby enabling the estimator to produce more accurate and unbiased estimates.

Table 7 summarized the comparison of data analysis using three different methods: the first by estimating the GLS approach, the second still using GLS but the equation model specification applied the

multiplicative effect, and finally using the GMM dynamic panel data estimation. In the GMM estimation, a System-GMM approach with two levels was applied, and robustness was ensured through the multicollinearity, heteroscedasticity, autocorrelation, validity, and model fit test stages. According to (Roodman, 2009) explanation, the mean VIF value was required to be <5.00 in the multicollinearity test, and the value of the Arellano-Bond test for AR(2) was supposed to be greater than 0.05 in the autocorrelation test. Additionally, for the validity test, the value of the Hansen test of overid restrictions was expected to fall between 0.10 and 0.30. The study concluded that the three estimators had identical properties, and the significance level for LnZIS and EG was below 0.05. This result showed that

hypotheses 1, 3, 4, and 6 were still accepted, indicating that the baseline model was consistent and stable.

The effect of ZIS on poverty

The initial hypothesis in this research aligned with Rahim et al. (2020) findings that analyzed poverty levels in West Sumatra Province, even the evidence result show ZIS was more effective for alleviating poverty. Numerous other studies reported a decrease in poverty levels through the use of ZIS funds, not only in Indonesia but also in other Muslim nations. (Munandar et al., 2020; Novalia et al., 2020; Hany & Islamiyati, 2020; Pachmi et al., 2019; Maharani, 2019; R dha et al., 2016; Abdullah et al., 2015; Korayem & Mashhour, 2014; Lapopo, 2012). discussed similar findings.

Table 7. Hasil robustness check (source: Data processed, 2022)

Estimators	(1)			(2)			(3)		
	Baseline			Robustness			Robustness		
	POV	UNE	LnHDI	POV	UNE	LnHDI	POV	UNE	LnHDI
<i>LnZIS</i>	(-0.171)*** 0.053	(0.133) 0.413	(0.008)*** 0.001				(-0.056)** 0.026	(0.033) 0.081	(0.018)*** 0.005
<i>EG</i>	(-0.105)*** 0.012	(-0.062)* 0.034	(0.005)*** 0.000	(-0.111)*** 0.012	(-0.050) 0.034	(0.005)*** 0.000	(-0.217)** 0.100	(0.333)* 0.171	(0.041)** 0.019
<i>ZIS/EG</i>				(-0.001)** 0.000	(-0.000) 0.001	(0.000)*** 0.000			
Constant	19.511 0.490	3.110 1.454	3.868 0.012	18.400 0.413	3.672 1.208	3.917 0.010	1.556 0.494	-0.470 1.119	0.453 0.193
Hausman Test	0.908	0.021	0.583	0.873	0.000	0.491			
Wald test		0.000			0.000				
Mean VIF	1.00	1.00	1.00	1.11	1.11	1.11	1.40	1.13	1.84
Arellano-Bond test for AR(1) (Pr>z)							0.003	0.104	0.024
Arellano-Bond test for AR(2) (Pr>z)							0.416	0.720	0.409
Hansen test of overid restrictions							0.189	0.166	0.280
Number of Instruments							17	16	13
Number of Observation	186	168	186	172	154	172	137	80	104
R2	0.277	0.065	0.563	0.320	0.161	0.573			
Adj.R2	0.270	0.142	0.559	0.314	0.195	0.569			
F-Stat.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Notes: ***, **, * Significant 10, 5 and 1 per cent levels, respectively. Standard error in the parenthesis

In contrast, certain recent studies suggested that zakat had no significant impact on reducing poverty levels, claiming that ZIS funds were ineffective in poverty alleviation, as noted by (Khasandy et al., 2019; Mustika et al., 2019). According to Ali & Hatta (2014), the implementation of zakat in poverty eradication strategies was not universally prioritized among Muslim countries, such as Indonesia, including the Muslim-majority Aceh Province (Saputro & Sidiq, 2020)

Founded on Islamic law, the Minangkabau tribe's concept of cultural and

religious relations, known as "adat basandi syara', syara' basandi Kitabullah", was based on the Qur'an. Regarding the science of zakat fiqh, Qardawi (2013) explicitly stated that the essence of zakat is the solution to economic problems, including poverty and unemployment, within Islam. The distribution of ZIS had the potential to reduce poverty in West Sumatra province. Additionally, high awareness among West Sumatra's Muslims regarding their obligation to pay zakat had a direct impact on poverty reduction. For policymakers in the government and related authorities, the

management of zakat funds (collection and distribution) and regulations regarding the implementation of zakat payment remained significant challenges (Najiyah & Febriandika, 2019).

The effect of ZIS on unemployment

The results of this study differed significantly from other research results that claimed ZIS funds had a positive influence and could reduce unemployment rates, as indicated in studies conducted by Antonio et al. (2021); Zahra & Auwalin (2020); Rédha et al. (2016); Korayem & Mashhour (2014). According to Qardawi (2013), zakat was one of the economic instruments that contributed to economic activity. During economic recession conditions, zakat could serve as an economic recovery tool by distributing funds for the consumption of goods, which might lead to the creation of new businesses and consequently a reduction in unemployment, as suggested by Antonio et al. (2021). Yet, the role of zakat in Indonesia, particularly in West Sumatra, fell short of functioning as an economic instrument that could impact economic activity. The central government through BAZNAS had set five priority programs for national zakat, in order of importance: humanitarian programs (49.58%), da'wah advocacy (18.88%), education (15.78%), economy (9.72%), and health (6.03%). We can conclude from the data that the policy direction with the highest priority scale was to accelerate poverty elimination, followed by enhancing the quality of human resources through health and education (Baznas, 2023).

The effect of ZIS on HDI

The third hypothesis of this study aligned with the results of Saputro & Sidiq (2020), Pachmi et al. (2019), Rédha et al. (2016), which suggested that ZIS could enhance human development quality. Moreover, it could enhance social welfare by providing equal employment, educational, and healthcare chances to those in need (Korayem & Mashhour, 2014; Antonio et al., 2021)

The findings of the third hypothesis of this study were consistent with the perspective of Islamic Law. As per Qardawi

(2013), zakat in Islamic Law functioned as an economic security system for society. It guaranteed a decent life to the poor and those in need, including food, clothing, and shelter, in addition to health care and education. Optimizing the distribution of zakat could reduce unemployment while promoting the creation of skilled and reliable resources (Antonio et al., 2021). Furthermore, the distribution of zakat funds by the government could enhance the welfare of people's lives (Korayem & Mashhour, 2014). This principle of Islamic Law formed the basis for the policy direction of ZIS distribution through BAZNAS in improving the quality of human resources through education and health (Baznas, 2023).

The effect of economic growth on poverty

The fourth hypothesis in this study was consistent with existing research results from West Sumatra (Rahim et al., 2020), Indonesia (Nugraha et al., 2020; Mustika et al., 2019) and several other developing countries (de Haan et al., 2022; Zhu et al., 2021; Benfica & Henderson, 2021; Thurlow et al., 2019; Santos et al., 2019). Poverty and unemployment levels were significant factors in the development of a country's economy (Rumbia et al., 2022; MG et al., 2019; Makaringe et al., 2018; Sadiku et al., 2015; Ademola & Badiru, 2016; Bankole & Fatai, 2013; Cecchetti & Kharroubi, 2012; Ahmed & Wahid, 2011).

However, previous research by Hany & Islamiyati (2020) showed that economic growth did not necessarily reduce poverty rates in Indonesia. Additionally, research by Wahyuni (2016) found no relationship between economic growth and poverty rates. Moreover, Amirullah et al. (2020) confirmed the positive relationship between economic growth and poverty rates. It was ironic that despite the economic growth, the poverty rate increased. Disparities in wealth distribution or economic inequality were apparent when examining Indonesia at a national level.

The effect of economic growth on unemployment

The fifth hypothesis in this study aligned with Rumbia et al. (2022) research

results, indicating that economic growth, particularly the progress of multiple industries in Indonesia, had no significant impact in suppressing the unemployment rate. Therefore, it could not be suppressed using fiscal policy measures. Consistent with Rahim et al. (2020) findings, economic growth had no direct impact on the unemployment rate.

However, according to some studies, economic growth negatively impacted the unemployment rate (Zahra & Auwalin, 2020; Chowdhury & Hossain, 2014) and decreased the level of economic inequality in the society (Nasution et al., 2020). It was worth noting that the economy could also grow from the bottom-up. Some studies suggested that the rate of population growth and urbanization could serve as a proxy for economic growth, and the issue of unemployment was one that had to be addressed first, such as the focus of governments in African countries on employment in improving food production systems (Thurlow et al., 2019). Since this could have a positive impact on economic growth. In fact, unemployment contributed significantly to GDP in Nigeria, accounting for 65% (Ahmed & Wahid, 2011). Imran et al., (2015) reported that in several developing Asian countries, including Indonesia, a high unemployment rate had a significant negative impact on economic growth.

The effect of economic growth on HDI

The sixth hypothesis in this study aligned with various previous research findings. Economic growth in developing countries had a positive and significant effect on human development (Wang et al., 2020 ;Nchofoung et al., 2021). The two possessed an alternating and mutually reinforcing relationship. An increase in national income led to improved human quality, whereas a higher social expenditure ratio affected a country's economic growth (Stewart, 2019), as well as from the tourism sector (Croes et al., 2020).

Economic growth was a significant factor in the development of human quality (Sarkodie & Adams, 2020). The government played a crucial role in providing investments through social programs to

ensure equal distribution of the manifestations of economic growth (Yaya et al., 2020). In addition, according to Yusoff (2011), the primary contributor to Malaysia's economic development, as an Islamic country in Southeast Asia, was the focus on human capital development through the program of collecting zakat funds and distributing them wisely.

CONCLUSION

The performance of the local and central government in the last 10 years should have been appreciated based on the research results conducted in West Sumatra, which indicated that the Zakat, Infaq, and Sadaqah funds, managed by the government through BAZNAS, significantly affected the poverty levels and human development index. The high level of awareness among Muslims in West Sumatra for fulfilling their Zakat obligations was also recognized. It was expected that the cooperation between the two parties would increase and become more efficient in the future. This would help in achieving a poverty-free West Sumatra filled with quality people.

However, the distribution of ZIS Funds did not affect the unemployment rate significantly since the main priority and the majority of the distribution were allocated to poverty reduction, education, and health programs. Moreover, the economic growth and development in West Sumatra failed to create new job opportunities. Multiple factors contributed to this perspective, such as the lack of investment/business expansion from external sources or the money circulating only in the West Sumatra region.

One of the limitations in this study was that the research did not discuss whether the ZIS Fund was effective and maximized in its management and distribution. The study's findings exclusively evaluated and calculated the impact of ZIS Funds on poverty, unemployment, and human development indicators.

REFERENCES

Abdullah, N., Derus, A. M., & Al-Malkawi, H. A. N. (2015). The effectiveness of zakat in alleviating poverty and inequalities a

- measurement using a newly developed technique. *Humanomics*, 31(3), 314–329. <https://doi.org/10.1108/H-02-2014-0016>
- Ademola, A. S., & Badiru, A. (2016). The impact of unemployment and inflation on economic growth in Nigeria. *International Journal of Business and Economic Sciences Applied Research*, 9(1), 47–55. <http://ssrn.com/abstract=2806988> [tp://ijbesar.teiemt.gr](http://ijbesar.teiemt.gr)
- Ahmed, A. D., & Wahid, A. N. M. (2011). Financial structure and economic growth link in African countries: A panel cointegration analysis. *Journal of Economic Studies*, 38(3), 331–357. <https://doi.org/10.1108/01443581111152436>
- Ali, I., & Hatta, Z. A. (2014). Zakat as a poverty reduction mechanism among the muslim community: Case study of Bangladesh, Malaysia, and Indonesia. *Asian Social Work and Policy Review*, 8(1), 59–70. <https://doi.org/10.1111/aswp.12025>
- Akuba, M., & Uno, W. A. (2023). Pengaruh Media Pembelajaran LCD Terhadap Minat Belajar Siswa Pada Pembelajaran IPS Di SDN 15 Tilamuta Kabupaten Boalemo. *JIM: Jurnal Ilmiah Mahasiswa Pendidikan Sejarah*, 8(3), 945–951. <https://doi.org/10.24815/jimps.v8i3.24917>
- Amika, A. W. N., & Riorini, S. V. (2023). Pengaruh Transparansi Green Attributes Terhadap Perilaku Kewarganegaraan Hijau. *JIM: Jurnal Ilmiah Mahasiswa Pendidikan Sejarah*, 8(3), 2268–2281. <https://doi.org/10.24815/jimps.v8i3.25699>
- Antonio, M. S., Ali, M. M., & Jebel Firdaus. (2021). The Role of Zakat in Overcoming Inflation and Unemployment: Revisiting the Trade-Off Theory. *ICR Journal*, 12(1), 73–97. <https://doi.org/10.52282/icr.v12i1.822>
- Armantier, O., Koşar, G., Pomerantz, R., Skandalis, D., Smith, K., Topa, G., & van der Klaauw, W. (2021). How economic crises affect inflation beliefs: Evidence from the Covid-19 pandemic. *Journal of Economic Behavior and Organization*, 189, 443–469. <https://doi.org/10.1016/j.jebo.2021.04.036>
- Arwani, A., & Wahdati, A. (2020). The Effect of Zakat, Infak, Sedekah (ZIS), Human Development Index and Unemployment on Indonesia's Economic Growth. *Jurnal Ekonomi Dan Bisnis Islam*, 5(2), 159–173. <https://doi.org/10.21093/at.v5i2.2220>
- Ayhan, M., & Paper, W. (2021). Inflation During the Pandemic: What Happened? What is Next? Jongrim Ha, M. Ayhan Kose, and Franziska Ohnsorge * July 2021, (July).
- Azam, M., Iqbal, N., & Tayyab, M. (2014). Zakat and Economic Development: Micro and Macro Level Evidence from Pakistan, 3, 85–95.
- Baltagi, B. H. (2013). *Econometric analysis of panel data*. (Jon Wiley & Sons, Ed.), *Jurnal Penelitian Pendidikan Guru Sekolah Dasar* (Third edit, Vol. 6). London: Jon Wiley & Sons, Ltd.
- Bankole, A. S., & Fatai, B. O. (2013). Empirical Test of Okun ' s Law in Nigeria. *International Journal of Economic Practices and Theories*, 3(3), 227–231.
- BAZNAS. (2023). *OUTLOOK ZAKAT INDONESIA 2023*. Pusat Kajian Strategis Baznas (Vol. 13).
- Benfica, R., & Henderson, H. (2021). The Effect of the Sectoral Composition of Economic Growth on Rural and Urban Poverty*. *Review of Income and Wealth*, 67(1), 248–284. <https://doi.org/10.1111/roiw.12462>
- BPS. (2022). *Provinsi Sumatera Barat Dalam Angka Tahun 2022*.
- Cecchetti, S. G., & Kharroubi, E. (2012). Reassessing the impact of finance on growth. *BIS Working Paper*, 381.
- Chowdhury, M. S. R., & Hossain, M. T. (2014). Determinants of Unemployment in Bangladesh: A Case Study. *SSRN Electronic Journal*, (September). <https://doi.org/10.2139/ssrn.2402908>
- Croes, R., Ridderstaat, J., & Shapoval, V. (2020). Extending tourism

- competitiveness to human development. *Annals of Tourism Research*, 80(October 2019). <https://doi.org/10.1016/j.annals.2019.102825>
- Darsono, S. N. A. C., Raihana, M., Jati, H. F., & Pachmi, A. (2019). The Impact of Productive Zakat on the Income Inequality of Mustahiq in Yogyakarta, 3(1). <https://doi.org/10.18196/jerss.030107>
- de Haan, J., Pleninger, R., & Sturm, J. E. (2022). Does Financial Development Reduce the Poverty Gap? *Social Indicators Research*, 161(1), 1–27. <https://doi.org/10.1007/s11205-021-02705-8>
- Dina Islamiyati, I. H. H. (2020). Pengaruh ZIS dan Faktor Makro Ekonomi Terhadap Tingkat Kemiskinan di Indonesia. *Jurnal Ekonomi*, 25(1), 118. <https://doi.org/10.24912/je.v25i1.631>
- Eris Munandar, Mulia Amirullah, & Nila Nurochani. (2020). Pengaruh Penyaluran Dana Zakat, Infak Dan Sedekah (Zis) Dan Pertumbuhan Ekonomi Terhadap Tingkat Kemiskinan. *Al-Mal: Jurnal Akuntansi Dan Keuangan Islam*, 1(1), 25–38. Retrieved from <http://ejournal.radenintan.ac.id/index.php/al-mal>
- Gujarati, D. N. (2003). *Basic Econometrics* (4th ed.). New York: McGraw-Hill. <https://doi.org/10.2307/2230043>
- Gujarati, D. N. (2012). *Basic Econometrics*. New York: McGraw-Hill.
- Indriati, K. I., Muchlas, M., & Syuti, M. (2023). Kebiasaan Belajar Siswa Sekolah Menengah Kejuruan Saat Pandemi Covid-19 Di SMK Muhammadiyah Purwodadi Purworejo. *JIM: Jurnal Ilmiah Mahasiswa Pendidikan Sejarah*, 8(3), 1319–1332. <https://doi.org/10.24815/jim.v8i3.25117>
- Ismail, I., Putri, R. S., Zulfadhli, Z., Mustofa, A., Musfiana, M., & Hadiyani, R. (2022). Student Motivation to Follow the Student Creativity Program. *Riwayat: Educational Journal of History and Humanities*, 5(2), 351–360. <https://doi.org/10.24815/jr.v5i2.27641>
- Imran, M., Mughal, K. S., Salman, A., & Makarevic, N. (2015). Unemployment and Economic Growth of Developing Asian Countries: A Panel Data Analysis. *European Journal of Economic Studies*, 13(3), 147–160. <https://doi.org/10.13187/es.2015.13.147>
- Khasandy, Aisha, E., & Badrudin, R. (2019). The Influence of Zakat on Economic Growth and Welfare Society in Indonesia. *MPRA (Munich Personal RePEc Archive)*, 3(1), 65–79.
- Korayem, K., & Mashhour, N. (2014). Poverty in Secular and Islamic Economics; Conceptualization and Poverty Alleviation Policy, with Reference to Egypt. *Topics in Middle Eastern and African Economies*, 16(1), 1–16.
- Lapopo, J. (2012). Pengaruh ZIS dan zakat fitrah terhadap penurunan kemiskinan 1998-2010. *Media Ekonomi*, 20(1). <https://www.ptonline.com/articles/how-to-get-better-mfi-results>
- Long, J. S., & Freese, J. (2006). *Regression Models For Categorical Dependent Variables Using Stata*. Texas: Stata Corporation. <http://cphs.huph.edu.vn/uploads/tai-nguyen/sachvabaocao/RegressionModelsforCategoricalDependentVariablesUsingStata.pdf>
- Maharani, F. A. (2019). Zis Baznas Jatim Dan Income Per Capita Terhadap Kemiskinan Di Jawa Timur Periode 2012-2016 Jurnal Ilmiah Disusun Oleh : Fikria Azizatul Maharani.
- Mahat, N. I., & Warokka, A. (2013). Investigation on zakat as an indicator for Moslem countries' economic growth. *Journal for Global Business Advancement*, 6(1), 50–58. <https://doi.org/10.1504/JGBA.2013.053478>
- Makaringe, Sibusiso Clement and Khobai, H. (2018). The effect of unemployment on economic growth in South Africa (1994-2016). *Munich Personal RePEc Archive*, 85(5), 1–15.
- MG, N. A., Permata, P., & Aryo, B. (2019). The Impact of Zakat, Infaq, Shodaqoh (ZIS),

- Unemployment and Poverty on the Economic Growth in Indonesia (2011-2017), *101*(Iconies 2018), 210–214. <https://doi.org/10.2991/iconies-18.2019.40>
- Mustika, F. N., Setyowati, E., & Alam, A. (2019). Analysis Of Effect Of ZIS (Zakat, Infaq, And Shadaqah), Regional Domestic Products Of Bruto, Regional Minimum Wage And Inflation On Levels Poverty In Indonesia 2012 – 2016. *Journal of Islamic Economic Laws*, 2(2), 193–211. <https://doi.org/10.23917/jisel.v2i2.8679>
- Najiyah, F., & Febriandika, N. R. (2019). The Role of Government in the Zakat Management: The Implementation of A Centralized and Decentralized Approach (Comparative Study in Indonesia and Malaysia), *101*(Iconies 2018), 290–292. <https://doi.org/10.2991/iconies-18.2019.57>
- Nchofoung, T. N., Achuo, E. D., & Asongu, S. A. (2021). Resource rents and inclusive human development in developing countries. *Resources Policy*, 74. <https://doi.org/10.1016/j.resourpol.2021.102382>
- Novalia, D., Sumantri, R., & Panorma, M. (2020). Pengaruh Dana Zakat, Infaq dan Shodaqoh (ZIS) Terhadap Tingkat Kemiskinan Sebagai Variabel Intervening Tahun 2015-2019. *Al Iqtishadiyah Jurnal Ekonomi Syariah Dan Hukum Ekonomi Syariah*, 6(2), 134. <https://doi.org/10.31602/iqt.v6i2.3455>
- Novianti, L., & Waliadin, W. (2023). Online Prostitution in the Perspective of Law of the Republic of Indonesia Number 44 Of 2008 On Pornography. *Riwayat: Educational Journal of History and Humanities*, 6(1), 262–269. <https://doi.org/10.24815/jr.v6i1.31457>
- Nurasiah, N., Amalina, S. N., & Azis, A. (2021). Pengaruh pembelajaran outdoor learning dengan strategi daring terhadap prestasi belajar Mahasiswa Pendidikan Sejarah USK Aceh. *Briliant: Jurnal Riset Dan Konseptual*, 6(3), 659–667. <https://doi.org/10.28926/briliant.v6i3.669>
- Nugraha, A. T., Hidayatullah, S., Islamic, S., Prayitno, G., Brawijaya, U., Situmorang, M. E., ... Nasution, A. (2020). The Role Of Infrastructure In Economic Growth And Income, 13(1), 102–116. <https://doi.org/10.14254/2071-789X.2020/13-1/7>
- Rahim, R., Husni, T., & Aprayuda, R. (2020). the Influence of Zakat, Infaq, Sadaqoh (ZIS) on Poverty Allevation. *Maqdis: Jurnal Kajian Ekonomi Islam*, 5(2), 2020. <http://journal.febi.uinib.ac.id/index.php/maqdis/article/view/288>
- Rahman, M. M., Rana, R. H., & Barua, S. (2019). The drivers of economic growth in South Asia: evidence from a dynamic system GMM approach. *Journal of Economic Studies*, 46(3), 564–577. <https://doi.org/10.1108/JES-01-2018-0013>
- Rédha, B. M., Larbi, G., & Karima, R. M. (2016). The Impact of Zakat Fund in Reducing Poverty Case of Algeria. *Mediterranean Journal of Social Sciences*, 7(3), 256–264. <https://doi.org/10.5901/mjss.2016.v7n3p256>
- Roodman, D. (2009). How to do xtabond2: An introduction to difference and system GMM in Stata. *Stata Journal*, 9(1), 86–136. <https://doi.org/10.1177/1536867x0900900106>
- Rumbia, W. A., Muthalib, A. A., Abbas, B., Adam, P., Jabani, A., Pasrun, Y. P., & Muthalib, D. A. (2022). The Asymmetry Effect of Oil Consumption, Unemployment and Broadband Technology on Economic Growth in Indonesia. *International Journal of Energy Economics and Policy*, 12(2), 276–281. <https://doi.org/10.32479/ijeep.12791>
- Saad, A. Y. Q., & Foori, A. M. Al. (2020). Zakat and tax: A comparative study in Malaysia. *International Journal of Innovation, Creativity and Change*, 10(12), 140–151.

- Sadiku, M., Ibraimi, A., & Sadiku, L. (2015). Econometric Estimation of the Relationship between Unemployment Rate and Economic Growth of FYR of Macedonia. *Procedia Economics and Finance*, 19(15), 69–81. [https://doi.org/10.1016/s2212-5671\(15\)00009-x](https://doi.org/10.1016/s2212-5671(15)00009-x)
- Santos, M. E., Dabus, C., & Delbianco, F. (2019). Growth and Poverty Revisited from a Multidimensional Perspective. *Journal of Development Studies*, 55(2), 260–277. <https://doi.org/10.1080/00220388.2017.1393520>
- Saputro, E. G., & Sidiq, S. (2020). The Role of Zakat, Infaq and Shadaqah (ZIS) in Reducing Poverty in Aceh Province. *International Journal of Islamic Economics and Finance (IJIEF)*, 3(3), 63–94. <https://doi.org/10.18196/ijief.3234>
- Sarkodie, S. A., & Adams, S. (2020). Electricity access, human development index, governance and income inequality in Sub-Saharan Africa. *Energy Reports*, 6, 455–466. <https://doi.org/10.1016/j.egy.2020.02.009>
- Stewart, F. (2019). The Human Development Approach: An Overview. *Oxford Development Studies*, 47(2), 135–153. <https://doi.org/10.1080/13600818.2019.1585793>
- Thurlow, J., Dorosh, P., & Davis, B. (2019). *Demographic Change, Agriculture, and Rural Poverty*. Sustainable Food and Agriculture. Elsevier Inc. <https://doi.org/10.1016/b978-0-12-812134-4.00003-0>
- Wahyuni, D. (2016). The Impact Of Economic Growth, Investment, Inflation, And Gini Ratio Towards The Poverty Rate In Indonesia.
- Wang, Z., Bui, Q., & Zhang, B. (2020). The relationship between biomass energy consumption and human development: Empirical evidence from BRICS countries. *Energy*, 194(2020), 116906. <https://doi.org/10.1016/j.energy.2020.116906>
- Yaya, S., Uthman, O. A., Kunnuji, M., Navaneetham, K., Akinyemi, J. O., Kananura, R. M., ... Bishwajit, G. (2020). Does economic growth reduce childhood stunting? A multicountry analysis of 89 Demographic and Health Surveys in sub-Saharan Africa. *BMJ Global Health*, 5(1), 1–7. <https://doi.org/10.1136/bmjgh-2019-002042>
- Yusoff, M. B. (2006). Fiscal Policy in an Islamic Economy. *IIUM Journal of Economics and Management*, 14(2), 117–145.
- Yusoff, M. B. (2011). Zakat Expenditure , School Enrollment , and Economic Growth in Malaysia, 2(6), 175–181.
- Yusuf Qardawi, D. AL. (2013). *Fiqh Al Zakah*. Centre for Research in Islamic Economics, 1–400.
- Zahra, T. P., & Auwalin, I. (2020). Pengaruh Zakat Infak Sedekah (Zis) Terhadap Pengangguran Di Indonesia: Metode Autoregressive Distributed Lag (Ardl). *Jurnal Ekonomi Syariah Teori Dan Terapan*, 7(2), 372. <https://doi.org/10.20473/vol7iss20202pp372-388>
- Zahro, V. F. (2017). Pengaruh Zakat, Infaq, Shadaqoh (ZIS), Indeks Pembangunan Manusia (IPM) dan Kemiskinan Terhadap Pertumbuhan Ekonomi di Provinsi Sumatra Barat Tahun 2013-2016. *Skripsi*, 1–108.
- Zhu, S., Rishita, N., Liu, Z., & Zhu, Y. (2021). Economic growth, distribution policy and other factors: Key elements in poverty alleviation. *E3S Web of Conferences*, 253. <https://doi.org/10.1051/e3sconf/202125301042>