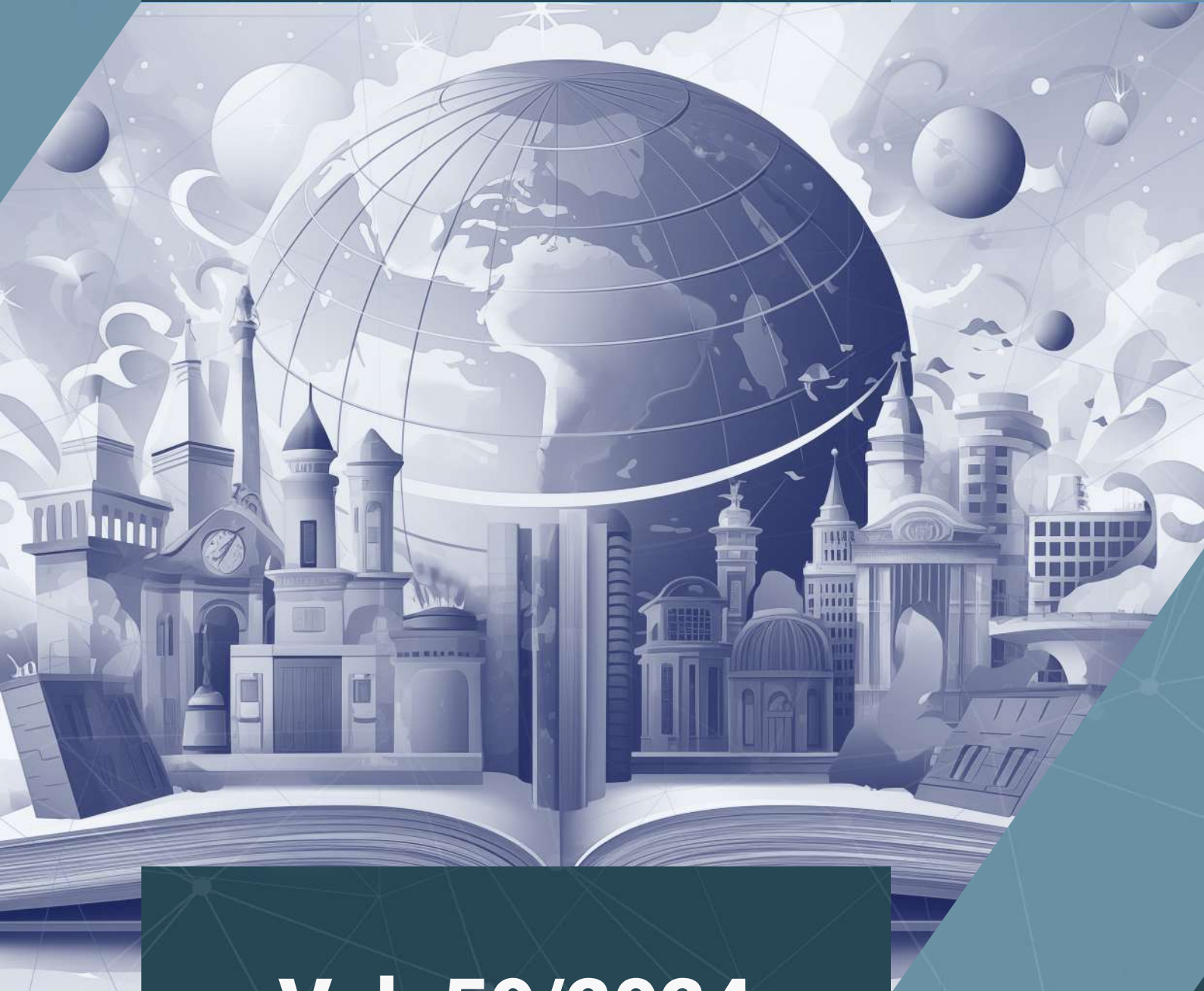




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How do the Special Autonomy Fund, Village Fund, and Zakat interact in reducing poverty in Aceh Province?

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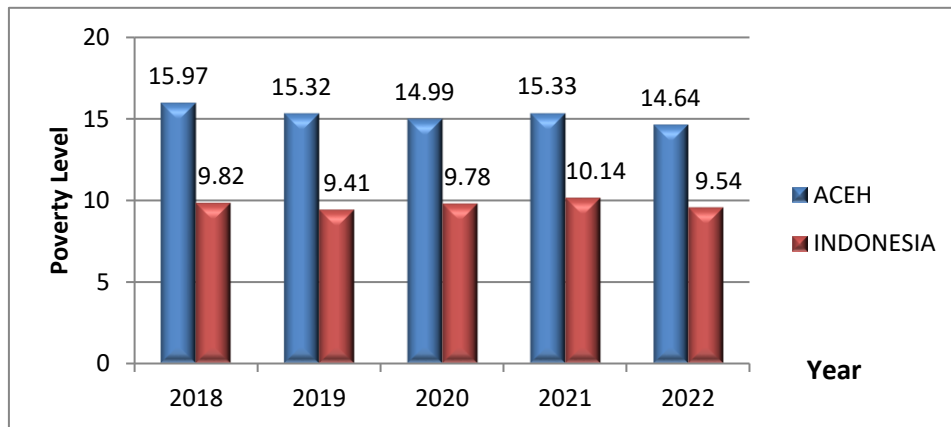
Abstract. This study explores the interaction between Special Autonomy Fund, Village Fund, and Zakat in poverty reduction efforts in Aceh Province. As a region with special autonomy status, Aceh receives a transfer allocation from the central government, which aims to accelerate development and improve people's welfare. In addition, village funds managed directly by the village government and zakat collected through religious institutions play an important role in supporting the local economy and social of the poor. The purpose of this study is to analyze the effect of special autonomy fund, village fund, and zakat on poverty rate in Aceh Province in the short run and long run. The method used is Panel ARDL by analyzing data from 23 districts/cities in Aceh Province during the period 2015-2022. The estimation results show that the special autonomy fund variable has a negative and significant effect on the poverty rate in Aceh Province in the short term, but has no significant effect in the long term. The village fund variable has a negative and significant effect on poverty in the short term, but has a positive and significant effect in the long term. Zakat has a negative and significant effect on poverty both in the short and long term. The Aceh Provincial Government should conduct more intensive policies in reducing poverty, especially the variables of special autonomy funds, village funds and zakat so that these problems can be resolved.

Keywords. Poverty rate, special autonomy fund, village fund, zakat

Introduction:

Poverty is also a serious problem in Indonesia, especially in Aceh Province, based on data from the central statistics agency, for the last five years Aceh Province has almost always been the poorest province on the island of Sumatra. Only in 2020, the poverty rate of Aceh Province was below Bengkulu Province which had a percentage of poor people of 15.03, and this was also due to the co-19 pandemic, but in the following year the title of the poorest province returned to Serambi Mekkah Province.

Figure 1. Poverty Rate of Aceh Province and Indonesia in 2018-2022 (percent)

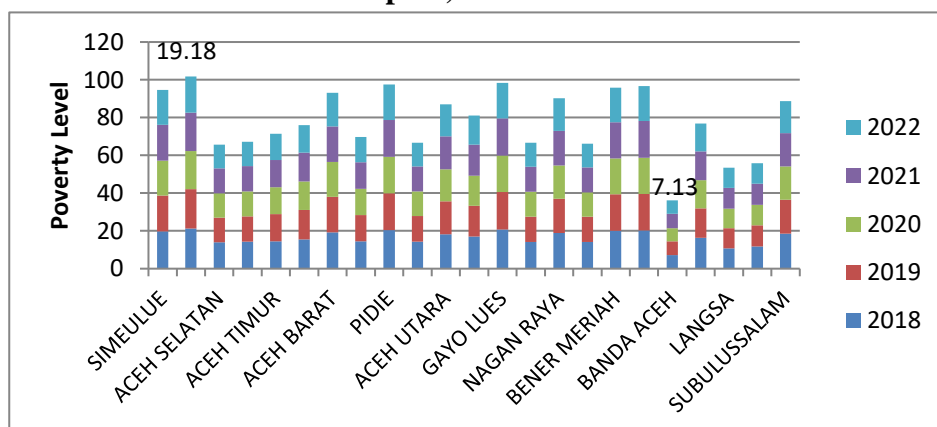


Source: *Badan Pusat Statistik, 2022*

Based on Figure 1, it can be seen that the poverty rate in Aceh Province is experiencing a downward trend. In 2018, the poverty rate in Aceh Province was 15.97 percent, falling by 0.98 points to 14.99 in 2020. However, the poverty rate increased to 15.33 in 2021 and decreased again to 14.64 in 2022. But when compared to Indonesia's poverty rate, Aceh Province's poverty rate is always higher.

If we take a closer look, the poverty rate in each district/municipality in Aceh Province varies greatly. This is due to differences in demographics and economic structure (Moran, 2022). As seen in Figure 2, over the last five years, Aceh Singkil Regency has had the highest poverty rate in Aceh Province, while Kota Banda Aceh has had the lowest. In 2022, the poverty rate in Aceh Province was 14.64 percent, while the district/municipality poverty rate ranged from 19.18 percent to 7.13 percent. A lower poverty rate indicates that economic development is improving. The city of Banda Aceh has the lowest poverty rate in the province, and the Aceh Singkil Regency has the highest poverty rate of all districts/municipalities in Aceh Province. In addition to Aceh Singkil Regency, there are ten other Regency/municipalities that are above the poverty rate of Aceh Province, namely Simeulue, West Aceh, North Aceh, Southwest Aceh, Gayo Lues, Nagan Raya, Bener Meriah, Pidie Jaya, Sabang, and Subulussalam. These differences underlie this research using research areas up to the district/city level.

Figure 2. Poverty Level of Districts/Municipalities in Aceh Province in 2018-2022 (billion rupiah)



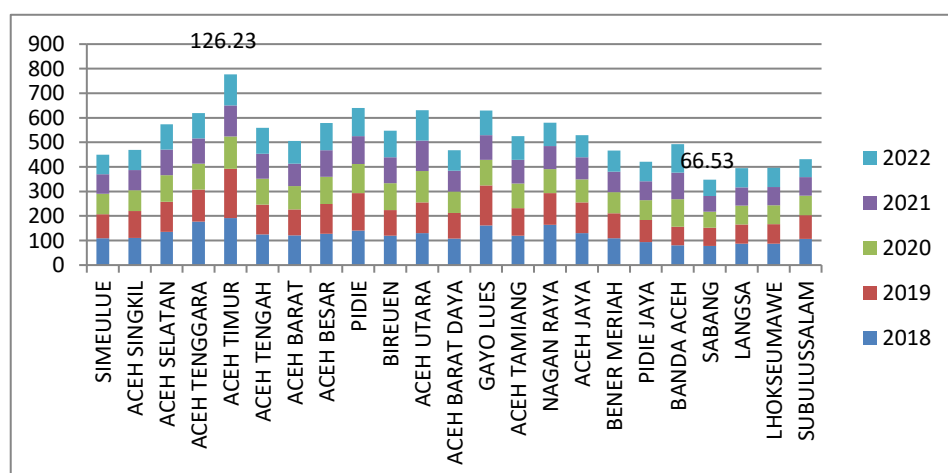
Source: BPS, 2022

Many studies state that special autonomy funds have a significant effect on reducing poverty, as stated by (Mollet, 2014), (Muliadi & Amri, 2019), (Setiawan et al., 2020), (Sugiharjo et al., 2022), and (Yulianto et al., 2023), but (Ikhsan et al., 2022) stated that the special autonomy fund was unable to significantly reduce the poverty rate in Aceh, even (Kadafi & Murtala, 2020) concluded that the special autonomy fund had no effect on poverty in Aceh Province, whether or not the distribution of these funds would have no impact on existing poverty.

More surprising findings were produced by the research of (Ersanta & Ratnawati, 2021) and (Hasibuan et al., 2021), namely that special autonomy funds have a significant positive effect on poverty in Aceh Province. According to (Hasan et al., 2020) there are three factors that cause the less than optimal management of Aceh's special autonomy funds to reduce poverty. First, the regulations for the management of Aceh's special autonomy funds have not been standardized and are often changed, so they cannot be used as a complete guideline. Second, the unclear authority to manage the special autonomy fund between the provincial government and district/city governments, resulting in a lack of coordination between the parties. Third, the poor management of Aceh's special autonomy funds has led to poorly targeted development and community empowerment.

As can be seen in Figure 3, it is clear that the allocation of Special Autonomy (Otsus) funds to all districts/municipalities in Aceh Province varies. The allocation of Special Autonomy Funds in 2022 is highest in East Aceh District with a budget value of Rp. 126.23 billion, followed by North Aceh District with a budget value of Rp. 124.37 billion. Meanwhile, the regency/municipality that has the smallest special autonomy fund is Sabang City, with a budget of IDR 66.53 billion. The small amount of special autonomy funds received by Sabang City compared to other districts/cities is because based on the indicators for calculating the special autonomy funds that have been determined, the value of Sabang City is the smallest, such as area and population.

Figure 3. Special Autonomy Fund Allocation for Districts/Municipalities in Aceh Province 2018-2022 (billion rupiah)

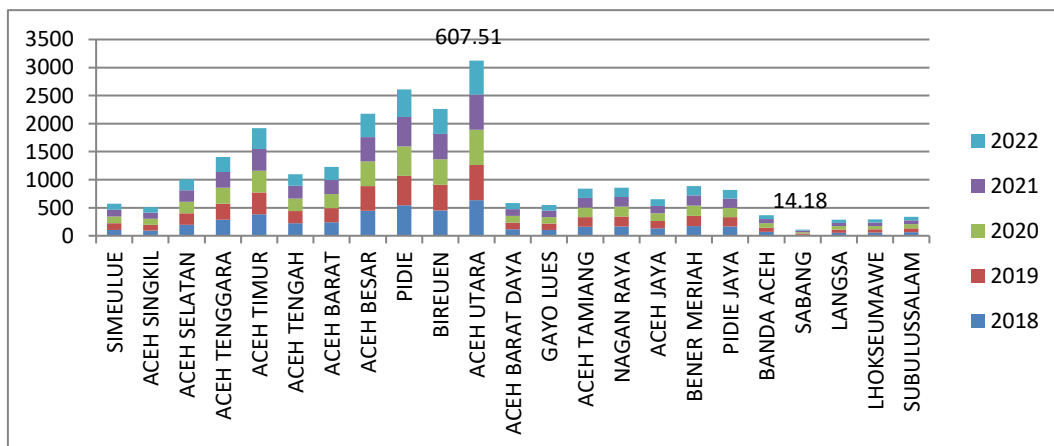


Source: *Kepgub Aceh No. 050/1648/2021*

Another variable that is often associated with poverty is village funds. (Arham & Payu, 2019) stated that the Village Fund transfer has a significant effect on reducing rural poverty, even the empirical results found by (Aslan et al., 2019) stated that village funds have a positive and significant effect on reducing the overall poverty rate directly.

According to Figure 4, North Aceh is the district in Aceh Province that has the highest village fund budget in 2022, with a value of Rp. 607.51 billion, while the district/municipality in Aceh Province that has the lowest village fund allocation is Sabang City with a budget amount of Rp. 14.18 billion. The size of village fund revenues in districts/municipalities is determined by the number of villages. North Aceh Regency has the largest number of villages in Aceh Province, with 852 villages. Meanwhile, Kota Sabang is the city that has the least number of villages, with 18 villages.

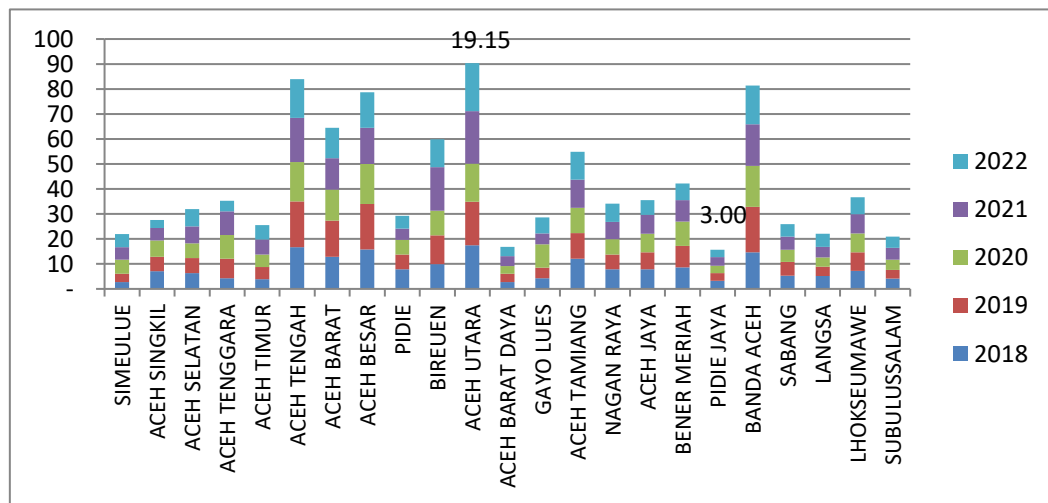
Figure 4. Village Fund for Districts/Municipalities in Aceh Province 2018-2022 (billion rupiah)



Source: KemenKeu, 2023

Zakat is the last variable used in this study. (Aziz et al., 2020) found that zakat has a negative impact on multidimensional poverty and makes a significant contribution in targeting several Sustainable Development Goals (SDGs) in Pakistan. Even the results of (Mesawa & Rana, 2021) who conducted research in five Islamic countries, namely Indonesia, Pakistan, Malaysia, Egypt, Algeria, and Sudan, also obtained the same results. If distributed in accordance with sharia compliance, it will reduce poverty, on the other hand, if zakat payments are uneven, the number of poor people will increase. Thus, the optimization of zakat collection is done by education, socialization and optimal zakat services and optimization of distribution is done by prioritizing zakat for the poor with poverty alleviation programs (Riyaldi et al., 2020) .

Figure 5. Zakat Regency/Municipality in Aceh Province 2018-2022 (billion rupiah)



Source: *Baitulmal Aceh, 2022*

According to Figure 5, it can be seen that North Aceh Regency has the highest amount of zakat in Aceh Province with a value of Rp. 19.15 billion. Meanwhile, the district/city in Aceh Province that has the lowest zakat fund is Pidie Jaya District with a value of Rp. 3 billion. The large value of zakat receipts by district/city baitul mal indicates that more and more people are economically capable and increasing public trust in baitul mal as zakat organizers in districts/cities (Yusniar & Kinsiara, 2020).

This study uses the three variables above, namely special autonomy funds, village funds and zakat and looks at their relationship with poverty in Aceh Province in the form of cointegration (short term and long term) in order to explain poverty in Aceh from a different, more complex, detailed perspective, and is expected to contribute more to solving these problems in Aceh Province. This study also aims to analyze the effect of special autonomy funds, village funds, and zakat on the poverty rate in Aceh Province in the short and long term.

1. Literature Review

The Relationship between Special Autonomy Fund and Poverty

The results of research conducted by Muliadi & Amri (2019) in Aceh Province state that special autonomy funds have a negative and significant effect on poverty reduction beyond zakat. (Setiawan et al., 2020), also said the same thing, that the special autonomy fund as an effort to alleviate poverty in Aceh had a very good contribution because it had reduced the poverty rate in Aceh from 819 thousand people in March 2019 to 810 thousand people in September 2019, and the use of special autonomy funds was channeled through programs carried out by the Aceh Government in the fields of education, health, and the economy. In fact, according to (Sugiharjo et al., 2022), special autonomy funds also have a positive and significant effect in moderating education and health on poverty. Thus, to alleviate poverty, special autonomy funds can focus more on the education and health sectors. Research conducted by (Yulianto et al., 2023), confirmed the truth of the results of previous studies, special autonomy funds affect the percentage of poverty in Papua Province, even with less conducive security conditions. However, different results were obtained by (Ikhsan et al., 2020); (Fadhila et al., 2023) that special autonomy funds have no effect on poverty in Aceh Province.

. The Relationship between Village Funds and Poverty.

The results of Dewi and Irama's research (2018) state that the allocation of village funds can reduce the poverty rate in North Sumatra Province. Likewise, the empirical results found by (Aslan et al., 2019) states that village funds have a positive and significant effect on reducing poverty levels directly, and are corroborated by the results of research by (Arham & Payu, 2019) which show that village fund transfers have a significant effect on reducing rural poverty, meaning that an increase in village funds is consistently able to reduce the case. (Hermawan et al., 2019) also found the same thing that village funds have a significant negative effect on the poverty rate in Java. However, (Arham & Hatu, 2020) further stated that although rural poverty tends to decrease every year, the change in elasticity is lower after the transfer of village funds. Clarified by the empirical results found by (Saragi, 2021) through a descriptive method by dividing the region into six regions, namely Sumatra, Java & Bali, Kalimantan, Sulawesi, Maluku & NT, and Papua, the results show that in five years, village funds increased dramatically, and this growth was accompanied by a slight decrease in poverty. In line with research by (Fitriana & Qibthiyah, 2021); (Rammohan & Tohari, 2023) who conducted research in Indonesia. Different results were found by (Azmi et al., 2020), where the allocation of village funds from the period 2015 to 2018 could not reduce the poverty rate in 23 districts / cities in Aceh.

. The Relationship between Zakat and Poverty.

(Rini & Fatimah, 2019) who conducted research in 34 provinces in Indonesia found that zakat has an effect on poverty alleviation even though the distribution of zakat in Indonesia itself is still consumptive. Likewise, the results of a study conducted by (Aziz et al., 2020) found that zakat has a negative impact on multidimensional poverty and makes a significant contribution in targeting several Sustainable Development Goals (SDGs) in Pakistan. Corroborated by (Zulkifli et al., 2021) who found that zakat has a very important role for poverty reduction, and is able to improve the quality of life of zakat recipients in Malaysia. Zakat is able to change from someone who was previously a recipient of zakat to a payer of zakat especially through educational or business assistance. As concluded by (Mesawa & Rana, 2021) who conducted research in five Islamic Countries which include Indonesia, Pakistan, Malaysia, Egypt, Algeria, and Sudan, that if zakat collection is collected and distributed in accordance with Sharia compliance, it will reduce poverty and society will be a better place. Conversely, if zakat payments are not evenly distributed, then the number of poor will increase. Reinforced by (Herianingrum et al., 2024) which states that zakat is one of the fiscal policy instruments in Islam that can be used as an instrument of state revenue to encourage public welfare. Zakat management can contribute to reducing the percentage of poverty in Indonesia. In countries or regions where the majority of the population is Muslim such as in Aceh Province, zakat funds will be a potential instrument for reducing poverty because it is a form of charity that is mandatory for Muslims (Auwal, 2024; Harahap et al., 2024).

Study methodology.

The data used in this study are secondary data in the form of quantitative data. The type of data used in this study is panel data, which is a combination of time series (time series data) and cross section (cross data) (Silvia, 2020). The time series data used is data from 2015 to 2022 obtained from the Ministry of Finance, the Central Statistics Agency (BPS), the Regional Development Planning Agency (Bappeda) of Aceh Province, and Baitul Mal Aceh

Province. Since the distribution of village funds has only started since 2015, this study starts from 2015. The areas used as the focus of analysis in this study are 23 districts/municipalities in Aceh Province with a total of 184 panel data. In order to avoid the occurrence of singular matrix due to the small amount of data, data interpolation will be carried out, from annual data to quarterly data.

The model used in this study is the ARDL (Auto Regressive Distributed Lag) model using panel data proposed by (Pesaran & Smith, 1995), to analyze the short-term and long-term effects of village fund variables, zakat, and special autonomy funds on poverty in Aceh Province. This model is used because there are differences in the level of data stationarity in the variables tested, where this study uses time series that are partly stationary at the level at level and partly stationary at the first difference level. Therefore, the ARDL model is the right model to use in this study as previously done by (Wardhana et al., 2021) and (Silvia & Fitra, 2023). The analysis methods include the unit root test, determination of the length of the lag included in the estimation model, cointegration test, ARDL estimation model, and model stability test. The ARDL estimation model is used to answer the purpose of this study, which is to determine the short-term and long-term effects of village fund, zakat, and special autonomy fund variables on poverty in Aceh Province.

The importance of studying

The results of this research are expected to provide the following benefits:

1. For science, it can increase understanding related to poverty in Aceh Province.
2. For the government, it can be used as a reference for making policies related to reducing the poverty rate in Aceh Province.
3. For researchers, this research is expected to provide a reference for further research related to the poverty rate in Aceh Province.

The study's purpose.

The objectives of this study are as follows. "To analyze the effect of special autonomy fund, village fund, and zakat on poverty rate in Aceh Province in the short run and long run."

The problem of studying

The problem of poverty in Aceh Province is a development problem that must be addressed immediately. Many studies state that special autonomy funds, village funds and zakat have an effect on poverty, so this study uses the three variables above to analyze the poverty rate, so the problem formulation in this study is "How does the special autonomy fund, village funds, and zakat affect the poverty rate in Aceh Province in the short and long term?"

1.1. The Study hypotheses

Based on the theoretical basis and the previous framework, the hypothesis of this study is, "It is suspected that special autonomy funds, village funds, and zakat have a negative effect on the poverty rate in Aceh Province in the short and long term."

2. Testing the study hypothesis

Unit Root Test (Unit Root Test)

This test's goal is to ensure that there are no long-term changes taking place that can bias the estimation findings. To determine if the observed data is steady or not, apply the unit root test. Conclusions using non-stationary variables or variables with unit roots are

nonsensical. This is defined by a high R square and statistically significant t values, which will ultimately lead to incorrect guidance and improper application of regulations. Dickey-Fuller, ADF (Augmented Dickey-Fuller Test), PP (Philip-Perron), and KPSS (Kwiatkowski Philips Schmidt Shin) are a few of the techniques available for doing unit root testing.

The PP (Phillips Perron) testing model is the unit root testing model used in this study. Both the first and second differences can be used if the data is not stationary at the add level. According to (Pesaran & Smith, 1995), test data is considered static if the PP statistic's absolute value is larger than the critical value. Conversely, if the PP statistic's absolute value is less than the crucial value, the data is not considered static.

The Phillip-Perron (PP) test can be determined as in equation (1)

$$\Delta Y_t = \eta_0 + \eta_1 t + \delta y_{t-1} + v_t \dots\dots\dots(1)$$

Hypothesis tested:

H0: $\delta = 0$ (contains unit root, data is not stationary)

H1: $\delta < 0$ (does not contain unit root, data is stationary)

Determination of Lag Optima

The purpose of this test is to evaluate theories about how many delays the research model should have to give a realistic image of the relationship between the research variables. The ARDL model requires the determination of the lag at which the variable will yield the best estimate. The Schwarz Criterion (SC) and the Akaike Information Criterion (AIC) are used to select the optimal lag in the Auto Regressive Distributed Lag Model. The number of lags is chosen if the magnitude of a lag yields the model's minimum SC and AIC values.

Cointegration Test

To ascertain whether there is a long-term link between variables, the ARDL method cointegration test is conducted. If the regression model is cointegrated, then it is claimed that there is a long-term link. The Bound Test Cointegration approach, which compares the F-statistic value with the F-table created by (Pesaran, 1997), can be used to determine whether cointegration exists. It may be said that there is no cointegration if the F-statistic value is less than the lower bound value. Cointegration occurs if the F-statistic value is greater than the upper bound value I(1).

The results, however, are not convincing if the F-statistic falls between the upper bound I(1) and lower limit I(0). The following is the hypothesis for this F test: There is no long-term connection (not cointegrated); $H_0 = \delta_1 = \delta_2 = \delta_n = 0$. There is a long-term link (cointegration): $H_1 = \delta_1 \neq \delta_2 \neq \delta_n \neq 0$. We cannot reject H0 if the F-statistic value is less than the lower limit value, indicating that no cointegration has taken place. In contrast, reject H0 to allow cointegration to occur if the F-statistic value is greater than the upper limit value. It cannot be determined, therefore, if the F-statistic falls between the lower and higher limit values.

ARDL Panel Model

Referring to the research results of (Pesaran & Smith, 1995), which were corroborated by (Hazmi et al., 2024), the empirical formula for the ARDL (Auto Regressive Distributed Lag) panel model in this study can be written as follows:

$$\Delta POV_{i,t} = \alpha + \sum_{j=1}^n \alpha_0 \Delta POV_{i,t-1} + \sum_{j=1}^n \alpha_{1i} \Delta LOG_DOKA_{i,t-1} + \sum_{j=1}^n \alpha_{2i} \Delta LOG_DD_{i,t-1} + \sum_{j=1}^n \alpha_{3i} \Delta LOG_ZAK_{i,t-1} + \beta_0 POV_{i,t-1} + \beta_1 LOG_DOKA_{i,t-1} + \beta_2 LOG_DD_{i,t-1} + \beta_3 LOG_ZAK_{i,t-1} + u_{i,t} \dots \dots \dots (2)$$

Notes:

POV is Poverty Level (dependent variable), LOG_DOKA is Special Autonomy Fund, LOG_DD is Village Fund, LOG_ZAK is Zakat, α_1 s.d α_4 is short term coefficient, β_1 s.d β_4 is long term coefficient, t is Year i.e. 2015-2022, i is 23 Districts/Municipalities in Aceh Province, j is lag order, Δ is first difference operator, u is error term.

Results

The stationary test is conducted to determine whether or not there is a unit root contained among the variables or in other words the presence or absence of data stationarity, where non-stationary data causes the regression results to be skewed. Deviant regression is a situation where the regression results show statistically significant regression coefficients and a high coefficient of determination but the variables in the model are not interconnected. The stationarity test carried out in this study using the Im, Pesaran and Shin (IPS) Test Statistic approach.

Table 1: Panel Unit Root Im, Pesaran and Shin (IPS) Test Statistic

Variabel	Individual Intercept		Individual Intercept and Trend	
	At Level	First Difference	At Level	First Difference
POV	6.795 (1.000)	-2.285 (0.011)	-3.893 (0.000)	
LOG_DOKA	3.154 (1.000)	-4.738 (0.000)	-1.663 (0.058)	-1.509 (0.036)
LOG_DD	-8.517 (0.000)		-4.8771 (0.000)	
LOG_ZAK	-5.947 (0.000)		-9.381 (0.000)	

Source: Data Processing Results, 2024 (processed)

The results of Table 1 illustrate that each variable has different stationarity at the level (I (0)) or at the first difference level (I (1)). For example, the variables LOG_DD and LOG_ZAK are stationary at level while the other 2 variables, POV and LOG_DOKA, are stationary at first difference. Since there are differences in stationarity, the ARDL panel model is eligible for use in this study.

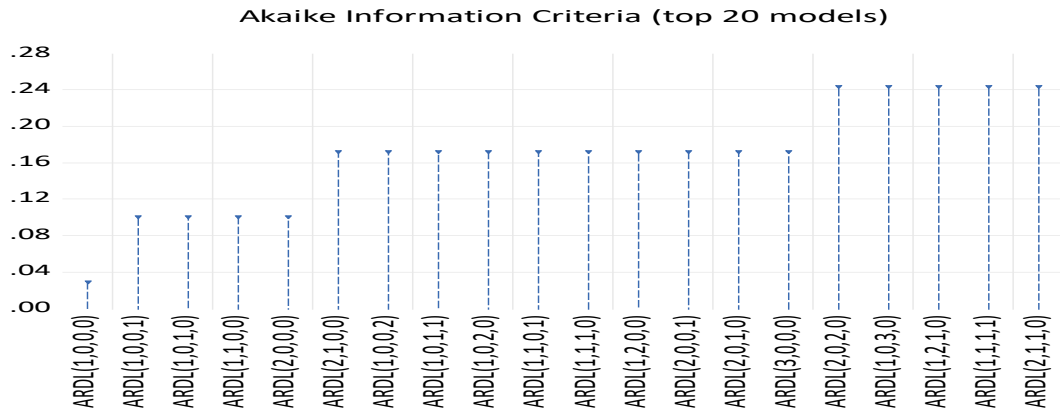
Cointegration Test Results

The next stage in estimating this research model is determining the optimum lag. Lag is used to see the time required for the POV response due to an influence. The selection of the right lag for the model can be selected using SBC (Schawrtz-Bayesian Criteria), AIC (Akaike Information Criteria) or using other information criteria that have the smallest information criteria value.

In this study, the optimal lag is selected based on the AIC (Akaike Information Criteria) value. By looking at the AIC criteria, the lag that produces the best model in this study is the ARDL Panel is 2.2.2.2. Although the lag is not the lag with the smallest AIC value that can be selected based on Figure 4.5, but looking at the lag that has a small AIC value, the independent

variable regressor uses lag 0, so it cannot estimate in the short term, while lag 1.1.1.1 does not pass the cointegration test because it has a positive slope coefficient, then the best lag that can be used in this study is 2.2.2.2.

Figure 5: Optimal Lag Length Test Results



Source: Data Processing Results, 2024 (processed)

Cointegration Test Results

The next stage is the cointegration test on the model. The cointegration test aims to determine whether the variables that are not stationary are cointegrated or not.

Table 2: Cointegration Panel

<i>Predoni Cointegration Test</i>	<i>Statistic</i>	<i>Weighted Statistic</i>
<i>Panel v-Statistic</i>	5.513 (0.000)	5.513 (0.000)
<i>Panel rho-Statistic</i>	0.505 (0.693)	0.505 (0.693)
<i>Panel PP-Statistic</i>	1.792 (0.963)	1.792 (0.963)
<i>Panel ADF-Statistic</i>	-1.983 (0.024)	-1.983 (0.024)
<i>Group rho-Statistic</i>	2.684 (0.996)	
<i>Group PP-Statistic</i>	3.825 (1.000)	
<i>Group ADF-Statistic</i>	-0.917 (0.179)	
<i>KAO Cointegration Test</i>	<i>t-statistic</i>	
ADF	-10.472 (0.000)	

Source: Data Processing Results, 2024 (processed)

The cointegration test in this study uses Panel Cointegration with Predoni and KAO Based which aims to see several variables integrated at different orders I (0) or I (1). Table 2 shows that the results of the panel cointegration test between POV, LOG_DOKA, LOG_DD, LOG_ZAK, and C are significant at the 5 percent and 1 percent levels, so it can be concluded that there is a short-term to long-term relationship between the four variables

Estimation Results and Hypothesis Analysis of the ARDL Model

The ARDL panel regression results are qualified because the Error Corection Term coefficient is negative and significant. Because this model meets the requirements, it can be used as a model to analyze the effect of special autonomy funds, village funds and zakat on poverty in Aceh Province as shown in Table 3.

Table 3: Panel Regression Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Long-run (Pooled) Coefficients				
LOG_DOKA	-0.713074	1.651433	-0.431791	0.6660
LOG_DD	9.131638	1.938800	4.709942	0.0000
LOG_ZAK	-4.133576	0.736121	-5.615345	0.0000
C	2.703062	1.416557	1.908191	0.0568
Short-run (Mean-Group) Coefficients				
COINTEQ	-0.135783	5.92E-18	-2.29E+16	0.0000
D(POV(-1))	0.581369	2.37E-17	2.46E+16	0.0000
D(LOG_DOKA)	6.790026	3.79E-16	1.79E+16	0.0000
D(LOG_DOKA(-1))	-8.317734	7.57E-16	-1.10E+16	0.0000
D(LOG_DD)	3.137247	1.89E-16	1.66E+16	0.0000
D(LOG_DD(-1))	-6.351101	1.89E-16	-3.35E+16	0.0000
D(LOG_ZAK)	-0.148140	5.92E-18	-2.50E+16	0.0000
D(LOG_ZAK(-1))	0.115524	5.92E-18	1.95E+16	0.0000

Another function of the ECT-1 Coefficient is to determine the speed of adjustment of the short-term equilibrium to the long-term (Menegaki, 2019). In Table 4.3, the ECT-1 Coefficient in the ardl panel regression is -0.135783, the coefficient value concludes that the poverty rate corrects its position towards its equilibrium value every quarter with an imbalance percentage of 13.6 percent. In other words, when the poverty rate deviates from its equilibrium position in the short term, the poverty rate will be corrected by 13.6 percent in one quarter, meaning that it takes about 7.3 quarters to return to the equilibrium position after a shock from the independent variables, namely special autonomy funds, village funds and zakat.

3. Conclusion

The effect of special autonomy funds on the poverty rate in Aceh Province has a negative and significant direction in the short term with a significance level of one percent. The results of this study are in line with those found by (Mollet, 2014) which states that the Papua special autonomy fund through the Village Empowerment Strategy Plan program can reduce poverty. Likewise, (Muliadi & Amri, 2019) found that the Aceh special autonomy fund had a significant negative effect on poverty in Aceh Province. The allocation of special autonomy funds for infrastructure development and maintenance, financing economic empowerment activities and poverty alleviation in the area has been able to reduce the number of poor people.

(Setiawan et al., 2020) through qualitative research also found the same results, that special autonomy as an effort to alleviate poverty in Aceh has a very good contribution because it has reduced the poverty rate in Aceh from 819 thousand people in March 2019 to 810 thousand people in September 2019. (Sugiharjo et al., 2022); also stated that special autonomy funds are also significant in moderating education and health on poverty. Reinforced by (Yulianto et al., 2023) who found that special autonomy funds affect the percentage of poverty in Papua Province.

The success of poverty reduction through special autonomy funds in the short term is due to the existence of programs that directly touch the community to reduce the burden of expenses and increase the income of the poor in a very short time, such as providing business capital, labor training, food subsidies, cheap market operations, providing scholarships, providing health insurance through JKA, and providing educational scholarships for the poor (Setiawan et al., 2020).

However, in the long run, the Aceh special autonomy fund has a negative effect on the poverty rate but is not significant. The results of this study are in line with research conducted by (Kadafi & Murtala, 2020) which states that special autonomy funds have no effect on poverty in Aceh Province. The same thing was also found by (Agatha & Uliansyah, 2021) in Papua that special autonomy funds have a negative and insignificant effect on poverty, corroborated by (Ikhsan et al., 2020) through qualitative research found that special autonomy funds had no effect on reducing poverty in Aceh Province.

Several factors have contributed to the less than optimal use of special autonomy funds to reduce poverty in the long term. First, the management of Aceh's special autonomy funds has not been standardized and has undergone frequent changes so that it cannot be used as a complete guideline. Second, the authority to manage the special autonomy fund between the provincial and district/city governments is unclear, resulting in poor coordination between the parties. Third, the poor management of Aceh's special autonomy funds has caused development and community empowerment not to be targeted (Hasan et al., 2020). (Yuliandri et al., 2021) argue that the low effectiveness of special autonomy funds in reducing poverty in Aceh is due to natural disasters, mismanagement of special autonomy, weak planning, absence of supervision, and inefficiency of the regional bureaucracy. (Ikhsan et al., 2022) explain in detail the failure of special autonomy funds to reduce poverty such as the small portion of the budget for poverty alleviation programs because most of the special autonomy funds are used for infrastructure development. Infrastructure development is often associated with poverty alleviation, often incomplete implementation, and the low effectiveness of these funds is due to many technical rules that have not been determined, for example the use of Excess Budget Financing of Special Autonomy Funds (SiLPA). As a result, in the long run, the Special Autonomy Fund is unable to overcome the problem of poverty in Aceh. Meanwhile, (Ikhsan et al., 2023) found that the management of the special autonomy fund did not have a mature grand design, so that the management rules always changed every year and were also influenced by the tug of war between the Aceh government and the regional / city government. Then, the principle of accountability is not implemented properly so that both findings are unable to affect the substance of the poverty sector in Aceh, causing Aceh's poverty to always be below the national average.

Based on the estimation results, in the short term, the effect of village funds on poverty rates is negative and significant as found by (Arham & Payu, 2019) who conducted research on 33 provinces in Indonesia showing that the transfer of village funds has a significant effect in reducing poverty in rural areas, meaning that a consistent increase in village funds can reduce

poverty cases that have not been resolved. (Aslan et al., 2019) also saw that the allocation of funds had a negative and significant indirect effect on the poverty rate through economic growth in Mahakam Ulu Regency. Clarified by the empirical results found by (Saragi, 2021) through a descriptive method by dividing the region into six regions, namely Sumatra, Java & Bali, Kalimantan, Sulawesi, Maluku & NT, and Papua, the results show that in five years, village funds increased dramatically, and this growth was accompanied by a slight decrease in poverty. The decline in poverty in the short term is due to the village fund program implemented for poverty alleviation in the form of providing direct cash assistance in the form of money and food so that people have additional income and reduce the burden of spending and infrastructure development, as found by (Mutmainna et al., 2023) in Gowa Regency that the poor in the Regency felt helped by direct assistance from village funds because it could be utilized for daily needs.

This policy, however, makes the poor dependent on village funds, which in the long run will increase poverty. As found in this study, village funds have a positive and significant effect on poverty in Aceh Province, which means that any increase in village funds will increase the poverty rate in Aceh Province. This research is in line with the results of (Imawan & Purwanto, 2020), which state that the use of village funds, which is mostly used for village governance and infrastructure, will increase the poverty rate. Corroborated by (Anam et al., 2023) which states that the policy of using village funds must consider the population of the village, because the population affects the transfer of funds from the central government to the village. In addition, these policies can hinder village independence and actually increase poverty if villages become too dependent on aid funds from the central government.

Zakat revenue has a significant negative effect on the poverty rate in Aceh Province, both in the short and long term. This research is in line with the research results found by (Rini & Fatimah, 2019) which state that zakat distribution has an influence on poverty alleviation, although the use of zakat is still consumptive in Indonesia. The same thing was confirmed by (Aziz et al., 2020) that the new aspect of zakat has a negative impact on multidimensional poverty and illustrates a significant contribution in targeting several Sustainable Development Goals (SDGs) in Pakistan. Reaffirmed by (Herianingrum et al., 2024) which states that zakat is one of the fiscal policy instruments in Islam that can be used as an instrument of state revenue to encourage public welfare. Zakat management can contribute to reducing the percentage of poverty in Indonesia.

In countries or regions where the majority of the population is Muslim such as in Aceh Province, zakat funds will be a potential instrument for poverty reduction because it is a form of charity that is mandatory for Muslims (Harahap et al., 2024); (Auwal, 2024). If zakat collection is collected and distributed in accordance with Sharia compliance, it will reduce poverty and society will be a better place (Mesawa & Rana, 2021), even zakat is able to change from someone who was previously a zakat recipient to a zakat payer especially through educational or business assistance (Zulkifli et al., 2021).

The ARDL panel regression results are qualified because the error corection term coefficient has a negative slope and is significant with an ECT coefficient value of -0.135783, which means that when the poverty rate deviates from its equilibrium position in the short term, the poverty rate will be corrected by 13.6 percent in one quarter, meaning that it takes about 7.3 quarters to return to the equilibrium position after a shock from the independent variables, namely special autonomy funds, village funds and zakat. The special autonomy fund variable has a negative and significant effect on the poverty rate in Aceh Province in the short term, but has no significant effect in the long term. The village fund variable has a negative and significant

effect on poverty in the short term, but positive and significant in the long term. Zakat has a negative and significant effect on poverty both in the short and long term.

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