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Original Article

Can Central Government Transfer Funds Reduce Poverty in Aceh Province?

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Abstract

This study aims to determine the effect of central government transfer funds to regions on poverty in Aceh Province. The analytical method used in this research is the panel regression analysis method. The data used include general allocation funds, specific allocation funds, revenue-sharing funds, and poverty levels, published by the Ministry of Finance of the Republic of Indonesia and the Central Bureau of Statistics (BPS) for the districts/cities in Aceh Province from 2020 to 2023. The results of this study indicate that the General Allocation Fund (DAU) has a positive impact on poverty levels, while the Specific Allocation Fund (DAK) and Revenue Sharing Fund (DBH) have a negative impact on poverty in Aceh Province. Regional governments need to allocate the DAU not only for routine expenditures but also for productive programs focused on poverty alleviation, such as infrastructure, education, and health. Strengthening DAK and DBH programs is also essential for community empowerment in productive sectors and basic infrastructure to improve access and economic opportunities for the poor. Strict oversight of the use of DAU, DAK, and DBH is necessary to ensure funds are used in a targeted manner, avoiding projects with minimal impact. Additionally, regional self-reliance in optimizing Local Revenue (PAD) should be encouraged so that regional governments have greater flexibility in implementing poverty alleviation programs according to local needs.

Keywords: General Allocation Fund (DAU), Specific Allocation Fund (DAK), Revenue Sharing Fund (DBH), Poverty.

1. Introduction

During the Old Order era, Indonesia implemented a strong centralistic government system, where nearly all strategic decisions regarding development and budget allocation were made by the central government in Jakarta, without involving local governments. This led to development disparities, especially in remote areas outside Java, as regions lacked sufficient autonomy in managing natural resources and fiscal policy. Although many regions were producers of important commodities, revenue from these resources was largely absorbed by the central government, with only a small portion allocated for local development. Consequently, development programs implemented were often misaligned with the specific needs of the regions, making them less effective and relevant (Suriadi et al., 2023).

Over time, the Old Order era began to recognize cultural diversity through the establishment of special regions, although central control remained dominant. During the New Order period, Indonesia faced a severe economic crisis in 1997–1998, which sparked dissatisfaction with President Suharto's centralized government. Inequities in wealth distribution between the central government and regions also fueled the reform movement demanding changes in governance. The collapse of the New Order regime in 1998 paved the

way for reforms, including decentralization, which granted broader autonomy to regions to manage their internal affairs. This policy was seen as a solution to address development disparities and wealth distribution inequalities in Indonesia. In 1999, Indonesia enacted Law No. 22 on Regional Autonomy and Law No. 25 on Fiscal Balance, which became the legal basis for implementing decentralization. The implementation of these two laws in 2001 marked a new era in governance, where regions were granted greater authority over local matters, including budgeting, development planning, and public services. Over the past two decades, amendments to laws such as Law No. 32 of 2004 and Law No. 23 of 2014 reflect the government's commitment to strengthening decentralization and addressing regional development challenges (Prasetio, 2023).

Regional autonomy is the granting of authority, rights, and power to local governments to manage and govern their own affairs within their regions. With this autonomy, local governments have greater flexibility in making decisions related to the management of resources and the potential of their regions, with the aim of improving the welfare of the local community and advancing regional development independently. Regional autonomy aims to be one of the government's steps in creating better economic conditions, optimizing local financial potential, and achieving the welfare of the community. The implementation of regional autonomy has driven changes in the governance system across various regions in Indonesia, shifting from a centralized system to a more decentralized one. Local governments are now responsible for planning, formulating, managing, and implementing tasks and authorities within their respective regions. Local governments, being closer to the community, have a better understanding of the conditions and needs of the area. Therefore, it is hoped that decentralization can promote more effective development that aligns with local needs (Christia & Ispriyarso, 2019).

However, according to a study by Rémy Prud'homme (1995), decentralization can also pose risks to the country. First, disparities between regions can exacerbate economic and social inequalities, with more developed areas being better equipped to manage decentralization compared to underdeveloped regions. Second, increased regional autonomy may lead to higher risks of corruption and abuse of power due to weak oversight. Third, the lack of coordination can cause bureaucratic fragmentation and disrupt public services. Fourth, incoherent policies between regions may hinder mobility and create uncertainty. Fifth, not all regions have sufficient administrative capacity, which can result in inefficiencies. Lastly, the increase in local power could potentially trigger social conflicts if not properly managed.

In the framework of fiscal decentralization, transfer funds play a key role as one of the main instruments to support regions in exercising their authority. According to the Ministry of Finance (2023), transfer funds consist of the General Allocation Fund (DAU), Special Allocation Fund (DAK), and Revenue Sharing Fund (DBH). These funds aim to ensure that each region has adequate resources to carry out its functions and create more equitable development across Indonesia. As stated by Rahman et al. (2022), the success of economic development in a region can be measured by the level of welfare of its people. Welfare, in the economic context, refers to an individual's ability to use goods and services to meet a decent standard of living and function well in society. According to Noviar et al. (2023), assessing the poverty conditions of the population in the region is one of the most accurate and precise indicators to measure the level of community welfare.

Poverty is often seen as a result of economic development that is misdirected or unsuccessful (Sumeitri & Destiningsih, 2022). Poverty is a complex issue that is difficult to address due to various economic, social, and cultural conditions, as well as the vast areas affected. To reduce poverty levels and facilitate its management, an approach that integrates

various aspects of the problem is needed. Central government transfer funds play a crucial role in supporting development in regions with limited fiscal capacity, including Aceh Province. However, despite having special autonomy status and receiving significant transfer funds, it still faces serious issues related to poverty.

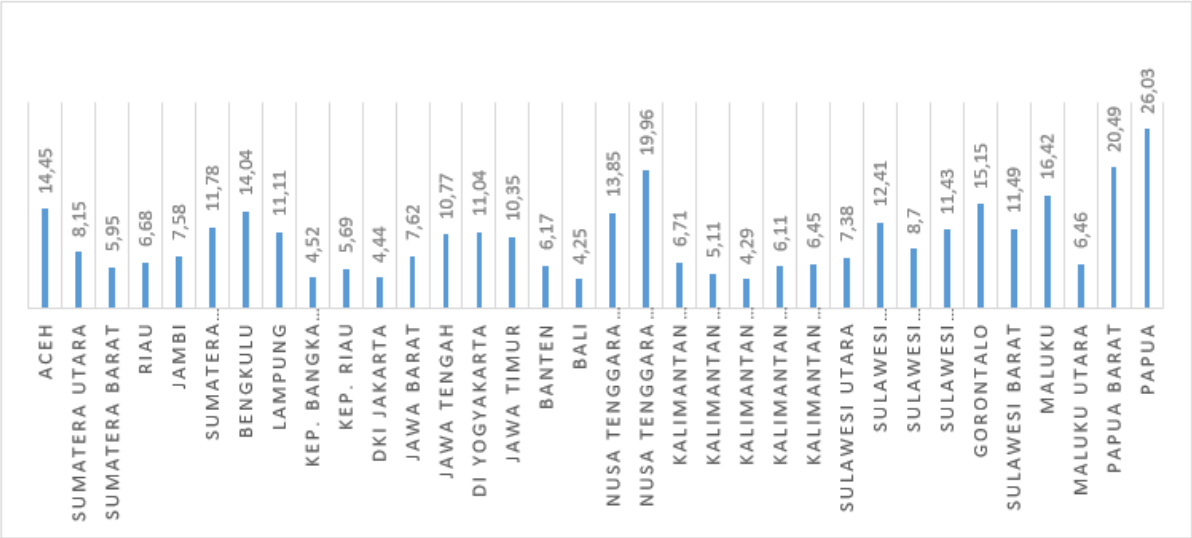

Figure 1. Number of Poor People in Each Province in Indonesia in 2023
Source: Badan Pusat Statistik Indonesia (2024)

According to data from Badan Pusat Statistik (BPS) in 2023, Aceh has the highest poverty rate in Sumatra and ranks as the 6th poorest province in Indonesia, with a poverty rate of 14.45%, well above the national average of approximately 9.36%. Despite receiving special autonomy funds (*otsus*) and various forms of fiscal transfers from the central government, its poverty rate remains high.

Table 1. Poverty Line in Aceh Province and Its Components, March 2022 – March 2023 (IDR/Capita/Month)

Region/Year	Component Breakdown		
Urban + Rural	Food	Not Food	Total
March 2022	438.658	140.570	579.227
September 2022	468.255	149.038	617.293
March 2023	475.838	151.689	627.534

Source: BPS Provinsi Aceh (2024)

In Table 1, the analysis of the poverty line from March 2022 to March 2023 in Aceh Province shows a significant increase in both urban and rural areas. In March 2022, the poverty line in Aceh was recorded at IDR 579,227 per capita per month, and it increased to IDR 627,534 per capita per month in March 2023, an increase of 8.34 percent.

The increase in the poverty line indicates that the cost of living, particularly for basic needs, has risen over the past year. This increase could be attributed to various factors, including inflation, rising food prices, and other economic factors affecting the purchasing power of the population. In the context of fiscal decentralization, this rise in the poverty line also needs to be analyzed further in relation to the flow of transfer funds from the central government to the regions, such as the General Allocation Fund (DAU), Special Allocation Fund (DAK), and Revenue Sharing Funds (DBH).

Research on the analysis of central government transfer funds to the regions and their impact on poverty in Aceh Province is crucial as it can evaluate policies and various transfer fund mechanisms at the district/city level in Aceh. By understanding the role of transfer funds and the challenges faced by Aceh, this study not only provides better solutions for Aceh but also offers guidance for similar policies in other provinces facing development and poverty issues. This research has the potential to ensure that the allocation of funds and policies implemented can achieve their objectives. The analysis will provide new perspectives on the implementation of regional autonomy policies and the management of central government transfer funds, which can serve as a model for other provinces with similar conditions. Additionally, this research will produce policy recommendations to improve fund allocation and development strategies in regions facing similar challenges.

2. Literature Review

Several empirical studies show differing views regarding the impact of central government transfer funds on poverty. On one hand, there are studies that suggest transfer funds, such as the General Allocation Fund (DAU), Special Allocation Fund (DAK), and Revenue Sharing Funds (DBH), have been effective in reducing poverty in recipient regions. On the other hand, there are also studies that indicate central government transfer funds to the regions may potentially increase poverty. This debate reflects the challenges in ensuring that central government transfer funds are well-managed and used effectively for poverty reduction purposes in each region. Some of the empirical studies can be explained as follows:

The findings from previous studies (Gumelar & Khairina, 2021; Izzati & Indrawati, 2021; Putra et al., 2023; Syamsul, 2020), that revenue sharing funds play a significant role in strengthening the financial resources of regions, particularly from the revenue of natural resources and income tax. These funds serve as a main financial support for local governments, complementing other fiscal sources such as Local Own Revenue (PAD). With the contribution of revenue sharing funds, the fiscal capacity of regions to finance development programs and improve public welfare becomes stronger. This has implications for enhancing the region's capacity to reduce poverty, as revenue sharing funds become an important instrument in financing various policies and initiatives aimed at poverty alleviation. Thus, revenue sharing funds not only improve the fiscal independence of local governments but also play a strategic role in supporting regional governments to implement more effective poverty reduction programs (Fitriyanti & Handayani, 2020; Panggabean et al., 2022) This study found that the Special Allocation Fund (DAK) has a negative impact on poverty, meaning that this allocation plays a significant role in reducing poverty levels in recipient regions. With DAK, local governments can fund infrastructure development programs, improve public services, and advance priority sectors such as education, health, and agriculture, which directly enhance community welfare. DAK also supports resource-limited regions in implementing essential development programs, with its effects more pronounced among low-income groups, potentially leading to significant socio-economic changes (Nurrizqi et al., 2023).

This study found that the General Allocation Fund (DAU) has not been effective in reducing poverty in East Java Province, as most of the funds are allocated for routine expenditures, such as employee salaries, rather than poverty alleviation programs that directly address the needs of the poor, such as social assistance, education, or infrastructure. Dependence on central fiscal transfers also reduces local governments' initiative to develop sustainable local revenue sources, while weaknesses in governance and fund oversight further

limit the DAU's impact on poverty reduction. Improving local management capacity and targeting DAU more effectively are needed to achieve optimal results.

In contrast to previous findings, Setyawan (2023) analyzed regional transfer funds in relation to village poverty across 29 districts in East Java Province from 2015 to 2020. The study found that an increase in regional transfer funds did not reduce village poverty in East Java. These findings suggest that factors beyond budget allocations, such as ineffective government policies, a lack of transparency in the bureaucracy, and social issues like conflict and violence, may play a more significant role in sustaining high poverty levels. The empirical study reveals a range of varying research results.

Muhardinata et al. (2022) research indicates that the DAU, the DAK, and the DBH do not have a significant impact on poverty levels. This finding suggests that, although these funds are provided to local governments with the aim of improving public welfare, their allocation and use have not effectively reduced poverty in recipient areas. One possible reason is the presence of other factors, such as ineffective management, inefficient bureaucracy, or poorly targeted programs, which hinder the effectiveness of these funds. The study by Adriawan (2022) reached a similar conclusion, finding that the DAU and the DAK do not significantly impact poverty reduction. This suggests that, although central-to-local transfer funds have the potential to support development and reduce poverty, in practice, these funds may not be allocated or utilized optimally to achieve poverty alleviation goals.

Similarly, the study by Alvaro & Zahara (2019) found that the Revenue Sharing Fund (DBH) and the General Allocation Fund (DAU) do not have a significant impact on poverty. This reinforces the view that, although transfer funds provide substantial financial support to regions, they do not always translate into improved community welfare without proper planning, effective oversight, and targeted use. The conclusions from these various studies underscore that, although central-to-local transfer funds hold great potential for improving socio-economic conditions, challenges in the implementation and utilization of these funds pose significant barriers. Therefore, further research is needed to explore how these funds can be used more effectively, such as through improved budget management, enhanced local government capacity, and the design of programs more focused on poverty alleviation.

3. Methods

3.1. Types and Sources of Data

This study uses secondary data, specifically data on the general allocation fund, special allocation fund, revenue-sharing fund, and poverty statistics, as published by Kementerian Keuangan Republik Indonesia and the Badan Pusat Statistik (BPS) for regencies/cities in Aceh Province from 2020 to 2023.

3.2. Data Analysis Technique

The analytical method used to examine the impact of DAU, DAK, and DBH on poverty levels in regencies/cities of Aceh Province is panel data regression analysis. The following is the regression equation for this study:

$$KMit = a + \beta_1 DAUit + \beta_2 DAKit + \beta_3 DBHit + e$$

Description:
KM = Poverty level, proxied by the number of poor people (individuals)
DAU = General Allocation Fund (Rupiah)

DAK = Special Allocation Fund (Rupiah)
DBH = Revenue Sharing Fund (Rupiah)
a = Constant
$\beta_{1,2,3}$ = Regression coefficients
i = Year
t = Regency/City

There are three models that can be used to perform panel data regression. These models are Pooled OLS/Common Effect, Fixed Effect, and Random Effect.

3.3. Model Selection Test

The first step is to conduct tests to choose the best model among the three, which can be done using the Chow test, Hausman test, and Lagrange Multiplier test. A detailed explanation of these three model selection tests is as follows:

3.3.1. Chow Test

This test is conducted to compare the common effect model and fixed effect model by calculating the F-value, using the residual sum of squares from both the common effect and fixed effect models (Srihardianti et al., 2016). To conduct the Chow test, the data is first regressed using both the common effect and fixed effect models, and then the hypothesis is formulated for testing. The hypotheses are as follows:

H_0: $\beta_1 = 0$ {so the common effect model is used}
H_1: $\beta_1 \neq 0$ {so the fixed effect model is used}

The decision rule for the Chow test is as follows:

a. If the Probability F-value > 0.05, H_0 is accepted; thus, the common effect model is used.
b. If the Probability F-value < 0.05, H_0 is rejected; thus, the fixed effect model is used, followed by the Hausman test.

3.3.2. Hausman Test

This test is conducted to determine whether the data should be analyzed using the fixed effect model or the random effect model by utilizing the parameters of both the fixed effect and random effect models, as well as the covariance matrix of these parameters (Srihardianti et al., 2016). The Hausman test is conducted by regressing the data using both the random effect and fixed effect models, and the following hypotheses are formulated:

H_0: $\beta_1 = 0$ {so the random effect model is used}
H_1: $\beta_1 \neq 0$ {so the fixed effect model is used}

The decision rule for the Hausman test is as follows:

a. If the probability Chi-Square value > 0.05, H_0 is accepted, meaning the random effect model is used.
b. If the probability Chi-Square value < 0.05, H_0 is rejected, meaning the fixed effect model is used.

3.3.3. Lagrange Multiplier Test

The Lagrange Multiplier test is used to test the random effect model by utilizing the residual values from the common effect model (Srihardianti et al., 2016). The test is applied when the common effect model is selected based on the results of the Chow test. In practice, the data is also regressed using both the random effect model and the common effect model, with the following hypotheses formulated:

H_0: $\beta_1 = 0$ {so the common effect model is used}
H_1: $\beta_1 \neq 0$ {so the random effect model is used}

The decision rule for the Lagrange Multiplier test is as follows:

a. If the Breusch-Pagan p-value > 0.05, Ho is rejected, meaning the random effect model is used.
b. If the Breusch-Pagan p-value < 0.05, Ho is accepted, meaning the common effect model is used.

3.4. Classical Assumption Test

Generally, classical assumption tests consist of tests for normality, autocorrelation, multicollinearity, and heteroscedasticity. However, one advantage of panel data is that normality and autocorrelation tests are not necessary because panel data combines aspects of cross-sectional and time-series data, each of which has different characteristics from the methods used individually (Basuki & Yuliadi, 2015). Therefore, this study will not conduct tests for normality and autocorrelation. Instead, the classical assumption tests to be conducted will focus on multicollinearity and heteroscedasticity tests.

3.5. Hypothesis Testing

Statistical testing is performed using the t-test and F-test, as well as calculating the R^2 coefficient of determination. The t-test aims to identify the statistical significance of each individual regression coefficient, while the F-test is used to evaluate the statistical significance of the regression coefficients collectively. The R^2 coefficient of determination is used to assess how well the independent variables explain the dependent variable. In partial testing, if the probability value of the t-test meets the criterion t-test significance < α 0.05, then the null hypothesis (Ho) is rejected, indicating a significant effect. Conversely, if the significance level in the t-test table is > 0.05, the null hypothesis is accepted, meaning there is no significant effect. In simultaneous testing, if the significance result is < α 0.05, the null hypothesis is rejected, indicating the presence of an effect; whereas if the significance level is > 0.05, the null hypothesis is accepted, showing no effect.

4. Results and Discussion

4.1. Panel data model estimation test results

The initial step in analyzing panel data in a study is selecting one of several panel data regression models. The model selection is carried out using the Chow test, Hausman test, and Lagrange Multiplier test. If, out of the three model selection tests, one model is chosen twice, that model will be used in the analysis. Below are the results of the panel data model selection tests:

4.1.1. Test Chow

The Chow test is conducted to choose the best model between the Fixed Effect Model (FEM) and the Common Effect Model (CEM). In Table 2, the probability value is 0.0000 < 0.05. This indicates that the null hypothesis is rejected, while the alternative hypothesis is accepted, suggesting that the best model between the CEM and FEM is the FEM.

Table 2. Chow test to choose between CEM and FEM models

Effects Test	Statistic	d.f.	Prob.
Cross-section F	1042.966328	(21,63)	0.0000
Cross-section Chi-square	515.159406	21	0.0000

Source: Processed data, 2024

4.1.2. Hausman test

The Hausman test is used to choose the best model between the Fixed Effect Model (FEM) and the Random Effect Model (REM). The probability value in Table 3 is 0.0000 < 0.05, indicating that the null hypothesis is rejected, while the alternative hypothesis is accepted. This suggests that the best model between the REM and FEM is the FEM.

Table 3. Housman test to choose between REM and FEM models

Effects Test	Statistic	d.f.	Prob.
Cross-section F	1042.966328	(21,63)	0.0000
Cross-section Chi-square	515.159406	21	0.0000

Source: Processed data, 2024

Based on the results of the Chow and Hausman tests, the FEM model was selected twice, so the Lagrange Multiplier (LM) test is no longer needed. The best model to use in interpreting panel data regression is the one that is selected twice after the testing process (Priyatno, 2023). The best analysis model used is the FEM (Fixed Effect Model).

4.2. Classical Assumption Test

4.2.1. Multicollinearity Test

The multicollinearity test aims to examine whether there is correlation or a relationship between the variables in the regression model. A good regression model should not have relationships among the independent variables. Multicollinearity testing can be assessed by looking at the correlation coefficients between the research variables, with the following criteria:

a. If the correlation value > 0.90, it can be concluded that multicollinearity is present.
b. If the correlation value < 0.90, it can be concluded that multicollinearity is not present.

Table 4. Multicollinearity Test

	DAU	DBH	DAK
DAU	1.000000	0.341208	0.742832
DBH	0.341208	1.000000	0.326196
DAK	0.742832	0.326196	1.000000

Source: Processed data, 2024

Based on the table above, it can be proven that the correlation coefficient values between the variables in this study are below 0.90. This indicates that there is no multicollinearity issue among the research variables.

4.2.2. Heteroscedasticity Test

From the residual plot, it can be seen that the line does not cross the boundaries (500 and -500), meaning the residual variance is constant. Therefore, there is no heteroscedasticity, or the model passes the heteroscedasticity test.

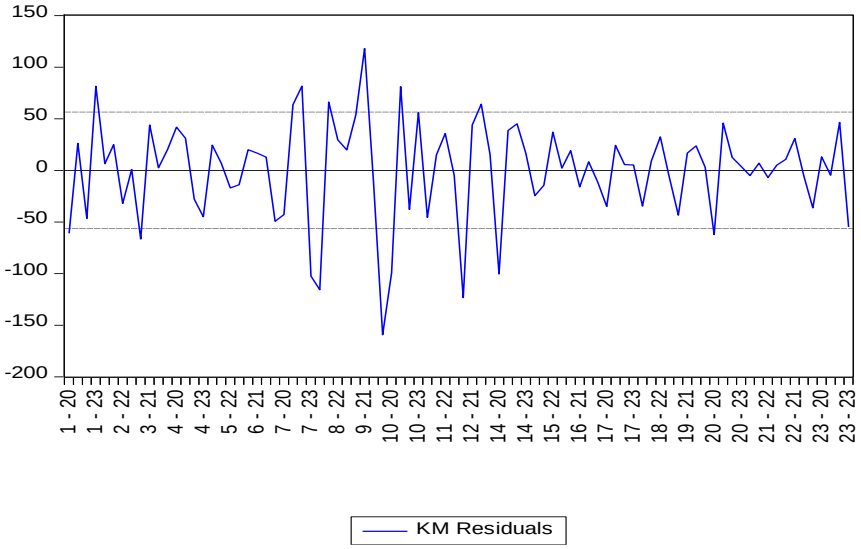

Figure 2. Heteroscedasticity Test

Source: Processed data, 2024

4.3. FEM model estimation test results

The results of the panel data estimation regarding the impact of general allocation funds, specific allocation funds, and revenue sharing funds on poverty can be seen in the following Table 5:

Tanle 5. Estimation results of the Fixed Effect Method (FEM)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	813.6450	457.7297	1.777567	0.0803
DAU	5.56E-06	8.52E-07	6.523249	0.0000
DBH	-1.72E-06	6.57E-07	-2.622575	0.0109
DAK	-6.23E-07	8.82E-08	-7.065890	0.0000
	Effects Specification			
Cross-section fixed (dummy variables)				
R-squared	0.999597	Mean dependent var		3683.966
Adjusted R-squared	0.999444	S.D. dependent var		2390.027
S.E. of regression	56.35181	Akaike info criterion		11.13509
Sum squared resid	200058.2	Schwarz criterion		11.83887
Log likelihood	-464.9438	Hannan-Quinn criter.		11.41862
F-statistic	6518.130	Durbin-Watson stat		2.226741
Prob(F-statistic)	0.000000			

Source: Processed data, 2024

The data processing results from Table 5 for the F-test show a statistical F probability value of 0.000, which is smaller than the 5% alpha level, indicating that the independent variables DAU, DAK, and DBH—have a significant joint effect on poverty in West Aceh Province. The R-squared value from the data processing results is 0.999597, meaning that 99.95% of poverty in Aceh Province is explained by DAU, DAK, and DBH in the model. The

remaining 0.05% is explained by other variables not included in the study. The interpretation of these results can be explained as follows:

4.3.1. The General Allocation Fund (DAU) Variable

Based on the estimation results in Table 5, it is found that the t-statistic value for the DAU variable is 6.523249, and the probability value is 0.000, which is smaller than the 5% alpha level, leading to the rejection of the null hypothesis (Ho). This means that the DAU variable has a significant effect on poverty. The coefficient value of 5.56E-06 indicates a positive impact, meaning that as the DAU increases, the poverty level in the regencies/cities of Aceh Province also increases. This finding aligns with previous research (Alvaro & Zahara, 2019; Nurrizqi et al., 2023; Muhardinata, 2022, Adriawan et al., 2022).

Based on the findings of this study, it indicates that although the General Allocation Fund (DAU) aims to support development and strengthen the fiscal capacity of regions, its usage has not been fully effective in reducing poverty. DAU accounts for the largest portion compared to other balancing funds such as the Special Allocation Fund (DAK) and the Revenue Sharing Fund (DBH), with most of these funds being used to pay local government employee salaries and cover fiscal deficits. As a result, only a small portion of DAU is allocated for productive programs that directly impact poverty alleviation. The excessive focus on routine expenditures, such as employee salaries, can reduce allocations for investments in areas that can improve the welfare of the poor, such as healthcare, education, and skill development.

In addition, an increase in DAU tends to increase local governments' dependence on the central government, which can hinder local initiatives in creating innovative poverty alleviation programs that are tailored to local needs. This dependency contradicts the goal of fiscal decentralization, which should encourage local autonomy in managing budgets and resources for development. When local governments continue to rely on DAU without building independent capacity, the available funds may be used primarily for administrative expenses, rather than prioritizing poverty reduction programs.

Furthermore, an increase in DAU that is not accompanied by effective supervision and evaluation can lead to misallocation of funds, such as infrastructure projects that do not meet the needs of the poor or projects with long-term impacts that do not directly reduce poverty. Instead of providing immediate positive effects, such an allocation of DAU may keep the poor trapped in difficult conditions without direct access to assistance that could improve their income and well-being in the short term.

4.3.2. The Revenue Sharing Fund (DBH)

Based on Table 5, it can be explained that the t-statistic value for the DBH variable is -2.622575 and the probability value is 0.0109, which is smaller than the 5% alpha level, thus rejecting the null hypothesis (Ho). This means that the DBH variable has a significant effect on poverty. The coefficient value of -1.72E-06 indicates a negative impact, meaning that as DBH increases, poverty levels decrease. This implies that DBH is effective in reducing poverty levels. The results of this study are consistent with research conducted by (Gumelar & Khairina, 2021; Izzati & Indrawati, 2021; Putra et al., 2023; Syamsul, 2020).

DBH follows two principles in its allocation and distribution: the "by origin" principle for allocation and the "based on actual revenue" principle for distribution. Unlike other transfer funds, DBH is derived from local revenues such as income tax, land and building tax, tobacco excise duties, and income from natural resources in the respective region. This fund aims to enhance the fiscal capacity of local governments, provide more funds for economic development, and improve public services.

Specifically, DBH can be used to build physical infrastructure such as roads, bridges, and facilities for clean water and electricity in previously underserved villages, thereby opening up new access and economic opportunities for the community. Adequate infrastructure helps smooth economic activities and the distribution of goods and services, which in turn increases local income. Better access also enables the poor to more easily access education and healthcare services, ultimately improving human capital and productivity, reducing dependence on social assistance, and encouraging the community to achieve stable income.

In addition to infrastructure, DBH also plays a role in enhancing the local economic capacity by supporting productive sectors such as agriculture, fisheries, and small and medium enterprises (SMEs). For instance, these funds can be allocated to provide training and capital assistance to farmers or fishermen to help them increase their production yields. In Aceh, which is rich in natural resources and has a strong fisheries sector, optimizing DBH for these sectors would significantly impact the well-being of the poor, who rely on these industries for their livelihoods. Overall, when DBH is strategically allocated to sectors that directly affect the improvement of community welfare, it can significantly reduce the poverty rate in Aceh.

4.3.3. Special Allocation Fund (DAK) Variable

Based on Table 5, it can be explained that the t-statistic value for the DAK variable is -7.065890, and the probability value is 0.000, which is smaller than the alpha of 5%, thus rejecting the null hypothesis (Ho). The coefficient value is -6.23E-07, meaning that this negative impact indicates that the higher the DAK, the lower the poverty rate. This implies that DAK is effective in reducing poverty levels. These results are consistent with the study conducted by Fitriyanti & Handayani (2020) and Panggabean et al. (2022).

DAK can play a crucial role in reducing poverty levels in Aceh Province by allocating funds for infrastructure development and public services, focusing on priority sectors such as education, healthcare, and the improvement of public facilities. DAK is divided into two types: Physical DAK and Non-Physical DAK. Physical DAK includes infrastructure projects such as road construction, medical equipment procurement, and school buildings. On the other hand, Non-Physical DAK is used to support the operations of education and healthcare, capacity building for cooperatives, small and medium enterprises (SMEs), as well as population administration services. The programs funded by DAK aim to improve public access to basic services, which directly or indirectly impact the well-being of the community.

The improvement of access to infrastructure and public facilities supported by DAK is expected to stimulate local economic activities. For example, road improvements facilitate the distribution of goods and services, creating business opportunities for the community, including low-income groups. Better access to healthcare and education also enhances human resource quality, which, in the long term, has the potential to reduce poverty through increased productivity and income levels within the community.

In addition, non-physical DAK, such as teacher allowances and operational support for schools, helps ensure that educational services run optimally, especially in remote areas of Aceh. When access to and the quality of education improve, the community has better opportunities to secure employment or start businesses, which ultimately contributes to the reduction of poverty levels.

Although the effects of DAK on poverty reduction may not be immediately visible in the short term, its impact can be significant in the long run, especially if the funds are properly allocated to the segments of society that need it the most. An example of this is the development of Sultan Iskandar Muda Airport in Banda Aceh, which not only benefits the

middle class but also the poor community who opened small shops along the road leading to the airport. As more buildings, restaurants, and other businesses begin to emerge around the airport area, the roads improve, leading to higher economic mobility in the community, which ultimately contributes to a reduction in poverty levels.

5. Conclusion

This study shows that various funding sources, namely the DAU, DAK, and DBH, have different impacts on the poverty levels in districts and cities within Aceh Province. The findings indicate that DAU has a positive and significant impact on poverty, meaning that an increase in DAU allocation is associated with an increase in poverty levels. This is likely due to a larger portion of the DAU being used for routine expenditures, such as government employee salaries, rather than for productive programs that can reduce poverty. Meanwhile, both DAK and DBH have a negative and significant effect on poverty, indicating that these funds are effective in reducing poverty levels when allocated to productive sectors and infrastructure that support the improvement of the welfare of the poor. The DAK, through the allocation of funds for infrastructure, education, health, and the improvement of public facilities, is able to enhance public access to basic services and support local economic activities. The DBH, as a fund sourced from local revenue such as taxes and natural resources, has been proven to increase the fiscal capacity of the region, which is then allocated for economic development and public services that directly contribute to poverty reduction.

Policy recommendation, the local government should evaluate the allocation of the DAU to ensure that it is not solely focused on routine spending but also allocated for productive programs that directly impact poverty reduction. The use of DAU can be directed toward infrastructure, education, and health, which will provide long-term benefits for the poor. Strengthening the DAK and DBH programs for community empowerment should be directed towards sectors that can enhance the welfare of the population, such as productive sectors (agriculture, fisheries, and SMEs) as well as the development of basic infrastructure that improves access and economic opportunities for the poor. Both the regional and central governments need to conduct strict monitoring and evaluation of the use of DAU, DAK, and DBH to ensure that these funds are effectively allocated to targeted programs that address the needs of the poor in Aceh. Rigorous oversight will also prevent the misallocation of funds to projects that have limited impact on poverty reduction. Encouraging regional autonomy to reduce dependence on funds from the central government. Regional governments can develop local revenue sources by optimizing regional potential. This way, regional governments will have greater flexibility to implement poverty reduction programs that are aligned with local needs

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