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THE INFLUENCE OF REVENUE-SHARING FUNDS, GENERAL ALLOCATION FUNDS, AND SPECIAL ALLOCATION FUNDS ON THE ECONOMIC GROWTH OF REGENCIES/CITIES IN NORTH SUMATRA PROVINCE

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Abstract

This study analyzes the impact of Revenue-Sharing Funds, General Allocation Funds, and Special Allocation Funds on the economic growth of regencies and cities in North Sumatra Province. The study employs a quantitative approach using panel data regression analysis. Secondary data were obtained from Statistics Indonesia (BPS) and the Directorate General of Fiscal Balance. Model selection was conducted through panel data model testing, identifying the Fixed Effect Model as the most appropriate. The results indicate that Revenue-Sharing Funds have a positive relationship with economic growth but do not exert a significant influence. Conversely, both General Allocation Funds and Special Allocation Funds have a positive and significant impact on economic growth. Collectively, these three transfer funds significantly influence economic growth. These findings demonstrate that the effectiveness of fiscal transfers is determined not only by the magnitude of regional revenue but also by the local government's ability to direct funds toward productive development and public services. Therefore, the management of General Allocation Funds and Special Allocation Funds needs to be directed more effectively to strengthen fiscal capacity, infrastructure, public services, and regional economic activity.

Keywords: Revenue-Sharing Funds, General Allocation Funds, Special Allocation Funds, Economic Growth, Panel Data

1. Background

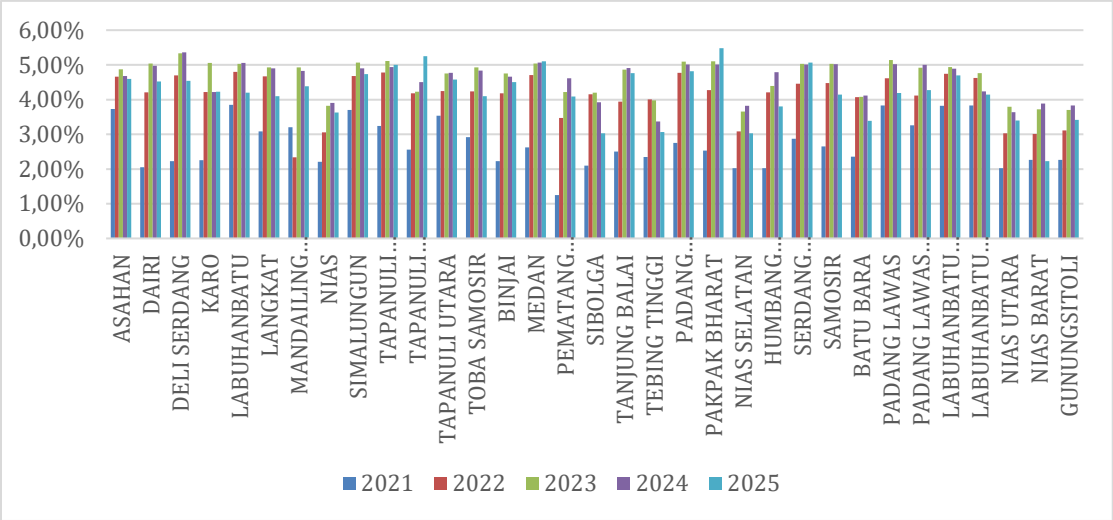
Indonesia has entered an era of regional autonomy that grants regions the rights, authority, and obligations to manage governance and serve the public interest. The implementation of regional autonomy places regency and city

governments in a pivotal position to manage economic development tailored to their respective regional characteristics. Regional development relies not only on private sector and community activities but also on the capacity of local governments to provide infrastructure, public services, and development financing. Regarding financial relations between the central and local governments, transfers to regions—specifically Revenue-Sharing Funds (DBH), General Allocation Funds (DAU), and Special Allocation Funds (DAK)—serve as crucial sources of financing.

DBH, DAU, and DAK possess distinct characteristics. DBH involves the distribution of specific revenues to regions; DAU aims to equalize financial capacity across regions; and DAK targets specific needs or activities aligned with development priorities. These functional differences make it relevant to examine these three fiscal instruments in relation to economic growth. Economic growth is an indicator that reflects the development of economic activity within a region. In this study, economic growth is linked to changes in Gross Regional Domestic Product (GRDP) at constant prices. GRDP represents the value added generated by various economic activities within a territory and serves as a key indicator for assessing regional economic development.

North Sumatra Province features diverse regional characteristics, comprising urban areas, agricultural zones, industrial and trade hubs, and archipelagic regions. These varying characteristics result in differences regarding development needs, fiscal capacity, and the ability to generate economic activity. Consequently, the magnitude of transfers received by a region must be viewed alongside its capacity to manage those funds. Disparities in economic growth across regencies and cities indicate that economic activity does not develop uniformly. This situation is significant when considered in the context of regional fiscal capacity and sources of development financing. Graph 1 below illustrates variations in growth rates across regions and time periods. These differences indicate that the economic conditions of regencies and cities possess distinct characteristics. The graph below depicts the phenomenon of economic growth across regencies and cities in North Sumatra Province.

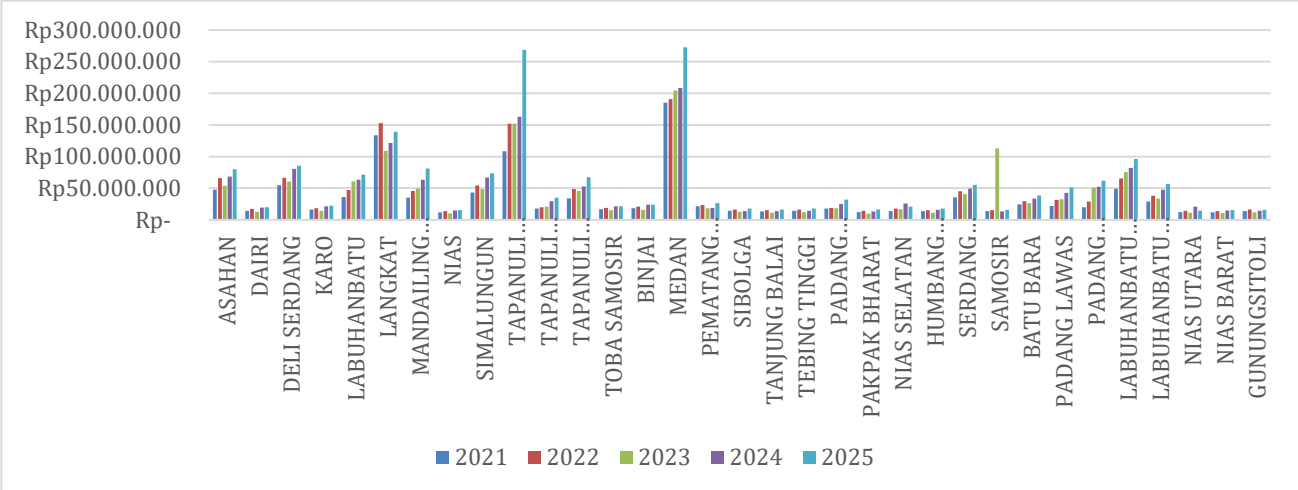
Chart 1: Economic Growth of Regencies/Cities in North Sumatra Province, 2021–2025



Source: Statistics Indonesia (BPS) of North Sumatra, 2021–2025

Revenue-Sharing Funds (DBH) constitute a transfer component where receipts vary across regions, as they are linked to revenue sources and regional contributions. Variations in DBH receipts among regencies and cities reflect differences in economic characteristics and regional revenue sources.

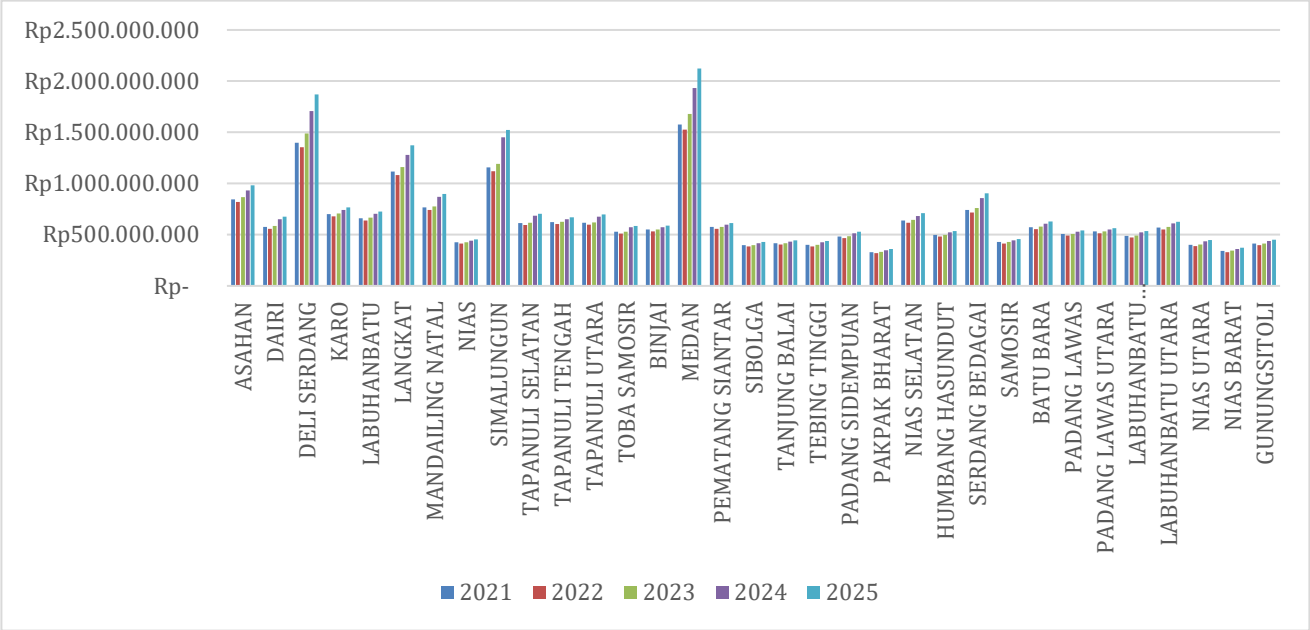
Chart 2: Revenue-Sharing Funds for Regencies/Cities in North Sumatra Province, 2021–2025



Source: Directorate General of Fiscal Balance, North Sumatra, 2021–2025

Based on the graph above, the variation in DBH (Revenue-Sharing Funds) indicates that the capacity of regions to receive revenue from this source is not uniform. This is a significant point, as regions receiving larger transfers do not necessarily experience higher economic growth if the funds are not utilized for productive activities. In addition to DBH, the DAU (General Allocation Fund) plays a role in equalizing financial capacity across regions. The DAU provides local governments with the flexibility to finance regional needs based on their priorities.

Graph 3: General Allocation Fund (DAU) for Regencies/Cities in North Sumatra Province, 2021–2025



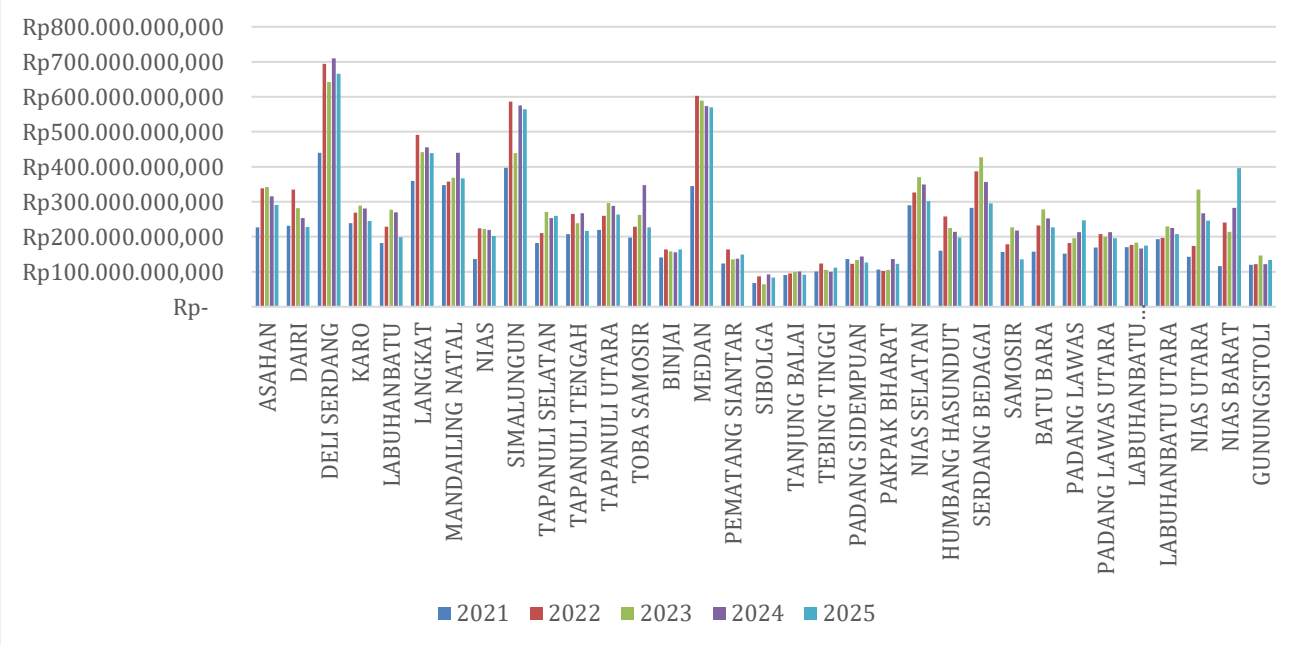
Source: Directorate General of Fiscal Balance, North Sumatra, 2021–2025

Based on Graph 3 above, variations in the General Allocation Fund (DAU) reveal disparities in the transfer amounts received by different regions. This disparity is evident from the fact that some regions receive relatively large DAU amounts, while others receive significantly less. Such variations indicate that the fiscal needs and capacities of each region differ. Fundamentally, the DAU aims to equalize financial capacity across regions, thereby ensuring local governments possess adequate resources to fund governance, development, and public service needs. However, the amount of DAU received does not automatically guarantee increased economic growth if the funds are not effectively directed

toward programs and activities that boost regional productivity and economic activity.

This situation demonstrates that the DAU should be evaluated not only based on the volume of funds received by local governments but also on the effectiveness of their utilization in supporting regional development. Allocating DAU funds to productive expenditures—such as improving public service quality, developing infrastructure, and fostering activities that stimulate local economic engagement—is expected to contribute to economic growth. Consequently, the variation in DAU receipts among regencies and cities serves as a crucial factor in understanding the impact of fiscal transfers on economic growth.

Graph 4: Special Allocation Fund (DAK) for Regencies/Cities in North Sumatra Province, 2021–2025



Source: Directorate General of Fiscal Balance, North Sumatra, 2021–2025

Based on Graph 4 above, the variation in the Special Allocation Fund (DAK) indicates that regional capacity to secure these specific transfer funds is uneven. This is significant because the DAK is earmarked for financing specific activities, such as infrastructure development and the improvement of public services. However, the amount of DAK received by a region does not automatically translate into higher economic growth if the funds are not effectively directed toward productive development programs that align with local needs. Therefore, the effectiveness of DAK management is a crucial factor in determining the extent to which these transfers contribute to boosting economic activity and regional economic growth.

2. Research Methodology

This study focuses on the regencies and cities within North Sumatra Province as its units of analysis. The dataset encompasses all regencies and cities in the province, covering the observation period from 2021 to 2025. A quantitative approach is employed, as the research variables consist of numerical data that can be measured and statistically analyzed. The study utilizes secondary panel data, combining time-series and cross-sectional data. Primary data sources include BPS of North Sumatra Province for economic growth figures, and the Directorate General of Fiscal Balance (DJPK) for data on DBH, DAU, and DAK).

Data collection was conducted through documentary research and a literature review. Documentary research involved gathering and recording secondary data from official BPS and DJPK sources. The literature review served to establish a theoretical framework and identify prior research findings relevant to the relationship between fiscal transfers and economic growth. The primary analysis employs panel data regression. The use of panel data allows for the integration of cross-regional and temporal variations, enabling a simultaneous analysis of regency/city characteristics and changes over the observation period. Fiscal variables were transformed using natural logarithms—consistent with the model presented in the research manuscript—to standardize the scales across variables.

This study adopts a "cross-section weights" approach within the selected panel data regression model. The panel dataset combines cross-sectional data (regencies or cities in North Sumatra Province) with time-series data (the years of observation). This methodological choice is based on the recognition of differing

regional characteristics among the regencies and cities; consequently, assigning weights to individual observations is deemed more appropriate than relying on conventional classical assumption testing. As explained by Gujarati and Porter (2009), the use of weighted least squares is a method for obtaining efficient estimates. This aligns with the findings of Vos and Stauskas (2024), who state that cross-section bootstrap and weighting approaches can yield valid inferences without the need for classical assumption testing. In general, the panel data regression equation can be formulated as follows: $\mathbf{PE_{it} = \alpha + \beta_1 DBH_{it} + \beta_2 DAU_{it} + \beta_3 DAK_{it} + e_{it}}$

Where:

- PEit : Economic growth in region i in period t
- DBHit : Revenue-sharing funds in region i in period t
- DAUit : General Allocation Fund in region i in period t
- DAKit : Special Allocation Fund in region i in period t
- i : Cross-section
- t : Time series
- α : Constant

Model selection was conducted using the Chow Test and the Hausman Test, while the Lagrange Multiplier Test was employed as required during the selection process. The Chow Test was used to compare the Common Effect Model (CEM) and the Fixed Effect Model (FEM), whereas the Hausman Test was used to compare the Fixed Effect Model (FEM) and the Random Effect Model (REM). These models reveal characteristic differences among regencies/cities, represented by varying intercepts, while the independent variable coefficients illustrate the relationships of DBH, DAU, and DAK with economic growth. Hypothesis testing involved the following: a partial test to assess the influence of each independent variable; a simultaneous test to examine the combined effect of DBH, DAU, and DAK; and the coefficient of determination to measure the independent variables' capacity to explain variations in economic growth. The study covers 33 regencies/cities over the 2021–2025 periods. The use of panel data enables an analysis of the impact of fiscal transfers while accounting for characteristic differences among regencies/cities that remain relatively constant throughout the observation period.

4. Research Results

North Sumatra Province is a province on the island of Sumatra with Medan as its capital, with administrative territory comprises 25 regencies and 8 cities. Geographically, the region of North Sumatra encompasses the mainland of Sumatra, Nias Island, the Batu Islands, and a number of smaller islands. This regional diversity results in varying economic characteristics and development needs across the different areas. The descriptive analysis provides an overview of the characteristics of DBH, DAU, DAK, and economic growth data throughout the study period. The descriptive results presented in this paper reveal variations in revenue and growth among the regencies and cities.

Table 1: Descriptive Test Results

	Dana Bagi Hasil	Dana Alokasi Umum	Dana Alokasi Khusus	Pertumbuhan Ekonomi
Mean	17.23151	20.22429	19.20960	4.069904
Median	16.97203	20.16704	19.23014	4.224425
Maximum	19.42464	21.47627	20.38050	5.475372
Minimum	16.10969	19.58053	17.98084	1.247715
Std Deviasi	0.923339	0.401106	0.088463	0.923339
Observations	165	165	165	165

Source: Data processing results, 2026

Variations in mean values and data ranges indicate that inter-regional transfer receipts are unequal. This is due to differences in fiscal capacity, service requirements, and the economic characteristics of each region. The Chow test, used to choose between the CEM and FEM, yielded a probability value of 0.0000, which is lower than the significance level employed.

Table 2: Chow Test

Redundant Fixed Effects Tests
Equation: Untitled
Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	7.270931	(32,129)	0.0000

Source: Data processing results, 2026

Uji Hausman berikut menunjukkan bahwa nilai probabilitas 0,0000, sehingga model FEM dipilih dibandingkan REM.

Tabel 3: Uji Hausman

Correlated Random Effects - Hausman Test
Equation: Untitled
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	44.344017	3	0.0000

Source: Data processing results, 2026

The regression results using the FEM show that DBH has a positive coefficient of 0.262448, DAU 1.139709, and DAK 2.701656. These coefficients indicate a positive relationship between the three transfer variables and economic growth within the research model.

Table 4. Panel Data Regression Results (Fixed Effect Model)

Dependent Variable: PERTUMBUHAN_EKONOMI?
Method: Pooled EGLS (Cross-section weights)
Date: 08/08/26 Time: 22:29
Sample: 1 5
Included observations: 5
Cross-sections included: 33
Total pool (balanced) observations: 165
Linear estimation after one-step weighting matrix

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-75.40000	9.807410	-7.688064	0.0000
DBH?	0.262448	0.163135	1.608772	0.1101
DAU?	1.139709	0.512276	2.224795	0.0278
DAK?	2.701656	0.184627	14.63304	0.0000
Fixed Effects (Cross)				
ASAHAN--C	-1.017359			
BATUBARA--C	-0.494775			
BINJAI--C	1.121951			
DAIRI--C	-0.234186			
DELISERDANG--C	-3.719656			
GUNUNGSITOLI--C	1.257029			
HUMBANGHASUNDUT--C	0.312718			
KARO--C	-0.621274			
LABUHANBATU--C	0.137265			
LABUHANBATUSELATAN--C	1.168214			
LABUHANBATUUTARA--C	0.344252			
LANGKAT--C	-2.711707			
MANDAILINGNATAL--C	-1.664104			
MEDAN--C	-3.627437			
NIAS--C	0.152821			
NIASBARAT--C	-0.339475			
NIASSELATAN--C	-1.976481			
NIASUTARA--C	-0.291744			
PADANGLAWAS--C	0.966865			
PADANGLAWASUTARA--C	0.621697			
PADANGSIDEMPUAN--C	2.112905			
PAKPAKBHARAT--C	3.078188			
PEMATANGSIANTAR--C	2.388977			
SAMOSIR--C	1.207749			
SERDANGBEDAGAI--C	-1.205189			
SIBOLGA--C	2.311749			
SIMALUNGUN--C	-2.710816			
TANJUNGBALAI--C	2.643244			
TAPANULISELATAN--C	-0.111149			
TAPANULITENGAH--C	-0.124829			
TAPANULIUTARA--C	-0.369212			
TEBINGTINGGI--C	1.327738			
TOBASAMOSIR--C	0.066032			
Effects Specification				
Cross-section fixed (dummy variables)				

Source: Data processing results, 2026

The FEM model yields varying intercepts across regencies and cities. These intercept differences reflect specific regional characteristics that are not fully explained by DBH, DAU, and DAK. Such variation represents a key advantage of the FEM approach over models that assume all regions share the same fundamental characteristics.

Table 5: Intercept Values for All Regencies/Cities

District	Intercept (Constanta)	DBH Coefficient	DAU Coefficient	DAK Coefficient
Asahan	-1.017359	0.262448	1.139709	2.701656
Batubara	-0.494775	0.262448	1.139709	2.701656
Binjai	1.121951	0.262448	1.139709	2.701656
Dairi	-0.234186	0.262448	1.139709	2.701656
Deli Serdang	-3.719656	0.262448	1.139709	2.701656
Gunung Sitoli	1.257029	0.262448	1.139709	2.701656
Humbanghasundut	0.312718	0.262448	1.139709	2.701656
Karo	-0.621274	0.262448	1.139709	2.701656
Labuhanbatu	0.137265	0.262448	1.139709	2.701656
Labuhanbatu Selatan	1.168214	0.262448	1.139709	2.701656
Labuhanbatu Utara	0.344252	0.262448	1.139709	2.701656
Langkat	-2.711707	0.262448	1.139709	2.701656
Mandailing Natal	-1.664104	0.262448	1.139709	2.701656
Medan	-3.627437	0.262448	1.139709	2.701656
Nias	0.152821	0.262448	1.139709	2.701656
Nias Barat	-0.339475	0.262448	1.139709	2.701656
Nias Selatan	-1.976481	0.262448	1.139709	2.701656
Nias Utara	-0.291744	0.262448	1.139709	2.701656
Padang Lawas	0.966865	0.262448	1.139709	2.701656
Padang Lawas Utara	0.621697	0.262448	1.139709	2.701656
Padang Sidempuan	2.112905	0.262448	1.139709	2.701656
PakPak Bharat	3.078188	0.262448	1.139709	2.701656
Pematang Siantar	2.388977	0.262448	1.139709	2.701656
Samosir	1.207749	0.262448	1.139709	2.701656
Serdang Bedagai	-1.205189	0.262448	1.139709	2.701656
Sibolga	2.311749	0.262448	1.139709	2.701656
Simalungun	-2.710816	0.262448	1.139709	2.701656

Tanjung Balai	2.643244	0.262448	1.139709	2.701656
Tapanuli Selatan	-0.111149	0.262448	1.139709	2.701656
Tapanuli Tengah	-0.124829	0.262448	1.139709	2.701656
Tapanuli Utara	-0.369212	0.262448	1.139709	2.701656
Tebing Tinggi	1.327738	0.262448	1.139709	2.701656
Toba Samosir	0.066032	0.262448	1.139709	2.701656

Source: Data processing results, 2026

Some regencies/cities exhibit negative intercept values. A negative intercept value does not automatically indicate poor economic conditions or a model error. The intercept is a model component representing the baseline value of economic growth after accounting for the characteristics captured by the independent variables. In a fixed-effects model, differences in intercepts represent regional heterogeneity.

Table 6: Negative Intercept Values for Regencies/Cities

District	Intercept (constant)	DBH Coefficient	DAU Coefficient	DAK Coefficient
Asahan	-1.017359	0.262448	1.139709	2.701656
Batubara	-0.494775	0.262448	1.139709	2.701656
Dairi	-0.234186	0.262448	1.139709	2.701656
Deli Serdang	-3.719656	0.262448	1.139709	2.701656
Karo	-0.621274	0.262448	1.139709	2.701656
Langkat	-2.711707	0.262448	1.139709	2.701656
Mandailing Natal	-1.664104	0.262448	1.139709	2.701656
Medan	-3.627437	0.262448	1.139709	2.701656
Nias Barat	-0.339475	0.262448	1.139709	2.701656
Nias Selatan	-1.976481	0.262448	1.139709	2.701656
Nias Utara	-0.291744	0.262448	1.139709	2.701656
Sedang Bedagai	-1.205189	0.262448	1.139709	2.701656
Simalungun	-2.710816	0.262448	1.139709	2.701656
Tapanuli Selatan	-0.111149	0.262448	1.139709	2.701656
Tapanuli Tengah	-0.124829	0.262448	1.139709	2.701656
Tapanuli Utara	-0.369212	0.262448	1.139709	2.701656

Source: Data processing results, 2026

Thus, the negative intercept should be interpreted as a relative regional characteristic within the model structure, rather than as an actual economic growth value. The primary interpretation focuses on the coefficients of the independent variables and the hypothesis testing results. Conversely, there are a number of regencies/cities with positive intercepts. This indicates the presence of underlying regional characteristics that relatively support economic growth rates after accounting for the influence of transfer variables. Such differences may be attributed to economic characteristics, infrastructure, trade activity, investment, or other regional factors that remained relatively constant throughout the observation period.

Table 7: Positive Intercept Values for Regencies/Cities

District	Intercept (Constant)	DBH Coefficient	DAU Coefficient	DAK Coefficient
Binjai	1.121951	0.262448	1.139709	2.701656
Gunung Sitoli	1.257029	0.262448	1.139709	2.701656
Humbang Hasundut	0.312718	0.262448	1.139709	2.701656
Labuhanbatu	0.137265	0.262448	1.139709	2.701656
Labuhanbatu Selatan	1.168214	0.262448	1.139709	2.701656
Labuhanbatu Utara	0.344252	0.262448	1.139709	2.701656
Nias	0.152821	0.262448	1.139709	2.701656
Padang Lawas	0.966865	0.262448	1.139709	2.701656
Padang Lawas Utara	0.621697	0.262448	1.139709	2.701656
Padang Sidempuan	2.112905	0.262448	1.139709	2.701656
Pakpak Bharat	3.078188	0.262448	1.139709	2.701656
Pematang Siantar	2.388977	0.262448	1.139709	2.701656
Samosir	1.207749	0.262448	1.139709	2.701656
Sibolga	2.311749	0.262448	1.139709	2.701656
Tanjung Balai	2.643244	0.262448	1.139709	2.701656
Tebing Tinggi	1.327738	0.262448	1.139709	2.701656
Toba Samosir	0.066032	0.262448	1.139709	2.701656

Source: Data processing results, 2026

A partial test was conducted to examine the influence of each independent variable on economic growth. The test results indicate that DBH has a probability of 0.1101, rendering it insignificant. DAU has a probability of 0.0278, and DAK has a probability of 0.0000; thus, both are significant at the five percent significance level.

Table 8: Partial Test Results (t-test)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-75.40000	9.807410	-7.688064	0.0000
DBH?	0.262448	0.163135	1.608772	0.1101
DAU?	1.139709	0.512276	2.224795	0.0278
DAK?	2.701656	0.184627	14.63304	0.0000

Source: Data processing results, 2026

Partial tests reveal differences in the strength of influence among the various types of transfers. DBH shows a positive direction but lacks statistical significance, whereas DAU and DAK demonstrate positive and significant relationships with economic growth. Meanwhile, a simultaneous test was conducted to determine whether DBH, DAU, and DAK collectively influence economic growth. The results show an F-statistic value of 16.20213 with a probability of 0.000000, indicating that the three variables simultaneously exert a significant influence on economic growth.

Table 9: Simultaneous Test Results

Sum squared resid	**Durbin-Watson stat**	**F-statistic**	**Prob (F-statistic)**
63.42154	1.798273	16.20213	0.000000

Source: Data processing results, 2026

The coefficient of determination is used to assess the model's ability to explain the variation in economic growth. An R-squared value of 0.814675 indicates that the model possesses an explanatory power of 82.4 percent regarding the variation in economic growth, while the remainder is influenced by factors outside the model.

Table 10: Coefficient of Determination Test Results

R-square	Adjust R-squared	F-statistic	Prob (F-statistic)
0.814675	0.764393	16.20213	0.000000

Source: Data processing results, 2026

5.1 The Impact of Revenue-Sharing Funds (DBH) on Economic Growth

Research results indicate that DBH has a positive relationship with, yet no significant impact on, the economic growth of regencies/cities in North Sumatra Province. While the positive coefficient suggests a direct relationship, partial testing failed to provide sufficient statistical evidence to conclude that changes in DBH individually influence economic growth. This finding can be understood in light of the nature of DBH, which is tied to the distribution of specific revenue streams. The magnitude of DBH does not always reflect fiscal space that can be immediately channeled into productive sectors. Its impact on economic growth depends on the type of revenue shared, the region's economic structure, and how local governments allocate and utilize the funds. These results align with studies by Suranto and Alvaro, which showed that DBH did not significantly affect economic growth indicators or Gross Regional Domestic Product (GRDP) in their respective study areas. Such findings suggest that DBH is not necessarily a dominant driver of economic growth if its utilization fails to generate a substantial productive impact.

5.2 The Impact of General Allocation Funds (DAU) on Economic Growth

DAU has a positive and significant impact on the economic growth of regencies/cities in North Sumatra Province. This result indicates that increased fiscal support via DAU leads to higher economic growth. This impact can be explained by DAU's function as an instrument for equalizing financial capacity across regions. Regions with relatively limited fiscal capacity receive support to maintain their ability to provide public services and carry out development. When these funds are directed toward productive activities, a region's economic capacity can expand through infrastructure development, service improvements, and support for community activities. These findings are consistent with previous research cited in the text—including studies by Wahyuni and Alvaro—which demonstrated the impact of DAU on economic growth or GRDP in their respective study regions.

5.3 The Impact of DAK on Economic Growth

DAK has a positive and significant impact on the economic growth of regencies and cities in North Sumatra Province. These findings demonstrate that transfers earmarked for specific needs can make a vital contribution to regional development when utilized in alignment with priorities and requirements. The DAK supports development in sectors such as infrastructure, education, healthcare, irrigation, and other public services. Improved infrastructure facilitates the distribution of goods and services, reduces economic costs, boosts productivity, and fosters an environment more conducive to investment. Consequently, the positive impact of the DAK on economic growth is linked to the targeted nature of its utilization. These findings align with research by Alvaro and Pasaribu; the consistency of results reinforces the argument that the DAK serves as a fiscal instrument capable of driving regional development and economic growth.

5.4 The Simultaneous Impact of DBH, DAU, and DAK

Collectively, the Revenue-Sharing Fund (DBH), General Allocation Fund (DAU), and Special Allocation Fund (DAK) exert a significant influence on the economic growth of regencies and cities in North Sumatra Province. These results indicate that the three types of transfers should be viewed as an integrated fiscal policy framework capable of strengthening local government capacity. Although the DBH is not significant when analyzed in isolation, it remains an integral part of the overall transfer structure that collectively explains variations in economic growth. These findings support the fiscal decentralization perspective that central government financial support is essential for enabling local governments to carry out development functions tailored to their specific regional characteristics. When fiscal transfers are available and effectively managed, local governments gain greater latitude to finance infrastructure, public services, and productive economic programs.

5.5 Policy Implications

The primary policy implication of this study is the need to improve the quality of fiscal transfer management. The DAU and DAK, which were found to be influential, should be directed toward programs directly linked to productivity

and economic growth. Local governments also need to strengthen planning, budgeting, implementation, and oversight to ensure that transfer funds are not merely absorbed administratively but yield measurable economic benefits. Regarding the DBH, the insignificant results indicate a need to evaluate how these funds are utilized. Local governments must ensure that DBH revenues are channeled into activities that support the development of key sectors, enhance productivity, and expand the local economic base. A needs- and results-based approach could help improve the effectiveness of these transfers.

6.1 Conclusion

Based on the results of the panel data regression analysis using the Fixed Effects Model (FEM), the DBH shows a positive relationship but does not have a significant impact on the economic growth of regencies and cities in North Sumatra Province. In contrast, the DAU and DAK have a positive and significant impact on economic growth. Collectively, the DBH, DAU, and DAK significantly influence economic growth. These findings demonstrate that fiscal transfer policies play a crucial role in supporting regional development, although their effectiveness varies according to the specific characteristics and functions of each fund. The impact of the DAU and DAK highlights the importance of fiscal capacity and development financing tailored to local needs, whereas the DBH results suggest that the magnitude of a transfer does not necessarily translate into a significant economic impact if the funds are not utilized optimally.

6.2 Recommendations

Local governments must enhance the effectiveness of transfer management by strengthening planning and oversight, while directing spending toward productive sectors, infrastructure, human resource quality, key sectors, and the empowerment of MSMEs.

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