

MANAGEMENT MECHANISM OF REGIONAL ORIGINAL REVENUE AND EQUALIZATIONS FUNDS ON GOVERNMENT EXPENDITURES WITH THE AGENCY LEVEL FINANCIAL APPLICATION SYSTEM (SAKTI) AND THE STATE TREASURY AND BUDGET SYSTEM (SPAN)

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Abstract

The purpose of this study is to examine how local government expenditure in North Sumatra Province is impacted by local revenue and balancing funds between 2009 and 2021 with The Agency Level Financial Application System (SAKTI) and The State Treasury and Budget System (SPAN). The Central Statistics Agency of North Sumatra Province provides the annual time series data used in this study. To assess the association between these variables, this research employs multiple linear regression using the Ordinary Least Squares (OLS) approach. The study's key conclusions are as follows: 1) local revenue has a significant and positive impact on local government spending; 2) balancing funds has a positive impact on local government spending in North Sumatra Province, but this effect is not statistically significant; 3) local revenue and balancing funds together have a significant impact on local government spending; 4) the analysis yields an R-Square value of 0.967, meaning that local revenue and balancing funds account for approximately 96.7% of the variation in local government spending, with other factors influencing the remaining 3.3%. In conclusion, the study's conclusions demonstrate a close connection between North Sumatra Province's government spending, balancing money, and local revenue.

Introduction

The SPAN application is a form of modern state treasury management by facilitating the needs of the service process from upstream (budgeting) to downstream (preparation of central government financial reports). SPAN is an application system within the Ministry of

Finance in managing financial balance funds and to support system automation from budget users in each Ministry of State/Institution [1]. SPAN develops a database concept that is integrated with business process automation to minimize manual input errors. SPAN is divided into six modules, namely: DIPA Management Module (Spending Authority), Commitment Management Module (Budget Commitment), Payment Module (Payment), Receipt Module (Government Receipt), Cash Management Module (Cash Management), and Accounting and Reporting Module (General Ledger & Accounting) [2]. With a sizable population and a wealth of natural resources, North Sumatra has significant economic potential and a responsibility to make sure public spending is both efficient and effective in order to meet the demands of its citizens. Regional Original Revenue (ROR) and Balancing Funds are the main sources of funding for the provincial government. ROR comes from regionally held businesses, local taxes, and fees, whereas Balancing Funds are transfers from the federal government. Since government spending is crucial to advancing development and enhancing community welfare, it is imperative to comprehend how ROR and Balancing Funds affect such spending. The provincial government can more effectively plan and distribute resources to meet its developmental goals thanks to this insight.

Regional Original Revenue serves as a significant contributor to funding public expenditures in North Sumatra. Higher local revenues enable the province to support development initiatives and public services. Moreover, these revenues offer financial flexibility to address unique challenges faced by the region. Meanwhile, Balancing Funds from the central government supplement these efforts by financing priority programs that surpass the province's revenue-generating capacity. These funds enhance North Sumatra's ability to deliver public services and boost its development

potential.

The efficient use of ROR and Balancing Funds is not without difficulties, though. Obstacles arise from variations in local revenue caused by shifts in central government policy and the state of the economy. This article looks at how different revenue streams affect North Sumatra's expenditure realization, providing insights into the variables at work and suggesting ways to increase their efficacy in promoting province development.

Literature Review

Three fundamental ideas are presented in this article as the theoretical underpinning. First, local governments rely heavily on Regional Original Income (PAD) as their main source of funding, which has a direct impact on their ability to carry out development initiatives. Increasing Local Own-Source Revenue (PAD) gives local governments more financial flexibility so they can more efficiently direct resources to priority areas. The Balancing Fund also symbolizes monetary payments from the federal government to local governments with the goal of promoting regional autonomy and aiding development projects. According to public finance theory, balancing finances improves local governments' financial stability and lessens regional income gaps. When these monies are distributed properly, local governments have more financial resources at their disposal, which has a good impact on the realization of spending on development projects and programs. Third, the actual use of budgetary allotments made by regional governments to support development initiatives and activities is referred to as spending realization. Public economic theory states that effective and efficient expenditure can improve community welfare and have a favourable impact on regional growth. Research on their effects on expenditure realization in North Sumatra Province is crucial to assess how local revenue and matching funds contribute to regional development and community well-being.

Regional Revenue

The exploitation of resources and potential within a region is the source of Regional Original Income (PAD). It is expected that regional governments will achieve greater financial independence under regional autonomy, particularly in budget management. Regional income sources include non-tax revenues, tax revenue-sharing funds, and local own-source revenue (PAD), according to Law No. 33/2004, addressing the financial balance between the central and regional governments. PAD is the term used to describe economic income that comes from local sources in a region, such as regional taxes, levies, wealth management revenues, and other acceptable forms of income.

As part of implementing regional autonomy under the decentralization principle, PAD's main goal is to make regions financially independent. Because a larger contribution to PAD increases a region's capacity to fund a range of development initiatives, PAD is essential to regional financial systems. It provides local governments with a crucial base upon which to sustain growth and public services. Designing successful financial management strategies requires an understanding of the PAD concept and categories. Local governments can increase PAD revenue in this way, enhancing the quality of public services and promoting sustainable regional development. Based on its revenue streams, PAD can be divided into a number of categories. Regional taxes, which are imposed on a range of regional economic transactions, including sales taxes, hotel taxes, and property taxes, are one significant source. Regional levies, which are payments for amenities or services rendered by local governments, like waste management, business licensing, and parking fees, also make a substantial contribution.

Furthermore, PAD can be produced by managing distinct regional wealth, in which local governments are in charge of resources like land, wood, and other natural resources in order to make money. Central government revenue-sharing funds, profits on regional investments, and financial balancing funds distributed between the central and regional governments are additional acceptable sources of income. Every element of PAD is essential to preserving regional governments' financial stability, which enables them to finance

public services and encourage successful regional development.

Intergovernmental transfer funds

The balancing fund, which comes from state budget (APBN) revenues, is distributed to regions to meet their financial needs in accordance with Law No. 33 of 2004 concerning the financial balance between the central and regional governments. This makes it easier to implement decentralization at the regional level. The balancing fund, according to [3] in Public Sector Accounting, is a source of funding that is drawn from the APBN and distributed to meet regional requirements, guaranteeing the successful implementation of the decentralization process in every region. In the same way, [13] divides these funds into three categories in Effectiveness and Accountability of Balancing Funds: revenue-sharing funds, general allocation funds, and special allocation funds. In order to lessen the differences in fiscal capability between areas, Irfan Erdiansyah goes on to say that the balancing fund is a representation of financial transfers to regional administrations [14, 15]. This makes it possible for local governments to carry out their obligations to the community. Resolving financial disparities between the national and local governments, as well as between regional governments, is the main goal of the balancing fund [8]. By taking into account the stability of the national economy and encouraging budgetary parity between the federal and regional administrations, it also seeks to assist decentralization initiatives. Law No. 33 of 2004 states that balancing funds fall into a number of categories, such as revenue-sharing funds, which include funds for taxes and natural resources, as well as general allocation funds and special allocation funds.

Government Expenditure

One of the most important aspects of a country's economy is government spending. Public expenditure is indicated by the symbol (G) in the national income formula $(Y = C + I + G + (X - M))$. According to [4], this component is essential as a fiscal policy tool as

well as a gauge of national income. Government expenditure is used to control economic activity as part of fiscal policy. Its importance also includes its function in regional and national economic management. [10] asserts that the contribution of government expenditure to GDP can also be used to assess it. The government's active participation in promoting economic growth, generating job opportunities, and boosting consumer purchasing power is demonstrated by the percentage of government spending in GDP. According to [6], public funding is strategically distributed to important areas, including infrastructure, healthcare, and education. These allotments are intended to raise productivity and human resources, raise living standards, and promote overall economic growth.

Types of Government Expenditure

[5] categorizes government spending into four distinct types: operational spending, capital spending, contingency spending, and transfer spending. A closer examination reveals the complexity and diversity involved in allocating public resources within the framework of public financial management.

a. Operating Expenses include expenditures for employee salaries and benefits, procurement of goods and services, subsidies, and government grants.

b. Capital Expenditure: This involves spending on goods and services to acquire fixed assets produced domestically or abroad, aimed at enhancing infrastructure or assets.

c. Additional Costs: These are unforeseen expenditures that arise without prior estimation, often due to emergencies or unexpected events.

d. Transfer Costs: These involve funds transferred to other governments or entities. They include assistance provided to other governmental units or aid to external parties facing challenges or financial difficulties.

According to [6], government expenditure is essential to the distribution of public goods and services. It is regarded as a catalyst for investment and capital creation, drawing contributions from

the public and private sectors that might subsequently propel economic expansion. Furthermore, government spending serves as a stimulant for economic growth in addition to providing necessary public goods and services, according to [7]. The government views development as a pivotal factor in stimulating economic progress. Furthermore, [7] mentioned that government expenditure not only delivers crucial public goods and services but also serves as a driving force for economic growth. In general, government expenditure has a far-reaching influence on ensuring economic stability, enhancing public welfare, and promoting growth. By appropriately allocating funds, the government can create fiscal policies that align with the country's long-term development goals [10, 11]. In this context, directing spending toward key sectors is essential to achieving sustainable and inclusive economic development. It is important to continually analyze and comprehend the dynamics of public spending, as decisions regarding fund allocation can significantly impact a country's long-term growth and development [16]. Ultimately, government Expenditure plays a crucial role not just as a regulator but also as a key driver in shaping a sustainable economic future.

Method

The study was carried out in 2023 from October to November. Additional data consultation was conducted at the North Sumatra Central Statistics Agency's Headquarters, which is situated at Jl. Asrama No.179, Dwi Kora, Kec. Medan Helvetia, Medan City, North Sumatra. The study's data were gathered from the BPS's official website. In order to investigate cause-and-effect linkages quantitatively, this study used a causal-associative research strategy. Regional Original Income (X1) and Balancing Funds (X2) are two of the study's independent variables (X), which are likely to have an impact on the dependent variable. Government spending is the dependent variable (Y), which is impacted by various independent variables.

This investigation used time series, a type of

secondary data. The North Sumatra Provincial Statistics Agency's official website and other pertinent sources provided the statistics, which covered the years 2009–2021. This study examined North Sumatra Province's Regional Income (X1), Balancing Funds (X2), and Government Expenditure (Y).

A quantitative analysis approach was employed to comprehend the connections between government spending, balancing funds, and regional income. The associations between these variables were investigated using a multivariate regression model that employed the Ordinary Least Squares (OLS) approach. The study aims to evaluate the effects of regional income and balancing funds on government spending using the OLS technique.

$$Y = a + \beta_1 X_1 + \beta_2 X_2 + e$$

With:

Y= represents Government Expenditure,

a =is the constant value (intercept),

X₁= is the regression coefficient for Regional Original Income (PAD)

X₂= is the regression coefficient for the Balancing Fund

e = represent the error term

Results And Discussion

One essential prerequisite for multiple linear regression analysis is the classical assumption test. It guarantees that the study's data is impartial and appropriate and verifies that it is suitable for analysis.

Normality Test

According to [8], a regression model is thought to be If the data points on a normal probability plot closely match the diagonal line, the data is said to have a normal distribution. If the data points on a normal probability plot closely resemble the diagonal line, the data is said to mimic a normal curve. This implies that the data distribution is almost normal. The data points closely resemble the diagonal line, as can be seen from the results above, suggesting that the regression model

employed in the analysis is normally distributed. It is essential to comprehend that a normal distribution is a fundamental premise in regression analysis. When the diagonal line and the data pattern line up, it indicates that the data satisfies the normalcy assumption, enabling the use of the proper statistical techniques and producing more accurate and dependable results.

Heteroskedasticity Test

According to [8], there is no sign of heteroskedasticity if the scatter plot lacks a discernible pattern and the points are dispersed randomly around the Y-axis value of 0. It is evident from the data above that the scatter plot's points are uniformly distributed and lack a discernible pattern. Therefore, this test shows no evidence of heteroscedasticity. When a model's error variance fluctuates according to the value of the independent variable, it is said to be heteroscedastic. This can skew the findings of regression analysis and result in inaccurate conclusions. Thus, in order to guarantee the accuracy of the results, checking for heteroscedasticity is essential in regression analysis.

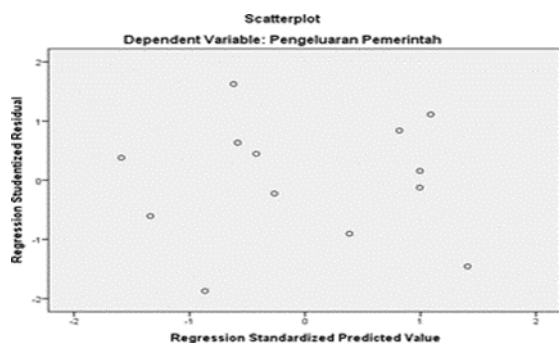


Figure 1. Heteroskedasticity Test

Multicollinearity Test

Table 1. Multicollinearity Test

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	Pendapatan Asli Daerah	,304	3,294
	Dana Perimbangan	,304	3,294

By analyzing the Variance Inflation Factor (VIF) and Tolerance values, multicollinearity testing can be carried out. When the independent variables in the regression model have a high correlation with one another, multicollinearity problems arise. Multicollinearity is not an issue if the VIF value is less than 10.30 and the tolerance value is higher than 0.100, claims [8]. The Regional Original Income and Balancing Fund variables, in this instance, have a tolerance value of 0.304 and a VIF value of 3.294, respectively. Given that the VIF value is less than 10.30 and the tolerance value is more than 0.100, it can be said that the model shows no indications of multicollinearity. These findings imply that the two independent variables can be handled separately in the regression analysis and do not affect each other's significance. Consequently, the model's regression results are trustworthy for forecasting or drawing insightful inferences about the dependent variables under investigation.

Autocorrelation Test

Table 2. Autocorrelation Test

Model Summary ^a					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.983 ^a	.967	.960	732544650.565 07	2.143

The Durbin-Watson value (d) was determined to be 2.143 based on the Durbin-Watson test findings. This value indicates that there is no autocorrelation in the data and falls between dU and 4-dU ($1.5794 < 2.143 < 2.4206$). When the error terms (residuals) in a regression model exhibit correlation, it is known as autocorrelation and goes against the presumption of independent error terms. The assumption of no autocorrelation is satisfied because the Durbin-Watson value is within the permissible range, indicating that the residuals in this model are not correlated.

Regression results

Table 3. Partial t Test

Model	Coefficients ^a			t	Sig.
	Unstandardized Coefficients		Standardized		
	B	Std. Error	Beta		
(Constant)	-648136006.162	984981155.233		-.658	.525
1					
Pendapatan Asli Daerah	1.600	.300	.556	5.340	.000
Dana Perimbangan	.606	.134	.470	4.515	.001

The regression analysis shows how the independent factors affect the dependent variable based on the results that were shown. A significance value (sig.) of less than 0.05 suggests that the independent variable has a partial impact on the dependent variable, according to [8]. Here, the sig. The value for Balancing Funds is 0.001, and the sig. The value for Regional Original Income (PAD) is 0.000. Both Regional Original Income (PAD) and Balancing Funds have a substantial impact on the dependent variable, Government Expenditure Realization, since both sig. Values are less than 0.05.

These results imply that Government Expenditure Realization is positively impacted by both Regional Original Income (PAD) and Balancing Funds. If autocorrelation exists in the data, the effectiveness and bias of the regression model may be impacted. However, the model meets the requirement because there is no autocorrelation in the data, guaranteeing accurate and efficient estimates. Additionally, the independent variables, Regional Original Income (X1) and Balancing Funds (X2) account for 96.7% of the variation in Government Expenditure (Y), according to the R Square value of 0.967. This high R Square value indicates that these independent variables are important in explaining the fluctuations in government expenditure and that the model fits the data well.

Simultaneous F Test

According to the findings, the regression analysis demonstrates how the independent factors simultaneously affect the dependent

variable. According to [8], a significance value (sig.) below 0.05 means that the independent variables are simultaneously affecting the dependent variable. The sig. Value in this instance is 0.000. Given that this value is smaller than 0.05, the realization of expenditures is significantly impacted simultaneously by both regional original income and balancing funds. These results imply that the combination of Balancing Funds and Regional Original Income significantly impacts spending. Therefore, a rise in both Regional Original Income and Balancing Funds is anticipated to result in a larger realization of government spending. This emphasizes how crucial it is to control and maximize both revenue streams to guarantee the effective and efficient distribution of expenses.

Conclusion

From the technology side, namely the use of the Agency-Level Financial Application System (SAKTI) and the State Treasury and Budget System (SPAN) which are internet-based. SAKTI is an application used as a means for work units to support the implementation of SPAN to carry out financial management which includes the planning stages to budget accountability. While SPAN is an application system that exists in the Ministry of Finance and to support system automation from budget users in each Ministry of State/Institution. The significance value (sig.) of less than 0.05 in the partial T-test results shows that both regional income and balancing funds have a substantial impact on expenditure realization. This implies that increases in Balancing Funds and Regional Original Income each have a favourable impact on Expenditure Realization. Furthermore, with a significance value (sig.) less than 0.05, the F-test results further support the idea that, when taken into account together, Regional Income and Balancing Funds also significantly affect Expenditure Realization. Thus, Regional Original Income and Balancing Funds have a significant combined impact on Expenditure Realization, and increasing both funding sources at the same time is likely to have a more favourable outcome. These findings highlight how crucial regional income and balancing funds are to raising regional expenditure realization. Supporting local growth and governance requires efficient management of

regional revenue and budgetary allotments. Several tactics should be used to maximize the impact of balancing finances and local revenue (PAD). Priority should be given to boosting local company management, local levies, and tax collecting efficiency in order to manage local revenue better. The income base can be increased by promoting private sector participation through strategic alliances or partnerships, such as CSR initiatives. Effective expenditure also depends on accountability and openness in the management of balance funds, especially in the distribution of general allocation funds (DAU) and special allocation funds (DAK). It's also critical to promote small and medium-sized businesses, draw in investments, and boost regional competitiveness in order to foster regional economic growth. Long-term revenue sustainability will be aided by the development of alternate revenue streams, such as utilizing regional economic potential and growing the tourism industry. Last but not least, funding the training of financial planning and management personnel will enhance their capacity to effectively oversee regional finances, resulting in improved use of both local revenue and balancing funds.

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