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Original Article

The Effect of Economic Growth, Regional Own Revenue, and General Allocation Fund on Capital Expenditure in Central Sulawesi Province

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Abstract

Despite the robust economic growth and rising regional income, capital expenses in Central Sulawesi are still relatively low in comparison to operational costs. This raise worries about how effective the fiscal capacity is in promoting development through public investments. This study aims to examine the impact of Economic Growth, Regional Own Revenue (PAD), and General Allocation Fund (DAU) on Capital Expenditure across Central Sulawesi Province. The research will draw upon secondary data spanning five years (2020-2024) from the Central Statistics Agency (BPS) and BAPPEDA covering all regencies and cities within Central Sulawesi Province. The methodology follows a quantitative approach using Multiple Linear Regression Analysis with Panel Data. The investigation focuses on three independent variables - Economic Growth, Regional Own Revenue (PAD), and General Allocation Fund (DAU) and their relationship to the dependent variable of Capital Expenditure. The findings indicate that all three variables collectively contribute positively to capital expenditure, largely influenced by the highly significant PAD variable with a positive coefficient (p-value = 0.0000). Partially, economic growth and DAU are not significant despite having positive but very low coefficient values. PAD is the only factor that has a strong and beneficial effect on capital spending. This suggests that regions receiving more PAD tend to allocate more funds towards capital expenditure. The statistical analysis of the regression model in this research indicates its significance and ability to accurately explain changes in capital spending.

Keywords: Economic Growth, Regional Own Revenue (PAD), General Allocation Fund (DAU), Capital Expenditure.

1. Introduction

Regional governments have broader authority in determining their development policies, including policies in allocating regional expenditure budgets. Investing in capital assets is an essential aspect of financial planning, as it pertains to setting aside funds for the purchase of durable items that provide advantages over various financial reporting intervals (Kasmir, 2017).

The economic growth of Central Sulawesi Province over the last five years has been very dynamic and impressive, with high surges in 2021–2022 post-pandemic. The COVID-19 pandemic (2020) caused extreme slowdown, but its impact was lighter in Central Sulawesi compared to other provinces. Economic rebound (2021–2022) post-pandemic recovery and surge in export demand drove high growth. Processing Industry boom: massive investment in

nickel and base metal industries through downstream integration significantly contributed to growth surge (2022). Adjustment and Normalization (2023–2024): growth remained high but experienced natural slowdown due to base effects and adjustment to global market dynamics.

Central Sulawesi's Regional Own Revenue (PAD) shows stable growth over the last five years, with an average annual growth of around 7.8 percent. The largest contribution comes from regional taxes as the main contributor to PAD, with an average contribution of 51 percent, followed by other legitimate regional revenues at around 39 percent. Regarding Fiscal Independence Index, in 2022, only the Central Sulawesi Provincial Government had a Fiscal Independence Index (IKF) in the "approaching independence" category, while the other 13 regional governments remained in the "not yet independent" category. The Local Tax Ratio (LTR) of Central Sulawesi in 2022 only reached 1 percent of GRDP, indicating that PAD has not been able to match the region's high economic growth.

Central Sulawesi Province's General Allocation Fund (DAU), in 2023 experienced a significant decrease of 15.5 percent compared to the previous year, with a realization of Rp4.3 trillion. This decrease was caused by several factors: some regional governments were adjusting DAU budgeting whose use is determined in the Regional Revenue and Expenditure Budget (APBD), DAU absorption was constrained by salary payments for Government Employees with Work Contracts (PPPK) formation, where Regional Governments still had difficulties paying salaries for this formation due to special grant policies on DAU use.

The realization of Central Sulawesi Province's capital expenditure in 2023 reached Rp2.15 trillion from a ceiling allocation of Rp2.34 trillion, with a realization percentage of around 92 percent. However, capital expenditure realization peaked at year-end (December), caused by several factors: failure to achieve physical progress volume targets according to plan, failed auctions due to no backup winners or all designated providers withdrawing, and delays in auctions/procurement processes due to budget fund availability only becoming available in Quarter III 2023.

The Gross Regional Domestic Product (GRDP) serves as a measure to evaluate the extent of economic advancement in a specific area (Palilu, 2019). High levels of economic growth should be able to increase regional fiscal capacity which in turn can encourage increased capital expenditure. PAD serves as a source of income that comes from the region itself and is crucial in deciding the region's capacity to carry out capital spending. The transfer of funds, which form part of the region's revenue, includes the General Allocation Fund (DAU), Special Allocation Fund (DAK), and Revenue Sharing Fund (DBH).

From these three types of transfer funds, DAU was chosen as a research variable for several reasons. First, DAU is the largest transfer fund compared to other transfer mechanisms and is an important funding source for regional governments in meeting their expenditure needs. Second, unlike DAK whose use is already determined by the central government for special activities, DAU represents a block grant mechanism that allocates funds to regions according to their particular priorities and requirements. The purpose of this grant is to enhance public service delivery within the framework of regional autonomy implementation. Unlike DBH, which varies in amount based on the production capacity of individual regions, DAU operates through a more consistent and foreseeable allocation system. This stability allows regional governments to engage in more effective planning for their capital expenditure programs.

The capital expenditure in Central Sulawesi Province is still relatively low in comparison to operational expenses when considering the overall regional budget. This scenario poses significant inquiries about how economic development, local revenue generation, and government funds impact spending on public projects within the region. The research is

focused on investigating how economic growth, PAD, and DAU influence capital spending in the regions and urban areas of Central Sulawesi. The main goals of current research are to assess how these factors collectively influence capital expenditure, as well as to understand the individual effects of each variable on capital spending in the province.

2. Literature Review

2.1. Economic Growth

Economic growth involves a gradual improvement in per capita production over a sustained period, with a focus on three key elements: the process itself, the individual output, and the duration of the growth (Rosiana et al., 2023). Boediono (2018) highlights that consistent economic progress involves a series of steps, rather than just a temporary snapshot of the economy, and that economic growth indicators are seen from increases in per capita output, reflecting aspects of improving community welfare. The long-term aspect indicates that the economy will grow and be in a steady state for a sufficiently long period.

Economic growth involves the increase in economic activities, resulting in a higher output of goods and services in a society, ultimately improving the overall welfare of the community in the long run. Sukirno (2017) discusses in detail that economic growth must be based on a multidimensional process, involving structural, social, attitudinal, and national institutional changes as well as growth acceleration, inequality reduction, and poverty eradication. He also emphasizes the difference between economic growth and economic development, where economic development has broader scope.

There are three main methods to calculate the GRDP. GRDP can be defined through the production approach as the total worth of end products and services produced by all production entities in a specific region or province during a set time period. Second, the income approach sees GRDP as the overall payment received by the factors of production participating in the production activities in that area during a specific period. Third, the expenditure approach considers GRDP as the sum of final expenditures, including household consumption and spending by non-profit private institutions. These approaches reflect the diverse economic activities in a region, which are closely linked to community needs, local potential, and the availability of economic resources.

2.2. Regional Own Revenue (PAD)

Regional Own Revenue is the income that is produced in a particular area through methods like local taxes, fees, financial management, and other lawful sources of income specific to that area (Puspita, 2018). Halim & Kusufi (2016) offer a detailed examination of the impact of PAD on the structure of APBD and on funding for local government expenses. They also discuss various strategies to optimize revenue from regional taxes and regional levies, as well as challenges in PAD management within the fiscal decentralization framework.

PAD refers to the income received by districts through the implementation of local rules and regulations that comply with the current laws. Khusaini (2006) analyzes the relationship between fiscal decentralization, PAD, and regional economic development. Khusaini (2006) develops econometric models to evaluate the impact of various fiscal decentralization policies on PAD and regional economic growth. Khusaini (2006) also discusses trade-offs between efficiency and equity in PAD management, and how PAD policy design can minimize these trade-offs. He emphasizes the importance of accountability and transparency in PAD management to ensure that PAD truly contributes to improving community welfare.

2.3. General Allocation Fund (DAU)

The General Allocation Fund (DAU) plays a crucial role in the distribution of funds from the central government to regional governments in Indonesia. A significant aspect of the DAU is that it is a block grant, enabling regions to determine the allocation of funds according to their specific priorities and the goal of improving services for the local community under the concept of regional autonomy. Mahmudi (2016) emphasizes that DAU is designed to overcome horizontal inequality, namely differences in fiscal capacity between regions at the same government level.

DAU from a macroeconomic perspective suggests that DAU is a fiscal policy instrument that plays a role in national income redistribution. They emphasize that DAU not only functions as a fiscal equalization tool but also as an economic development stimulus for regions, especially for regions with weak economic bases (Basri & Munandar, 2010).

2.4. Capital Expenditure

Typically, governments, both central and regional, incur capital expenditures to purchase, construct, or enhance fixed assets that yield advantages over multiple budget years. These assets can be land, buildings, equipment, infrastructure, or other tangible assets used to support public service activities and economic development. Capital expenditure, as per PSAP No. 2 of the Government Accounting Standards Board, refers to funds used for acquiring permanent assets and other objects that generate advantages over numerous financial reporting periods.

Capital expenditure refers to expenses that provide benefits beyond a single fiscal year, contributing to the accumulation of assets or wealth in a particular area. This can subsequently lead to ongoing costs related to maintenance and upkeep (Halim, 2014). The distribution of government funds for capital projects is essential for stimulating economic growth by effectively investing in public infrastructure projects that aid in driving and sustaining economic success (Putra & Sulasmiyati, 2018).

2.5. Previous Research

Research by Syukri & Hinaya (2019) state that Regional Own Revenue has a strong impact on the budget for capital expenses in the municipalities and cities of South Sulawesi Province, while economic growth and general funds have minimal negative effects on this budget. Additionally, special funds have a minimal positive impact on the capital expenditure budget in the region. Study by Cindriyanti et al. (2025) shows various factors such as economic growth, regional revenue, general allocation fund, and special allocation fund have an impact on capital expenditure. Economic growth and the general allocation fund are positively correlated with levels of capital expenditure. However, regional revenue and special allocation fund show no significant impact on capital expenditure outcomes. Research by Damayanti (2024) state that simultaneously, Economic Growth, PAD, and DAU together significantly influence Capital Expenditure in Jambi Province. Partially, Economic Growth does not significantly influence Capital Expenditure, PAD significantly influences Capital Expenditure, and DAU significantly influences Capital Expenditure.

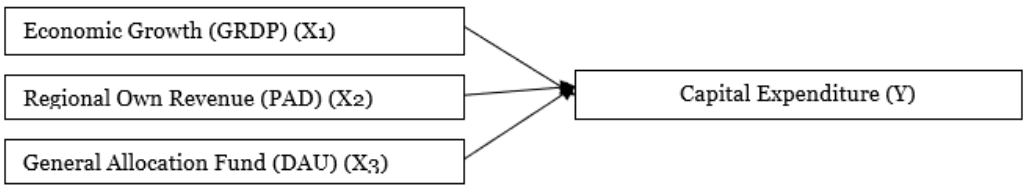

Figure 1. Conceptual Framework

Hypothesis:
H1 = Economic Growth positively influences Capital Expenditure.
H2 = Regional Own Revenue positively influences Capital Expenditure.
H3 = General Allocation Fund positively influences Capital Expenditure.
H4 = Economic Growth, Regional Own Revenue and General Allocation Fund simultaneously have positive/significant influence on Capital Expenditure.

3. Methods

3.1. Research Type and Population

Quantitative research methods are employed in this study to present data in numerical format and analyze it using statistical techniques. This approach is utilized to examine particular groups or subsets, gathering data through instruments and analyzing it statistically to test pre-established hypotheses (Sugiyono, 2016). The concept of population refers to a specific group chosen by researchers for study and analysis. In this particular research, the population consists of all the Regencies and Cities in Central Sulawesi Province, totaling 12 Regencies and 1 City.

3.2. Data and Data Sources

This study relies on secondary data from the years 2020-2024, which is data gathered through intermediary sources rather than directly. Data sources used in this research come from BPS and BAPPEDA of all Regencies/Cities in Central Sulawesi.

3.3. Operational Definition of Variables

In research, operational definitions of variables give clear meaning. Independent variables can cause changes in dependent variables. This study focuses on Economic Growth, Regional Own Revenue, and General Allocation Fund as independent variables. Capital expenditure is the dependent variable influenced by the independent variables.

3.3.1. Economic Growth (X1)

Economic growth is the ongoing increase in the average contribution per person over an extended period, and it serves as a measure of how successful development is. Generally, the greater the economic growth, the better off the community tends to be. The rate of economic growth is typically illustrated by the per capita Gross Regional Domestic Product (GRDP), determined using the following formula:

$$\text{Economic Growth} = (GRDP_t - GRDP_{t-1}) / (GRDP_{t-1}) \times 100\%$$

Where:
GRDPt = Current Year Gross Regional Domestic Product
GRDPt-1 = Previous Year Gross Regional Domestic Product

3.3.2. Regional Own Revenue (X2)

Profits obtained from activities in a certain area, gathered following the rules and regulations of that area, consist of various types of revenue such as Regional Tax Results (HPD), Regional Levies (RD), Income from Regional Company Profits (PLPB), and Other Legitimate Regional Own Revenue (LPS), as described in the formula below:

$$PAD = HPD + RD + PLPD + LPS$$

Where:
PAD = Regional Own Revenue
HPD = Regional Tax Results
RD = Regional Levies
PLPD = Revenue from Regional Company Profits
LPS = Other Legitimate PAD

3.3.3. General Allocation Fund (X3)

The General Allocation Fund (DAU) is a central government fund that is distributed to regional governments through national budget revenues to equalize financial resources among regions and aid local needs in the decentralization process. The distribution of the General Allocation Fund to provinces and districts/cities can be characterized as:

$$DAU = Fiscal\ Gap + Basic\ Allocation$$

Where:
Fiscal gap = fiscal needs - fiscal capacity

3.3.4. Capital Expenditure

Capital expenditure refers to the funds spent on acquiring assets that offer benefits over multiple time periods. This metric is typically calculated by:

$$Capital\ Expenditure = Land\ Expenditure + Equipment\ and\ Machinery\ Expenditure + Building\ and\ Construction\ Expenditure + Road,\ Irrigation\ and\ Network\ Expenditure + Other\ Asset\ Expenditure$$

3.4. Data Analysis Techniques

3.4.1. Multiple Linear Regression Analysis with Panel Data

The use of a multiple regression analysis model is employed to test hypotheses and forecast the degree to which independent variables affect dependent variables, according to (Sekaran, 2016). Capital expenditure pertains to the money invested in obtaining assets that provide advantages over various timeframes. This measure is usually determined by:

$$Yit = \beta 0 + \beta 1PEit + \beta 2PADit + \beta 3DAUit + \varepsilon it$$

For panel data models, this equation is transformed into:

$$\ln(Yit) = \alpha + \beta 1(PEit) + \beta 2\ln(PADit) + \beta 3\ln(DAUit) + \varepsilon it$$

Where:
i = entity/individual (e.g., province, regency, or company)
t = time period (e.g., year or quarter)
Yit = dependent variable for entity i at time t
PEit, PADit, DAUit = independent variables for entity i at time t
εit = error term for entity i at time t

Description:
Y = Capital Expenditure (BM)
α = Constant

β = Slope or Regression Coefficient
PE = Economic Growth
PAD = Regional Own Revenue (PAD)
DAU = General Allocation Fund (DAU)
ε = Error

3.5. Panel Data Approaches

There are three primary methods available for use in panel data analysis:

a. Common Effect Model (CEM)/ Pooled Least Square: The simplest model assuming no individual or time effect differences.

$$Yit = \alpha + \beta 1PEit + \beta 2PADit + \beta 3DAUit + \varepsilon it$$

b. Fixed Effect Model (FEM): Assumes intercept differences between individuals but same slopes.

$$Yit = \alpha(it) + \beta 1PE(it) + \beta 2PAD(it) + \beta 3DAU(it) + \varepsilon(it)$$

Where α(it) is different intercept for each entity i.

c. Random Effect Model (REM): Assumes individual and time differences are accommodated through error.

$$Yit = \alpha + \beta 1PE(it) + \beta 2PAD(it) + \beta 3DAU(it) + u(i) + \varepsilon(it)$$

Where u(i) is error component specific to entity i.

3.6. Classical Assumption Tests

3.6.1. Multicollinearity Test

The multicollinearity test aims to identify whether correlations exist among the independent variables within a regression model. A sound regression model requires independent variables that remain uncorrelated with one another (Ghozali, 2016). Additionally, this test serves to detect significant correlations between the independent variables (X1, X2, X3). If the correlation coefficient between any two independent variables exceeds 0.8 or 0.9, this indicates the presence of substantial multicollinearity issues.

3.6.2. Heteroscedasticity Test

The purpose of conducting a heteroscedasticity test is to determine if there is inconsistency in the variance of residuals among different data points in a regression analysis. If the residual variance varies between observations, it implies the presence of heteroscedasticity. A regression model is considered to be effective when it does not exhibit heteroscedasticity (Ghozali, 2016). If it has a certain pattern, points formed in a pattern have regular shapes (widening, wavy, narrowing) indicating heteroscedasticity occurrence. When there is no obvious structure, data points will be scattered both above and below zero along the Y axis, suggesting the absence of heteroscedasticity.

3.7. Hypothesis Testing

3.7.1. F Test

The model feasibility assessment is performed through an F test at a 5 percent significance threshold. The evaluation criteria are structured as follows: when the F test significance value exceeds 0.05, this suggests that the service quality, price, and promotion variables in relation to customer satisfaction are inappropriate for the research model since the significance level surpasses the established boundary. Conversely, when the F test significance value falls below 0.05, this demonstrates that the service quality, price, and

promotion variables concerning customer satisfaction are appropriate for incorporation in the research model.

3.7.2. T Test

The t-test is used by researchers to analyze partial regression and study the impact of one independent variable on a dependent variable. The significance of this test is determined by the p-value obtained from the analysis (Sugiyono, 2016). The hypotheses are stated as follows: Ho (null hypothesis) states no significant influence, and H_a (alternative hypothesis) states significant influence. Determining whether to accept or reject the hypothesis depends on the comparison of the p-value with the significance level (α).

a. Reject Ho if calculated probability value < significance level of 0.05 (Sig < α 0.05).
b. Accept Ho if calculated probability value > significance level 0.05 (Sig > α 0.05).

3.7.3. Coefficient of Determination Test (R^2)

The R value, which represents the correlation coefficient, is used to gauge how independent variables are linked to customer satisfaction. An R value between 0 and 1 indicates the strength of the relationship: an R value of 1 suggests a robust positive connection, an R value of -1 suggests a strong negative connection, and an R value of 0 suggests no connection at all.

4. Results and Discussion

4.1. Research Results

4.1.1. Chow Test

Table 1. Chow Test Results

Effects Test	Statistic	d.f.	Prob.
Cross-section F	0.678225	(12, 49)	0.7636
Cross-section Chi-square	9.987994	12	0.6170

The value of 0.7636 is greater than 0.05, so the chosen model is the CEM. As such, the Hausman test is not needed, and we moved on to the LM test.

4.1.2. Lagrange Multiplier (LM) Test for Random Effects

Table 2. Lagrange Multiplier (LM) Test Results

Test	Cross-section	Time	Both
Breusch-Pagan	1.765791 (0.1839)	0.264106 (0.6073)	2.029897 (0.1542)
Honda	-1.328831 (0.9080)	-0.513912 (0.6963)	-1.303016 (0.9037)
King-Wu	-1.328831 (0.9080)	-0.513912 (0.6963)	-1.109476 (0.8664)
Standardized Honda	-0.878567 (0.8102)	-0.204637 (0.5811)	-4.521850 (1.0000)
Standardized King-Wu	-0.878567 (0.8102)	-0.204637 (0.5811)	-3.983420 (1.0000)
Gourieroux et al.	--	--	0.000000 (1.0000)

Prob value 0.1839 > 0.05, therefore the selected model is CEM.

4.1.3. Classical Assumption Test

1) Multicollinearity Test

Table 3. Multicollinearity Test Results

	X1	X2	X3
X1	1.000000	0.487375	-0.208976
X2	0.487375	1.000000	0.182467
X3	-0.208976	0.452519	1.000000

The multicollinearity test checks for strong relationships between independent variables (X1, X2, X3). If the correlation between two independent variables exceeds 0.8 or 0.9, there is an indication of high multicollinearity.

a. X1 (Economic Growth) and X2 (PAD): Correlation = 0.4873, showing a moderate and positive relationship, but still below the 0.8 threshold, so there is no strong indication of multicollinearity.
b. X1 (Economic Growth) and X3 (DAU): Correlation = -0.2089, showing a weak and negative relationship, meaning no multicollinearity exists.
c. X2 (PAD) and X3 (DAU): Correlation = 0.4525, showing a moderate and positive relationship, so no multicollinearity exists.

The correlation coefficients of the independent variables are all lower than 0.8, suggesting that there are no problems with multicollinearity in the regression analysis. Therefore, variables X1 (Economic Growth), X2 (PAD), and X3 (DAU) can be used together in regression analysis against Y (Capital Expenditure) without concerns about significant multicollinearity effects.

2) Heteroscedasticity Test

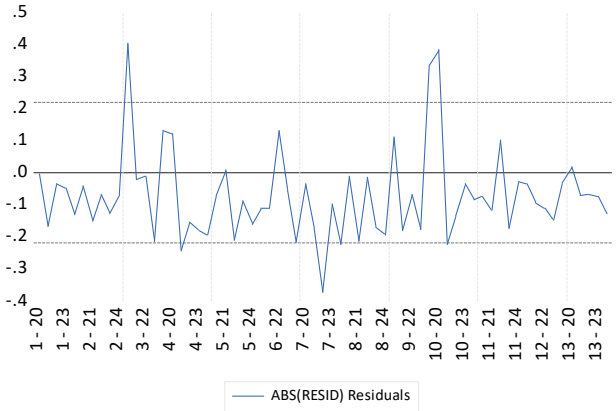

Figure 2. Classical Assumption Test Results

In the Residual Graph, it is clear that the boundaries of 500 and -500 are not crossed. It suggests that the remaining variation remains consistent, without any evidence of heteroscedasticity and successfully passing the test for it (Manurung et al., 2005). Consequently, the regression model does not show signs of heteroscedasticity, confirming the homoscedasticity assumption.

4.1.4. Panel Data Regression Equation Results

$Yit = \alpha + \beta 1PEit + \beta 2PADit + \beta 3DAUit + \varepsilon it$

Results after estimation:

$BMit = 15{,}11 + 0{,}04PEit + 0{,}31PADit + 0{,}09DAUit + \varepsilon it$

$\ln(BMit) = 2{,}71 + 0{,}04\ (PEit) + 0{,}31\ln(PADit) + 0{,}09\ln(DAUit) + \varepsilon it$

As per the regression analysis, the research discovered a significant positive relationship between regional governmental investments in capital and the growth of the economy, regional income, and general finances. The findings suggest that every separate factor has a favorable effect on capital spending, regardless of the model used, whether linear or logarithmic.

The coefficient of Economic Growth (PE) is 0.04, suggesting that a 1 percent rise in Economic Growth (X1) will lead to a 0.04 percent increase in Capital Expenditure. This indicates that economic growth positively impacts capital spending, as higher economic growth results in higher capital expenditure. When the economy grows, tax revenue and other resources increase, providing space for the government to increase infrastructure investment.

The impact of Regional Original Revenue (PAD) on capital expenditure is significant, showing a strong positive correlation with a coefficient of 0.31. This suggests that an increase in PAD by 1 percent will lead to a 0.31 percent increase in Capital Expenditure. Thus, regional fiscal autonomy is crucial in driving investments for development. The higher a region's PAD, the greater its fiscal capacity to finance infrastructure development and fixed assets independently, without excessive dependence on the central government.

General Allocation Funds (DAU) positively affects capital expenditure, with a coefficient of (0.09), meaning every 1 percent increase in DAU (X3) will decrease Capital Expenditure by 0.09 percent. Although DAU has a smaller influence, it remains important as a funding source from the central government because DAU helps regions that don't have sufficient revenue sources to meet capital expenditure needs.

This research implies that regional government capital expenditure is more determined by internal fiscal capacity (PAD), while economic growth and General Allocation Funds (DAU) have relatively smaller influences. On the other hand, although DAU still contributes, its nature is more supportive rather than being the main driver. The low influence of economic growth shows that regional government fiscal structure doesn't automatically adjust to local economic growth dynamics, possibly due to rigid budget systems or spending priorities that lean more toward consumptive sectors.

4.1.5. Hypothesis Test Results

1) F Test

Table 4. F Test Results

Statistic	Value
R-squared	0.435387
Adjusted R-squared	0.407619
S.E. of regression	0.328848
Sum squared residual	6.596585
Log likelihood	-17.87636
F-statistic	15.67951
Prob(F-statistic)	0.000000

In the F test, the F table value is 2.75548. According to the null hypothesis (H0), there is no important impact of Economic Growth, Regional Own Revenue (PAD), and the General Allocation Fund (DAU) on Capital Expenditure. In contrast, the alternative hypothesis (H1) suggests that at least one of these independent variables significantly affects Capital Expenditure.

The F-test analysis demonstrates that the F-value of 15.6795 significantly exceeds the F-table value of 2.7554 at the 5% significance level, accompanied by a probability value of 0.000000. Since the calculated F-value surpasses the tabulated threshold, the null hypothesis

is rejected and the alternative hypothesis is accepted. This outcome confirms that the regression model exhibits high statistical significance in predicting the Capital Expenditure variable, as evidenced by the probability value falling well below the 0.05 significance threshold. This suggests that the independent variables Economic Growth, Regional Own Revenue (PAD), and the General Allocation Fund (DAU) collectively impact Capital Expenditure significantly. In other words, the combination of these three variables has a strong explanatory power regarding the variation in Capital Expenditure. However, to determine which variable has the most dominant effect, further analysis through the t-test for each variable is required. Thus, this regression model is appropriate and reliable for analyzing the determinants of Capital Expenditure.

2) T Test

Table 5. T Test Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	15.11159	5.473128	2.761052	0.0076
X1	0.042651	0.116599	0.365792	0.7158
X2	0.313503	0.146067	2.146296	0.0358
X3	0.096727	0.198522	0.487235	0.6278

The outcome of the t-test reveals that the t-table stands at 1.9983. The interpretation is as follows.

Intercept (Y): t-statistic (2.7610) > t-table (1.9983) is significantly influential. This means that if Economic Growth, PAD, and DAU are zero, the value of Capital Expenditure will remain 15.11, indicating that other factors influence Capital Expenditure. The p-value of 0.0076 (< 0.05) means that this constant is statistically significant at a 95% confidence level. This value corresponds to the average value of the dependent variable Y, assuming that all independent variables are equal to zero.

Economic Growth (X1): t-statistic (0.3657) < t-table (1.9983) is not significantly influential. This means that economic growth has no significant effect on capital expenditure. It has a coefficient of 0.0426 with a p-value of 0.7158 (> 0.05), which is also not statistically significant. Although economic growth has a positive coefficient, there is insufficient statistical evidence that this variable influences capital expenditure. Economically, this suggests that policies or interventions focusing on economic growth are unlikely to result in significant changes in capital expenditure. This may be because capital expenditure is more influenced by budget allocation and development planning than by short-term fluctuations in economic growth.

PAD (X2): t-statistic (2.1462) > t-table (1.9983) is significantly influential. It has a coefficient of 0.3126 with a p-value of 0.0358 (< 0.05), meaning it is statistically significant. The interpretation is that a 1% increase in PAD will increase BM by 0.3135%, assuming other variables remain constant. PAD is the most influential variable in this model. This is in line with the fiscal decentralization theory, which states that a region's fiscal independence, reflected in the amount of PAD, boosts the local government's capacity to finance development, particularly capital expenditure. This means that regions with high PAD have greater fiscal flexibility to invest in infrastructure and other fixed assets.

DAU (X3): t-statistic (0.4872) < t-table (1.9983) is not significantly influential. This means that changes in DAU do not have a significant impact on Capital Expenditure. It has a p-value of 0.6278 (> 0.05) and a positive coefficient (0.096), meaning a 1% increase in DAU would raise BM by 0.0967%, but this is not statistically significant. These results suggest that the transfer funds from the central government are more often used for routine expenditures such as salaries and operations, rather than capital expenditure. This aligns with findings in

various regions that DAU tends not to be used productively for public investment unless accompanied by oversight mechanisms or performance-based incentives.

3) Coefficient of Determination Test (R^2)

Table 6. Coefficient of Determination Test Results

Statistic	Value
R-squared	0.435387
Adjusted R-squared	0.407619
Standard Error of Regression	0.328848
Sum Squared Residuals	6.596585
Log Likelihood	-17.87636
F-statistic	15.67951
Prob(F-statistic)	0.000000

From the regression results above, the values obtained are: R-squared (R^2) = 0.4353 and Adjusted R-squared = 0.4076.

An R^2 value of 0.4353 means that 43.53% of the variation in the dependent variable (Capital Expenditure) can be explained by the independent variables (Economic Growth, PAD, and DAU). The remaining 56.46% of the variation is attributable to factors not captured within the scope of this model.

The Adjusted R^2 = 0.4076, which is slightly smaller than R^2, indicates that after accounting for the number of variables in the model, about 40.76% of the variation in Capital Expenditure can still be explained by Economic Growth, PAD, and DAU.

An R-squared value close to 0.5 reflects that this model has a fairly good explanatory power empirically. In the context of regional economic research, this value is still considered reasonable because fiscal behavior is influenced by many complex factors that cannot all be modeled quantitatively. This means that PAD, economic growth, and DAU are indeed important factors in explaining capital expenditure.

This regression model proves to be quite effective in capturing the relationship between Capital Expenditure and the independent variables Economic Growth, PAD, and DAU explaining more than 40% of the variation in Capital Expenditure.

4.2. Discussion

4.2.1. The Combined Effect of Economic Growth, PAD, and DAU on Capital Expenditure in Regencies/Cities of Central Sulawesi Province

The results of the regression analysis indicate that there is a significant relationship between economic growth (X1), PAD (X2), and DAU (X3) variables and capital expenditure (Y). This is supported by an F-statistic value of 15.6795, which is higher than the critical F-table value of 2.7554 at a significance level of 5 percent. Additionally, the probability value (Prob F-statistic) of 0.000000, less than 0.05, strengthens the case for rejecting the null hypothesis (H_0) and accepting the alternative hypothesis (H_1), suggesting that at least one independent variable has a substantial impact on the dependent variable. When considering the direction of each variable's influence, Economic Growth, PAD, and DAU all show positive effects.

In economic terms, these findings highlight that increased economic growth positively affects the spending capacity of regional governments. When regional economy grows, regional revenue tends to increase, so government has broader fiscal space to realize capital expenditure. This can be seen in infrastructure development policies, public asset procurement, and other investments aimed at supporting long-term growth.

PAD as an indicator of regional fiscal independence plays an important role in funding capital expenditure (Waweru, 2021). The higher the PAD, the greater the region's ability to determine development priorities autonomously without depending entirely on transfer funds from the center (Marliana et al., 2022). Therefore, increasing regional original revenue becomes a relevant strategy to encourage increased regional fiscal capacity in financing development through capital expenditure. Regions with high PAD tend to increase capital expenditure because they have greater fiscal capacity.

DAU, which is a form of fiscal transfer from central government, also plays a role in supporting regional capital expenditure. Although DAU is not specifically intended for capital expenditure, in practice regional governments often allocate part of DAU funds to finance development activities. Therefore, increased DAU allocation indirectly encourages increased capital expenditure, especially in regions with limited PAD.

This finding aligns with research conducted by Syukri & Hinaya (2019) in South Sulawesi Province, Cindriyanti et al. (2025) in West Java Province, and Damayanti in Jambi Province, which show that together, economic growth, PAD, and DAU significantly influence capital expenditure.

4.2.2. Partial Effects of Economic Growth, PAD, and DAU on Capital Expenditure in Regencies/Cities of Central Sulawesi Province

1) Effect of Economic Growth on Capital Expenditure in Regencies/Cities of Central Sulawesi Province

This research shows that economic growth variable doesn't significantly influence regional capital expenditure. Economically, this insignificance reflects that regional capital expenditure isn't directly influenced by economic growth fluctuations. Several factors that can explain this finding include: First, regional budget structure that tends to be rigid makes expenditure composition more dominated by operational and personnel expenditures, so fiscal space for capital expenditure becomes limited. Second, the long and political budget planning process makes capital expenditure insufficiently flexible to economic indicator changes. In other words, economic growth increases occurring in the current year aren't necessarily responded to with increased capital expenditure in the same fiscal year, because the budget preparation process was established beforehand. This finding aligns with research results by Cindriyanti et al. (2025) and Damayanti (2024), which also conclude that economic growth doesn't have significant influence on capital expenditure.

2) Effect of PAD on Capital Expenditure in Regencies/Cities of Central Sulawesi Province

The findings of the study indicate that the Regional Original Revenue (PAD) variable has a notable impact on the expenditure of capital by regional governments. Economically, this finding reflects the importance of PAD's role as one of the main indicators of regional fiscal independence. High PAD provides greater fiscal space for regional governments to allocate budgets to capital expenditure sectors without having to depend too much on transfer funds from central government. This enables regional governments to design and finance strategic and long-term development programs, such as public infrastructure development, basic service facilities, and regional asset procurement.

This finding aligns with previous research conducted by Cindriyanti et al. (2025); Damayanti (2024) and Syukri & Hinaya (2019), all showing that PAD has positive and significant relationship with capital expenditure. This consistency shows that increasing PAD capacity nationally can be an important strategy in strengthening regional fiscal capacity and accelerating development based on regional autonomy.

3) Effect of DAU on Capital Expenditure in Regencies/Cities of Central Sulawesi Province

Analysis results show that General Allocation Funds (DAU) do not significantly influence regional government capital expenditure. Economically, the insignificant influence of DAU on capital expenditure can be explained through several factors.

First, DAU is a transfer fund from central government that is general in nature (block grant), and its use isn't specifically determined for capital expenditure. Most regional governments allocate DAU to finance operational expenditures, especially personnel expenditures, so the portion available for capital expenditure becomes limited.

Second, DAU allocation scheme isn't based on development performance or physical investment priorities, but on formulas considering factors like population, area size, and fiscal index. This causes DAU increases not necessarily to be used for financing infrastructure development or fixed asset procurement, which are main components in capital expenditure.

This discovery is in line with studies carried out by Cindriyanti et al. (2025) and Damayanti (2024), which also found that DAU does not play a major role in impacting capital spending. Conversely, research by Syukri & Hinaya (2019) shows different results, where DAU exerts a beneficial and impactful effect. Discrepancies in findings may be attributed to variations in regional scope, research periods, and expenditure composition in each region's budget structure. Thus, findings in this research confirm that to increase capital expenditure sustainably, regional governments need to rely on PAD increases or maximize special transfer funds like Special Allocation Funds (DAK), which are structurally more directed toward development expenditure.

5. Conclusion

Based on the regression analysis, it can be concluded that Economic Growth, PAD, and DAU, when considered together, significantly influence Capital Expenditure. The F-statistic value of 15.6795, which exceeds the F-table value of 2.7554 at the 5 percent significance level, indicates that the combination of these factors has a strong explanatory power in understanding local government capital expenditure in Central Sulawesi. Nevertheless, when analyzed individually, only PAD has a significant positive effect on capital expenditure, with a coefficient of 0.31. Economic Growth, although positive at 0.04, does not have a statistically significant impact, suggesting that regional budgets are less responsive to short-term economic fluctuations. Similarly, DAU, despite having a positive coefficient of 0.09, shows no significant effect, likely because it is a general transfer fund not specifically allocated to capital expenditure.

The results of the study indicate that enhancing the financial capabilities of the local government can be achieved by prioritizing the increase in PAD since it is a revenue source that can be managed. Additionally, it is essential to optimize the utilization of DAU and make changes to fiscal policies to correspond with the economic growth patterns, with a focus on ensuring that capital spending is better suited to the region's long-term development goals. By enhancing these areas, local governments will be better equipped to fulfill their capital spending needs and promote sustainable development within the area.

6. References

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