

Determinants of Economic Growth in Special Autonomous Regions: Does Capital Expenditure Matter?

Rizki Linda Afiska¹

¹Faculty of Business and Economics Universitas Islam Indonesia, Indonesia

*Correspondences: rizkilindaafiska26@gmail.com

ABSTRACT

This study aims to examine the influence of balancing funds, special autonomy funds, and regional own-source revenues on economic growth, with capital expenditure as an intervening variable. A purposive sampling method was used, selecting three Indonesian provinces: Aceh, Papua, and West Papua. Data analysis was conducted using panel data regression and path analysis models. The results indicate that balancing funds and regional own-source revenues do not significantly influence capital expenditure, whereas special autonomy funds have a significant positive effect on capital expenditure. Additionally, balancing funds, special autonomy funds, and regional own-source revenues directly have a significant positive effect on economic growth, while capital expenditure does not significantly impact economic growth. Path analysis further reveals that capital expenditure does not mediate the relationship between balancing funds, special autonomy funds, regional own-source revenues, and economic growth.

Keywords: Economic Growth, Balancing Funds, Special Autonomy Funds, Local Own-Source Revenues, Capital Expenditures

Faktor-Faktor yang Menentukan Pertumbuhan Ekonomi Daerah Otonomi Khusus: Apakah Belanja Modal Penting?

ABSTRAK

Penelitian ini bertujuan untuk menguji pengaruh dari dana perimbangan, dana otonomi khusus, dan pendapatan asli daerah terhadap pertumbuhan ekonomi, dengan belanja modal sebagai variabel intervening. Metode purposive sampling digunakan dengan memilih tiga provinsi di Indonesia: Aceh, Papua, dan Papua Barat. Analisis data dilakukan menggunakan model regresi data panel dan analisis jalur. Hasil penelitian menunjukkan bahwa dana perimbangan dan pendapatan asli daerah tidak berpengaruh signifikan terhadap belanja modal, sedangkan dana otonomi khusus memiliki pengaruh positif yang signifikan terhadap belanja modal. Selain itu, dana perimbangan, dana otonomi khusus, dan pendapatan asli daerah secara langsung memiliki pengaruh positif yang signifikan terhadap pertumbuhan ekonomi, sementara belanja modal tidak memiliki dampak signifikan terhadap pertumbuhan ekonomi. Analisis jalur lebih lanjut mengungkapkan bahwa belanja modal tidak memediasi hubungan antara dana perimbangan, dana otonomi khusus, pendapatan asli daerah, dan pertumbuhan ekonomi.

Kata Kunci: Pertumbuhan ekonomi, dana perimbangan, dana otonomi khusus, pendapatan asli daerah, belanja modal



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INTRODUCTION

The global economy experienced a significant contraction in 2020 due to the COVID-19 pandemic, with the IMF estimating a decline of -4.9% (Băhnăreanu, 2020; IMF, 2023). The pandemic's impact persisted through 2023, with global growth expected to slow to 3.0% (IMF, 2023). In Indonesia, despite a contraction of -2.07% in 2020, economic recovery has been positive, with growth reaching 3.69% in 2021 (Muhyiddin & Nugroho, 2021) and projected to rise to 5.2% in 2022 (Hasudungan et al., 2023). However, regional growth inequality remains a challenge, particularly in Aceh, Papua, and West Papua. According to BPS 2021 data, these regions had economic growth rates below the national average of 3.70%. Aceh grew by 2.79%, West Papua contracted by 0.51%, while Papua recorded a significant increase of 15.11%. Despite Papua's rapid growth, its poverty rate remains high at 27.38%, followed by West Papua (21.82%) and Aceh (15.53%) (BPS West Papua, 2023; BPS Aceh Province, 2023; BPS Papua Province, 2023).

Given this phenomenon, one strategy the government can implement to boost economic growth is optimizing regional financial resources, including the Balancing Fund, aimed at reducing economic disparities between regions (Law No. 33 of 2004). Additionally, the Indonesian government allocates Special Autonomy Funds to the provinces of Aceh, Papua, and West Papua, focusing on infrastructure development, economic empowerment, poverty alleviation, and improvements in social, educational, and health services. Besides transfer funds, regions also rely on own-source revenues from taxes, levies, and regional asset management (Law No. 33/2004).

One approach to optimizing regional fund management is through capital expenditures, defined as expenditures for purchasing or constructing tangible fixed assets with benefits lasting more than one year (Government Regulation Number 71 of 2010). Capital expenditure budgeting is based on regional needs for facilities and infrastructure essential for government operations and public services, which, in turn, drive regional development and economic growth (Yuliani, 2019). Equitable and high-quality infrastructure development ensures the widespread distribution of economic growth across regions (Waryanto, 2017). The government must increase public investment to support both short- and long-term economic growth (Divino et al., 2020). Therefore, balancing funds, special autonomy funds, and local own-source revenues should be allocated more effectively toward capital expenditures, as investments in public infrastructure have the potential to accelerate regional economic growth.

The balancing funds provided by the central government to ensure equitable resource distribution have a significant effect on capital expenditure. The larger the equalization fund, the more funds are allocated for capital expenditures (Muttaqin et al., 2021). Special autonomy funds for the provinces of Aceh, Papua, and West Papua also have a significant impact on capital expenditure, particularly in infrastructure development (Muttaqin et al., 2021; Abdullah et al., 2020). Additionally, local own-source revenue (PAD) has a significant positive effect on capital expenditure. PAD reflects regional independence, and with sufficient PAD, dependence on the central government is reduced, enabling greater allocation to capital expenditures, including infrastructure (Zulkarnain & Haryati, 2023;

Jayanti, 2020; Muttaqin et al., 2021). Capital expenditure serves as a mediating variable between regional fiscal capacity and economic growth. By supporting infrastructure and investment, capital expenditure becomes a catalyst that transforms fiscal capacity into increased economic output, driving productivity and promoting sustainable regional economic growth.

Agency relationships are not limited to the corporate sector but are also relevant in government organizations, including in Indonesia. In government, the principal (central government) delegates authority to the agent (local government) through a set of formal rules governing duties, responsibilities, and powers. Although the operational mechanisms differ from those of corporations, these rules reflect explicit and implicit contracts forming the basis of agency relationships (Supriadi, 2020).). In the context of capital expenditure, this agency relationship is crucial to ensuring that fund allocations from the central government are effectively managed by local governments to stimulate economic growth. Capital expenditure, acting as a mediating variable, facilitates the transformation of regional fiscal capacity into greater economic output.

This study addresses a gap in the existing literature, as most previous research has focused solely on the influence of balancing funds, special autonomy funds, and own-source revenues on capital expenditure, without examining their impact on economic growth. Furthermore, many studies have overlooked the role of capital expenditure as a mediating variable between fiscal variables and economic growth. This study not only investigates the direct effect of fiscal funds on economic growth but also considers the indirect effect through capital expenditure. This approach provides a more comprehensive understanding of how fund allocation can drive regional economic growth.

Balancing funds are a source of regional income derived from the APBN (State Budget) to support local governments in carrying out their authority, improving services, and enhancing community welfare (Amin, 2019). Through the allocation of balancing funds for both capital and routine expenditures, local governments can determine budgetary priorities. In line with agency theory, local governments act as agents in allocating capital expenditures sourced from balancing funds to meet the needs of the community, which serves as the principal (Silviani & Adiputra, 2023). Research by indicates that the larger the balancing funds, the greater the allocation to capital expenditures. The central government distributes balancing funds to ensure fair resource distribution, benefiting both national interests and local communities. Similarly, studies by Silviani and Adiputra, (2023) and Wiraswasta et al., (2018) found that balancing funds positively impact capital expenditures.

H_1 : Balancing funds have a positive effect on capital expenditure.

The utilization of special autonomy funds in Aceh Province is directed toward financing infrastructure development, economic empowerment, poverty alleviation, and education, social, and health programs (djpk.kemenkeu.go.id). In Papua Province, special revenue equivalent to 2% of the National General Allocation Fund ceiling is allocated for education, health, and infrastructure based on the province's proposals each fiscal year (Amin, 2019). In this context, agency theory can be observed through the roles of the local government and the DPR as agents responsible for determining the allocation of special autonomy funds to

achieve the goal of infrastructure development for the welfare of the community (the principal). Research by Jikwa et al., (2017) shows that the Special Autonomy Fund (OTSUS) in Central Mamberamo Regency positively influences capital expenditure. Similar findings were reported by Wanma et al., (2021) and Elwarin et al., (2021) indicating that special autonomy funds have a positive effect on capital expenditure.

H₂ : The Special Autonomy Fund has a positive effect on capital expenditure.

Regional expenditure aims to promote regional development and improve community welfare. The greater the revenue obtained by a region, the more financially independent it becomes in funding its expenditures (Herlin et al., 2021). Regional Original Revenue (PAD) influences local government capital expenditure. Typically, an increase in PAD is followed by an increase in capital expenditure, though this must be adjusted according to regional conditions in the relevant fiscal year (Sudaryo et al., 2017). Yuliantoni and Arza, (2021) stated that the local government (agent) is accountable to the community (principal), which fulfills its obligations through taxes and levies. Research by Alvaro and Prasetyo, (2020) shows that PAD has a significant positive effect on capital expenditure. The higher the PAD, the greater the regional authority in funding the implementation of regional autonomy, enabling the allocation of more capital expenditure by the local government. High PAD contributes to improved public services and the development of facilities and infrastructure. Studies by Anwar et al., (2018), Wiraswasta et al., (2018) and Silviani and Adiputra (2023) also found that PAD positively affects capital expenditure.

H₃ : Local Revenue has a positive effect on Capital Expenditure.

According to Mustanir et al., (2023), balancing funds are allocated from the state budget to local governments to achieve financial equilibrium between the central and local governments, as well as among regions. These funds aim to reduce economic inequality by considering each region's specific needs and potential. In the context of agency theory, the relationship between the agent (government) and the principal (community) is reflected in the government's ability to enhance community welfare through effective management of balancing funds. Research by Oktavia and Zulvia (2023) indicates that equalization funds positively affect economic growth. These funds play a crucial role in stimulating economic development, making them a priority for local governments, particularly in special autonomous regions. Fiscal decentralization is expected to increase efficiency, reduce regional disparities, and accelerate economic growth. By transferring balancing funds from the central government to the regions, community services and welfare are expected to improve, ultimately boosting economic growth.

H₄ : Balance Fund has a positive effect on economic growth.

The purpose of granting special autonomy funds is to support regions in financing development programs and activities such as infrastructure development, economic empowerment, poverty alleviation, education, health, and social services (Badan Keahlian DPR RI, 2020). Special autonomy funds are expected to stimulate improvements in community welfare.

Within the framework of agency theory, local governments serve as agents responsible for managing special autonomy funds received by the Provinces of

Aceh, Papua, and West Papua, with the primary goal of enhancing the welfare of the community (the principal). Suwandi (2015) emphasized that to foster economic growth, regions receiving special autonomy funds must ensure the funds are utilized effectively and contribute positively to development. Research by Anwar et al., (2018) found that special autonomy funds have a positive effect on economic growth, indicating that increased funding correlates with improved economic performance.

H₅ : Special autonomy funds have a positive effect on economic growth.

According to Wulandari and Emy (2018), Regional Original Revenue (PAD) includes all revenues obtained by a region from sources within its territory, levied based on local regulations and applicable laws. An increase in PAD contributes to the region's economic growth. Within the agency theory framework, the community, as the principal, fulfills its obligations through tax and levy payments, while the local government, as the agent, is responsible for managing these funds to increase local revenue (Fathia & Rusdi, 2020). Research by Alvaro (2022) shows that PAD has a positive influence on economic growth. Higher PAD enables local governments to fund regional autonomy according to the region's potential. As PAD increases, local governments have more financial capacity to explore regional potential and boost economic growth. This finding aligns with research by Tobing (2019), Alvaro and Prasetyo (2020), Ningsih and Noviaty (2019), Wiraswasta et al (2018), and Anwar et al., (2018) who also found a positive relationship between PAD and economic growth.

H₆ : Local revenue has a positive effect on economic growth.

According to Keynes's theory, the government can stimulate economic growth by increasing spending, particularly through capital expenditures (Bahri & Aprilianti, 2023). Capital expenditures are allocated to meet regional needs for facilities and infrastructure while improving the quality of public services. Consequently, local governments must adjust their expenditure composition by allocating more funds toward development sectors. Proper management of APBD focused on development can increase the overall economic growth rate (Yuliani, 2019). Wanma et al., (2021), emphasize that capital expenditure positively affects the economy at both macro and micro levels, particularly in regional contexts. Within agency theory, local governments act as agents responsible for maximizing budget allocations for capital expenditures, which in turn improves public facilities and infrastructure. Government investment in public facilities boosts community economic productivity (Arlintang et al., 2020). Research by Waryanto (2017), Abel et al., (2019) also demonstrates that capital expenditure positively influences economic growth. Specifically, infrastructure-related capital expenditures support economic development and promote equitable community welfare. The expansion of quality infrastructure ensures that economic growth reaches all regions.

H₇ : Capital expenditure has a positive effect on economic growth.

The Balance Fund is allocated from the APBN to support decentralization and reduce fiscal disparities between the central and regional governments, as well as among regions (Jayanti, 2020). Within the agency theory framework, the government acts as an agent tasked with allocating the Balance Fund for the public's benefit according to its intended objectives. One way to maximize this

allocation is through infrastructure development, which can stimulate the local economy and promote economic growth. Research by Wiraswasta et al., (2018) indicates that the Balance Fund positively influences economic growth through capital expenditures. This relationship exists because the implementation of regional autonomy, aimed at improving public services, is realized through capital expenditures, which are partially funded by the Balance Fund. Thus, better services and infrastructure development translate into higher economic growth for a region.

H₈ : Balancing funds have a positive effect on economic growth through capital expenditures.

To reduce economic inequality, the Indonesian government disburses special autonomy (otsus) funds to three provinces: Aceh, Papua, and West Papua. These funds are allocated to finance infrastructure development and maintenance, economic empowerment, poverty alleviation, and education, social, and health funding. In the context of agency theory, the government serves as an agent responsible for managing special autonomy funds to enhance community welfare (the principal). One key allocation of these funds is toward capital expenditures, particularly infrastructure development, which can stimulate economic activity and drive regional economic growth. Research by Wanma et al., (2021) found that special autonomy funds have a significant positive effect on capital expenditures in West Papua. The allocation of special autonomy funds addresses critical regional needs, contributing to community welfare and improved living standards. Capital expenditures driven by special autonomy funds demonstrate a positive relationship with regional economic growth, as reflected in increased GRDP. This aligns with (Handayani et al., 2019) who concluded that budget allocations for capital expenditures effectively promote regional economic growth.

H₉ : Special Autonomy Funds have a positive effect on economic growth through capital expenditures.

Locally Generated Revenue (PAD) is revenue determined and collected locally, serving as the main source of income for the region (Amin, 2019). In the context of agency theory, the relationship between PAD and economic growth reflects the government's role in managing and utilizing PAD independently for the benefit of the community (the principal). One way local governments manage PAD is by allocating it toward infrastructure development through capital expenditures, which can support community economic activities. Research by indicates that high PAD positively impacts regional development, particularly in procuring public facilities and infrastructure. This leads to increased capital expenditure allocations aimed at enhancing economic growth. As PAD increases, local governments have greater financial capacity to expand capital expenditures, funding projects that stimulate regional economic development. By investing in infrastructure and essential services, local governments can foster economic productivity, ultimately boosting the region's economic growth.

H₁₀ : Local revenue has a positive effect on economic growth through capital expenditure.

RESEARCH METHODS

This research is a quantitative study using secondary data as its primary source. The population of this study includes all provinces in Indonesia. The secondary data was obtained from the financial reports of the Aceh, Papua, and West Papua provincial governments for the period 2010-2022, as well as regional statistical reports from the regional BPS (Statistics Indonesia) website. The study employs a time-series cross-sectional (pooled data) or panel data approach, collected over time based on data availability from the provinces of Aceh, Papua, and West Papua. The sample was determined using a purposive sampling technique with the following criteria: 1) Provinces with special autonomy status, 2) Provinces with data covering the specified period from 2010 to 2022, 3) Provinces with complete data relevant to the research variables. Based on these criteria, the final sample includes three provinces: Aceh, Papua, and West Papua.

The dependent variable in this study is economic growth, defined as the process of increasing an economy's production capacity, reflected in the rise of national income (Rapanna & Sukarno, 2017). One key indicator used to measure a region's economic condition over a specific period is the Gross Regional Domestic Product (GRDP). GRDP at constant prices is used to measure real economic growth from year to year, unaffected by price fluctuations. In this study, economic growth is measured in billion Rupiah (Rp) units to facilitate the interpretation of large-scale data.

In general, balancing funds are sourced from the APBN (State Budget) and consist of Revenue Sharing Funds (DBH), General Allocation Funds (DAU), and Special Allocation Funds (DAK) (Amin, 2019). These funds are intended to finance regional needs in the implementation of decentralization. According to Law No. 33/2004, the purpose of balancing funds is to reduce the fiscal gap between the central and local governments, as well as between local governments themselves. The balancing fund indicator is derived from the total of DBH, DAU, and DAK, as presented in the annual financial statements of the local governments of Aceh, Papua, and West Papua Provinces. Balancing funds are measured in billion Rupiah (Rp) to facilitate the interpretation of large-scale amounts.

According to Law No. 18/2006, the Special Autonomy Fund is allocated to support the implementation of a region's special autonomy. In Aceh Province, the utilization of these funds focuses on financing the development and maintenance of infrastructure, economic empowerment, poverty alleviation, and funding for education, social, and health services. In Papua and West Papua Provinces, special autonomy funds are more focused on financing education and health. Indicators of special autonomy funds are obtained from the realization data of special autonomy funds, as recorded in the annual financial statements of each province's local government. Special Autonomy Funds are measured in billion Rupiah (Rp).

Based on Law No. 33/2004, Local Own-Source Revenue (PAD) is a source of income generated within the region and used by local governments to finance development activities. The main purpose of PAD is to reduce reliance on financial resources from the central government. PAD consists of local taxes, levies, the proceeds from managing local assets, and other legal revenues (Sudaryo et al., 2017). The PAD indicator is obtained from the actual realization data of local own-source revenue, as presented in the annual financial statements of the local

governments of Aceh, Papua, and West Papua Provinces. Local Own Revenue is measured in billion Rupiah (Rp).

The intervening variable in this study is capital expenditure. Capital expenditures are funds allocated for the purchase, procurement, or construction of tangible assets with a useful life of more than 12 months, such as land, equipment, and other fixed assets, for government activities (Khusaini, 2018). Capital expenditure reflects the allocation of regional funds for infrastructure development. The greater the capital expenditure, the greater its potential impact on economic growth (Hidayat, 2017). The indicator used for capital expenditure is the amount spent, obtained from the realization data of capital expenditure in the annual financial statements of the local governments of Aceh, Papua, and West Papua Provinces. Capital expenditure is measured in billion Rupiah (Rp).

The analysis technique used in this research is panel data analysis. The stages of analysis in this study include: selection of the estimation model, classical assumption tests, statistical tests (t-test, F-test, and coefficient of determination [R²], and the formulation of path analysis using Eviews 12 statistical software. Regression estimation methods with panel data can be done using three approaches: the Common Effect Model (CEM) or Pooled Least Squares (PLS), Fixed Effect Model (FEM), and Random Effect Model (REM) (Napitupulu et al., 2021). Several tests are employed to select the most appropriate model, including the Chow Test, Hausman Test, and Lagrange Multiplier Test (Napitupulu et al., 2021).

In panel data research, not all classical assumptions are tested; only multicollinearity and heteroscedasticity tests are applied (Napitupulu et al., 2021). The Sobel test is used to evaluate the indirect effect in the complete path analysis model (Napitupulu et al., 2021). The path equation in this study is:

Sub Structural Model 1:

$$Y1 = \alpha + \beta X1Y1 + \beta X2Y1 + \beta X3Y1 + \epsilon1 \dots\dots\dots(1)$$

Sub Structural Model 2:

$$Y2 = \alpha + \beta X1Y2 + \beta X2Y2 + \beta X3Y2 + \beta Y1Y2 + \epsilon2 \dots\dots\dots(2)$$

Sobel Test

$$Z = \frac{ab}{\sqrt{(b^2 SE_a^2) + (a^2 SE_b^2)}} \dots\dots\dots(3)$$

RESULTS AND DISCUSSION

The results of the substructural equation test I, which examines the relationship between the Balance Fund, Special Autonomy Fund, and PAD variables on Capital Expenditure, are presented in Tables 1 and 2.

Table 1. Chow Test Results of Sub Structural Model I

Effect Test	Statistic	d.f	Prob
Cross-section F	1,441403	(2,33)	0,2511
Cross-section Chi-Square	3,266276	2	0,1953

Source: Research Data, 2024

The results of the Chow test output for substructural model I show a probability value of 0.1953 > 0.05, which indicates that the best model is the Common Effect Model (CEM). The next step is to choose the best model between the Common Effect Model (CEM) and the Random Effect Model (REM) using the

Lagrange Multiplier Test. The following are the results of the Lagrange Multiplier Test.

Table 2. Lagrange Multiplier Test Results

	Test Hypothesis		
	Cross-section	Time	Both
Breusch-Pagan	0,095 (0,757)	0,112 (0,736)	0,208 (0,648)

Source: Research Data, 2024

From the output of the Lagrange Multiplier test, the substructural model I obtained a Breusch-Pagan Cross-section value of $0.7577 > 0.05$, indicating that the best model for the substructural equation I is the Common Effect Model (CEM).

The results of the II substructural equation test that examines the relationship between the Balance Fund, Special Autonomy Fund, PAD and Capital Expenditure variables on Economic Growth are presented in Table 3.

Table 3. Chow Test Results of Sub Structural Model II

Effect Test	Statistic	d.f	Prob
Cross-section F	69,868	(2,32)	0,000
Cross-section Chi-Square	65,529	2	0,000

Source: Research Data, 2024

The Chow test output for the substructural model II showed a probability value of $0.0000 < 0.05$, indicating that the best model is the Fixed Effect Model (FEM). Due to data limitations that prevent the testing of the Random Effect Model (REM), further testing will proceed with the Fixed Effect Model (FEM). When the number of time series data (T) is large and the number of cross-sectional units (N) is small, the difference in parameter values between FEM and REM is likely to be minimal. Therefore, computational convenience determines the model choice, with FEM being the better option in this case (Gujarati & Porter, 2009).

Heteroscedasticity and multicollinearity tests are classical assumption tests used in panel data research (Napitupulu et al., 2021). The results of the classical assumption tests show that in the multicollinearity test, the correlation between variables was > 0.90 , indicating that the model is free from multicollinearity symptoms. In the heteroscedasticity test, both sub-structural models I and II also showed a p-value > 0.05 , meaning that the model is free from heteroscedasticity symptoms.

Table 4. F Test Results

Weight Statistic	
F-statistic	297,176
Prob(F-statistic)	0,000

Source: Research Data, 2024

The F-statistic result in Table 4 is 297.1763, which is greater than the F-table value of 2.65, and the significance probability is $0.0000 < 0.05$. This indicates that the independent variables, including the Balance Fund, Special Autonomy Fund, PAD, and Capital Expenditure, collectively have a significant effect on the dependent variable, which is Economic Growth.

Table 5. R Square Test Results Table

Weight Statistic	
R-squared	0.982
Adjusted R-squared	0.979

Source: Research Data, 2024

The adjusted R-squared value in Table 5 is 0.979064. This means that the independent variables, including the Balance Fund, Special Autonomy Fund, PAD, and Capital Expenditure, can explain 97.9% of the variation in the dependent variable, Economic Growth (Y1). The remaining 2.1% is explained by other variables outside the model.

Table 6. The t-test results of Substructural Models I and II

Variable	Prob. I	Prob. II
(X1)	0.339	0.000
(X2)	0.048	0.019
(X3)	0.400	0.007
(Y1)	-	0.455

Source: Research Data, 2024

The t-test results in Table 6 show that the probability value of the t-statistic for variable X1 is $0.3392 > 0.05$, meaning that the variable has no direct effect on variable Y1. Therefore, H1 is not accepted. These findings are in line with the research conducted by Zulkarnain and Haryati (2023). The balancing funds provided by the central government to local governments are aimed at reducing disparities between regions, with the main goal of improving services and increasing community welfare (Amin, 2019). However, in this study, it was found that the governments of Aceh, Papua, and West Papua provinces tended not to use equalization funds for capital expenditures. Instead, the equalization funds were used to finance routine expenditures, such as personnel costs and other operational expenses. This is evident from the larger portion of the budget allocated to routine expenditures compared to capital expenditures. Therefore, the amount of equalization funds received by the provinces of Aceh, Papua, and West Papua does not significantly affect capital expenditure activities.

In agency theory, the equalization funds that have no effect on capital expenditure reflect agency problems between the central government (principal) and local governments (agent). Local governments may use these funds for purposes other than capital expenditure due to moral hazard or other interests. This highlights the need for better monitoring and incentives to ensure that equalization funds are used for development purposes.

The probability value of t-count for X2 is $0.0480 < 0.05$, which means that the X2 variable has a significant positive effect on Capital Expenditure (Y1) directly. Thus, H2 is accepted. The results of this study are consistent with research conducted by Jikwa et al., (2017), Wanma et al., (2021) and Elwarin et al., (2021) which shows that the Special Autonomy Fund (OTSUS) has a positive and significant effect on capital expenditure. The source of OTSUS funds contributes significantly to sector development, particularly capital expenditure. Thus, it can be concluded that the more special autonomy funds received, the greater the capital expenditure. Special autonomy funds given to the provinces of Aceh, Papua, and West Papua make up the largest portion of total regional revenue. This substantial contribution of special autonomy funds to regional revenues

significantly affects the allocation of regional expenditures, especially capital expenditures, since other revenue sources such as balancing funds and PAD are allocated to other regional expenditures, with the portion for capital expenditures being smaller than operating expenditures. In line with agency theory, the effect of special autonomy funds on capital expenditure shows an alignment of interests between the central government (principal) and the special autonomous regions (agents). With proper incentives and supervision, the provinces of Aceh, Papua, and West Papua utilize these funds in accordance with development goals, thereby reducing agency problems such as moral hazard.

The probability value of t-count for X3 is $0.4008 > 0.05$, which means that the PAD variable has no significant effect on capital expenditure directly. Thus, H3 is not accepted. This is consistent with research conducted by Lisandri et al., (2017), Wanma et al., (2021) and Yuliantoni and Arza (2021). The insignificant results indicate that the increase in own-source revenue is not proportional to the increase in capital expenditure. Overall, the amount of PAD from Aceh, Papua, and West Papua Provinces represents the smallest portion of all regional financial resources. The low amount of PAD obtained by these regions suggests that they still depend on other financial sources, particularly transfer funds, with special autonomy funds making up the largest portion. The absence of a significant influence between regional own-source revenue and capital expenditure is due to the small amount of PAD, which is insufficient to finance regional needs (Wanma et al., 2021). In agency theory, the lack of effect of PAD on capital expenditure indicates that local governments (agents) tend to prioritize other expenditures, such as operational costs, over long-term investments, due to short-term political interests. As a result, the potential of PAD is not fully optimized in supporting development.

The probability value of t-count for X1 on Y2 is $0.0001 < 0.05$, which means that the variable X1 has a significant positive effect on Y2 directly. Thus, H4 is accepted. This finding is consistent with research conducted by Wiraswasta et al., (2018) and Oktavia & Zulvia (2023), who found that equalization funds have a positive and significant effect on economic growth. Therefore, it can be concluded that an increase in balancing funds will also contribute to economic growth. Since equalization funds are crucial for stimulating economic growth, local governments must carefully manage how they utilize these funds to continuously foster regional economic growth. These results also indicate that the transfer of equalization funds from the central government to local governments, within the framework of regional autonomy, has a significant effect on regional economic growth in Aceh, Papua, and West Papua Provinces. In agency theory, the influence of equalization funds on economic growth demonstrates the success of local governments (agents) in managing funds from the central government (principals) to drive sustainable economic growth, reflecting alignment of goals and effective supervision.

The probability value of t-count for X2 on Y2 is $0.0192 < 0.05$, which means that the X2 variable has a significant positive effect on the Y2 variable directly. Thus, H5 is accepted. The results of this study are consistent with research conducted by Anwar et al., (2018), which found that special autonomy funds have a positive effect on economic growth. This means that an increase in special autonomy funds will also lead to an increase in economic growth. Therefore, the special autonomy fund program provided specifically for the provinces of Aceh,

Papua, and West Papua has a significant impact on regional economic growth. In agency theory, the effect of special autonomy funds on economic growth illustrates an effective relationship between the central government (principal) and local governments (agents). The central government provides the funds with the expectation of encouraging regional economic development, and the local government, as an agent, manages these funds according to the set objectives. This demonstrates alignment of interests and sufficient supervision to minimize potential irregularities, ensuring that special autonomy funds contribute positively to economic growth.

The probability value of t-count for X3 on Y2 is $0.0078 < 0.05$, which means that the X3 variable has a significant positive effect on the Y2 variable. Thus, H6 is accepted. The results of this study indicate that PAD directly has a positive and significant effect on economic growth. This finding is in line with research conducted by Mursyidah et al., (2022), Alvaro (2022), Tobing (2019), Alvaro and Prasetyo (2020), Ningsih and Noviaty (2019), Wiraswasta et al., (2018), and Anwar et al., (2018), which show that local revenue has a positive influence on economic growth. Local own-source revenue is intended to provide local governments with the ability to finance the implementation of regional autonomy according to their potential in a decentralized manner. With an increase in PAD, local governments will have more funds to utilize their potential in fostering economic growth.

In agency theory, the effect of PAD on economic growth demonstrates that the local government (agent) has succeeded in managing local revenue efficiently and transparently, in accordance with the development goals set by the central government (principal). This alignment is achieved through effective supervision and incentives that encourage agents to use PAD optimally, thereby having a positive impact on regional economic growth. The existence of a significant influence between PAD and economic growth can motivate regions to continue increasing the potential of their respective areas. This is evident from the financial data during the research period from 2010-2022, which shows that PAD has the smallest portion compared to other sources of funds. This indicates that the regional expenditures of Aceh, Papua, and West Papua Provinces are still highly dependent on central transfer funds. Therefore, the government's role in continuing to explore regional potential is essential to increase regional independence.

The calculated t-probability value of Y1 is $0.4556 > 0.05$, which means that the Y1 variable does not directly affect Y2. Thus, H7 is not accepted. The results of this study align with research conducted by Tobing (2019), which found that capital expenditure has no effect on economic growth. It can therefore be concluded that the increased allocation of capital expenditure does not influence the economic growth of the regions of Aceh, Papua, and West Papua Provinces.

One of the government's expenditures to support facilities and infrastructure is in the form of capital expenditure. This is done to ensure that the government's task of building public facilities runs smoothly. However, this study found that capital expenditure did not have a significant effect on economic growth. This can be attributed to the relatively smaller allocation of capital expenditure compared to operating expenditure during the study period (2010-2022), resulting in capital expenditure not having a significant impact on economic

growth in the local governments of Aceh, Papua, and West Papua Provinces. In other words, the increase in regional economic growth is not influenced by an increase in capital expenditure. In agency theory, the results showing that capital expenditure has no effect on economic growth reflect a mismatch between the objectives of the central government (principal) and the management by local governments (agents). This could be caused by agency problems, such as a lack of supervision or short-term interests that lead to ineffective use of capital expenditure to promote economic growth.

Table 7. Sobel Test Results

Variable	Z
X1Y1Y2	0.595
X2Y1Y2	0.708
X3Y1Y2	0.564

Source: Research Data, 2024

The results of the Sobel test in Table 7 show a Z value < 1.96 with a significance level of 5%, which means that the capital expenditure variable cannot mediate the relationship between the balance funds, special autonomy funds, regional own-source revenues, and economic growth.

The results of this study indicate that capital expenditure cannot mediate the relationship between equalization funds and economic growth. This finding is in line with previous research conducted by Tobing (2019), which concluded that equalization funds do not influence economic growth through capital expenditure. This may be because the equalization funds are not fully used to finance capital expenditure needs but are instead allocated for personnel expenditures and other operational costs, meaning they do not contribute significantly to the economic growth of the Aceh, Papua, and West Papua provinces.

On the other hand, the results of this study do not align with research conducted by Wiraswasta et al., (2018), which found that equalization funds have a positive influence on economic growth through capital expenditure. This discrepancy may be due to the fact that the implementation of regional autonomy, which aims to improve public services, can be realized through capital expenditure, one of the funding sources from the balance fund. Thus, the higher the quality of services and development, the more economic growth a region will experience.

The results of this study indicate that capital expenditure cannot mediate the relationship between the special autonomy fund variable and economic growth. Research by Fahrizal and Sukartini (2024) in Aceh Province and Basna et al., (2022) in Bintuni Bay found that special autonomy funds had no effect on capital expenditure allocations. This is likely because the government has not fully maximized the use of special autonomy funds for capital expenditure allocations, instead using them for other regional expenditures, such as operating expenditures. Additionally, capital expenditure has no effect on economic growth, which aligns with the findings of research by Tobing (2019), which concluded that capital expenditure does not impact economic growth. This could be due to the relatively smaller allocation of capital expenditure compared to operating expenditures during the study period (2010-2022), which resulted in capital expenditure not having a significant effect on economic growth.

On the other hand, Jikwa et al., (2017), Wanma et al., (2021) and Elwarin et al., (2021) found that the Special Autonomy Fund (OTSUS) has a positive and significant effect on capital expenditure. The contribution of OTSUS funding to sector development, especially capital expenditure, plays a significant role. Although the special autonomy fund can have a direct influence on capital expenditure, it does not significantly affect the economic growth of the provinces of Aceh, Papua, and West Papua. This may be due to the relatively small portion of capital expenditure compared to other total expenditures, which limits its contribution to economic growth. Conversely, the special autonomy fund does have a direct influence on economic growth without going through capital expenditure, in line with the findings of Anwar et al., (2018). This could occur through the use of special autonomy funds for spending in other areas that have a significant effect on economic growth.

This study found that capital expenditure cannot mediate the relationship between the PAD variable and economic growth. These results are consistent with research by Tobing (2019), which found that local own-source revenue has no effect on economic growth through capital expenditure. This may be because regional own-source revenue has the smallest portion among other regional financial sources, making it insufficient to finance regional expenditures, particularly capital expenditures. As a result, there is no significant effect on economic growth. However, local own-source revenues have a significant direct influence on economic growth in the provinces of Aceh, Papua, and West Papua. In contrast, research by Wiraswasta et al., (2018) found the opposite, showing that equalization funds have a positive and significant impact on economic growth through capital expenditure. This is because autonomous regional programs aimed at improving public services can be achieved through capital expenditure, which is partly funded by PAD. Thus, increased development and public service facilities will also boost the economic growth of a region.

CONCLUSIONS

Based on the results of the study, the conclusion that can be drawn is that equalization funds and regional own-source revenues have no effect on capital expenditures, while special autonomy funds have a positive and significant effect on capital expenditures. Balance funds, special autonomy funds, and local own-source revenues have a positive and significant effect on economic growth. Capital expenditure has no effect on economic growth. Additionally, balance funds, special autonomy funds, and own-source revenues have no effect on economic growth through capital expenditure.

This study has several limitations. First, it is limited to special autonomy regions, so the results may not be generalizable to other regions outside this context, including non-special autonomy regions or other countries. Secondly, this study does not include other variables that may affect capital expenditure allocation and economic growth, such as governance quality, education level, infrastructure condition, and corruption level. This could reduce the accuracy of the results in describing the relationship between the variables studied. Third, the study only analyzed data in the short term, without considering the long-term

effects of the Special Autonomy Fund and capital expenditure on economic growth. Long-term research is needed for a more comprehensive understanding.

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