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Effect of Regional Revenue and Balancing Funds on Regional Independence Moderated by Capital Expenditure in East Kalimantan

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Regional Revenue, Balancing Funds, Regional Independence, Capital Expenditure, Fiscal Capacity, East Kalimantan.

ABSTRACT
This study aims to analyze the effect of Regional Revenue (PAD) and Balancing Funds on Regional Financial Independence, with Capital Expenditure as a moderating variable in districts and cities across East Kalimantan Province from 2019 to 2024. Employing a quantitative approach with a causal-comparative design, this research uses panel data derived from secondary sources, specifically the Regional Budget Realization Reports (LRA) published by BPKAD and DJPK. The analytical method applied is Moderated Regression Analysis (MRA) using SPSS version 22.0 to test both the direct and moderating effects among variables. The results indicate that Regional Revenue (PAD) has a positive and significant effect on regional financial independence, suggesting that higher PAD enhances local fiscal capacity. In contrast, Balancing Funds have a negative and significant impact, implying that greater reliance on central government transfers diminishes fiscal independence. Capital Expenditure functions as a dual moderator: it weakens the positive effect of PAD on regional independence but strengthens the impact of Balancing Funds on fiscal capacity when allocated effectively. The study recommends that local governments prioritize the expansion of PAD sources through more efficient tax and retribution management. Additionally, the effective and productivity-oriented allocation of capital expenditure should be emphasized to enhance long-term regional fiscal independence.

INTRODUCTION

The implementation of regional autonomy in Indonesia grants broad authority to local governments to regulate and manage the interests of local communities in accordance with each region's potential and aspirations (Fatimah et al., 2024; Mukhlis, 2025; Sipayung & Cristian, 2022). This decentralization encompasses various aspects, including regional financial management (Aquilina et al., 2024). Through fiscal decentralization policy, every local government is encouraged to finance its regional needs and development independently by optimizing local sources of income (Anggraeni et al., 2023; Kurniawan et al., 2024). The concept of regional independence serves as an important benchmark for assessing the extent to which regions can reduce dependence on the central government and strengthen fiscal autonomy as a key pillar of regional development success (Didiktus et al., 2024).

One of the principal indicators of regional fiscal independence is the contribution of Regional Original Revenue (PAD) to the overall regional revenue structure (Haptari et al., 2022). PAD reflects a region's capacity to harness its economic potential through local taxes, levies, management of regional assets, and other legitimate income sources (Putra & Mahiswara, 2024). The greater the proportion of PAD to total revenue, the stronger the region's ability to finance its needs without relying heavily on central government transfers (Islami et al., 2025). However, empirical observations reveal that the ability of regions to increase PAD varies significantly, depending on their economic potential, governance quality, and human resource capacity (Ansar & Ohorela, 2022).

The level of fiscal independence in Indonesia demonstrates substantial disparities across regions. Research by Marselina and Herianti (2022) found that the Java region has the highest ratio of financial independence, followed by Bali and Nusa Tenggara. Meanwhile, the Kalimantan region ranks third, with an average ratio of only 17.95 percent during 2017–2018, indicating that PAD covered only a small portion of total regional expenditure. In 2018, this ratio declined further to 18.30 percent, highlighting a heavy dependence on Regional Transfers (TKD) from the central government. This finding suggests that most areas in Kalimantan remain far from the ideal target of fiscal independence.

East Kalimantan Province possesses abundant natural resources, including petroleum, natural gas, coal, and plantation commodities (Kusuma et al., 2023). This immense potential should serve as a vital foundation to strengthen fiscal independence and support the successful implementation of regional autonomy. However, in practice, East Kalimantan's revenue structure remains heavily dependent on the extractive sector and central government transfers (Toumbourou et al., 2022). This dependence reflects suboptimal management of non-natural resource economic potential and limited diversification of sectors that could sustainably enhance PAD.

In addition to natural resource dependence, there are notable imbalances in fiscal independence levels among districts and cities within East Kalimantan. Data indicate that most regions, such as East Kutai, West Kutai, North Penajam Paser, Paser, Kutai Kartanegara, Berau, and Mahakam Ulu, fall into the "very poor" category in terms of financial independence ratio. Only Bontang City and Samarinda City are categorized as "less independent," while Balikpapan City is classified as "moderately independent." This inequality underscores the need for a more effective and equitable fiscal strategy to increase PAD and reduce reliance on central government transfer funds (Sulaiman et al., 2025).

In this context, capital expenditure plays a strategic role as a variable that can strengthen regional fiscal independence (Ayuningtyas et al., 2025; Haq et al., 2023). Capital expenditure includes government investments in fixed assets such as infrastructure, public facilities, and social services, which have a long-term impact on regional economic growth (Okonkwo et al., 2023). In contrast to operational spending, capital expenditure creates a multiplier effect on local economic activities, expands the tax base, and increases PAD in the future. Thus, the effectiveness of capital expenditure can serve as a moderating factor that strengthens the relationship between PAD, Balancing Funds, and regional fiscal independence. Although the allocation of capital expenditure in East Kalimantan is relatively large—ranging from 23% to 42% of the total regional budget based on the 2019–2024 Budget Realization Report—its impact on improving fiscal independence remains limited. This indicates that the quantity of the budget is not the only determinant; the quality of planning and program implementation, supported by transparency and accountability in regional financial governance, is equally critical. Research by Ardiansyah (2023) emphasizes that productive capital expenditure directed toward strategic sectors can generate an economic multiplier effect, attract private investment, and increase tax revenue and regional levies.

Previous studies have produced mixed results regarding the relationship between PAD, Balancing Funds, and regional fiscal independence. Several studies (Ardiansyah, 2023; Febrianti & Fidiana, 2025) found that PAD has a positive and significant effect on fiscal independence, while Balancing Funds tend to have a negative effect. However, other studies (Almas & Rahmayati, 2022; Kristina et al., 2021) reported inconsistent findings. Considering these discrepancies and the high fiscal dependence still observed in East Kalimantan, this study adopts the topic entitled "Analysis of the Influence of Regional Original Revenue and Balancing Funds on Regional Independence with Capital Expenditure as a Moderation Variable (Study on Regency and City Governments in East Kalimantan Province, 2019–2024)."

Based on the background, which highlights the gap between the ideal concept of fiscal autonomy and its practical implementation, this study focuses on addressing several key questions: (1) Does Regional Original Revenue (PAD) affect regional financial independence in districts and cities in East Kalimantan Province? (2) Do Balancing Funds influence the level of regional financial independence? (3) Does capital expenditure act as a moderating variable that strengthens or weakens the influence of PAD and Balancing Funds on regional financial independence? In line with these objectives, the study aims to analyze the influence of PAD and Balancing Funds on regional financial independence, examine the moderating role of capital expenditure in this relationship, and provide policy recommendations for local governments to enhance fiscal independence through optimal PAD utilization and effective budget allocation.

From a theoretical perspective, this research is expected to enrich academic literature on the relationship between PAD, Balancing Funds, and regional fiscal independence while testing the effectiveness of capital expenditure as a factor that reinforces regional financial autonomy. From a practical perspective, the results are expected to serve as an evaluative reference for local governments in improving financial management—particularly strategies to increase PAD, optimize the use of Balancing Funds, and ensure that capital expenditure allocations are appropriately targeted to enhance fiscal independence. Furthermore, the policy recommendations derived from this study may support the formulation of more efficient, development-oriented fiscal regulations, ultimately contributing to sustainable growth and improved community welfare.

METHOD

This study employs a quantitative approach with a causal-comparative design, as it aims to investigate the cause-and-effect relationship among the variables of interest. This approach was chosen to provide an empirical understanding of the influence of Regional Original Revenue (PAD) and the Balancing Fund on Regional Financial Independence, as well as to examine the role of Capital Expenditure as a moderating variable. According to Sugiyono, a research design serves as a systematic guide to ensure that the data collected are valid, reliable, and aligned with the research objectives. Therefore, the design used in this study was structured with careful attention to key components such as data collection methods, analytical techniques, and the presentation format of findings.

Specifically, this study integrates two quantitative research designs—descriptive and explanatory. The descriptive design is utilized to provide a comprehensive overview of the characteristics of the observed phenomena, including the conditions of Regional Original Revenue (PAD), Balancing Funds, and the level of Regional Fiscal Independence. Meanwhile, the explanatory design is applied to test the cause-and-effect relationships among these variables and to identify the moderating role of Capital Expenditure. This combined approach allows the researcher not only to describe the regional financial conditions in East Kalimantan Province but also to analyze the causal interrelationships among the variables influencing fiscal independence.

The integrated design aims to test two main aspects: first, the extent to which PAD and Balancing Funds significantly impact Regional Financial Independence, and second, the role of Capital Expenditure in moderating this relationship—whether by strengthening or weakening it. The study utilizes secondary data in the form of panel data, which combines cross-sectional data (covering all districts and cities in East Kalimantan Province) and time-series data for the period 2019–2024. The use of panel data offers distinct advantages in detecting temporal dynamics as well as interregional variations.

Each variable in this study is defined operationally to enable quantitative measurement. The independent variables consist of Regional Original Revenue (PAD) and the Balancing Fund. PAD is defined as total revenue derived from regional taxes, levies, the results of separated regional wealth management, and other legitimate revenues, reflecting a region's ability to finance its needs independently. The Balancing Fund, on the other hand, refers to transfer funds from the State Revenue and Expenditure Budget (APBN) to the Regional Revenue and Expenditure Budget (APBD), aiming to strengthen regional financial capacity. The dependent variable in this study is Regional Independence, measured by the ratio of PAD to total regional income, which indicates the extent to which a region can finance its needs without dependence on central government funds. Meanwhile, the Capital Expenditure variable functions as a moderating variable that reflects the level of regional investment in fixed assets such as infrastructure and public facilities, which has the potential to enhance productivity and increase PAD in the future.

Data collection in this study was conducted using the documentation method because all data are secondary in nature. The data were obtained from official reports, specifically the Budget Realization Reports (LRA) of districts and cities in East Kalimantan Province for the period 2019–2024. Data sources were accessed from the Regional Financial and Asset

Management Agency (BPKAD) of East Kalimantan Province and the Directorate General of Fiscal Balance (DJPK) through the official website https://djpk.kemenkeu.go.id/portal/data/tkdd. The use of this documentation method is considered most appropriate as it provides valid, reliable, and administratively verified data from authorized government institutions.

Furthermore, the collected data were analyzed using the Moderated Regression Analysis (MRA) technique with the assistance of IBM SPSS Statistics version 22.0. MRA was selected because it allows examination of whether the moderating variable (Capital Expenditure) strengthens or weakens the relationship between PAD and the Balancing Fund in relation to Regional Independence. The analysis stages include classical assumption testing (normality, multicollinearity, heteroscedasticity, and autocorrelation), the formation of interaction variables (between independent and moderating variables), and significance testing to assess both direct and indirect relationships between the variables. The regression model was compared between the standard model (without moderation) and the moderated model to determine the extent of Capital Expenditure's influence in reinforcing or diminishing the relationship. The analytical results were then interpreted comprehensively to draw empirically relevant conclusions aligned with the research objectives.

RESULTS AND DISCUSSIONS

Hypothesis Test

Simultaneous Test (F-Test)

Simultaneous Test (F-Test) is performed to test whether together independent variables in the model have a significant effect on the dependent variables. The results of this test are presented in the following table.

Table 1. Simultaneous Test (F-Test)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3155,433	5	631,087	161,455	,000[b]
	Residual	211,072	54	3,909		
	Total	3366,505	59			

a. Dependent Variable: Regional Independence

b. Predictors: (Constant), Balancing Fund * Capital Expenditure, Regional Original Income, Balancing Fund, Capital Expenditure, Regional Original Income * Capital Expenditure

Source : SPSS, Data processed (2025)

The results of the simultaneous test (F test), as presented in Table 1, indicate that the F-calculated value is 161.455 with a significance value (Sig.) of 0.000. The F test aims to assess the collective influence of all independent variables—namely Regional Original Revenue, Balancing Fund, Capital Expenditure, the interaction between Regional Original Revenue and

Capital Expenditure, and the interaction between Balancing Fund and Capital Expenditure—on Regional Independence as the dependent variable.

Since the significance value (0.000) is much smaller than 0.05, it is concluded that the five independent variables jointly have a significant effect on Regional Independence. These findings confirm that the combination of these variables can collectively explain the variations observed in the level of regional independence. Therefore, the regression model used in this study is validated as appropriate for analysis, as the included variables significantly explain the variation in the dependent variable at a 95% confidence level.

Coefficient of determination

The next step is to see the extent to which the regression model can explain variations in dependent variables through the value of the determination coefficient.

Table 2. Coefficient of determination

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,968[a]	,937	,931	1,9771
a. Predictors: (Constant), Balancing Fund * Capital Expenditure, Regional Original Income, Balancing Fund, Capital Expenditure, Regional Original Income * Capital Expenditure				
b. Dependent Variable: Regional Independence				

Source: SPSS, Data processed (2025)

The results of the determination coefficient analysis presented in Table 2 reveal that the regression model used possesses a very strong and stable explanatory capability. The correlation coefficient (R) value of 0.968 indicates a very close relationship between the independent variables—Regional Original Revenue, Balancing Fund, Capital Expenditure, the interaction between Regional Original Revenue and Capital Expenditure, and the interaction between Balancing Fund and Capital Expenditure—and the dependent variable, Regional Independence. Furthermore, the R^2 value of 0.937 demonstrates that 93.7% of the total variation in Regional Independence can be explained simultaneously by the combined influence of the five predictive variables in the model, while the remaining 6.3% is explained by other variables not included in this study. The slightly lower Adjusted R^2 value of 0.931 confirms that, after accounting for model complexity (i.e., the number of independent variables and sample size), the model still maintains a very high explanatory power of 93.1%. The minimal difference between the R^2 and Adjusted R^2 values indicates model stability and the absence of significant overfitting due to the inclusion of multiple independent variables. Therefore, this regression model is considered valid, reliable, and highly predictive, making it appropriate for drawing conclusions regarding the relationships among the studied variables.

Partial Test (t-test)

Next, a partial test was carried out to determine the influence of each independent variable individually on the dependent variable in the regression model.

Table 3. Partial Test (t-test)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	6,747	1,282		5,264	,000
Regional Original Income	,048	,003	1,633	14,813	,000
Balancing Fund	-,005	,001	-,839	-5,169	,000
1 Capital Expenditure	,002	,002	,084	,923	,360
Regional Original Income * Capital Expenditure	-2,256E-5	,000	-1,029	-5,836	,000
Balancing Fund * Capital Expenditure	2,251E-6	,000	,606	2,959	,005

a. Dependent Variable: Regional Independence

Source : SPSS, Data processed (2025)

Based on Table 3, the Multiple Linear Regression Equation in the Moderated Regression Analysis (MRA) Model is obtained as follows:

$$Y=6.747+0.048\ X1\ -0.005\ X2+0.002\ Z-0.00002256(X1\times Z)+0.000002251(X2\times Z)$$

Where:

Y = Regional Independence

X_1 = Regional Original Revenue (PAD)

X_2 = Balance Fund

Z = Capital Expenditure (moderation variable)

$X1 \times Z$ = Interaction between PAD and Capital Expenditure

$X2 \times Z$ = Interaction between Balance Funds and Capital Expenditures

The results of the analysis showed that all independent variables, including their moderating interactions, had a significant influence on Regional Independence.

1) Regional Original Revenue (PAD) and Regional Independence: Data analysis indicates that Regional Original Revenue (PAD) has a highly significant influence on regional fiscal independence. With a coefficient (β) of 0.048 and a p-value of 0.000 (well below 0.05), these findings confirm that an increase in PAD significantly enhances regional independence. This implies that the greater the contribution of PAD to total revenue, the higher the region's capacity to finance its needs independently.
2) Balancing Fund and Regional Independence: Based on the results of the analysis, it was found that the Balancing Fund has a significant influence on Regional Independence, as indicated by a coefficient (β) of -0.005 and a p-value of 0.000 (less than 0.05). This negative relationship suggests that a reduction in Balancing Fund allocations is associated with an increase in regional independence. In other words, the lower a region's dependence on the Balancing Fund, the greater its potential to strengthen fiscal independence.
3) Direct Influence of Capital Expenditure on Regional Independence: The results of the analysis indicate that Capital Expenditure does not have a significant direct effect on Regional Independence. This is evidenced by a coefficient (β) value of 0.002 and a p-value

of 0.360 (greater than 0.05). Nevertheless, it is important to note that Capital Expenditure functions as a moderating variable; therefore, its primary influence should be assessed through its interaction effects rather than through its direct impact.

4) Capital Expenditure as a Moderator of the Relationship between PAD and Regional Independence: Interaction analysis reveals that Capital Expenditure moderates the relationship between PAD and Regional Independence. With a coefficient (β) of -0.00002256 and a p-value of 0.000 (below 0.05), the findings indicate that the presence of Capital Expenditure weakens the positive effect of PAD on Regional Independence. Consequently, even if PAD increases, allocating a larger proportion of funds to Capital Expenditure may reduce the effectiveness of PAD in accelerating regional fiscal independence.
5) Capital Expenditure as a Moderator of the Relationship between the Balancing Fund and Regional Independence: The results of the moderation analysis demonstrate that Capital Expenditure significantly moderates the relationship between the Balancing Fund and Regional Independence. The coefficient (β) value of 0.000002251 with a p-value of 0.005 (less than 0.05) indicates that Capital Expenditure strengthens the effect of the Balancing Fund on Regional Independence. This finding suggests that when increases in the Balancing Fund are effectively directed or allocated through Capital Expenditure, their contribution to enhancing regional fiscal independence becomes more substantial.

The Influence of Regional Original Revenue on Regional Independence

Regional financial independence can be strengthened through Regional Original Revenue (PAD), which serves as a key indicator of a region's ability to manage and develop its local resources without excessive dependence on the central government. PAD represents the financial capacity of autonomous regions to finance their own operations, development projects, and public service delivery. The higher a region's PAD, the greater its ability to meet budgetary needs independently. Funds collected from PAD are used to finance infrastructure and public facilities, thus playing an essential role in supporting fiscal autonomy. The findings of this study reveal a statistically significant positive relationship between PAD and regional independence, as shown by a β coefficient value of 0.047 and a p-value of 0.000 (below 0.05). This confirms that an increase in PAD contributes to greater fiscal independence by reducing the need for central government transfers.

Empirical data from districts and cities in East Kalimantan during 2019–2024 reinforce this conclusion. Balikpapan City, for instance, recorded a high PAD ranging from IDR 606.08 billion to IDR 980.42 billion and a correspondingly high fiscal independence ratio of 24.09% to 33.14%. This strong PAD performance was primarily driven by the service and consumption sectors, including restaurant, hotel, and land taxes. In contrast, Mahakam Ulu Regency recorded a very low PAD, ranging from IDR 16.46 billion to IDR 83.49 billion, which resulted in fiscal independence levels between only 1.07% and 4.36%. The weak performance reflects geographical constraints, limited economic activities, and a small tax base. Samarinda City, however, demonstrated that an increase in PAD—from IDR 485.19 billion in 2020 to IDR 931.72 billion in 2024—was followed by a rise in fiscal independence from 16.89% to 18.29%. Meanwhile, Kutai Kartanegara and East Kutai showed that despite relatively high PAD, their independence remained low due to the large share of Balancing Funds derived from extractive industries, which overshadowed PAD's contribution to total regional income.

These findings align with the Fiscal Federalism Theory, which emphasizes that true decentralization can only be realized when regions possess independent and sustainable income sources. The results support previous studies by Malau & Parapat (2020) and Desanty & Putri (2025), which found that PAD growth is positively correlated with fiscal independence. Similarly, Halim & Kusufi (2022) highlight that fiscal independence can only be attained when local governments maximize their revenue potential through effective tax and levy management, while Fitriasari (2021) argues that PAD not only measures fiscal capacity but also reflects the effectiveness of local governance. Moreover, research by Purbadharmaja et al. (2020) reveals that regions with a strong economic base—such as tourism and industry—tend to have higher PAD, enabling them to finance regional programs without heavy reliance on central transfers. Conversely, regions with lower PAD remain dependent on external funds, underscoring the urgency of PAD optimization as a foundation for stronger regional autonomy.

Beyond fiscal capacity, enhancing PAD also fosters accountability and innovation in regional governance. As mandated by Law No. 23 of 2014, the purpose of decentralization is to strengthen both independence and accountability. Sasana (2020) notes that when local governments rely on PAD, they are encouraged to improve public services, as revenues originate directly from the community. This creates a virtuous cycle: improved public services enhance taxpayer satisfaction and compliance, which, in turn, boosts PAD and fiscal independence. Furthermore, innovation plays a pivotal role—regions that implement digital tax and levy systems, as demonstrated by Nugroho & Prasetyo (2023), experience substantial increases in PAD collection, particularly in urban areas. In conclusion, this study reaffirms that strengthening PAD is the cornerstone of achieving genuine regional fiscal independence. Through creativity, innovation, and accountability in harnessing local potentials, regional governments can reduce dependence on central transfers, achieve fiscal autonomy, and fulfill the overarching goals of Indonesia's fiscal decentralization policy.

The Influence of the Balance Fund on Regional Independence

Regional autonomy is a direct outcome of decentralization policies that establish a dynamic relationship between the central and local governments. Through the transfer of authority and responsibility, decentralization enables local governments to manage their own administrative, fiscal, and developmental affairs. This process aims to empower local entities to optimize the use of regional resources to achieve self-sufficiency. In this context, regional fiscal independence represents the ability of local governments to finance governance, development, and public service delivery independently. Therefore, the degree of fiscal independence serves as a key indicator for assessing how well a region can sustain its functions without excessive reliance on external or central government financial assistance.

The Balancing Fund plays a pivotal role in shaping the degree of fiscal independence across regions. These funds, allocated through the State Budget (APBN), are intended to assist local governments in meeting their financial needs fairly and proportionally. The primary objective is to bridge the fiscal gap between regions with strong financial capacity and those with limited revenue potential. By providing financial equalization, the central government ensures that all regions—regardless of their economic base—can effectively carry out governmental functions. However, while the Balancing Fund promotes fiscal equity, it may inadvertently foster dependency if local governments rely too heavily on these transfers instead of developing their own sources of revenue.

Empirical findings reveal a negative and significant relationship between the Balancing Fund and regional fiscal independence. Statistical evidence—indicated by a regression coefficient of $\beta = -0.005$ with a p-value < 0.05—shows that each increase in the Balancing Fund correlates with a decline in regional independence. For example, Berau Regency received substantial Balancing Funds, increasing from IDR 2,132.54 billion in 2019 to IDR 3,681.61 billion in 2024, yet maintained low fiscal independence levels of only 5.55% to 11.96%. Similarly, Kutai Kartanegara Regency received IDR 10,815.68 billion in 2024 but exhibited a fiscal independence ratio ranging merely from 6.37% to 15.93%. These cases underscore that large financial transfers from the central government do not necessarily strengthen fiscal independence and may even reduce the incentive for local governments to develop independent revenue sources.

Conversely, regions that successfully maximize Regional Original Revenue (PAD) and minimize dependence on the Balancing Fund demonstrate greater fiscal autonomy. Cities such as Balikpapan and Samarinda exemplify this pattern, where higher PAD contributions translate directly into improved fiscal independence. Balikpapan achieved fiscal independence levels between 24.09% and 33.14%, while Samarinda recorded figures ranging from 16.75% to 21.3%. These data confirm the theoretical premise of the Fiscal Federalism framework, which posits that greater reliance on fiscal transfers weakens a region's ability to govern and finance public functions independently. The findings are consistent with prior studies by Wasil, Saleh (2020), and Fadhila & Susilowati (2025), all of which conclude that the larger the proportion of Balancing Funds relative to PAD, the lower the degree of regional fiscal independence.

Conceptually, regional independence—according to Haptari et al. (2023)—is determined by a region's capacity to finance its development programs and public services using internally generated revenues while minimizing dependence on central transfers. The present findings affirm that fiscal autonomy can only be realized when regions possess a resilient and independent revenue base. Over-reliance on Balancing Funds tends to foster fiscal dependency, thereby weakening local initiatives to explore economic potential and expand PAD. This concern is echoed by Wulandari & Darwanto, who caution that excessive transfers may lead regions into a "comfort zone" that inhibits fiscal innovation. Consequently, regions that are overly dependent on central transfers face the risk of stagnation in both fiscal performance and governance accountability.

From a policy perspective, these findings underscore the urgency for local governments to adopt more proactive fiscal strategies aimed at strengthening PAD. Actions such as optimizing local tax collection, professionalizing regional enterprises (BUMD), and diversifying local economies through the development of sectors like tourism, plantations, and creative industries are essential. At the same time, the central government should reform the Balancing Fund mechanism to prevent long-term fiscal dependency. As emphasized by Bird &

Smart, fiscal transfers should function as instruments of equalization rather than perpetual subsidies that diminish local initiative. Ultimately, true fiscal independence cannot be achieved solely through administrative decentralization but requires robust and sustainable fiscal decentralization. Reducing the dominance of Balancing Funds in local budgets should thus be regarded not as a financial loss but as an opportunity for regions to broaden their revenue base, foster innovation in local taxation, and strengthen financial governance toward sustainable regional autonomy.

The Role of Capital Expenditure in Moderating the Influence of PAD on Regional Financial Independence

Capital expenditure is a crucial element of local government financial management, as it plays a vital role in promoting economic growth and enhancing the quality of public services. It refers to the allocation of budgets for acquiring or constructing fixed assets that generate long-term benefits extending beyond a single fiscal year. Such expenditures are essential for sustaining infrastructure development, which serves as the foundation for regional economic advancement. Two key factors influencing regional fiscal independence are Regional Original Revenue (PAD) and capital expenditure. PAD reflects a region's financial capacity derived from internal revenues such as local taxes, levies, and returns from self-managed assets. Meanwhile, capital expenditure represents investment in long-term infrastructure and facilities expected to enhance service delivery and stimulate regional economic development.

The analysis results show that the hypothesis proposing a positive moderating role of capital expenditure between PAD and fiscal independence is not supported. Instead, with a small negative coefficient (−0.00002256) and a significant p-value ($0.000 < 0.05$), the study reveals that capital expenditure tends to weaken the positive effect of PAD on fiscal independence. This suggests that although PAD may increase, excessively high or inefficient capital expenditure can reduce the effectiveness of PAD's contribution to fiscal independence. Empirical evidence from East Kalimantan (2019–2024) supports this conclusion. Several districts and cities experienced an increase in PAD without a corresponding improvement in independence. For instance, Balikpapan City recorded the highest average PAD (above IDR 800 billion) and capital expenditure reaching IDR 1.4 trillion in 2024, yet its fiscal independence declined from 30.94% (2019) to 25.72% (2024). Similarly, Samarinda's PAD increased from IDR 857.54 billion (2023) to IDR 931.72 billion (2024), but due to a surge in capital expenditure from IDR 1.93 trillion to IDR 2.56 trillion, independence fell from 21.80% to 18.29%. A comparable trend occurred in Bontang, where growth in PAD was offset by a disproportionate rise in capital expenditure, resulting in decreased fiscal independence.

Overall, the findings demonstrate that high capital expenditure does not necessarily correlate positively with fiscal independence, particularly when it is not directed toward activities that generate new PAD sources. This situation reflects a fiscal trade-off in which excessive capital spending absorbs financial capacity without producing long-term revenue streams. The result contradicts Keynesian Theory, which posits that capital expenditure should create a multiplier effect that stimulates economic growth. In East Kalimantan, a significant portion of capital expenditure has not been allocated to productive sectors capable of directly expanding PAD, thus turning such spending into a short-term fiscal burden rather than a catalyst for self-sufficiency. Most capital expenditure continues to be financed by transfer funds, particularly from the Revenue Sharing Fund (DBH) in the oil, gas, and coal sectors, while PAD's contribution to total revenue remains relatively small. This dependency indicates that capital expenditure has yet to serve effectively as an instrument for enhancing fiscal independence.

Theoretically, Halim and Kusufi (2022) emphasize that PAD should function as the primary source of regional development financing. However, when increases in PAD are not accompanied by efficient and productive capital expenditure, the benefits of higher PAD fail to translate into improved fiscal independence. Mahmudi and Sallama (2019) argue that capital expenditure should focus on creating new fixed assets or upgrading public infrastructure to foster sustainable economic growth. In contrast, Prakosa and Arifin (2021) caution that excessively high or misallocated capital expenditure may cause a "crowding-out effect," diminishing PAD's long-term impact while burdening regional finances. Likewise, Syahrial notes that the positive influence of PAD on fiscal independence is maximized only when capital expenditure is targeted toward productive sectors—such as economic infrastructure, enhanced public services, and the development of competitive industries. When capital spending is dominated by ceremonial or non-productive projects, it reduces PAD's effectiveness in promoting fiscal independence. Therefore, this study concludes that aligning PAD growth with efficient, transparent, and accountable capital expenditure management is crucial. Properly planned and well-targeted capital expenditure can transform PAD growth into genuine fiscal independence, whereas ineffective spending risks rendering increased PAD unproductive in achieving sustainable regional self-reliance.

The Role of Capital Expenditure in Moderating the Influence of the Balance Fund on Regional Financial Independence

Regional fiscal independence is also influenced by Balancing Funds, which include the General Allocation Fund (DAU), the Special Allocation Fund (DAK), and the Revenue Sharing Fund (DBH). These funds represent fiscal transfers from the central government aimed at reducing disparities among regions and ensuring equitable resource distribution. However, a high degree of dependence on Balancing Funds can potentially weaken the financial independence of local governments. In this context, capital expenditure—spending allocated for infrastructure development and other long-term assets—is considered a moderating variable capable of strengthening the positive impact of Balancing Funds on regional fiscal independence. Empirical results confirm this moderating role, with a coefficient of 0.000002251 and a p-value of 0.005 (below 0.05). These findings support the hypothesis that allocating Balancing Funds effectively toward capital expenditure can mitigate the negative effects of fiscal dependency while enhancing long-term fiscal independence.

This indicates that the effectiveness of Balancing Funds in promoting fiscal independence depends not only on the total amount received but also on how strategically these funds are invested in productive capital projects that foster sustainable regional development. In other words, fiscal capacity growth is determined more by the quality of expenditure allocation than by fiscal quantity alone. This pattern is evident in empirical data from several districts and cities in East Kalimantan Province. For example, East Kutai Regency (Kutim) displayed a positive trend in which an increase in Balancing Funds—from IDR 6.14 trillion to IDR 8.50 trillion between 2023 and 2024—was accompanied by rising capital expenditure and a moderate increase in the regional independence ratio (from 4.10% to 5.40%). Although the ratio remains relatively low, this upward trend suggests that capital expenditure financed through transfer funds has begun to strengthen local fiscal capacity, confirming that the productive use of Balancing Funds can promote fiscal independence.

A contrasting case occurred in West Kutai Regency (Kubar), where a decline in Balancing Funds (from IDR 3.41 trillion to IDR 2.48 trillion) was accompanied by a reduction in capital expenditure (from IDR 1.01 trillion to IDR 954.30 billion) over the same period (2023–2024). Interestingly, the fiscal independence ratio increased from 4.80% to 6.77%. This finding implies that a reduction in central transfers and capital expenditure does not necessarily have adverse effects, particularly if previous capital investments have already generated sustained growth in Regional Original Revenue (PAD). When the proportion of PAD increases relative to total revenue, regional independence improves even amid lower fiscal transfers, suggesting that the quality and productivity of past investments play a more decisive role than the sheer magnitude of spending.

Essentially, capital expenditure functions as a strategic fiscal instrument designed to finance long-term assets such as infrastructure, public services, and productive economic facilities. Allocating Balancing Funds to capital expenditure enhances economic efficiency, strengthens public service capacity, and generates added value at the local level. This aligns with Kurniawan et al. (2023), who emphasize that capital expenditure produces a substantial multiplier effect, reinforcing the regional economic base and consequently improving fiscal independence. The moderating role of capital expenditure in the relationship between Balancing Funds and regional independence also aligns with the Fiscal Federalism Theory (Oates), which underscores the importance of effective fiscal transfer management in building regional financial capacity. When Balancing Funds are used solely for routine expenditures, fiscal dependency persists; conversely, productive allocations through capital spending act as catalysts for future PAD growth by stimulating economic activity and expanding the regional tax base.

These findings are consistent with previous research. Yudiastuti found that capital expenditure strengthens the correlation between Balancing Funds and local government financial performance, indicating that long-term investment financed through fiscal transfers can enhance economic efficiency and reduce dependence on central funding. Similarly, Astuti and Amanda (2020) observed that capital expenditure serves as a moderating variable amplifying the effect of Balancing Funds on financial performance, thereby improving fiscal independence. This suggests that effective management of Balancing Funds through productive capital expenditure—such as infrastructure supporting economic activity—can enhance financial performance while stimulating PAD, a crucial driver in reducing fiscal dependency and strengthening regional autonomy. Moreover, Pratama and Rahayu (2022) demonstrated that capital expenditure reinforces the positive impact of fiscal transfers on regional independence, particularly in regions with limited fiscal capacity, as it generates sustainable outcomes such as improved accessibility, productive sector growth, and enhanced public services.

From a practical standpoint, these findings highlight the importance of prioritizing capital expenditure optimization within regional fiscal policy design as an essential instrument for strengthening fiscal independence. Local governments should not rely solely on the volume of Balancing Funds but must focus on managing them effectively to deliver long-term fiscal benefits. This recommendation is highly relevant within the framework of Indonesia's fiscal decentralization policy, which seeks to strengthen regional autonomy and reduce interregional disparities (Saragih & Fitriani, 2024). Therefore, it can be concluded that capital expenditure serves as a key moderating variable that reinforces the link between Balancing Funds and regional autonomy. The more effectively Balancing Funds are allocated to productive capital expenditure, the greater their positive impact on regional fiscal independence, thereby ensuring that the objectives of fiscal decentralization are achieved more sustainably and efficiently.

CONCLUSION

Based on the results of the research, it can be concluded that the fiscal independence of regency and city governments in East Kalimantan Province is positively and significantly influenced by Regional Original Revenue (PAD). These findings indicate that the higher the PAD generated by a region, the greater its financial capacity to fund development programs and meet community needs without relying on the central government. Conversely, the Balancing Fund has a negative and significant effect on fiscal independence, suggesting that increased dependence on transfer funds from the central government leads to lower levels of regional independence. Meanwhile, capital expenditure functions as a moderating variable with two directions of influence: first, it weakens (negative moderation) the relationship between PAD and regional independence; second, it strengthens (positive moderation) the relationship between the Balancing Fund and regional independence. This indicates that appropriate allocation of capital expenditure can enhance the utilization of Balancing Funds while optimizing regional fiscal performance. As a recommendation, local governments should prioritize efforts to increase fiscal independence by optimizing PAD sources—such as expanding the tax and levy base, improving asset management efficiency, and strengthening local economic sectors capable of making long-term contributions. Furthermore, capital expenditure should be strategically directed toward productive projects, including the development of economic infrastructure, public facilities, and investment-supporting facilities that stimulate regional economic activity and foster sustainable fiscal autonomy.

REFERENCES

Anggraeni, R. M., Khusaini, M., & Prasetyia, F. (2023). Fiscal Decentralization and its Effect on Poverty Alleviation: Case Study of Indonesia. *Bulletin of Islamic Economics*, *1*(2), 35–48.

Almas, A. B., & Rahmayati, A. (2022). Pengaruh pendapatan asli daerah, dana perimbangan, dan belanja modal atas tingkat kemandirian keuangan daerah (Studi empiris pada daerah-

daerah tertinggal di Indonesia dalam strategi nasional percepatan pembangunan daerah tertinggal tahun 2021) (Doctoral dissertation, FEBI/AKS).

Ardiansyah, R. (2023). Determinan pendapatan asli daerah dan dana perimbangan terhadap kemandirian keuangan daerah. *Jurnal Manajemen dan Profesional, 4*(1), 92–106.

Astuti, M., & Amanda, A. R. (2020). *Pengantar manajemen pemasaran*.

Ansar, R., & Ohorela, R. W. U. (2022). The Effect of Local Government Size, Regional Complexity, Capital Expenditure, PAD, and Economic Growth on Weaknesses of Local Government Internal Control. *International Journal of Environmental, Sustainability, and Social Science*, *3*(2), 242–251.

Aquilina, M., Frost, J., & Schrimpf, A. (2024). Decentralized finance (DeFi): a functional approach. *Journal of Financial Regulation*, *10*(1), 1–27.

Ayuningtyas, R., Nuha, G. A., & Zulkarnaeni, A. S. (2025). Determinants of Regional Financial Independence: A Study of Local Taxes, Balancing Funds and Capital Expenditure in East Java (2020-2023). *Jurnal Riset Akuntansi Terpadu*, *18*(1), 66–82.

Didiktus, O., Wahda, W., & Aswan, A. (2024). Relationship Patterns of Central and Regional Governments in the Framework of Regional Autonomy: A Study of Regional Independence and Financial Dependence in Sikka District. *Indonesian Interdisciplinary Journal of Sharia Economics (IIJSE)*, *7*(1), 1446–1454.

Desanty, R., & Putri, A. (2025). Pengaruh pendapatan asli daerah dan dana perimbangan terhadap kemandirian keuangan daerah dengan alokasi belanja modal sebagai variabel mediasi (Studi kasus pemerintah Kota Payakumbuh tahun 2018–2023). *BENEFIT: Journal of Business, Economics, and Finance,* *3*(2), 1033–1050. https://doi.org/10.70437/benefit.v3i1.1297

Fatimah, M., Haryanto, H., & Retnandari, N. D. (2024). Central-Local Government Relations in Regional Planning and Budgeting in Indonesia: Between Autonomy and Control. *Policy & Governance Review*, *8*(2), 131–153.

Fadhila, L. S., & Susilowati, D. (2025). Pengaruh pendapatan asli daerah dan dana perimbangan terhadap kemandirian keuangan pemerintah daerah (Studi kasus pada pemerintah provinsi di Indonesia tahun 2018–2021). *EKONOMIKA45: Jurnal Ilmiah Manajemen, Ekonomi Bisnis, Kewirausahaan,* *12*(2), 1428–1447. https://doi.org/10.30640/ekonomika45.v12i2.4607

Febrianti, A. A., & Fidiana. (2025). Pengaruh pendapatan asli daerah, dana alokasi umum, dan belanja daerah terhadap kemandirian daerah. *Jurnal Ilmu dan Riset Akuntansi, 14*(1).

Fitriasari, D. (2021). The effect of regional original income and general allocation funds on regional financial independence. *Journal of Economics and Policy, 14*(1), 45–56.

Halim, A., & Kusufi, M. S. (2022). *Akuntansi sektor publik: Teori, konsep, dan aplikasi*.

Haptari, A., Nugroho, P. A., & Wibowo, H. (2023). Decentralization and fiscal independence in Indonesia: Reassessing the role of local revenue. *SSRN Working Paper*.

Haptari, V. D., Ginting, A. M., & Aritonang, F. D. (2022). Analysis of Factors Affecting Regional Financial Independence in the Framework of a Policy Strategy For Increasing Regional Original Income. *Eduvest-Journal of Universal Studies*, *2*(4), 777–796.

Haq, F. A., Wati, L. N., & Istianda, M. (2023). The Role of Capital Expenditure Allocation in Mediating Regional Financial Performance on Regional Economic Growth Aceh Province. *Journal of Social Entrepreneurship Theory and Practice*, *2*(1), 27.

Islami, R. N., Ansar, R. Bin, & Azizah, T. P. (2025). The Role of Regional Original Income, Regional Size, and Transfer Funds in Improving Regional Financial Performance. *Indonesian Interdisciplinary Journal of Sharia Economics (IIJSE)*, *8*(2), 4745–4766.

Kristina, S. R., Naukoko, A. T., & Siwu, H. F. D. (2021). Pengaruh pendapatan asli daerah (PAD) dan dana perimbangan terhadap kemandirian keuangan daerah Kabupaten Halmahera Tengah. *Jurnal EMBA: Jurnal Riset Ekonomi, Manajemen, Bisnis dan Akuntansi, 9*(1), 453–461.

Kurniawan, A., Akbar, B., & Sinurat, M. (2024). Regional Tax Management Optimization Model to Realize Regional Financial Independence in Pekanbaru City, Riau Province. *Influence: International Journal Of Science Review*, *6*(1), 18–32.

Kurniawan, A., Sari, R., & Wibowo, T. (2023). Capital expenditure and fiscal independence: Evidence from local governments in Indonesia. *Jurnal Ekonomi dan Pembangunan Indonesia, 23*(2), 145–162.

Kusuma, R. W., Farhan, R., Budiman, S., Kusumawati, S., Hayyati, A. S., & Putri, R. F. (2023). Performance of Regional Economic in East Kalimantan: Leading Sector of Export-Import Commodities in 2019-2020. *IOP Conference Series: Earth and Environmental Science*, *1233*(1), 12031.

Mahmudi, M., & Sallama, N. (2019). *Manajemen keuangan daerah*.

Malau, E. I., Pratiwi, E., & Parapat, S. (2020). Pengaruh pendapatan asli daerah (PAD) dan belanja modal terhadap kemandirian keuangan daerah. *Jurnal EK&BI, 3*, 2620–7443. https://doi.org/10.37600/ekbi.v3i2.196

Marselina, A., & Herianti, E. (2022). Determinan kemandirian keuangan daerah. *Jurnal Akuntansi dan Governance, 2*(2), 110–118.

Mukhlis, M. M. (2025). Regional Government Autonomy in Indonesia: The Ambiguity of the Federalism of Republic Model. *Malaysian J. Syariah & L.*, *13*, 35.

Nugroho, A., & Prasetyo, W. (2023). Digitalization of local tax administration and its impact on regional income in Indonesia. *Public Sector Innovation Journal, 28*(2), 77–95.

Okonkwo, O. N., Ojima, D., Ogwuru, H. O. R., Echeta, D. O., Duru, E. E., Akamike, O. J., & Manasseh, C. O. (2023). Impact of government capital expenditure on the economic growth rate of Nigeria. *Journal of Economics and Allied Research*, *8*(1), 335–348.

Putra, A., & Mahiswara, A. (2024). Exploring the Impact of Land and Building Tax (PBB) on Original Regional Income (PAD): A Study in Regional Economics and Fiscal Governance. *Indonesia Accounting Research Journal*, *11*(3), 138–149.

Purbadharmaja, I. B. P., Yasa, I. N. M., & Dewi, M. H. U. (2020). The effect of local revenue and general allocation funds on regional financial independence in Bali Province. *Journal of Economics, Business, and Accountancy Ventura, 23*(1), 15–27.

Prakosa, K., & Arifin, Z. (2021). The effect of regional expenditures on fiscal independence of local governments in Indonesia. *Journal of Public Sector Accounting, 4*(2), 123–136.

Pratama, I. G., & Rahayu, S. (2022). The role of capital expenditure in moderating intergovernmental transfers and fiscal independence of local governments in Indonesia.

Public Sector Economics, 46(1), 27–49.

Saleh, R. (2020). Pengaruh pendapatan asli daerah (PAD) dan dana perimbangan terhadap kemandirian keuangan pemerintah daerah. *Jurnal Informasi, Perpajakan, Akuntansi dan Keuangan Publik, 15*(2), 111–134. https://doi.org/10.25105/jipak.v15i2.6226

Saragih, J. P., & Fitriani, N. (2024). Fiscal decentralization and regional financial independence: Lessons from Indonesia. *Journal of Public Administration and Policy Research, 16*(1), 12–25.

Sasana, H. (2020). The role of local own-source revenue in enhancing fiscal decentralization in Indonesia. *Economic Journal of Emerging Markets, 12*(2), 158–165.

Sipayung, B., & Cristian, R. D. (2022). The Influence of the Implementation of Regional Autonomy on Regional Financial Management of East Kalimantan Province. *Citizen: Jurnal Ilmiah Multidisiplin Indonesia*, *2*(3), 356–368.

Sulaiman, B. U., Malan, U. A., & Eliezer, N. (2025). Evaluating the Effectiveness of Fiscal Policy in Reducing Income Inequality. *Ldealistic Journal of Advanced Research in Progressive Spectrums (IJARPS) EISSN–2583-6986*, *4*(03), 1–6.

Toumbourou, T. D., Dressler, W. H., & Werner, T. T. (2022). Plantations enabling mines: Incremental industrial extraction, social differentiation and livelihood change in East Kalimantan, Indonesia. *Land Use Policy*, *119*, 106157.