Jurnal Ilmu Manajemen Advantage

E-ISSN : 2597-8888, P-ISSN : 2598-1072
Available online at:
https://ejournal.itbwigalumajang.ac.id/index.php/adv

Regional Fiscal Dynamics: The Influence of Local Revenue and Transfer Receipts on Capital Expenditure

Rineliana[1], Edi Susanto[2], Agung Gunawan[3], Omar Farrakhan Tampubolon[4], Dahlan Tampubolon[5]

Department of Management, Faculty of Economics and Business, Universitas Dumai, Indonesia[1,2,3]
Department of Management, Faculty of Economics and Business, Universitas Gadjah Mada, Indonesia[4]
Department of Management, Faculty of Economics and Business, Universitas Riau, Indonesia[5]

Corresponding Author: Dahlan Tampubolon (dahlan.tampubolon@lecturer.unri.ac.id)

ARTICLE INFO

Date of entry:
27 Oct 2025
Revision Date:
14 November 2025
Date Received:
01 December 2025

ABSTRACT

This study aims to comprehensively analyze the influence of various regional income types (PAD, DAU, DBH, and Non-Physical DAK) on capital expenditure allocation across districts/cities in Riau Province. This study uses secondary data, including DAU, PAD, Non-Physical DAK, DBH, and Capital Expenditure, from BPKAD and the Directorate General of Treasury of Riau Province. Data collection uses documentation from the websites of the Directorate General of Fiscal Balance, BPKAD, and the Directorate General of Treasury of Riau Province. The development of various types of income across districts/cities in Riau Province showed a positive trend during the study period, with DBH making a significant contribution, reflecting the region's rich natural resources. The trend and growth of capital expenditure in district/city governments in Riau Province fluctuated but generally increased. However, its proportion to total regional spending is still relatively low. DBH has the most significant influence on capital expenditure in districts/cities in Riau Province, followed by DAU, PAD, and Non-Physical DAK (not significant). The high impact of DBH and DAU on capital expenditure indicates a high fiscal dependence of regional governments on central government transfers for financing infrastructure development.

Keywords: Regional Income, Capital Expenditure, Regional Spending, and Fiscal Dependence

CC BY NC

Cite this as: Rineliana, R., Susanto, E., Gunawan, A., Tampubolon, O. F., & Tampubolon, D. (2025). Regional Fiscal Dynamics: The Influence of Local Revenue and Transfer Receipts on Capital Expenditure. *Jurnal Ilmu Manajemen Advantage, 9*(2), 150–161. https://doi.org/10.30741/adv.v9i2.1557

INTRODUCTION

Regional autonomy, implemented in Indonesia since 2001, has enabled local governments to manage their finances independently and responsibly (Yasin et al., 2021). This fiscal decentralization system enables local governments to allocate financial resources according to their priorities and needs, accelerating development and improving community welfare (Hung & Thanh, 2022). In the context of regional autonomy, regional revenue and capital expenditure are important indicators of fiscal capacity and local governments' commitment to improving public services and

driving economic growth. Regional revenue comprises various sources, including Local Own-Source Revenue (PAD), the General Allocation Fund (DAU), the Revenue Sharing Fund (DBH), and the Non-Physical Special Allocation Fund (DAK). Each type of revenue has different characteristics and purposes for regional financial management (Zamzami & Rakhman, 2023). One crucial allocation is capital expenditure, which refers to expenses whose benefits extend beyond one fiscal year and add to regional assets or wealth, resulting in recurring additional expenses (Pranoto & Sihaloho, 2025).

Riau Province, one of Indonesia's provinces with significant economic potential, presents interesting fiscal dynamics for study. With abundant natural resources, especially in the oil, gas, and palm oil plantation sectors, Riau Province receives significant revenue-sharing funds (Hidayat et al., 2024). However, differences in economic potential among regencies/cities create fiscal disparities that require transfer policies from the central government, such as DAU and DAK, to ensure equitable fiscal capacity across regions (Akita et al., 2021). Previous studies have analyzed the relationship between regional revenue sources and capital expenditure allocations. For example, Budi and Sastradipraja (2024) found that PAD positively and significantly affects capital expenditure. Meanwhile, Suhyanto et al. (2021) found that DAU and DAK have different effects on capital expenditure, depending on regional fiscal characteristics. Furthermore, Wulandari and Gantyowati (2021) showed that DAU can create a flypaper effect, in which local governments rely on central government transfers and suboptimally utilize PAD potential.

Although researchers have extensively examined the relationship between regional revenue and capital expenditure, inconsistencies in research results and gaps in the literature persist, especially in specific contexts such as Riau Province, which has unique economic characteristics (Ginanjar et al., 2025). Additionally, most previous studies have not comprehensively analyzed the simultaneous influence of the four revenue types (PAD, DAU, DBH, and Non-Physical DAK), nor identified which revenue type most significantly affects capital expenditure (Zein et al., 2024). Empirical evidence from Riau Province shows that although regional revenue continues to increase annually, capital expenditure allocations do not always follow the same trend (Azis et al., 2022). Some regencies/cities in Riau Province have relatively low proportions of capital spending compared to total regional expenditure. This raises questions about the factors influencing capital spending allocation decisions and the extent to which various types of regional revenue contribute to these decisions.

Recent studies by Purwanto et al. (2022) revealed that appropriate capital expenditure allocation policies can accelerate infrastructure development and enhance regional competitiveness. In an era of increasingly intense global and regional competition, local governments are required to optimize financial resource management to promote inclusive and sustainable economic growth (Wang et al., 2023). Therefore, a comprehensive understanding of the relationship between various types of regional revenue and capital expenditure allocation is crucial for effective fiscal decision-making. On the other hand, implementing Law Number 1 of 2022 concerning Financial Relations between the Central Government and Regional Governments has brought significant changes to the regional transfer regime, including strengthening Non-Physical DAK to support national priority programs (MoF, 2023). These policy changes will impact regional financial management patterns, including capital expenditure allocation.

Based on these phenomena and research gaps, this study aims to comprehensively analyze the influence of various regional revenue types (PAD, DAU, DBH, and Non-Physical DAK) on capital spending allocation across regencies/cities in Riau Province. The results of this study are expected to provide theoretical and practical contributions to the development of regional finance science and the formulation of more effective and efficient fiscal policies.

Jurnal Ilmu Manajemen Advantage
E-ISSN : 2597-8888, P-ISSN : 2598-1072
Available online at:
https://ejournal.itbwigalumajang.ac.id/index.php/adv

METHODS

This research uses secondary data sources, including DAU, PAD, Non-Physical DAK, DBH, and Capital Expenditure sourced from the Regional Financial and Asset Management Agency (BPKAD) and the Regional Office of the Directorate General of Treasury of Riau Province, Ministry of Finance. Data collection uses documentation from the Directorate General of Fiscal Balance website, the Regional Financial and Asset Management Agency (BPKAD), and the Consolidated Regional Government Financial Reports at the Directorate General of Treasury of Riau Province. A descriptive analysis provides an overview of capital expenditure development across regencies/cities in Riau Province. The data comes from the audited Regional Government Financial Reports submitted by the regional government to the Regional Office of the Directorate General of Treasury of Riau Province from 2017 to 2023 (a period of 7 years). The observation areas comprised 12 districts/cities, resulting in a total of 7 × 12 observations (n = 84). To explain the influence of various variables on capital expenditure using a panel data regression model.

Gujarati and Porter (2015) Consider several regression models that may be non-linear in variables but linear in parameters, or can be made so with appropriate variable transformations. The panel data regression model in this research uses the following equation:

$$Y_{it} = \alpha + \beta_1 X_{1t} + \beta_2 X_{2t} + \beta_3 X_{3t} + \beta_4 X_{4t} + \varepsilon_{it}$$

Where Y_{it} is the capital expenditure (Rupiah) of regency/city i in year t; α is the intercept coefficient; X_{it} is the realized DAU receipts (Rupiah), X_{2it} is the realized PAD receipts (Rupiah), X_{3it} is the realized Non-Physical DAK (Rupiah); X_{4it} is the realized DBH receipts (Rupiah), and ε_{it} is the error term. The panel data regression model consists of three methods: common effect, fixed effect, and random effect models (Baltagi, 2021). Based on these three methods, to determine the best model, several tests need to be conducted using the Chow test, the Hausman test, and the Lagrange multiplier test (Greene, 2012).

RESULTS AND DISCUSSION

The capital expenditure ratio in local governments is the share of the budget devoted to capital expenditure relative to total regional expenditure. This ratio is important because capital expenditure reflects local government investment in infrastructure development, fixed assets, and long-term public services. The benefits of capital expenditure ratio analysis include: it can be used to measure the efficiency of local government budget allocation, promote transparency and accountability in regional financial management, and, most importantly, assess the government's ability to build productive infrastructure and assets. The capital expenditure ratio is the ratio of government spending on acquiring fixed and other assets (with a lifetime > 1 year) to total regional government spending. The capital expenditure ratio in regency and city governments in Riau Province shows a long-term decreasing trend; only in Siak Regency, Rokan Hulu Regency, and Dumai City does the trend increase.

Table 1. Capital Expenditure Ratio of Regencies/Cities in Riau Province from 2019 to 2023

Local Government	Capital Expenditure Ratio	Capital Expenditure Growth
Kampar	14.58	15.28
Bengkalis	24.62	-19.66
Indragiri Hulu	13.91	26.04
Indragiri Hilir	11.11	20.99
Pelalawan	17.36	14.23
Rokan Hulu	22.85	46.14
Rokan Hilir	14.82	-24.6
Siak	23.26	59.76

Kuansing	15.89	95.71
Meranti	13.18	-47.49
Pekanbaru	11.49	-3.82
Dumai	25.38	90.01

As shown in Table 1, the average capital expenditure ratio of regency/city local governments throughout Riau Province remains below 25% of their total regional expenditure. Meanwhile, the Law on Financial Relations between the Central Government and Regional Governments (HKPD) mandates that public service infrastructure spending (a proxy for capital expenditure) should be at least 40% of total regional expenditure. In comparison, personnel spending should not exceed 30% of total regional expenditure. The majority of regional spending is allocated to finance government activities with limited long-term economic impact. Table 2 provides an overview of the development of the Regional Revenue Sharing Fund (DBH), reflecting Riau Province's status as a region rich in natural resources (palm oil, oil, and gas). DBH increased sharply in 2021 following the COVID-19 pandemic, driven by the surge in global commodity prices, but declined again in 2022. The standard deviation (SD) indicates a challenge for regions in planning stable long-term spending.

Table 2. Trends in DAU, PAD, DBH, and Non-Physical DAK of Consolidated Regencies and Cities in Riau Province from 2018 to 2023 (in millions of Rupiah)

Tahun	DAU	PAD	DBH	Non-Physical DAK
2018	6,952,145.82	2,399,276.78	6,396,202.44	1,405,839.65
2019	7,420,818.15	2,618,082.94	7,297,805.19	1,635,950.87
2020	4,974,440.21	2,560,354.14	7,897,859.62	1,649,116.65
2021	5,006,137.10	2,910,353.12	9,175,430.37	1,672,750.64
2022	6,197,967.42	2,992,973.09	6,760,149.24	1,670,172.37
2023	7,348,683.25	4,293,361.07	7,406,972.19	1,548,312.84
Mean	6,391,698.66	2,962,383.36	7,488,003.18	1,597,857.16
Median	6,575,056.62	2,785,663.11	7,352,388.69	1,659,533.76
SD	1,076,009.61	632,042.84	1,029,910.15	97,969.76

Although PAD is the second-smallest source of revenue on average, PAD showed the most consistent growth trend and a substantial increase towards the end of the period. The increase in PAD demonstrates the regional government's success in enhancing fiscal independence and optimizing regional taxes. This sharp increase, particularly post-pandemic, suggests that Riau's regional tax base has recovered and is now capable of supporting its revenue independently. The General Allocation Fund (DAU) showed clear policy fluctuations during the study period. The General Allocation Fund (DAU) reached its highest level in 2019 before experiencing a drastic decline in 2020 and 2021 due to adjustments to fiscal transfer policies during the COVID-19 pandemic. The DAU recovered in 2022 and 2023, returning to its average value. This volatility indicates that, although the DAU is a flexible block grant, its value is vulnerable to fiscal conditions and austerity policies implemented by the central government.

The Non-Fiscal Special Allocation Fund (Non-Physical DAK), designed to support public service spending (such as education and health) without physical intervention, demonstrated the highest stability among all revenue components. For the smallest elementary school (97 million Rupiah), its allocation has remained relatively constant, averaging around 1,597 billion Rupiah since 2019. This stability reflects the nature of the Non-Fiscal DAK as an earmarked transfer (its allocation is predetermined). This program is less affected by economic fluctuations or other significant fiscal transfer policies, thus providing funding certainty for basic service programs. Capital expenditure growth is a measure of the rate of change (growth or decline) in local government capital expenditure from one period to another. This ratio describes the increase or decrease in government investment in fixed asset development or infrastructure over a period. Capital expenditure growth in local governments is highly volatile; it decreased during the COVID-19 pandemic and increased again

after the pandemic ended. The highest capital expenditure growth in 2023 was in Kuansing Regency at 95.71% and Dumai City at 90.01% compared to 2022.

DAU is part of fiscal decentralization that aims to reduce regional disparities. Although DAU is often used to finance fiscal gaps and routine government operations, it may also be used to finance productive expenditures, such as capital expenditures, in regencies and city governments. In the regency and city governments in Riau Province, DAU shows an increasing trend. It decreased during the COVID-19 pandemic but gradually increased from 2020 to 2023. The consolidated DAU allocation for regency and city governments in 2023 reached 7.35 trillion, an increase of 19.23% from the 2022 allocation. This increase in DAU allocation is expected to be used for routine expenditures and financing productive expenditures, such as capital expenditures.

PAD is regional revenue sourced from regional taxes, levies, and other local sources, and can be used flexibly to meet regional needs. PAD can be used to finance capital spending in local governments. The consolidated PAD of regency and city governments in Riau Province from 2018 to 2023 shows an increasing trend. The highest increase in consolidated PAD of regency and city governments in Riau Province occurred from 2022 to 2023. Consolidated PAD growth in 2023 was 40% compared to the previous year. The growth of PAD in regency and city governments from 2019 to 2020 declined, driven by the COVID-19 pandemic. Meanwhile, from 2021 to 2023, PAD growth returned to positive, with growth in Siak Regency and Kuansing Regency exceeding 100%. DBH can also be used to finance productive activities such as capital expenditure. The trend in DBH across consolidated regency and city governments from 2018 to 2023 fluctuates, rising in 2021 but then decreasing in 2022 and 2023. The allocation of non-physical DAK in consolidated regency and city governments in Riau Province from 2017 to 2023 has fluctuated. The allocation of Non-Physical DAK in 2023 grew negatively by 7.30% from 1.67 trillion in 2022 to 1.55 trillion in 2023. Non-Physical DAK is used to finance central government programs in non-capital or non-physical regions and also to finance human resource development so that, in the long term, it can be categorized as productive spending.

In panel data analysis, the first step is to select the best model—CEM, FEM, or REM—and determine the optimal panel data model. Several statistical tests can be conducted, such as the Chow test (F-statistic), the Hausman test, and the Lagrange Multiplier test. The F-statistic or Chow tests yielded a probability cross-section F-Prob of 0.0022. The probability cross-section F-value generated is less than 0.05, indicating that the fixed effect model is better than the pooled least squares/common effect. Based on the Hausman test results, we found that the probability that the Cross-section random value is 0.8698 or greater is 0.05 or greater. This indicates that the random-effect model is the best choice. Through the Lagrange Multiplier test, the Probability Value Breusch-Pagan Both is 0.0004, and the alternative Probability Value Honda and Probability Value King-Wu are all less than 0.05. This indicates that Ho is rejected or the Random effect Model is better than the Common effect Model. After conducting the Chow Test, Hausman Test, and Lagrange Test, the test results were recapitulated. The best analysis model is chosen based on the frequency of the most selections. The matrix of model selection test results shows that random-effect models are the best panel-data analysis models for research on the effect of DBH on capital expenditure in regency and city governments throughout Riau Province.

The results of the multicollinearity test for all independent panel data variables indicate that the Pearson Correlation Coefficient values between the independent variables are less than 0.80 (the highest is 0.618), indicating no correlation between the independent variables DAU, PAD, DBH, and Non-Physical DAK in the panel data that forms the basis of this research. The results of the Breusch-Pagan-Godfrey test indicate that the Prob values for all independent variables are greater than 0.05 (the lowest is 0.446), indicating no Heteroscedasticity in the panel data analysis. The independent variable *ln_DAU* has a t-statistic of 3.991 and a Prob (Significance) value of 0.0001 (less than 0.05), indicating that DAU significantly positively affects capital expenditure in regencies and city governments in Riau Province. The DAU is one form of fund transfer from the central

government to support the intended fiscal decentralization. Its relation to capital expenditure is that with DAU, local governments have greater fiscal capacity to finance public asset development (such as infrastructure, educational facilities, and health), which is included in capital expenditure.

DAU helps overcome fiscal space constraints, enabling local governments to make long-term investments. The results of this study also align with the Flypaper Effect Theory, which states that fund transfers from the central government (such as DAU) are more likely to be used to increase local government expenditure than to increase PAD (Fitriana et al., 2023). Due to DAU's unrestricted nature, local governments are more likely to use it to finance productive investment expenditures, including infrastructure development and regional assets (capital expenditures). This occurs because local governments feel they have a larger fiscal space when receiving transfer funds from the center. The results of this study indicate that the DAU has a significant positive effect on regional government capital spending. DAU is designed to address fiscal disparities between regions by providing funds that can be used to meet each region's needs (Ahmad et al., 2024). Local governments can use DAU to finance basic infrastructure needs and public services that remain underfunded, especially in areas with limited fiscal space.

Previous research, such as that conducted by Hardiningsih et al. (2020), showed that DAU positively and significantly affects local government capital expenditure. Research by Putra et al. (2025) also found that DAU increases regional fiscal capacity to finance capital expenditure. In addition, a study by Ginanjar et al. (2025) states that fiscal transfers reduce fiscal disparities and increase regional investment expenditure. The independent variable *ln_PAD* has a t-statistic of 2.988918 and a Prob (Significance) of 0.0037 (less than 0.05), indicating that PAD significantly affects capital expenditure in regencies and city governments in Riau Province. This illustrates that the higher the PAD of local governments in Riau Province, the greater the allocation for Capital Expenditure. Hadisantoso et al. (2023) concluded that regional revenue is used for capital expenditure that supports sustainable development, while Tasya et al. (2024) mentioned that PAD significantly encourages budget allocation for infrastructure development through capital expenditure. In another study conducted by Mu'am et al. (2023) it was also concluded that PAD significantly affects capital expenditure, especially in regions with high economic potential.

Regarding PAD data for regency governments in Riau Province, the values span an extensive range; in 2023, the smallest PAD was in Indragiri Hulu Regency at 133.29 billion, while the largest was in Siak Regency at 762.80 billion. This difference in PAD levels is also reflected in spending patterns; local governments with larger PAD tend to have higher capital expenditures. The independent variable *ln_DBH* has a t-statistic value of 5.522266 with a Prob (Significance) value of 0.0000 (less than 0.05). This indicates that the DBH significantly positively affects capital spending in regency and city governments in Riau Province. This statistical test result aligns with the distribution of DBH data in the regency and city governments in Riau Province. In Riau Province, the highest aggregate DBH from 2017 to 2023 at the regency/city government level is in Bengkalis Regency, with an average DBH per year of 2.46 trillion, the lowest at 1.33 trillion, and the highest at 3.40 trillion. In line with this, Bengkalis Regency's capital expenditure allocation is also the largest among regency/city governments. The highest capital expenditure allocation in Bengkalis Regency reached 1.03 trillion in 2022.

This study's results align with the fiscal decentralization theory, in which the DBH is one of the transfer funds from the national government to regions to support regional fiscal capacity. DBH, in line with the fiscal decentralization theory, can be used by local governments to finance various regional expenditures, including capital expenditures. In the fiscal decentralization theory, local governments are given autonomous authority to determine spending priorities according to regional needs. DBH can be used to finance capital expenditure in line with regional priorities. The results of this study are also supported by similar research from Ananda and Hariani (2022), which concluded that DBH is significantly used for capital expenditure, especially in the infrastructure sector, because these funds are allocated directly according to regional needs (Ardila et al., 2022).

Igbinedion and Nnadozie (2021) link fiscal decentralization to economic growth, with revenue-sharing funds used to finance large infrastructure projects to increase regional productivity. The independent variable *ln_DNF* has a t-statistic of 0.861518 and a Prob (Significance) of 0.3916 (which is greater than 0.05). This indicates that Non-Physical DAK (DNF) has a positive but insignificant effect on productive capital expenditure in regency and city governments in Riau Province. The DAK is divided into two parts: Physical DAK and Non-Physical DAK. Physical DAK is a transfer fund from the center used for regional infrastructure development. Meanwhile, Non-Physical DAK is a fund the central government allocates to regions to fund specific activities in basic service areas that do not require physical asset procurement.

Physical DAK is excluded from this research because, by definition, it is likely to be used for capital expenditure. Capital Expenditure as a dependent variable in this research has also excluded Physical DAK as a deduction from aggregate capital expenditure. Meanwhile, non-physical DAK is included as an independent variable because it can be used to finance capital expenditures, such as equipment and machinery, which can be capitalized and used to support the operations of schools and health centers. This study's results align with the Principal-Agent Theory of Fiscal Transfer, in which the central government (principal) determines how funds are used to ensure that regions (agents) implement specific programs. The central government stipulates that non-physical DAK funds national priority programs, thereby limiting flexibility in allocating capital expenditure (Harisma et al., 2024). Earmarked funds, such as Non-Physical DAK, can be used only for purposes determined by the central government, limiting their impact on capital expenditure. The results of this study are also supported by previous research by Febrian and Suhartini (2023), which found that Non-Physical DAK focuses on community service programs, such as education and health, and therefore does not directly affect capital spending allocation.

Based on the regression analysis results with random-effects models obtained from panel data processing, an F-statistic value of 14.71747 was obtained with a Prob (F-statistic) value of 0.0000 (less than 0.05), indicating that the variation of independent variables consisting of DAU, PAD, DBH, and Non-Physical DAK together significantly affects capital expenditure in regencies and city governments in Riau Province. Based on the regression analysis results with fixed-effect models obtained from panel data processing, the Adjusted R^2 value is 0.397983, indicating that the variation of independent variables consisting of DAU, PAD, DBH, and Non-Physical DAK together influences the variation of capital expenditure in regency and city governments in Riau Province by 39.79%. Other factors influence the remaining 60.21% of the disturbance variable (residual).

$$\widehat{ln_Y} = -15.169 + 0.415\ ln_DAU + 0.382\ ln_PAD + 0.694\ ln_DBH + 0.059\ ln_DNF$$

The regression coefficient for the *ln_DAU* variable is positive at 0.415, indicating that for every 1% increase in DAU, productive capital expenditure in regencies and city governments in Riau Province increases by 0.415%. The regression coefficient for the *ln_PAD* variable is positive at 0.382, indicating that for every 1% increase in PAD across regency and city governments in Riau Province, capital expenditure increases by 0.382%. The regression coefficient for the *ln_DBH* variable is positive at 0.694, indicating that for every 1% increase in DBH across regency and city governments in Riau Province, capital expenditure increases by 0.694%. The regression coefficient for the *ln_DNF* variable is positive at 0.059, indicating that for every 1% increase in Non-Physical DAK at the regency and city government levels in Riau Province, capital expenditure increases by 0.059 rupiah. The DBH regression coefficient is the largest among the other variable regression coefficients, indicating that DBH is the independent variable that most strongly influences capital expenditure in regencies and city governments in Riau Province.

The research results show that DAU positively and significantly affects capital expenditure, with a coefficient of 0.415, indicating that a 1% increase in DAU increases capital expenditure by 0.415%, assuming other variables remain constant. This finding aligns with research by Putra et al. (2025), which found that DAU has a positive and significant effect on capital expenditure in regencies/cities

in Sumatra and Java. The positive effect of DAU on capital expenditure indicates that local governments are dependent on central government transfers to finance capital expenditures. Zein et al. (2024) state that DAU, as an unconditional grant, enables local governments to allocate funds in line with their development priorities. This research also supports the findings of Tasya et al. (2024), which state that DAU remains the primary funding source for capital expenditure in regions, especially in regions with low fiscal capacity.

The results of this study differ from those of Ningsih et al. (2023), who found that DAU does not significantly affect capital expenditure. This difference may be due to differences in fiscal characteristics across regions, where local governments in Riau Province tend to use DAU more for capital expenditure, while those in South Sumatra Province allocate it more to operational expenditure. A significantly positive DAU indicates that this general transfer fund effectively functions as a flexible block fund to finance capital expenditures, in accordance with the mandate of fiscal decentralization. However, this flexibility needs to be maintained. Increase the flexibility of DAU earmarking (e.g., by setting a minimum percentage for infrastructure) through the Minister of Finance Regulation (PMK), while allowing regional governments to determine the type of project (roads, oil palm plantations, or irrigation). Overly strict earmarking restrictions can reduce the flexibility regions need to meet their unique regional needs.

The analysis results indicate that PAD has a positive and significant effect on capital expenditure, with a coefficient of 0.382, indicating that a 1% increase in PAD increases capital expenditure by 0.382%, assuming other variables remain constant. This finding is consistent with research by Fitriana et al. (2023), which found that PAD has a positive effect on capital expenditure, as well as Wulandari and Gantyowati (2021), who also found a positive effect of PAD on capital expenditure. The positive effect of PAD on capital expenditure indicates that regional fiscal independence plays an important role in allocating resources to infrastructure development. This aligns with the argument of Tasya et al. (2024) that an increase in PAD reflects the region's ability to tap into local revenue potential, encouraging local governments to invest in infrastructure to improve public services and drive economic growth. Akita et al. (2021) state that although PAD positively affects capital expenditure, its contribution remains lower than that of central government balancing funds. This condition indicates that regional fiscal independence in Riau Province still needs improvement (Saparman et al., 2022).

Regional tax reform by optimizing the PBBKB (land and building tax) and heavy equipment tax (relevant for palm oil-based Riau), and reinvesting in palm oil infrastructure. Furthermore, increasing regional capital expenditure planning capacity ensures that projects funded by local revenue (PAD) are high-impact. Increasing regional tax rates to boost PAD can undermine regional competitiveness (local taxing power vs. regional competitiveness). DBH has a positive and significant effect on capital expenditure, with a coefficient of 0.694 —the largest among the variables. This means that every 1% increase in DBH will increase capital expenditure by 0.694%, assuming other variables remain constant. This finding aligns with Ardilla et al. (2022), who found that DBH positively and significantly affects capital expenditure. The characteristics of Riau Province can explain the magnitude of DBH's effect on capital expenditure in the region, which is rich in natural resources, especially oil and gas and palm oil plantations. This aligns with the argument of Igbinedion and Nnadozie (2021) that regions with high DBH receipts, especially from natural resources, tend to allocate more capital expenditure than other regions.

However, this finding differs from Sibarani et al. (2022), who found that DBH does not significantly affect capital in regencies/cities on Java Island. This difference may be due to differences in economic characteristics between Riau Province, which is rich in natural resources, and regions on Java Island, which rely more on manufacturing and services. The Regional Revenue Sharing Fund (DBH) is a significant determinant of capital expenditure, driven by Riau's extractive products (palm oil and petroleum). This significant influence indicates that DBH is used as a primary source of capital expenditure. Utilization of DBH ensures long-term sustainability of capital expenditures and

reduces spending volatility caused by fluctuations in global commodity prices. The analysis results show that Non-Physical DAK has a positive but insignificant effect on capital expenditure with a coefficient of 0.059. This means that a 1% increase in Non-Physical DAK will raise capital expenditure by only 0.059%, assuming other variables remain constant. This finding aligns with research by Harisma et al. (2024), which found that Non-Physical DAK has a relatively small effect on capital expenditure. The limited effect of Non-Physical DAK on capital expenditure can be explained by its intended use: to fund operational activities, such as School Operational Assistance (BOS), teacher professional allowances, and health operational assistance, rather than capital expenditure (Rochayani et al., 2022). This finding is also reinforced by Harisma et al. (2024), who state that Non-Physical DAK is allocated primarily to operational spending to improve public service quality, rather than to physical infrastructure development.

However, this result differs from the findings of Putra and Usman (2024), who found that Non-Physical DAK has a positive and significant effect on capital expenditure in Aceh Province. This difference may be due to differences in expenditure allocation policies across regions, with local governments in Aceh Province more effective at integrating Non-Physical DAK-funded programs into infrastructure development. The Adjusted R^2 value of 39.79% indicates that simultaneously, DAU, PAD, DBH, and Non-Physical DAK have a considerable influence on capital expenditure. Around 60.21% of other factors outside the model still influence variations in capital expenditure. Other factors affecting capital expenditure outside the regional revenue variables include the Budget Excess (SiLPA), area size, population, economic growth, and human development index. Meanwhile, Zein et al. (2024) add that political factors, such as the year of regional head elections and the political affiliation of regional heads, can also influence capital expenditure allocation decisions.

In general, the results of this study indicate that DBH has the most significant influence on capital expenditure, followed by DAU, PAD, and Non-Physical DAK. This indicates that local governments in Riau Province remain highly dependent on transfers from the central government, especially DBH, to finance capital expenditure. This finding aligns with the argument of Ahmad et al. (2024) that regions rich in natural resources, such as Riau Province, tend to depend heavily on DBH due to the significant potential revenue from this sector. Although DAU and DBH have a greater influence, the positive effect of PAD on capital expenditure remains an important finding, indicating that efforts to increase regional fiscal independence through PAD optimization can contribute to greater capital expenditure allocation. This aligns with the fiscal decentralization mandate that encourages regional independence in financing development (Akita et al., 2021). The relatively small (coefficient 0.059) and insignificant (Prob value = 0.392) impact of the non-physical DAK on capital expenditure also has important implications for regional financial management. The possible lack of complementarity between non-physical programs (e.g., human resource development, planning) and physical projects results in the non-physical DAK being used for routine operational expenditures, rather than triggering or supporting capital projects. This logic aligns with the findings of Hadisantoso et al. (2023), who suggest that regional governments need to improve coordination between non-physical DAK-funded programs and infrastructure development programs to create a complementary effect that encourages increased capital expenditure.

The main limitations of this study are the small sample size of 10 districts/cities and the short time span (2010–2024), which may limit the inferential power of the findings and the ability of the policy recommendations to capture long-term investment dynamics and inter-regional spillover effects comprehensively. These data limitations imply caution in generalizing. Limited generalizations can serve as a basis for further research using more detailed data down to the sub-district level or extending the study period.

CONCLUSION

Based on the research results and discussion that have been described, several conclusions can be drawn as follows: the novelty of this article lies in the use of district/city data in a comprehensive panel-data regression model that examines the effects of four regional fiscal instruments (DAU, PAD, DBH, and the Non-Physical Special Allocation Fund) on Capital Expenditures. This study empirically highlights the dominance of natural resource revenue (DBH) as the primary driver of investment, reflecting Riau's characteristics. Although regional revenue trends show positive growth, with DBH making a significant contribution, the proportion of Capital Expenditures to total regional expenditure remains relatively low. The regression results indicate that DBH, followed by DAU, has the most potent positive effect on Capital Expenditures, indicating the high fiscal dependence of regional governments on central transfers to finance infrastructure. While PAD also has a positive effect, supporting fiscal independence, the Non-Physical Special Allocation Fund (DAK Non-Physical) proved insignificant, suggesting a lack of complementarity between non-physical programs and physical projects. Therefore, regional governments need to increase the proportion of Capital Expenditures to a minimum target of 30% of total expenditures and prioritize reallocation of funds from less productive operational expenditures. Operational recommendations include reforming the DBH allocation to establish an endowment fund, establishing flexible DAU earmarking for infrastructure, and developing a mechanism to synchronize the Non-Physical DAK with capital project planning. Further research is recommended to include moderating variables (such as the Human Development Index or governance) to better understand the effectiveness of regional revenue.

REFERENCES

Ahmad, A., Effendi, N., Budiono, B., & Hadiyanto, F. (2024). Fiscal transfer redistribution and regional inequality between island and non-island provinces in Indonesia. *Indonesian Interdisciplinary Journal of Sharia Economics (IIJSE)*, *7*(2), 2523–2559. https://doi.org/10.31538/iijse.v7i2.4529

Akita, T., Riadi, A. A., & Rizal, A. (2021). Fiscal disparities in Indonesia in the decentralization era: Does general allocation fund equalize fiscal revenues? *Regional Science Policy & Practice*, *13*(6), 1842–1866. https://doi.org/10.1111/rsp3.12326

Ananda, F., & Hariani, D. (2022). The effect of special allocation funds, profit-sharing funds, and the rest of the budget calculations on capital expenditures in district and city governments in West Sumatra Province. *Jurnal Ekonomi Dan Bisnis Dharma Andalas*, *24*(1), 110–129. https://doi.org/10.47233/jebd.v24i1.327

Ardila, L. N., Adiati, A. K., & Sutopo, B. (2022). Revenue-sharing fund and local government performance. *Russian Journal of Agricultural and Socio-Economic Sciences*, *125*(5), 49 – 59. https://doi.org/10.18551/rjoas.2022-05.06

Azis, A., Tampubolon, D., & Desweni, S. P. (2022). Analisis pengaruh desentralisasi fiskal terhadap pertumbuhan ekonomi daerah di 12 kabupaten/kota Provinsi Riau tahun 2012-2020. *EKOPEM : Jurnal Ekonomi Pembangunan*, *7*(2), 41–52. https://jurnal.unimor.ac.id/JEP/article/view/2548

Baltagi, B. H. (2021). *Econometric Analysis of Panel Data* (6th ed.). Springer Nature. https://doi.org//10.1007/978-3-030-53953-5

Budi, R. B. H., & Sastradipraja, U. (2024). Analysis of factors affecting local government financial performance. *Dinasti International Journal of Economics, Finance and Accounting*, *5*(5), 5399–5410. https://doi.org/10.38035/dijefa.v5i5.3596

Febrian, R. R. P., & Suhartini, D. (2023). Determinant of human development index: Capital expenditure as a mediating variable. *International Journal of Economy, Education, and Entrepreneurship*, *3*(4), 396–408. https://doi.org/10.53067/ije3.v3i2

Fitriana, A. R., Dewi, M. W., & Utami, W. B. (2023). Analysis of the flypaper effect in testing the effect of regional own-source revenues and fiscal balance transfer on regional expenditures

(Study on regencies and municipalities in Central Java from 2017-2020). *International Journal of Economics, Business and Accounting Research (IJEBAR)*, *7*(4), 1537–1545. https://doi.org/10.29040/ijebar.v7i4.9873

Ginanjar, R. A. F., Sutjipto, H., Sugiyarto, S., Rahmat, B., Hadi, S., & Sardjasasmita, A. (2025). Analysis of the Impact of Fiscal Decentralization on Regional Fiscal Imbalances: A Cross-Region Case Study in Java. *Indonesian Treasury Review: Jurnal Perbendaharaan, Keuangan Negara Dan Kebijakan Publik*, *10*(1), 39–52. https://doi.org/10.33105/itrev.v10i1.1131

Greene, W. (2012). *Econometric Analysis* (7th ed.). Prentice Hall.

Gujarati, D., & Porter, D. C. (2015). *Dasar-Dasar Ekonometrika* (5th ed.). Salemba Empat.

Hadisantoso, E., Arifuddin, A., Wawo, A. B., & Ridwan, M. (2023). The influence of original local government revenue and specific allocation funds on government capital expenditures in Southeast Sulawesi Districts/Cities. *Owner: Riset Dan Jurnal Akuntansi*, *7*(4), 3712–3720. https://doi.org/10.33395/owner.v7i4.1937

Hardianti, P., Januarti, I., Maryono, M., & Srimindarti, C. (2020). Capital expenditure determinants in Central Java and East Java with economic growth as a moderating variable. *Media Ekonomi Dan Manajemen*, *35*(1), 1–18. https://doi.org/10.24856/mem.v35i1.1183

Harisma, W., Palutturi, S., Razak, A., Indar, S., U., M., S., & Mallongi, A. (2024). Factors affecting the realization of non-physical special allocation funds in the health sector at the Baubau City Health Office. *Pharmacognosy Journal*, *16*(2), 393–399. https://doi.org/10.5530/pj.2024.16.61

Hidayat, B. A., Apriliana, T., Faturohim, A., Wahyuni, R. N. T., Landekumandang, F., Judijanto, L., Rahmawati, T., Hamzah, A., Yolanda, Y., & H., S. (2024). Local government development policy: Natural resource revenue sharing and economic growth in Indonesia. *Journal of Infrastructure Policy and Development*, *8*(15), 10375. https://doi.org/10.24294/jipd10375

Hung, N. T., & Thanh, S. D. (2022). Fiscal decentralization, economic growth, and human development: Empirical evidence. *Cogent Economics & Finance*, *10*(1), 1–17. https://doi.org/10.1080/23322039.2022.2109279

Igbinedion, S. O., & Nnadozie, O. O. (2021). Capital expenditure dynamics and infrastructural growth nexus: Evidence from an oil-dependent economy. *Ekonomi Bisnis*, *26*(2), 109–128. https://doi.org/10.17977/um042v26i2p109-128

MoF. (2023). *Kebijakan Transfer ke Daerah dan Dana Desa Tahun Anggaran 2023*. Kementerian Keuangan Republik Indonesia.

Mu'am, A., Nurdin, N., Sudrajat, A., & Karunia, R. K. (2023). The influence of original revenue and transfer revenue on capital expenditure in South Tangerang City. *JTAM (Jurnal Teori Dan Aplikasi Matematika)*, *7*(1), 58–69. https://doi.org/10.31764/jtam.v7i1.10229

Ningsih, I. S., Irwadi, M., & Permata, L. T. (2023). The influence of regional original income, general allocation funds, and regional government financial performance on capital expenditures (Case study in districts and cities in the South Sumatra Region). *International Journal of Community Service & Engagement*, *4*(4), 142–146. https://doi.org/10.47747/ijcse.v4i4.1541

Pranoto, A. N. H., & Sihaloho, E. D. (2025). Analysis of the impact of local government expenditure on the happiness index in provinces in Indonesia. *Indonesian Treasury Review: Jurnal Perbendaharaan, Keuangan Negara Dan Kebijakan Publik*, *10*(1), 13–23. https://doi.org/10.33105/itrev.v10i1.853

Purwanto, P., Indrawan, R., & Heryanti, A. N. (2022). Capital expenditure allocation analysis of local governments. *International Journal of Science, Technology & Management*, *3*(2), 453–460. https://doi.org/10.46729/ijstm.v3i2.479

Putra, A. M., & Usman, U. (2024). The influence of general allocation funds, special allocation funds, and capital expenditure on economic growth in Aceh Province from 2010 to 2021. *Journal Of Malikussaleh Public Economics*, *7*(1), 1–9. https://doi.org/10.29103/jmpe.v7i1.17024

Putra, A., Marzuki, A., W., N., & Ilham, R. N. (2025). The influence of regional original income, general allocation fund, and special allocation fund on capital expenditure of provinces in Sumatra and Java. *Journal of Accounting Research, Utility Finance and Digital Assets*, *3*(3),

346–353. https://doi.org/10.54443/jaruda.v3i3.210

Rochayani, S., Sutarto, J., & Khafid, M. (2022). Management of special non-physical allocation fund in operational assistance for the implementation of equivalency education Programme at Community Learning Center (CLC) in Semarang Regency. *Educational Management*, *11*(1), 113–123. https://journal.unnes.ac.id/sju/eduman/article/view/59816

Saparman, S., & Tampubolon, D. (2022). Pengaruh belanja barang dan jasa, belanja modal dan pertumbuhan ekonomi terhadap kapasitas fiskal kabupaten dan kota di Provinsi Riau tahun 2011–2020. *E-QIEN:Jurnal Ekonomi dan Bisnis*, *9*(1), 70–78. https://doi.org/10.34308/eqien.v9i1.310

Sibarani, C. G. G. T., Ginting, J., Afriliani, V., & Hidayat, N. (2022). Influence of profit-sharing funds and regional financial performance in the previous year on the allocation of capital expenditures in provincial governments in Indonesia in 2016 – 2020. *International Journal of Economic, Technology and Social Sciences (Injects)*, *3*(2). https://doi.org/10.53695/injects.v3i2.796

Suhyanto, O., Juanda, B., Fauzi, A., & Rustiadi, E. (2021). The effect of transfer funds on district/municipality development performance in West Java Province, Indonesia. *International Journal of Economics and Financial Issues*, *11*(3), 22–27. https://doi.org/10.32479/ijefi.9399

Tasya, A., Fachruddin, W., & Nainggolan, S. G. V. (2024). Pengaruh pendapatan asli daerah dan dana alokasi umum terhadap belanja modal. *Jurnal Akuntansi Bisnis Eka Prasetya*, *10*(1), 12–22. https://doi.org/10.47663/abep.v10i1.439

Wang, S., Tian, W., & Lu, B. (2023). Impact of capital investment and industrial structure optimization from the perspective of the "resource curse": Evidence from developing countries. *Resources Policy*, *80*, 103276. https://doi.org/10.1016/j.resourpol.2022.103276

Wulandari, I., & Gantyowati, E. (2021). Flypaper effect in Indonesian municipal governments' expenditures. *International Journal of Education and Social Science Research*, *4*(3), 523–540. https://doi.org/10.37500/IJESSR.2021.4332

Yasin, M. Z., Landiyanto, E. A., Arini, H. R. B., & Maulida, S. R. (2021). Two decades of fiscal decentralization: Implications for regional development in Indonesia. *SSRN RISED Working Paper*, *2021*(June). https://doi.org/10.2139/ssrn.4039821

Zamzami, F., & Rakhman, F. (2023). Determinants of local government financial performance in Indonesia. *Academic Journal of Interdisciplinary Studies*, *12*(5), 332–347. https://doi.org/10.36941/ajis-2023-0148

Zein, M. H. M., Muhtarom, M., Mulyadi, M., & Septiani, S. (2024). Examining the role of local government's financial performance and capital expenditure in increasing economic growth in Banten Province, Indonesia (2018–2022. *Journal of Risk and Financial Management*, *17*(10), 456. https://doi.org/10.3390/jrfm17100456