DANADYAKSA
POST MODERN ECONOMY JOURNAL

Vol. 4 No. 1, (2026), 203–218 e-ISSN: 3025-8545

FISCAL DECENTRALIZATION AND ECONOMIC GROWTH: THE MEDIATING ROLE OF GROSS FIXED CAPITAL FORMATION IN JAVA 2014–2024

Anastasya Putri Santoso[1*]
Universitas Negeri Semarang, Semarang, Indonesia
anastasyaputri131313@students.unnes.ac.id

Grace Natalia Marpaung[2]
Universitas Negeri Semarang, Semarang, Indonesia
gracenatalia@mail.unnes.ac.id

Abstract

This study examines the effect of fiscal decentralization, proxied by Regional Own-Source Revenue, Capital Expenditure, and Intergovernmental Transfers, on economic growth, and evaluates the mediating role of Gross Fixed Capital Formation in this relationship across six provinces on Java Island during the period 2014–2024. The study applies a quantitative approach using annual panel data obtained from Regional Government Financial Reports and the Central Statistics Agency. The analysis employs path analysis and the Sobel test under the Common Effect Model. The results show that Regional Own-Source Revenue and Capital Expenditure exert a positive and significant effect on both economic growth and Gross Fixed Capital Formation, whereas Intergovernmental Transfers exhibit a positive but insignificant effect on both variables. Gross Fixed Capital Formation significantly mediates the effect of Regional Own-Source Revenue and Capital Expenditure on economic growth, but does not mediate the effect of Intergovernmental Transfers. These results indicate that the transmission of fiscal decentralization to economic growth through capital accumulation operates effectively only through fiscally independent and productive components.

Keywords: Fiscal Decentralization, Economic Growth, Gross Fixed Capital Formation, Path Analysis, Java Island

DANADYAKSA
POST MODERN ECONOMY JOURNAL

Vol. 4 No. 1, (2026), 203–218 e-ISSN: 3025-8545

INTRODUCTION

Fiscal decentralization has been widely implemented since the late twentieth century and is considered to enhance the efficiency of resource allocation, improve public service delivery, and promote equitable economic growth in line with regional characteristics (Fahlevy & Burhanudin, 2022; Agrawal et al., 2024). This policy encompasses political, administrative, fiscal, and economic dimensions that are regarded as capable of strengthening governance (Al-Saadi & Khudari, 2024). Its adoption has expanded across developing countries, supported by the World Bank and the International Monetary Fund (IMF). Nevertheless, effective implementation requires sufficient institutional capacity to minimize inefficiency and corruption (Agu et al., 2024; Boufounou et al., 2024).

From a theoretical perspective, fiscal decentralization is grounded in Oates' theory of Fiscal Federalism, which emphasizes that closer proximity between regional governments and their residents enhances the effectiveness of public goods and service provision (Oates, 1999). In Indonesia, fiscal decentralization was introduced after the reform era through Law No. 22 and Law No. 25 of 1999, later revised by Law No. 32 and Law No. 33 of 2004, and subsequently by Law No. 23 of 2014. Although this framework has created opportunities to optimize Regional Revenue and Expenditure Budgets (APBD) through intergovernmental transfers, empirical evaluations indicate substantial disparities in fiscal capacity across regions, where more developed regions tend to benefit more (Cevik & Correa-Caro, 2020; Talitha et al., 2020). Gross Regional Domestic Product (GRDP) serves as a primary indicator of regional economic performance, reflecting disparities in economic contributions across regions.

Data from Badan Pusat Statistik (BPS) show that Java consistently contributes the largest share to national GRDP, accounting for approximately 57–58%, which is substantially higher than Sumatra at around 21% and other regions. During the COVID-19 pandemic, Java maintained its dominant position, contributing 56.98% in 2019 and 57.33% in 2020. This pattern reflects the structural dominance of Java within the national economy. The concentration of population, industrial activity, infrastructure, and investment in Java has driven high economic contributions from major provinces such as DKI Jakarta (28.9%) and East Java (25.19%) over the 2014–2024 periods. Despite this dominance, disparities among regions remain evident.

Within the fiscal decentralization framework, three main components are commonly used to assess regional fiscal performance: Regional Own-Source Revenue (PAD), Capital Expenditure, and Intergovernmental Transfers. Regional Own-Source Revenue reflects fiscal independence, Intergovernmental Transfers indicate central government support, and Capital Expenditure represents a commitment to long-term development. A high dependence on Intergovernmental Transfers signals limited fiscal capacity at the regional level.

Regional Own-Source Revenue (PAD) and Intergovernmental Transfers are key proxies of fiscal decentralization that capture the degree of fiscal independence. Based on data from the Direktorat Jenderal Perimbangan Keuangan (DJPK), the ratio of Regional Own-Source Revenue to total regional revenue across provinces in Java varies substantially.

Vol. 4 No. 1, (2026), 203–218 e-ISSN: 3025-8545

DKI Jakarta records the highest ratio at 71.28%, with Intergovernmental Transfers at 28.14%, followed by Banten (67.53%) and West Java (67.4%). In contrast, DI Yogyakarta reports the lowest ratio at 39.29%, with Intergovernmental Transfers reaching 38.78%. These differences indicate that, despite operating under the same institutional framework, the capacity to mobilize independent revenue differs markedly across provinces.

The level of regional revenue does not necessarily translate into economic growth, as outcomes depend on expenditure allocation. Capital Expenditure, which reflects government investment in fixed assets and public infrastructure, serves as a key indicator of long-term development orientation. In practice, its share in Java remains relatively low, accounting for approximately 15%–17% of total regional expenditure, while personnel expenditure dominates at 29%–36.4%. Empirical evidence on the relationship between capital expenditure and economic growth remains inconclusive. Waryanto (2017), Ahuja and Pandit (2020), Magdalena and Suhatman (2020), Okang et al. (2020), Gurdal et al. (2021), and Ugochukwu dan Oruta (2021) report a positive and significant effect. In contrast, Onifade et al. (2020), Setiyanto (2021), Ocolişanu et al. (2022), and Sujidno and Febriani (2023) identify a negative long-term impact. These divergent results highlight the need for a more detailed analysis at the provincial level.

Gross Fixed Capital Formation (GFCF) represents capital accumulation, including expenditure on capital goods with a useful life exceeding one year. It also functions as a transmission channel linking fiscal expenditure to economic growth (Kong et al., 2020). However, this mechanism does not consistently produce uniform outcomes across regions. Despite the relatively strong fiscal capacity of provinces in Java, evidence from 2014–2024 suggests that higher fiscal capacity does not guarantee uniform economic growth.

Economic growth across provinces in Java during the 2014–2024 period exhibits considerable variation. All provinces recorded positive growth of approximately 5%–6% annually during 2014–2019, followed by a sharp contraction in 2020 due to the COVID-19 pandemic, with Banten experiencing the most severe decline. Recovery began in 2021, although growth rates have not yet returned to pre-pandemic levels. This pattern indicates that regional fiscal capacity does not consistently correspond to economic growth. It also suggests that fiscal decentralization, proxied by Regional Own-Source Revenue, Capital Expenditure, and Intergovernmental Transfers, produces heterogeneous outcomes across provinces.

In theoretical terms, fiscal expenditure does not directly generate economic growth; instead, its impact is transmitted through Gross Fixed Capital Formation. Empirical studies present inconsistent evidence regarding the relationship between fiscal decentralization and economic growth, with some studies reporting positive and significant effects, while others identify insignificant or negative relationships. This inconsistency forms the basis for the present study.

This study, titled Fiscal Decentralization and Economic Growth: The Mediating Role of Gross Fixed Capital Formation in Java 2014–2024 examines fiscal decentralization using Regional Own-Source Revenue, Capital Expenditure, and Intergovernmental Transfers as proxies. The objectives of this study are to analyze: (1) the direct effect of fiscal decentralization on economic growth; (2) the effect of fiscal decentralization on Gross

DANADYAKSA
POST MODERN ECONOMY JOURNAL
Vol. 4 No. 1, (2026), 203–218 e-ISSN: 3025-8545

Fixed Capital Formation as an indicator of capital accumulation; (3) the mediating role of Gross Fixed Capital Formation in the relationship between fiscal decentralization and economic growth; and (4) the magnitude and significance of both direct and indirect effects of fiscal decentralization on economic growth through Gross Fixed Capital Formation across six provinces in Java during the 2014–2024 period.

REVIEW OF LITERATURE

Regional Own-Source Revenue and Capital Expenditure in Economic Growth

Regional Own-Source Revenue (PAD) serves as a primary proxy for fiscal decentralization, reflecting the capacity of a region to generate revenue independently. From the perspective of fiscal federalism, Oates (1999) argues that decentralization becomes more effective when regions possess sufficient revenue capacity, since local governments have better information regarding local needs and can allocate public resources more efficiently. Higher levels of Regional Own-Source Revenue expand fiscal capacity to finance development and infrastructure without reliance on intergovernmental transfers. In addition, PAD reflects the level of regional economic activity through components such as local taxes, user charges, and returns on regionally owned assets (Oates, 1993). Empirical evidence by Gemmell et al. (2013) and Sima et al. (2023) shows that revenue decentralization has a positive and significant impact on economic growth in OECD countries. In contrast, Sofilda et al. (2023) report a positive but insignificant effect of fiscal decentralization on regional economic growth, indicating that the effectiveness of Regional Own-Source Revenue depends on the quality of fiscal management at the regional level.

Capital Expenditure, as a proxy for fiscal decentralization from the expenditure side, reflects the authority of regional governments in allocating resources toward productive assets. Keynes (1936), as cited in Rostow (2018), argues that productive government spending influences the economy in the short term through aggregate demand and in the long term through increased productive capacity. Blume and Sargent (2015) and Domar (2012) emphasize the importance of capital accumulation in determining production capacity, while Barro (1990) highlights the role of public infrastructure in enhancing private sector productivity. Empirical studies by Waryanto (2017), Ahuja and Pandit (2020), Magdalena and Suhatman (2020), Okang et al. (2020), Adelowokan (2021), and Gurdal et al. (2021) indicate that capital expenditure has a positive and significant effect on economic growth. In contrast, Setiyanto (2021), Ocolişanu et al. (2022), and Sujidno and Febriani (2023) identify a negative long-term effect, suggesting that the impact depends on the efficiency of allocation and the accuracy of expenditure targeting.

Intergovernmental Transfers and Gross Fixed Capital Formation in Economic Growth

Intergovernmental Transfers represent another proxy for fiscal decentralization, reflecting financial support from the central government to subnational governments. Oates (1999) explains that such transfers are necessary due to disparities in revenue capacity across regions, while Priyarsono et al. (2010) identify their role as an instrument for fiscal

DANADYAKSA
POST MODERN ECONOMY JOURNAL
Vol. 4 No. 1, (2026), 203–218 e-ISSN: 3025-8545

equalization. However, excessive dependence on these transfers may weaken incentives for local governments to optimize Regional Own-Source Revenue. Local governments often allocate relatively flexible transfer funds to routine expenditures such as wages and operational costs, while Capital Expenditure, which requires more complex planning, tends to receive less priority. This phenomenon is widely known as the flypaper effect (Hines & Thaler, 1995). Empirical studies by Priyarsono et al. (2010) and Bakri et al. (2024) indicate that fiscal transfers have a positive and significant impact on regional economic growth. In contrast, Puspitasari et al. (2023) report that the General Allocation Fund (DAU) has a negative and insignificant effect on Gross Regional Domestic Product (GRDP).

Gross Fixed Capital Formation (GFCF), as an indicator of physical capital accumulation, includes expenditures on capital goods with a useful life exceeding one year in both public and private sectors. In the Harrod-Domar framework, higher levels of GFCF increase production capacity and support economic growth. Barro (1990) argues that public capital accumulation enhances the productivity of other production factors in the long run. Empirical evidence from Jama et al. (2024) shows that gross capital formation has a positive and significant effect on economic growth in ASEAN-5 countries, while Jin and Rider (2022) report similar results in China and India. Ocolisanu et al. (2022) conclude that public investment positively affects economic growth, particularly in the short term.

Fiscal Federalism Theory

Fiscal federalism examines the distribution of fiscal functions and authority across different levels of government. The concept originated with Tiebout (19564), was expanded by Musgrave (1959) through the classification of government functions into allocation, distribution, and stabilization, and was later systematically developed by Oates (1972). Its development is commonly divided into two phases. The first phase emphasizes efficiency in public goods provision, while the second phase, as proposed by Weingast (2009), stresses that decentralization effectiveness depends on incentive structures that encourage local governments to manage resources efficiently and sustain market-supporting institutions.

Oates' Decentralization Theorem states that decentralized provision of public goods can achieve welfare outcomes equal to or greater than those of centralized systems, due to informational advantages and the ability to tailor policies to local conditions (Oates, 1999). Empirical support is provided by Kharisma (2013), who shows that fiscal decentralization had a stronger impact on economic growth during the early decentralization period of 2001–2004. Oates (1999) and Priyarsono et al. (2010) also emphasize the importance of central transfers in addressing vertical and horizontal fiscal imbalances.

In this study, fiscal federalism provides the analytical framework in which Regional Own-Source Revenue reflects fiscal independence, Intergovernmental Transfers represent the redistributive role of the central government, and Capital Expenditure reflects the allocation function at the regional level. Oates (1993) argues that the relationship between fiscal decentralization and economic growth is driven by improvements in allocative efficiency, interregional competition, and government accountability. This relationship operates indirectly through physical capital formation, represented by Gross Fixed Capital Formation, which drives production capacity and regional economic growth (Khamdana, 2016).

DANADYAKSA
POST MODERN ECONOMY JOURNAL

Vol. 4 No. 1, (2026), 203–218 **e-ISSN: 3025-8545**

Keynesian Theory of Government Expenditure

The Keynesian theory of government expenditure is based on the premise that market mechanisms do not always restore economic equilibrium, which necessitates government intervention to sustain economic activity (Purwadinata & Batilmurik, 2024). A central concept in this theory is the multiplier effect, in which government spending, particularly on infrastructure, generates a chain reaction as income circulates and is repeatedly spent within the economy. According to the national income identity Y = C + I + G + NX, government expenditure directly contributes to aggregate demand and increases output, while also strengthening long-term productive capacity through capital accumulation.

Harrod (1939) and Domar (1946) propose that government expenditure performs a dual function by supporting aggregate demand and promoting long-term growth through capital formation. Within this framework, Capital Expenditure plays a strategic role as it directly contributes to capital stock formation, which is measured by Gross Fixed Capital Formation. Barro (1990) reinforces this argument by identifying public infrastructure as a productive input that enhances long-term productivity. Empirical evidence from Agusta and Arianti (2023) indicates that local government Capital Expenditure, combined with private investment, has a positive and significant effect on economic growth in Indonesia.

Thus, Keynesian theory explains the transmission mechanism examined in this study. Capital Expenditure does not directly generate economic growth. Its impact occurs through the accumulation of infrastructure and fixed assets, reflected in increased Gross Fixed Capital Formation, which subsequently expands production capacity and stimulates regional economic growth.

RESEARCH METHOD

This study adopts a quantitative approach with an explanatory design to examine causal relationships among variables through hypothesis testing (Casula et al., 2021; Lim, 2025). Fiscal decentralization, as the independent variable, is proxied by Regional Own-Source Revenue, capital expenditure, and intergovernmental transfers. Gross Fixed Capital Formation (GFCF) acts as the mediating variable, while economic growth serve as the dependent variable. The analysis uses secondary data in the form of annual panel data from six provinces in Java, namely DKI Jakarta, West Java, Central Java, DI Yogyakarta, East Java, and Banten, covering the period 2014 to 2024 (Bai et al., 2021).

The sample is selected using purposive sampling (Campbell et al., 2020), based on the consideration that Java represents the region with the highest fiscal capacity and economic activity in Indonesia. This characteristic makes it relevant for examining variations in fiscal decentralization across regions. Regional fiscal data are obtained from Local Government Financial Reports (LKPD), while data on economic growth and gross fixed capital formation are sourced from Statistics Indonesia (BPS), complemented by relevant journal articles and supporting literature.

DANADYAKSA
POST MODERN ECONOMY JOURNAL
Vol. 4 No. 1, (2026), 203–218 e-ISSN: 3025-8545

Table 1.
Operational Definitions of Research Variables

Variable	Operational Definition	Unit	Symbol
Economic Growth (Y)	Growth rate of Gross Regional Domestic Product (GRDP)	Percent (%)	EG
Gross Fixed Capital Formation (Z)	Growth rate of physical investment	Percent (%)	GFCF
Regional Own-Source Revenue (X_1)	Realized Regional Own-Source Revenue	Natural logarithm	ln(ROSR)
Capital Expenditure (X_2)	Realized capital expenditure	Natural logarithm	ln(CE)
Intergovernmental Transfers (X_3)	Realized intergovernmental transfers	Natural logarithm	ln(IT)

The data are analyzed using path analysis to estimate both direct and indirect effects of fiscal decentralization on economic growth through Gross Fixed Capital Formation (Triyono et al., 2021). The Sobel test is applied to assess the statistical significance of the mediating role of Gross Fixed Capital Formation in transmitting the effect of fiscal decentralization on economic growth. Before estimating the model, a unit root test is performed to confirm the stationarity of the data and to avoid spurious regression, which may produce biased and inconsistent estimates. Several unit root testing methods are commonly employed, including Phillips–Perron (PP), Levin, Lin, and Chu (LLC), and Augmented Dickey–Fuller (ADF) (Cheung & Lai, 1995; Perron & Ng, 1996; Levin et al., 2002). This study applies the Augmented Dickey–Fuller test. The data are considered stationary when the probability value is below the significance level of $\alpha = 5\%$.

The appropriate regression model is then selected among the Common Effect Model, Fixed Effect Model, and Random Effect Model using the Chow test, Hausman test, and Lagrange Multiplier test (Baltagi, 2021). After selecting the model, diagnostic tests for multicollinearity and heteroskedasticity are performed. Path analysis enables the estimation of both direct and indirect relationships among variables, including those transmitted through a mediating variable. Two regression equation models are specified as follows:

$$EG_{it} = \alpha + \beta_1 \, ln(ROSR)_{it} + \beta_2 \, ln(CE)_{it} + \beta_3 \, ln(IT)_{it} + \beta_4 GFCF_{it} + \varepsilon_{it} \quad (1)$$

$$GFCF_{it} = \alpha + \beta_1 \, ln(ROSR)_{it} + \beta_2 \, ln(CE)_{it} + \beta_3 \, ln(IT)_{it} + \varepsilon_{it} \quad (2)$$

Information:

EG = Economic Growth
ln(ROSR) = Natural logarithm of Regional Own-Source Revenue
ln(CE) = Natural logarithm of capital expenditure
ln(IT) = Natural logarithm of intergovernmental transfers
GFCF = Gross Fixed Capital Formation
i = Cross-section
t = Year
α = Constant
$\beta_1, \beta_2, \beta_3$ = Regression coefficients

DANADYAKSA
POST MODERN ECONOMY JOURNAL
Vol. 4 No. 1, (2026), 203–218 e-ISSN: 3025-8545

ε = Error term

Hypothesis testing is conducted using several statistical approaches to determine the significance of the effects of independent variables on the dependent variable. The t-test is used to evaluate the partial effects of each fiscal decentralization proxy, namely Regional Own-Source Revenue, capital expenditure, and intergovernmental transfers. The null hypothesis (H_0) is rejected if the calculated t-value exceeds the critical value or if the probability is less than 0.05. The F-test is used to assess the joint effect of all independent variables on the dependent variable using the same decision rule.

The coefficient of determination (R^2) indicates the proportion of variation in the dependent variable explained by the independent variables. Adjusted R^2 is used to account for models with multiple independent variables. The Sobel test is employed to evaluate indirect effects, particularly to examine whether Gross Fixed Capital Formation significantly mediates the relationship between fiscal decentralization and economic growth. The hypothesis is evaluated based on the p-value, where H_0 is rejected if p-value < 0.05.

RESULTS AND DISCUSSION

In panel data regression analysis, a stationarity test is conducted using the Augmented Dickey–Fuller unit root test (Cheung & Lai, 1995). This test ensures that the data are stationary and prevents spurious regression that may lead to invalid conclusions. The results indicate that all variables are stationary at the level, as presented in Table 2.

Table 2.
Results of Unit Root Test (ADF Method)

Variable	Level	1st Difference	2st Difference	Description
ln(SOSR)	0.0000	0.0000	0.0000	Stationary
ln(CE)	0.0057	0.0000	0.0000	Stationary
ln(IT)	0.0000	0.0000	0.0000	Stationary
GFCF	0.0054	0.0000	0.0000	Stationary
EG	0.0039	0.0000	0.0000	Stationary

Source: author's calculation (2026).

The selection of the most appropriate estimation model for Equation (1) is presented in Table 3. The Chow test shows a cross-section chi-square probability of 0.0893 > 0.05, indicating that the Common Effect Model is preferred. The Lagrange Multiplier test is then applied to compare the Common Effect Model and the Random Effect Model. The Breusch Pagan probability value of 0.2670 > 0.05 confirms that the Common Effect Model is the most appropriate specification for Equation (1). Therefore, the Hausman test is not required.

Table 3.
Model Selection Results for Equation (1)

Type of Test	Criteria	Value	Selected Model
Chow Test	Chi square > 0.05	0.0893	Common Effect Model
Lagrange Multiplier Test	Chi square > 0.05	0.2670	Common Effect Model

Source: author's calculation (2026).

DANADYAKSA
POST MODERN ECONOMY JOURNAL

Vol. 4 No. 1, (2026), 203–218 e-ISSN: 3025-8545

The selection of the most appropriate estimation model for Equation (2) is shown in Table 4. The Chow test yields a cross section chi square probability of 0.7225 > 0.05, indicating that the Common Effect Model is preferred. The Lagrange Multiplier test produces a Breusch Pagan probability value of 0.3846 > 0.05, which also supports the use of the Common Effect Model for Equation (2). Thus, the Hausman test is not required.

Table 4.
Model Selection Results for Equation (2)

Type of Test	Criteria	Value	Selected Model
Chow Test	Chi square > 0.05	0.7225	Common Effect Model
Lagrange Multiplier Test	Chi square > 0.05	0.3846	Common Effect Model

Source: author's calculation (2026).

The multicollinearity test examines the correlation among independent variables. A model is considered free from multicollinearity if the correlation coefficient between variables is below 0.90. The results in Table 5 show that the correlation between ln(SOSR) and ln(CE) is 0.476, between ln(SOSR) and ln(IT) is −0.180, and between ln(CE) and ln(IT) is −0.053. Since all values are below 0.90, both models are free from multicollinearity.

Table 5.
Multicollinearity Test for Equations (1) and (2)

	ln(SOSR)	ln(CE)	ln(IT)	GFCF
ln(SOSR)	1.000			
ln(CE)	0.476	1.000		
ln(IT)	−0.180	−0.053	1.000	
GFCF	0.544	0.763	0.043	1.000

Source: author's calculation (2026).

Heteroskedasticity is tested using the Glejser method (Glejser, 1969). The decision criterion states that a probability value greater than 0.05 indicates the absence of heteroskedasticity. The Glejser test results for Equation (1) show that all independent variables have probability values greater than 0.05. Specifically, ln(SOSR) = 0.9797, ln(CE) = 0.7998, ln(IT) = 0.2102, and GFCF = 0.4820. These results indicate that the model is free from heteroskedasticity and suitable for estimation.

Table 6.
Heteroskedasticity Test Results for Equation (1)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Constant (C)	1.2313	0.2885	4.2682	0.0001
ln(SOSR)	−0.0003	0.0134	−0.0255	0.9797
ln(CE)	−0.0024	0.0095	−0.2548	0.7998
ln(IT)	−0.0109	0.0087	−1.2676	0.2102
GFCF	−0.0280	0.0396	−0.7078	0.4820

Source: author's calculation (2026).

The Glejser test results for Equation (2) indicate that all independent variables have probability values greater than 0.05. Specifically, ln(SOSR) = 0.7752, ln(CE) = 0.3072, and ln(IT) = 0.1526. These values confirm that the model is free from heteroskedasticity and appropriate for estimation.

DANADYAKSA
POST MODERN ECONOMY JOURNAL
Vol. 4 No. 1, (2026), 203–218 e-ISSN: 3025-8545

Table 7.
Heteroskedasticity Test Results for Equation (2)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Constant (C)	1.2744	0.2807	4.5396	0.0000
ln(SOSR)	−0.0036	0.0125	−0.2869	0.7752
ln(CE)	−0.0071	0.0069	−1.0303	0.3072
ln(IT)	−0.0123	0.0085	−1.4498	0.1526

Source: author's calculation (2026).

The regression analysis is conducted using EViews 12 after determining the appropriate model specification. Based on Table 8 for Equation (1), Regional Own Source Revenue has a positive and significant effect, with a t statistic of 3.0128 > t table (1.9996) and a probability value of 0.0038 < 0.05. Capital expenditure also has a positive and significant effect, with a t statistic of 3.2300 > t table (1.9996) and a probability value of 0.0020 < 0.05. Intergovernmental transfers have a positive but insignificant effect, with a t statistic of 1.1039 < t table (1.9996) and a probability value of 0.2739 > 0.05. Gross Fixed Capital Formation has a positive and significant effect, with a t statistic of 4.0972 > t table (1.9996) and a probability value of 0.0001 < 0.05.

Based on Table 8 for Equation (2), Regional Own Source Revenue has a positive and significant effect, with a t statistic of 2.9378 > t table (1.9989) and a probability value of 0.0046 < 0.05. Capital expenditure also has a positive and significant effect, with a t statistic of 7.4700 > t table (1.9989) and a probability value of 0.0000 < 0.05. Intergovernmental transfers have a positive but insignificant effect, with a t statistic of 1.6163 < t table (1.9989) and a probability value of 0.1111 > 0.05.

The F statistic for Equation (1) is 46.1669 with a probability value of 0.0000 < 0.05, indicating that ln(SOSR), ln(CE), ln(IT), and GFCF jointly influence EG. The adjusted R^2 value of 73.54% indicates that these variables explain 73.54% of the variation in economic growth, while 26.46% is explained by variables not included in the model. For Equation (2), the F statistic is 36.8633 with a probability value of 0.0000 < 0.05, indicating that ln(SOSR), ln(CE), and ln(IT) jointly influence GFCF. The adjusted R^2 value of 62.34% indicates that these variables explain 62.33% of the variation in GFCF, while 37.66% is explained by variables not included in the model.

Table 8.
Regression Results of Equation (1) and (2)

Variable	t statistic (Prob.)	
	EG: Economic Growth	GFCF: Gross Fixed Capital Formation
	Equation (1)	Equation (2)
Constant (C)	3.7792 (0.0004)	−1.5176
ln(SOSR)	3.0128 (0.0038)	2.9378 (0.0046)
ln(CE)	3.2300 (0.0020)	7.4700 (0.0000)
ln(IT)	1.1039 (0.2739)	1.6163 (0.1111)
GFCF	4.0972 (0.0001)	–
R^2	0.7517	0.6408

DANADYAKSA
POST MODERN ECONOMY JOURNAL

Vol. 4 No. 1, (2026), 203–218 e-ISSN: 3025-8545

Adjusted R^2	0.7354	0.6234
F-statistic	46.1669	36.8633
Prob F-statistic	0.0000	0.0000

Source: author's calculation (2026).

The Sobel test results show that ln(SOSR) has a t statistic of 2.3897 with a two tailed probability of 0.0168 < 0.05, indicating that Gross Fixed Capital Formation significantly mediates the effect of ln(SOSR) on EG. The ln(CE) variable has a t statistic of 3.2689 with a two tailed probability of 0.0010 < 0.05, which indicates significant mediation. In contrast, ln(IT) has a t statistic of 1.5043 with a two tailed probability of 0.1325 > 0.05, indicating no mediating affect.

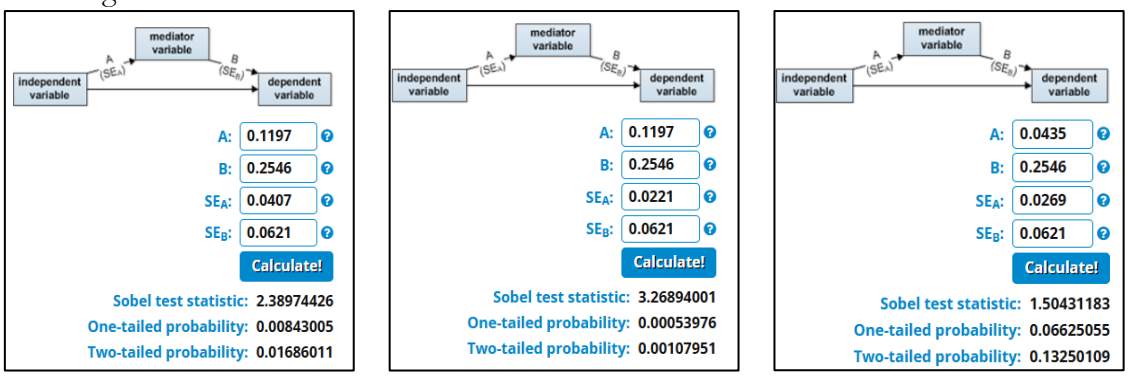

Figure 1.
Sobel Test Results for ln (SOSR), ln (CE), and ln (IT)
Source: author's calculation (2026).

Discussion

The results indicate that Regional Own-Source Revenue has a positive and significant effect on Economic Growth in Java during the 2014–2024 periods. This result aligns with the fiscal federalism perspective proposed by Oates (1999), which states that greater local revenue capacity improves the efficiency of public resource allocation and promotes economic growth. Provinces in Java with higher levels of Regional Own-Source Revenue, such as DKI Jakarta and West Java, are able to expand their fiscal capacity to finance development with less dependence on intergovernmental transfers. This condition strengthens their contribution to regional economic growth. This result is consistent with Gemmell et al. (2013) and Sima et al. (2023), who report that revenue decentralization has a positive and significant impact on economic growth.

Capital Expenditure also has a positive and significant effect on Economic Growth. This result supports the Keynesian view that productive government spending generates multiplier effects. Investment by local governments in infrastructure and fixed assets increases production capacity and supports long-term productivity growth. Although the proportion of Capital Expenditure in Java remains relatively small compared to personnel expenditure, the allocated share has generated a measurable impact on economic growth. This result is consistent with Waryanto (2017), Ahuja and Pandit (2020), Magdalena and Suhatman (2020), Okang et al. (2020), Adelowokan (2021), and Gurdal et al. (2021).

DANADYAKSA
POST MODERN ECONOMY JOURNAL

Vol. 4 No. 1, (2026), 203–218 **e-ISSN: 3025-8545**

However, it contrasts with Setiyanto (2021), Ocolişanu et al. (2022), and Sujidno and Febriani (2023), who report a negative long-term effect.

Intergovernmental Transfers show a positive but insignificant effect on Economic Growth. This result indicates that fiscal transfers from the central government have not effectively stimulated economic growth in Java. One possible explanation relates to the flypaper effect, where transfer funds are mainly used for routine expenditures such as salaries and operational costs rather than productive investment. This result is consistent with Puspitasari et al. (2023), who report that central government transfers do not consistently have a significant effect on regional economic growth.

Gross Fixed Capital Formation has a positive and significant effect on Economic Growth. This result highlights the role of physical capital accumulation as a key mechanism in increasing production capacity and driving regional economic growth. According to the Harrod-Domar model, higher capital accumulation leads to greater production capacity. This result is supported by Jama et al. (2024) and Ocolisanu et al. (2022), who report that public investment contributes positively to economic growth, especially in the short term.

Regional Own-Source Revenue and Capital Expenditure each have a positive and significant effect on Gross Fixed Capital Formation, while Intergovernmental Transfers show a positive but insignificant effect. This indicates that regions with higher Regional Own-Source Revenue and larger allocations for Capital Expenditure are more capable of promoting physical capital accumulation (Mulyana et al., 2022). These components reflect stronger fiscal autonomy and a greater emphasis on long-term development. In contrast, Intergovernmental Transfers do not play a significant role in stimulating physical investment, which suggests that their use is still concentrated on consumptive spending.

The Sobel test results indicate that Gross Fixed Capital Formation significantly mediates the effects of Regional Own-Source Revenue and Capital Expenditure on Economic Growth, but does not mediate the effect of Intergovernmental Transfers. This result emphasizes that the transmission of fiscal decentralization through capital accumulation is mainly driven by independent and productive fiscal components (Aritenang & Chandramidi, 2023). Higher Regional Own-Source Revenue supports capital formation through development financing, while Capital Expenditure directly contributes to the expansion of physical capital stock as reflected in Gross Fixed Capital Formation. In contrast, Intergovernmental Transfers do not pass effectively through this mediation channel, which indicates the need for improved allocation practices and stronger fiscal accountability.

CONCLUSION

The results show that Regional Own-Source Revenue and Capital Expenditure have positive and statistically significant effects on Economic Growth. This result highlights the role of fiscal autonomy and productive public spending in supporting regional economic performance. In contrast, Intergovernmental Transfers, although positive, do not exhibit a statistically significant effect on Economic Growth. This pattern indicates that fiscal transfers from the central government have not been used optimally for productive

Vol. 4 No. 1, (2026), 203–218 e-ISSN: 3025-8545

purposes and are more likely to be absorbed into routine expenditures, which is consistent with the flypaper effect.

From the perspective of capital accumulation, Regional Own-Source Revenue and Capital Expenditure also have positive and significant effects on Gross Fixed Capital Formation. Intergovernmental Transfers, however, do not show a significant effect, which indicates that independent fiscal capacity plays a more effective role in promoting physical capital accumulation. In addition, the Sobel test confirms that Gross Fixed Capital Formation significantly mediates the effects of Regional Own-Source Revenue and Capital Expenditure on Economic Growth. It does not mediate the effect of Intergovernmental Transfers, indicating that the transmission mechanism of Fiscal Decentralization through capital accumulation operates effectively only for productive and independent fiscal components.

Based on these results, local governments in Java need to strengthen Regional Own-Source Revenue through the intensification of local taxes, user charges, and the management of regional assets, particularly in provinces that remain highly dependent on Intergovernmental Transfers, such as DI Yogyakarta and Central Java. In addition, restructuring the composition of regional expenditure by increasing Capital Expenditure is necessary to enhance capital accumulation and support sustainable economic growth. The central government needs to strengthen oversight of Intergovernmental Transfers to ensure that these funds are directed toward investment-oriented activities rather than routine spending. Future research should expand the geographical coverage and incorporate additional variables that may influence the effectiveness of Fiscal Decentralization on Economic Growth, such as corruption levels and infrastructure quality, in order to provide a more comprehensive analysis of fiscal decentralization in Indonesia.

REFERENCES

Adelowokan, O. A. (2021). Fiscal policy, private consumption, and economic growth among the Economic Community of West African States. *Jurnal Ekonomi & Studi Pembangunan*, 22(2), 289–300.

Agrawal, D. R., Brueckner, J. K., & Brülhart, M. (2024). Fiscal federalism in the twenty-first century. *Annual Review of Economics*, 16(1), 429–454.

Agu, J. C., Nkwo, F. N., & Eneiga, R. U. (2024). Governance and anti-corruption measures in Nigeria: Strategies for enhancing transparency, accountability, and public trust. *International Journal of Economics and Public Policy*, 8(1), 1–15.

Agusta, F. A., & Arianti, F. (2023). Analisis pengaruh IPM, PMTB, belanja tidak langsung, dan belanja langsung terhadap PDRB kabupaten dan kota di Provinsi Jawa Tengah tahun 2015–2019. *Jurnal Ilmiah Fokus Ekonomi, Manajemen, Bisnis & Akuntansi (EMBA)*, 2(1), 37–43.

Ahuja, D., & Pandit, D. (2020). Public expenditure and economic growth: Evidence from developing countries. *FIIB Business Review*, 9(3), 228–236.

Al-Saadi, A. S. A., & Khudari, M. (2024). The dynamic relationship between good governance, fiscal policy, and sustainable economic growth in Oman. *Journal of Infrastructure, Policy and Development*, 8(5), 1–20.

Vol. 4 No. 1, (2026), 203–218 **e-ISSN: 3025-8545**

Aritenang, A. F., & Chandramidi, A. N. (2023). The spatial effects of fiscal decentralization on regional convergence: The case of regions in Indonesia. *GeoJournal*, 88(2), 2011–2030.

Bai, J., Choi, S. H., & Liao, Y. (2021). Feasible generalized least squares for panel data with cross-sectional and serial correlations. *Empirical Economics*, 60(1), 309–326.

Bakri, M. R., Bagiada, P. P., Yogantari, N. L. R., & Marlina, L. S. (2024). Accountability and fiscal transfer: The perfect duo for enhancing the regional economy. *Jurnal Tata Kelola dan Akuntabilitas Keuangan Negara*, 10(1), 105–122.

Baltagi, B. H. (2021). *Econometric analysis of panel data (6th ed.)*. Springer.

Barro, R. J. (1990). Government spending in a simple model of endogenous growth. *Journal of Political Economy*, 98(5, Part 2), S103–S125.

Blume, L. E., & Sargent, T. J. (2015). Harrod 1939. *The Economic Journal*, 125(583), 350–377.

Boufounou, P., Eriotis, N., Kounadeas, T., Argyropoulos, P., & Poulopoulos, J. (2024). Enhancing internal control mechanisms in local government organizations: A crucial step towards mitigating corruption and ensuring economic development. *Economies*, 12(4), 78.

Campbell, S., Greenwood, M., Prior, S., Shearer, T., Walkem, K., Young, S., & Walker, K. (2020). Purposive sampling: Complex or simple? Research case examples. *Journal of Research in Nursing*, 25(8), 652–661.

Casula, M., Rangarajan, N., & Shields, P. (2021). The potential of working hypotheses for deductive exploratory research. *Quality & Quantity*, 55(5), 1703–1725.

Cevik, S., & Correa-Caro, C. (2020). Growing (un)equal: Fiscal policy and income inequality in China and BRIC+. *Journal of the Asia Pacific Economy*, 25(4), 634–653.

Cheung, Y. W., & Lai, K. S. (1995). Lag order and critical values of the augmented Dickey–Fuller test. *Journal of Business & Economic Statistics*, 13(3), 277–280.

Direktorat Jenderal Perimbangan Keuangan (DJPK). (2026). *Portal data APBD*.

Domar, E. D. (1946). Capital expansion, rate of growth, and employment. *Econometrica*, 14(2), 137–147.

Fahlevy, M. R., & Burhanudin, B. (2022). Konsep desentralisasi dalam pelayanan publik (Studi inovasi Samsat Care di Kota Makassar). *Journal of Government Science (GovSci): Jurnal Ilmu Pemerintahan*, 3(2), 74–84.

Gemmell, N., Kneller, R., & Sanz, I. (2013). Fiscal decentralization and economic growth: Spending versus revenue decentralization. *Economic Inquiry*, 51(4), 1915–1931.

Glejser, H. (1969). A new test for heteroskedasticity. *Journal of the American Statistical Association*, 64(325), 316–323.

Gurdal, T., Aydin, M., & Inal, V. (2021). The relationship between tax revenue, government expenditure, and economic growth in G7 countries: New evidence from time and frequency domain approaches. *Economic Change and Restructuring*, 54(2), 305–337.

Hines, J. R., Jr., & Thaler, R. H. (1995). Anomalies: The flypaper effect. *Journal of Economic Perspectives*, 9(4), 217–226.

Isbahi, M. B., Zuana, M. M. M., & Toha, M. (2024). The Multi-Social Relation of the Cattle Industry in the Plaosan Subdistrict Animal Market of Magetan Regency. *Malacca:*

Vol. 4 No. 1, (2026), 203–218 **e-ISSN: 3025-8545**

Journal of Management and Business Development, *1*(1), 31–46. https://doi.org/10.69965/malacca.v1i1.51

Jama, A. B., Daud, S. N. M., & Nayan, S. (2024). The relationship between government expenditure and economic growth in ASEAN-5 countries. *Journal of Infrastructure, Policy and Development*, 8(7), 4329.

Jin, Y., & Rider, M. (2022). Does fiscal decentralization promote economic growth? An empirical approach to the study of China and India. J*ournal of Public Budgeting, Accounting & Financial Management*, 34(6), 146–167.

Khamdana, A. (2016). Pengaruh desentralisasi fiskal terhadap pertumbuhan ekonomi daerah di Indonesia, 2008–2012. *Indonesian Treasury Review: Jurnal Perbendaharaan, Keuangan Negara dan Kebijakan Publik*, 1(1), 23–38.

Kharisma, B. (2013). Desentralisasi fiskal dan pertumbuhan ekonomi: Sebelum dan sesudah era desentralisasi fiskal di Indonesia. *Jurnal Ekonomi & Studi Pembangunan*, 12(2), 101–119.

Kong, Y., Nketia, E. B., Antwi, S. K., & Musah, M. (2020). Scrutinizing the complex relationship between financial development, gross fixed capital formation, and economic growth in Africa by adopting CCEMG and AMG estimation techniques. *International Journal of Science and Business*, 4(11), 160–174.

Levin, A., Lin, C. F., & Chu, C. S. J. (2002). Unit root tests in panel data: Asymptotic and finite-sample properties. *Journal of Econometrics*, 108(1), 1–24.

Lim, W. M. (2025). What is quantitative research? An overview and guidelines. *Australasian Marketing Journal*, 33(3), 325–348.

Magdalena, S., & Suhatman, R. (2020). The effect of government expenditures, domestic investment, and foreign investment on the economic growth of the primary sector in Central Kalimantan. *Budapest International Research and Critics Institute (BIRCI-Journal)*, 3(3), 1692–1703.

Mulyana, M., Din, M., Mustamin, M., Amir, A. M., Karim, F., & Betty, B. (2022). Local government own-source revenue and general allocation funds on capital expenditure: Economic growth as a moderating variable. Arthatama: *Journal of Business Management and Accounting*, 6(1), 44–54.

Oates, W. E. (1993). Fiscal decentralization and economic development. *National Tax Journal*, 46(2), 237–243.

Oates, W. E. (1999). An essay on fiscal federalism. *Journal of Economic Literature*, 37(3), 1120–1149.

Ocolişanu, A., Dobrotă, G., & Dobrotă, D. (2022). The effects of public investment on sustainable economic growth: Empirical evidence from emerging countries in Central and Eastern Europe. *Sustainability*, 14(14), 8721.

Okang, O. H., Joseph, A. I., Dunsin, O. M., Ekpo, N. S., & Chike, E. C. (2020). Government capital expenditure and economic growth in Nigeria. *International Journal of Economics and Financial Management*, 5(2), 67–76.

Onifade, S. T., Çevik, S., Erdoğan, S., Asongu, S., & Bekun, F. V. (2020). An empirical retrospect of the impacts of government expenditures on economic growth: New evidence from the Nigerian economy. *Journal of Economic Structures*, 9(1), 6.

Vol. 4 No. 1, (2026), 203–218 **e-ISSN: 3025-8545**

Perron, P., & Ng, S. (1996). Useful modifications to some unit root tests with dependent errors and their local asymptotic properties. *The Review of Economic Studies*, 63(3), 435–463.

Priyarsono, D. S., Budiasih, B., & Agustina, N. (2010). Desentralisasi fiskal, tax effort, dan pertumbuhan ekonomi: Studi empirik kabupaten/kota di Indonesia 2001–2008. *Jurnal Ekonomi dan Pembangunan Indonesia*, 11(1), 21–34.

Purwadinata, S., & Ridolof, W. B. (2024). *Perekonomian Indonesia: Persoalan kebijakan, isu kontemporer dan globalisasi pembangunan*. Literasi Nusantara.

Puspitasari, H., Khusaini, M., & Pangestuty, F. W. (2023). Analisis pendapatan daerah terhadap produk domestik regional bruto melalui belanja modal Kawasan Gerbangkertosusila. *Indonesian Treasury Review: Jurnal Perbendaharaan, Keuangan Negara dan Kebijakan Publik*, 8(2), 171–187.

Rostow, E. V. (2018). The Japanese American cases—A disaster. In *Constitutional law* (pp. 195–240). Routledge.

Setiyanto, A. (2021). Indonesia's capital expenditure and economic growth 1990–2020: Role of accountability. *Jurnal Tata Kelola dan Akuntabilitas Keuangan Negara*, 7(2), 245–256.

Sima, M., Liang, P., & Qingjie, Z. (2023). The impact of fiscal decentralization on economic growth: A comparative analysis of selected African and OECD countries. *Heliyon*, 9(9), e19520.

Sofilda, E., Zilal Hamzah, M., & Kusairi, S. (2023). Analysis of fiscal decentralisation, human development, and regional economic growth in Indonesia. *Cogent Economics & Finance*, 11(1), 2220520.

Sujidno, R., & Febriani, R. E. (2023). Pengaruh korupsi, pengeluaran pemerintah, dan jumlah uang beredar (M2) terhadap pertumbuhan ekonomi di ASEAN. *Jurnal Sosial Ekonomi dan Humaniora*, 9(2), 205–220.

Talitha, T., Firman, T., & Hudalah, D. (2020). Welcoming two decades of decentralization in Indonesia: A regional development perspective. *Territory, Politics, Governance*, 8(5), 690–708.

Tiebout, C. M. (1956). A pure theory of local expenditures. *Journal of Political Economy*, 64(5), 416–424.

Triyono, T., Ariyani, D., & Sasongko, N. (2021). The effect of fiscal decentralization and foreign direct investment on regional income inequality: Economic growth as a mediating variable. *Riset Akuntansi dan Keuangan Indonesia*, 6(3), 268–279.

Ugochukwu, S. D., & Oruta, L. I. (2021). Government expenditure and economic growth in Nigeria: A disaggregated analysis. *Traektoria Nauki = Path of Science*, 7(11), 4022–4035.

Waryanto, P. (2017). Pengaruh belanja modal terhadap pertumbuhan ekonomi di Indonesia. *Indonesian Treasury Review: Jurnal Perbendaharaan, Keuangan Negara dan Kebijakan Publik*, 2(1), 35–55.

Weingast, B. R. (2009). Second generation fiscal federalism: The implications of fiscal incentives. *Journal of Urban Economics*, 65(3), 279–293.