



RESEARCH ARTICLE

The Effect of Capital Expenditure, Personnel Expenditure, and General Allocation Fund on Regional Financial Independence In Jambi Province

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Abstract

This study aims to analyze the effect of Capital Expenditure, Personnel Expenditure, and the General Allocation Fund (DAU) on Regional Financial Independence in Jambi Province during the period 2007–2025. The study employed secondary data obtained from the Central Bureau of Statistics (BPS) of Jambi Province and the Directorate General of Fiscal Balance (DJPK). Using 19 annual observations, the data were analyzed through multiple linear regression with SPSS version 25. The results show that Capital Expenditure and Personnel Expenditure have a positive and significant effect on Regional Financial Independence, whereas the General Allocation Fund has a negative and significant effect. Simultaneously, the three independent variables significantly affect Regional Financial Independence. The coefficient of determination (R^2) was 0.471, indicating that 47.1% of the variation in Regional Financial Independence can be explained by the independent variables. These findings imply that productive expenditure management can strengthen regional financial independence, while excessive dependence on transfer funds tends to weaken fiscal independence.

Keywords

Capital Expenditure; Personnel Expenditure; General Allocation Fund; Regional Financial Independence; Fiscal Decentralization.

1 | INTRODUCTION

Regional autonomy and fiscal decentralization in Indonesia are intended to improve governmental effectiveness and promote equitable regional development. Through fiscal decentralization, local governments are granted greater authority in managing financial resources and providing public services. The success of regional autonomy can be reflected in the level of regional financial independence, which indicates the ability of local governments to finance governmental activities and development programs through locally generated revenues rather than relying heavily on transfers from the central government. According to Halim (2008), higher regional financial independence reflects stronger fiscal capacity and lower dependence on central government assistance. Several factors may influence regional financial independence, including Capital Expenditure, Personnel Expenditure, and the General Allocation Fund (DAU). Capital expenditure is expected to improve infrastructure, stimulate economic activities, and expand the regional revenue base (Mardiasmo, 2021). Personnel expenditure supports governmental operations and public service delivery; however, excessive personnel spending may reduce the fiscal space available for productive development programs. Meanwhile, the General Allocation Fund serves as a fiscal transfer mechanism designed to equalize fiscal capacity among regions, although excessive dependence on transfer funds may indicate weak local fiscal capacity. Jambi Province remains one of the regions facing challenges in strengthening regional financial independence. Regional revenues are still largely dependent on transfers from the central government, indicating that the contribution of Local Own-Source Revenue (PAD) has not yet been fully optimized. Zevaya *et al.* (2025) emphasized that regional fiscal capacity and intergovernmental fiscal relations remain important issues in strengthening fiscal independence in Jambi Province.

Previous studies have reported inconsistent findings regarding the determinants of regional financial independence. Andriana (2020) found that capital expenditure positively affects regional financial independence, whereas several studies suggest that excessive personnel expenditure and a high dependence on transfer funds may hinder fiscal independence. These inconsistent findings indicate the existence of a research gap that requires further investigation. Moreover, studies examining the combined effects of Capital Expenditure, Personnel Expenditure, and the General Allocation Fund on Regional Financial Independence in Jambi Province over a relatively long observation period remain limited. Therefore, this study aims to analyze the effects of Capital Expenditure, Personnel Expenditure, and the General Allocation Fund on Regional Financial Independence in Jambi Province during the period 2007–2025. Using multiple linear regression analysis, this study examines both the partial and simultaneous effects of these variables. The findings are expected to contribute to the development of regional public finance literature and provide practical implications for policymakers in formulating strategies to strengthen regional fiscal independence.

2 | BACKGROUND THEORY

2.1 Fiscal Decentralization Theory

Fiscal decentralization theory explains the transfer of authority and financial responsibilities from the central government to local governments in managing public resources and delivering public services. Through fiscal decentralization, local governments are expected to have greater flexibility in utilizing regional resources and improving public welfare. The effectiveness of fiscal decentralization can be reflected in the level of Regional Financial Independence, which indicates the ability of local governments to finance governmental activities and development programs through locally generated revenues. Therefore, Regional Financial Independence serves as an important indicator for evaluating the success of regional autonomy and fiscal decentralization policies.

2.2 Capital Expenditure

Capital Expenditure refers to government spending allocated to acquire fixed assets and other assets that provide benefits for more than one fiscal period. According to Mardiasmo (2021), Capital Expenditure represents government investment aimed at improving public service capacity and stimulating regional economic growth. Productive capital expenditure can enhance infrastructure and public facilities, thereby increasing economic activities and expanding the regional revenue base. Consequently, greater Capital Expenditure is expected to strengthen Regional Financial Independence.

2.3 Personnel Expenditure

Personnel Expenditure refers to government spending allocated for salaries, allowances, honoraria, and other forms of compensation for regional government employees. According to Mahmudi (2019), Personnel Expenditure plays an important role in supporting governmental administration and public service delivery. Effective and proportional personnel expenditure can improve government performance and administrative efficiency, which may indirectly contribute to the optimization of regional revenues.

2.4 General Allocation Fund

The General Allocation Fund (DAU) is a transfer fund sourced from the State Budget (APBN) and allocated to regional governments to equalize fiscal capacity among regions. According to Halim (2012), DAU aims to reduce disparities in regional financial capacity and ensure the provision of public services. However, excessive dependence on DAU may indicate limited regional capacity in generating Local Own-Source Revenue (PAD). Such dependence can weaken the incentive of local governments to optimize their own revenue sources, thereby reducing Regional Financial Independence. Therefore, the General Allocation Fund is expected to have a negative relationship with Regional Financial Independence. Based on the theoretical framework and previous empirical studies, the hypotheses of this study are formulated as follows:

- 1) H1: Capital Expenditure has a positive and significant effect on Regional Financial Independence.
- 2) H2: Personnel Expenditure has a significant effect on Regional Financial Independence.
- 3) H3: General Allocation Fund has a negative and significant effect on Regional Financial Independence.
- 4) H3: General Allocation Fund has a negative and significant effect on Regional Financial Independence.

3 | METHOD

This study employed a quantitative approach with descriptive and explanatory research designs to examine the effects of Capital Expenditure, Personnel Expenditure, and the General Allocation Fund (DAU) on Regional Financial Independence in Jambi Province. The quantitative approach was chosen because this study aims to empirically test the relationships among financial variables using statistical methods. The population of this study consisted of the regional financial data of Jambi Province. The sample comprised annual time-series data covering the period from 2007 to 2025, resulting in 19 observations. Secondary data were obtained from official publications issued by Statistics Indonesia of Jambi Province (BPS Jambi), the Directorate General of Fiscal Balance (DJPK) of the Ministry of Finance of the Republic of Indonesia, and other relevant government institutions. Data were collected using the documentation method by compiling published data on Capital Expenditure, Personnel Expenditure, the General Allocation Fund (DAU), Local Own-Source Revenue (PAD), and Total Regional Revenue. Regional Financial Independence was measured using the following ratio:

$$\text{Regional Financial Independence} = (\text{PAD} / \text{Total Regional Revenue}) \times 100\%$$

The variables used in this study consisted of one dependent variable and three independent variables. The dependent variable was Regional Financial Independence (Y), whereas the independent variables included Capital Expenditure (X_1), Personnel Expenditure (X_2), and the General Allocation Fund (X_3). To achieve the research objectives, descriptive statistics and multiple linear regression analysis were employed. Prior to regression analysis, classical assumption tests were conducted, including normality, multicollinearity, heteroscedasticity, and autocorrelation tests, to ensure that the regression model satisfied the required statistical assumptions. Natural logarithm (Ln) transformation was applied to all variables to reduce data heterogeneity, minimize heteroscedasticity problems, and improve the normality of the data distribution. The multiple linear regression model used in this study is formulated as follows:

$$\ln(Y_i) = \beta_0 + \beta_1 \ln(BM_i) + \beta_2 \ln(BP_i) + \ln(DAU_i) + \varepsilon_i$$

Where:

Y = Regional Financial Independence

α = Constant

$\beta_1, \beta_2, \beta_3$ = Regression coefficients

X_1 = Capital Expenditure

X_2 = Personnel Expenditure

X_3 = General Allocation Fund (DAU)

ε = Error term

Hypothesis testing was conducted using the t-test to examine the partial effects of the independent variables, the F-test to evaluate their simultaneous effects, and the coefficient of determination (R^2) to assess the explanatory power of the model. All statistical analyses were performed using Statistical Package for the Social Sciences (SPSS) version 25.

4 | RESULTS AND DISCUSSION

4.1 Results

4.1.1 Normality Test

Based on the Kolmogorov-Smirnov and Shapiro-Wilk tests, significance values of 0.200 and 0.918 were obtained, respectively, which are greater than the 0.05 level of significance. These results indicate that the residuals are normally distributed. Thus, the assumption of normality has been met and the regression model is suitable for further analysis.

4.1.2 Multicollinearity Test

The results of the multicollinearity test show that all independent variables have a tolerance value above 0.10 and a VIF value below 10. Capital Expenditure has a VIF value of 1,670, Personnel Expenditure of 6,849, and General Allocation Fund of 8,302. Thus, the regression model does not experience multicollinearity problems. However, the VIF values for Personnel Expenditure and General Allocation Fund are relatively high, so interpretation of the regression coefficients requires caution.

4.1.3 Heteroscedasticity Test

Based on the results of the Glejser test, the significance values for Capital Expenditure, Personnel Expenditure, and General Allocation Fund were 0.822, 0.833, and 0.847, respectively, all greater than 0.05. Furthermore, the residual distribution pattern in the scatterplot shows no specific pattern. Therefore, it can be concluded that the regression model does not experience heteroscedasticity.

4.1.4 Autocorrelation Test

The Durbin-Watson test results showed a value of 2.350. This value is close to 2, indicating that the regression model does not experience autocorrelation. Thus, the model meets the autocorrelation assumption and can be used for further analysis.

Table 1. Multiple linear regression results

Variabel	B	Std. Error	t	Sig
Constant	4.965	0.760	6.534	0.000
Capital Expenditure (LN_X1)	0.141	0.061	2.325	0.035
Personnel Expenditure (LN_X2)	0.224	0.067	3.335	0.005
General Allocation Fund (LN_X3)	-0.451	0.124	-3.652	0.002

Based on Table 1, the multiple linear regression equation can be formulated as follows:

$$\text{LNY} = 4.965 + 0.141\text{LN}_X1 + 0.224\text{LN}_X2 - 0.451\text{LN}_X3 + e$$

The regression results indicate that Capital Expenditure and Personnel Expenditure have positive coefficients, whereas the General Allocation Fund has a negative coefficient. The significance values of Capital Expenditure (0.035), Personnel Expenditure (0.005), and General Allocation Fund (0.002) are below 0.05. Therefore, each independent variable significantly affects Regional Financial Independence in Jambi Province during the period 2007–2025.

Table 2. Simultaneous test and coefficient of determination results

Indikator	Value
F-statistic	4.454
Significance(F)	0.020
R	0.686
R Square	0.471
Adjusted R Square	0.365
	1.639

The simultaneous test results show an F-statistic value of 4.454 with a significance level of 0.020. Since the significance value is lower than 0.05, Capital Expenditure, Personnel Expenditure, and General Allocation Fund simultaneously have a significant effect on Regional Financial Independence. Furthermore, the coefficient of determination (R Square) is 0.471,

indicating that 47.1% of the variation in Regional Financial Independence can be explained by the independent variables, whereas the remaining 52.9% is explained by other factors outside the model.

4.1.5 Effect of Capital Expenditure on Regional Financial Independence

The results indicate that Capital Expenditure has a positive and significant effect on Regional Financial Independence in Jambi Province. This finding implies that increased capital expenditure contributes to infrastructure development and public facilities that support regional economic activities. Improved infrastructure may stimulate investment, increase productivity, and expand economic activities, thereby enhancing regional revenues and strengthening regional fiscal capacity. This finding is consistent with Andriana (2020), who found that capital expenditure positively affects regional financial independence. Productive public investment can strengthen regional fiscal capacity and support sustainable economic development.

4.1.6 Effect of Personnel Expenditure on Regional Financial Independence

The results show that Personnel Expenditure has a positive and significant effect on Regional Financial Independence. This finding suggests that personnel expenditure can contribute positively when managed effectively to support government performance and public service delivery. Improved administrative effectiveness and service quality may encourage better management of regional resources and increase local revenue collection. Therefore, personnel expenditure does not necessarily weaken fiscal independence, provided that it is managed efficiently and proportionally.

4.1.7 Effect of General Allocation Fund on Regional Financial Independence

The results demonstrate that the General Allocation Fund has a negative and significant effect on Regional Financial Independence. This finding indicates that increasing dependence on transfer funds from the central government tends to reduce the level of regional financial independence. Excessive dependence on transfer funds may weaken the incentive of local governments to optimize their own-source revenues. This result supports the theory of fiscal decentralization, which suggests that excessive dependence on intergovernmental transfers may weaken local fiscal capacity. The finding is also consistent with Zevaya *et al.* (2025), who emphasized that fiscal relations between central and local governments remain an important challenge in strengthening regional financial independence.

4.2 Discussion

The findings of this study indicate that Capital Expenditure and Personnel Expenditure have a positive and significant impact on Regional Financial Independence in Jambi Province, while the General Allocation Fund has a negative and significant effect. This suggests that increased investment in infrastructure and public services, as indicated by Capital Expenditure, can enhance local revenue generation and fiscal capacity. This aligns with the research conducted by Andriana (2020), which also found a positive correlation between capital expenditure and regional financial independence. Furthermore, the effective management of Personnel Expenditure can contribute to improved government performance and service delivery, supporting the notion that efficient public spending is crucial for fiscal sustainability. In contrast, the negative relationship between the General Allocation Fund and Regional Financial Independence highlights the risks associated with excessive reliance on central government transfers, a finding that resonates with the work of Zevaya *et al.* (2025). Their research emphasized the importance of reducing dependency on external funding to strengthen local fiscal capacities. Overall, these results underscore the need for local governments to prioritize productive investments and optimize their own revenue sources to achieve greater financial autonomy.

5 | CONCLUSIONS AND FUTURE WORK

This study examined the effects of Capital Expenditure, Personnel Expenditure, and the General Allocation Fund on Regional Financial Independence in Jambi Province during the period 2007–2025. The results indicate that Capital Expenditure and Personnel Expenditure have positive and significant effects on Regional Financial Independence, whereas the General Allocation Fund has a negative and significant effect. In addition, the simultaneous test confirms that the three independent variables jointly have a significant effect on Regional Financial Independence. These findings suggest that regional financial independence is influenced not only by expenditure allocation but also by the degree of dependence on transfer funds from the central government. The findings of this study provide both theoretical and practical implications. Theoretically, this study contributes to the literature on regional public finance by providing empirical evidence regarding the determinants of Regional Financial Independence at the provincial level. Practically, the results imply that local governments should prioritize productive capital expenditure, improve the efficiency of personnel expenditure, and optimize local revenue sources to reduce dependence on transfer funds and strengthen fiscal sustainability. This study is limited

to the use of three explanatory variables and focuses only on Jambi Province with 19 annual observations. Therefore, future research is recommended to incorporate additional variables, such as Local Own-Source Revenue growth, Revenue Sharing Funds, Regional Taxes, Retributions, and Economic Growth. Future studies may also expand the scope of analysis to other provinces or districts and employ alternative analytical methods to provide more comprehensive evidence regarding the determinants of Regional Financial Independence.

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