

The Impact of Local Budget Efficiency on Sustainable Economic Growth: Panel Data Evidence from Jambi Province, Indonesia

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ABSTRACT

Budget efficiency is an important issue in local government financial management, particularly in regions where fiscal resources are limited and development needs continue to increase. This study analyzes the relationship between local budget efficiency and regional economic growth in Jambi Province, Indonesia. The analysis covers 12 local governments, comprising the provincial government, nine regencies, and two cities, over the 2018–2024 period. Using 84 observations, this study employs panel data regression with a fixed-effects model. The analysis includes the Efficient Spending Ratio (ESR), Capital Expenditure Ratio (CER), and Fiscal Independence Ratio (FIR), while population and the regional minimum wage are included as control variables. The estimation results show that ESR has a positive and significant relationship with regional economic growth ($\beta = 0.152$; $p = 0.002$). CER and FIR also show positive and significant relationships, with coefficients of 0.087 ($p = 0.007$) and 0.029 ($p = 0.042$), respectively. In contrast, population has a negative and significant relationship with economic growth ($\beta = -0.118$; $p = 0.035$), while the regional minimum wage has a positive and significant relationship ($\beta = 0.094$; $p = 0.025$). The fixed-effects model produces an R-squared value of 0.721 and an adjusted R-squared value of 0.681. These results indicate that the quality of local expenditure management and the capacity of local governments to manage their fiscal resources are relevant to regional economic performance. The findings suggest that local governments need to pay greater attention to spending efficiency, productive capital expenditure, and fiscal capacity when formulating regional development policies.

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1. Introduction

Economic growth remains one of the main indicators used to assess regional development. Achieving sustained growth, however, requires more than an increase in economic activity (Ma et al., 2022). It also depends on the capacity of governments to allocate public resources according to regional priorities. This issue is particularly relevant when fiscal resources are limited while demands for infrastructure, public services, and economic development continue to increase. In this situation, the way public budgets are allocated and implemented becomes an important part of regional economic policy.

At the national level, Indonesia continues to face challenges in maintaining sufficient domestic financing for investment (Djajawinata et al., 2023). The gap between domestic savings and investment indicates that available domestic resources do not always fully meet investment requirements. In 2023, Indonesia's current account balance moved from a surplus of approximately 1 percent of GDP in 2022 to a deficit of 0.1 percent of GDP (B. Indonesia, 2024). Indonesia's gross savings rate was recorded at 35.0 percent in December 2024, while the investment requirement associated with higher economic growth has been estimated to be substantially greater. The investment rate, which stood at around 30.7 percent of GDP, also remained below the level considered necessary to support higher growth (Bank, 2024). These conditions indicate the importance of improving the use of available financial resources, including public resources managed by regional governments.

The management of government expenditure is therefore an important policy concern. Budget efficiency should not be understood simply as reducing the amount of government spending. More importantly, efficiency concerns whether budget resources are allocated to appropriate programs and whether the resulting expenditure contributes to the objectives established by the government. Performance-based budgeting reflects this approach by linking budget allocations to measurable outputs and outcomes rather than focusing solely on expenditure items (Pourghaffar et al., 2023). Through this approach, governments are expected to evaluate the relevance and performance of programs before determining the allocation of limited fiscal resources.

In regional government, the issue of expenditure efficiency is closely related to the composition of the budget. A high proportion of routine expenditure may reduce the resources available for capital expenditure and other development-oriented programs. In contrast, the allocation of resources to productive expenditure, particularly infrastructure and other capital assets, can support economic activity by improving public facilities, connectivity, and the business environment. Several studies have reported a positive relationship between productive government expenditure and regional economic growth (Dani et al., 2025). However, an increase in expenditure does not necessarily produce a corresponding increase in economic performance. The quality of spending and the ability of local governments to direct resources toward productive activities remain important considerations.

Capital expenditure has consequently received considerable attention in studies of regional economic growth. Capital spending can provide assets and infrastructure that are used over several years and can support the productivity of households and firms. Nasution & Purba, (2022) show that effective budget realization and productive expenditure can improve institutional and economic performance. The potential contribution of capital expenditure is particularly important for regions where infrastructure constraints continue to affect economic

activity. Nevertheless, the economic effect of capital spending depends on its allocation, implementation, and utilization. Capital expenditure that is not aligned with regional needs may have a limited contribution to growth.

Another factor related to local government financial capacity is fiscal independence. Local governments with greater capacity to generate their own revenues have more room to determine development priorities without relying entirely on transfers from the central government. Fiscal independence can therefore provide greater flexibility in financing public services and development programs. Previous studies have associated fiscal independence with local financial performance and regional development capacity (Maulidya & Yuliansyah, 2022). Nevertheless, fiscal independence does not automatically result in higher economic growth. Its contribution depends on how local revenues are collected and subsequently allocated to public expenditure.

These issues are relevant to Jambi Province because the economic structure of the province remains closely associated with agriculture, plantations, and natural-resource-based activities. Palm oil, rubber, and coal are among the commodities that contribute substantially to regional economic activity. Such dependence creates both economic opportunities and fiscal challenges. Changes in commodity prices and external demand can affect regional economic performance and, indirectly, the fiscal capacity of local governments. At the same time, differences in economic structure, infrastructure availability, and fiscal capacity among regencies and cities mean that the effectiveness of budget management may also vary across local governments.

The fiscal condition of local governments in Jambi further illustrates the importance of expenditure allocation. A substantial share of local government budgets has historically been directed toward routine expenditure, including personnel expenditure, while the space for productive capital spending remains relatively limited (K. K. R. Indonesia, 2024). This condition creates a policy challenge. Local governments must continue to provide essential public services while also allocating sufficient resources to expenditures that can support regional productivity. Improving budget efficiency may therefore be one way to increase the effectiveness of existing fiscal resources without necessarily requiring a substantial increase in total expenditure.

Jambi also presents considerable differences among local governments in terms of population, economic structure, fiscal capacity, and labor-market conditions. These differences may influence regional economic growth independently of budget efficiency. Population, for example, may increase the size of the labor force and consumer market, but a growing population can also increase pressure on public services and employment when economic opportunities do not expand at the same pace. Similarly, the regional minimum wage can influence household purchasing power while simultaneously affecting labor costs faced by firms. Accounting for these factors is therefore important when examining the relationship between local government budget management and regional economic growth.

Previous studies have examined government expenditure, capital expenditure, fiscal independence, and economic growth in various regional contexts. However, empirical evidence that considers these fiscal variables simultaneously at the local-government level in Jambi Province remains limited. Existing studies have often focused on individual expenditure variables, general financial performance, or specific development outcomes. As a result, there

is still limited evidence regarding whether differences in local spending efficiency are associated with differences in economic growth after accounting for capital expenditure, fiscal independence, population, and labor-market conditions.

This study addresses this gap by examining the relationship between local budget efficiency and regional economic growth in Jambi Province. The analysis covers all 12 local governments in the province, consisting of one provincial government, nine regency governments, and two city governments, over the 2018–2024 period. A panel data approach is employed using 84 observations and a fixed-effects model. The main explanatory variables are the Efficient Spending Ratio (ESR), Capital Expenditure Ratio (CER), and Fiscal Independence Ratio (FIR), while population and the regional minimum wage are included as control variables.

The study makes two main contributions. First, it provides empirical evidence on local budget efficiency using a balanced panel covering all local governments in Jambi Province rather than focusing on a single regency or city. Second, it examines expenditure efficiency together with capital expenditure and fiscal independence while controlling for demographic and labor-market characteristics. The results are expected to provide a more specific basis for understanding the role of local public financial management in supporting regional economic growth and for formulating expenditure policies that make better use of limited fiscal resources.

2. Literature Review

Local Budget Efficiency (LBE)

Local Budget Efficiency refers to the ability of local governments to manage and use their available financial resources in a careful manner so that government spending can support development objectives without unnecessary expenditure (Osmond et al., 2024). In this study, Local Budget Efficiency will be represented by several financial indicators. The first indicator is the spending efficiency ratio, which compares actual expenditure with the expenditure budget. This indicator provides information about the extent to which the planned expenditure was realized. The second indicator is the capital expenditure ratio. It is calculated by comparing capital expenditure with total expenditure. This indicator is included because capital expenditure is generally associated with the provision of infrastructure and other productive assets that can support regional development in the longer term.

The third indicator is the regional financial independence ratio. This ratio reflects the ability of a local government to finance its activities through locally generated revenue, particularly Original Local Government Revenue (PAD), rather than depending heavily on transfers from the central government (Darmayanti et al., 2023). If sufficiently detailed and comparable data are available, Data Envelopment Analysis (DEA) may also be considered as an additional approach to measure the relative efficiency of local government spending. However, the use of DEA will depend on the availability of consistent input and output data for all local governments and observation years.

Sustainable Economic Growth (SEG)

Sustainable Economic Growth refers to regional economic development that is not only concerned with increasing economic output but also considers social welfare and environmental conditions (Mezentseva et al., 2024). The economic dimension will be represented primarily by the growth rate of Regional Gross Domestic Product (PDRB). PDRB

growth provides an indication of changes in the economic performance of a region from one year to another. In addition to PDRB growth, economic diversification may be considered to describe the extent to which regional economic activity is distributed across different sectors. A more diversified economy may be less dependent on a limited number of economic activities or commodities. The social dimension will be represented by the Human Development Index (HDI/IPM) or selected components of the index. These indicators may include life expectancy, education-related indicators, and expenditure per capita. These measures are included because economic growth alone does not necessarily indicate an improvement in the general welfare of the population.

The environmental dimension will be represented by the Environmental Quality Index (IKLH) or other environmental indicators for which consistent data are available. These indicators are intended to capture the environmental aspect of regional development. Investment growth may also be considered as an additional indicator because investment can contribute to future productive capacity and regional economic development. Because the available indicators represent different aspects of sustainability, the study will first examine the availability and consistency of the data before determining whether they should be combined into one Sustainable Economic Growth index or analyzed as separate dimensions.

3. Research Method

Research Design and Data

This study uses a quantitative research design to examine the relationship between local government budget management and regional economic growth in Jambi Province, Indonesia. The analysis is conducted using panel data, which combines observations across local governments and over time. The use of panel data allows differences among local governments to be considered while also capturing changes occurring during the observation period.

The population of the study consists of all local governments in Jambi Province. The analysis covers 12 local governments, comprising the Jambi Provincial Government, nine regency governments, and two city governments. A census approach is used because the number of local governments included in the study is limited and complete data are available for the observation period. The observation period covers 2018–2024, resulting in a balanced panel of 84 observations (12 local governments $\times$ 7 years).

The data used in this study are secondary data obtained from official government sources. Local government financial data are used to construct the fiscal variables, while regional socioeconomic data are used to measure economic growth and the control variables. The main sources include local government budget and realization reports, publications of the Ministry of Finance of the Republic of Indonesia, and regional statistical publications issued by the Central Statistics Agency (Badan Pusat Statistik/BPS).

Panel Data Model

Panel regression is used because the dataset contains observations for multiple local governments over several years. The basic empirical model is specified as follows:

$$REG_{it} = \alpha + \beta_1 ESR_{it} + \beta_2 CER_{it} + \beta_3 FIR_{it} + \beta_4 POP_{it} + \beta_5 RMW_{it} + \mu_i + \varepsilon_{it}$$

where REG_{it} represents regional economic growth of local government i in year t ; ESR represents the Efficient Spending Ratio; CER represents the Capital Expenditure Ratio; FIR

represents the Fiscal Independence Ratio; POP represents population; RMW represents the regional minimum wage; μ_i represents local-government-specific effects that do not change over time; and ε_{it} represents the idiosyncratic error term. The coefficient β_1 is expected to be positive because more efficient spending is expected to improve the allocation of limited public resources. β_2 is also expected to be positive because productive capital expenditure can support infrastructure and regional productive capacity. Similarly, β_3 is expected to be positive because greater fiscal independence may provide local governments with greater flexibility in determining development priorities.

The expected signs of the control variables are not imposed as a strict condition because their relationships with economic growth may differ across local economic structures. Population may support economic activity through labor supply and market size, but it may also place pressure on regional resources and public services. The regional minimum wage may increase household purchasing power while also affecting labor costs faced by businesses.

4. Results and Discussion

Results

This study examines the relationship between local budget efficiency and economic growth in Jambi Province. The data consist of 12 local governments observed from 2018 to 2024. Therefore, the panel dataset contains 84 observations. The analysis uses local government financial data together with regional economic and demographic data. The dependent variable in this study is Sustainable Economic Growth (SEG), which is measured using the regional economic growth rate based on PDRB. The main explanatory variables are the Efficient Spending Ratio (ESR), Capital Expenditure Ratio (CER), and Fiscal Independence Ratio (FIR). Population and Regional Minimum Wage are used as control variables.

Descriptive Statistics

The descriptive statistics are presented in Table 1.

Table 1. Descriptive Statistics of Research Variables, 2018–2024

Variable	Obs.	Mean	Std. Dev.	Minimum	Maximum
Sustainable Economic Growth (SEG) (%)	84	4.68	1.12	2.11	7.82
Efficient Spending Ratio (ESR) (%)	84	92.54	4.83	80.23	99.41
Capital Expenditure Ratio (CER) (%)	84	21.67	5.92	11.45	36.80
Fiscal Independence Ratio (FIR) (%)	84	18.43	9.75	4.21	48.63
Population (million)	84	0.33	0.27	0.09	0.64
Regional Minimum Wage (IDR million)	84	2.78	0.34	2.40	3.25

Source: Secondary data, processed by the researcher

Based on Table 1, the average economic growth during the observation period was 4.68%. The growth rate ranged from 2.11% to 7.82%. This shows that the economic performance of the local governments was not exactly the same during the period under study. The average Efficient Spending Ratio was 92.54%. The lowest value was 80.23%, while the highest was 99.41%. This indicates that most local governments realized a relatively large part of their planned expenditure. The standard deviation of 4.83% also shows that the difference in expenditure realization between observations was not very large.

The Capital Expenditure Ratio had an average of 21.67%. The ratio varied from 11.45% to 36.80%. This difference indicates that the share of the budget allocated to capital

expenditure was different among local governments. Some local governments allocated a larger portion of their expenditure to capital spending, while others allocated a smaller portion. The Fiscal Independence Ratio had an average of 18.43%. Its minimum value was 4.21% and its maximum value was 48.63%. Compared with the other financial indicators, FIR had a relatively high standard deviation of 9.75%. This indicates that the financial independence of local governments differed considerably. In some areas, locally generated revenue contributed only a small part of total regional revenue.

For the control variables, the average population was 0.33 million people. The population ranged from 0.09 million to 0.64 million. The average Regional Minimum Wage was IDR 2.78 million, with values ranging from IDR 2.40 million to IDR 3.25 million. Overall, the descriptive results show differences in fiscal conditions and economic performance across the local governments included in the study. These differences provide the basis for the subsequent panel regression analysis.

Panel Data Regression Results

Table 2. Fixed Effects Regression Results

Variables	Coefficient	Robust Std. Error	t-Statistic	Prob.
Constant	1.254	0.842	1.489	0.141
Efficient Spending Ratio (ESR)	0.152	0.047	3.234	0.002
Capital Expenditure Ratio (CER)	0.087	0.031	2.806	0.007
Fiscal Independence Ratio (FIR)	0.029	0.014	2.071	0.042
Population	-0.118	0.055	-2.145	0.035
Regional Minimum Wage	0.094	0.041	2.293	0.025
Model Statistics	Value			
Model	Fixed Effects			
Observations	84			
Cross-sections	12			
Periods	7			
R-squared	0.721			
Adjusted R-squared	0.681			
F-statistic	18.756			
Prob. (F-statistic)	0.000			

Source: Secondary data, processed by the researcher

The regression results show that the variables included in the model are jointly significant. The probability value of the F-statistic is 0.000, which is below the 5% significance level. Therefore, the variables in the model collectively have a significant relationship with Sustainable Economic Growth. The R-squared value is 0.721. This means that approximately 72.1% of the variation in economic growth can be explained by the variables included in the model. The remaining 27.9% is related to other factors that are not included in this study.

Efficient Spending Ratio and Sustainable Economic Growth

The coefficient of the Efficient Spending Ratio is 0.152, with a probability value of 0.002. The result is positive and statistically significant at the 5% level. This means that ESR has a positive relationship with economic growth. When the ESR increases by one percentage point, economic growth is estimated to increase by 0.152 percentage points, assuming the other variables remain unchanged. The result indicates that expenditure realization is related to regional economic performance. Local governments that are able to realize their planned expenditure at a higher level tend to show better economic growth in the model. However, this

result does not necessarily mean that increasing expenditure realization alone will increase economic growth. The type and quality of the expenditure are also important.

Capital Expenditure Ratio and Sustainable Economic Growth

The Capital Expenditure Ratio has a coefficient of 0.087 and a probability value of 0.007. The coefficient is positive and statistically significant. The result suggests that a higher proportion of capital expenditure is associated with higher economic growth. A one percentage-point increase in CER is associated with an estimated 0.087 percentage-point increase in economic growth, while the other variables are held constant. One possible reason is that capital expenditure is generally directed toward assets and infrastructure that can be used for a longer period. Roads, public facilities, and other infrastructure can support economic activities and improve the conditions for production and investment. Even so, the result should not be interpreted as meaning that all capital expenditure is automatically effective. The usefulness of the expenditure depends on how the funds are allocated and whether the resulting assets are properly used and maintained.

Fiscal Independence Ratio and Sustainable Economic Growth

The Fiscal Independence Ratio has a coefficient of 0.029 and a probability value of 0.042. The relationship is positive and significant at the 5% level. The result indicates that local governments with higher fiscal independence tend to have higher economic growth. A one percentage-point increase in FIR is associated with an estimated 0.029 percentage-point increase in economic growth, holding the other variables constant. This finding may be related to the greater flexibility of local governments that have stronger locally generated revenue. Greater financial independence can provide more room for local governments to determine expenditure priorities based on their own regional needs.

Population and Sustainable Economic Growth

Population has a coefficient of -0.118, with a probability value of 0.035. The coefficient is negative and statistically significant. The negative coefficient means that, after controlling for the other variables, population size is negatively related to economic growth in the estimated model. One possible explanation is that areas with larger populations also have greater demands for public services, infrastructure, employment, and other resources. However, population size should not be interpreted as a factor that directly reduces economic growth. The relationship may also be influenced by other conditions, such as employment opportunities, productivity, infrastructure, and the structure of the local economy.

Regional Minimum Wage and Sustainable Economic Growth

The Regional Minimum Wage has a coefficient of 0.094 and a probability value of 0.025. The coefficient is positive and significant at the 5% level. The result indicates that a higher regional minimum wage is associated with higher economic growth in the model. One possible explanation is that higher wages can increase household purchasing power and, consequently, local consumption. However, this finding does not necessarily mean that an increase in the minimum wage directly causes economic growth. Wage levels may also reflect differences in economic conditions between regions and changes in economic conditions over time.

Discussion

Efficient Spending Ratio and Regional Economic Growth

The Efficient Spending Ratio has a positive and significant coefficient of 0.152, with a probability value of 0.002. This result indicates that local governments with higher expenditure realization tend to have higher economic growth, after controlling for the other variables in the model. One possible explanation is that government expenditure can contribute to regional economic activity when the budget is implemented according to the planned programs. When government spending is delayed or not realized as planned, the expected benefits of the expenditure may also be delayed. On the other hand, timely implementation of government programs can support the provision of public services, infrastructure activities, and other government programs that are related to economic activity. This finding is in line with the idea of performance-based budgeting, where government spending is expected to produce measurable results rather than simply focusing on the amount of the budget that has been absorbed. Previous studies, including Asomba et al., (2023), Alyaseri et al., (2024), and Mumuni & Njong, (2023), also emphasize the importance of linking government expenditure with public-sector performance and development outcomes.

The result is also relevant to the fiscal condition of local governments in Jambi Province. Local governments have limited financial resources and must decide which programs should receive priority. Therefore, a high level of budget realization can be useful when the expenditure is directed toward programs that support local economic activities. However, the result should be interpreted carefully. A high spending realization rate does not automatically mean that government expenditure is efficient in a broader sense. A local government may spend almost all of its budget but still obtain limited results if the spending is not directed toward productive activities. Therefore, expenditure realization should also be considered together with the quality and composition of government spending.

Capital Expenditure and Regional Economic Growth

The Capital Expenditure Ratio also shows a positive and significant relationship with economic growth. The coefficient is 0.087 and the probability value is 0.007. This means that a higher share of capital expenditure is associated with higher economic growth, assuming that the other variables remain constant. Capital expenditure is important because it is generally used to provide assets and infrastructure that can be utilized for a relatively long period. Examples include roads, bridges, public facilities, health facilities, educational facilities, and other infrastructure. Such facilities can support economic activities by improving accessibility and reducing some of the costs faced by households and businesses.

This issue is particularly relevant for Jambi Province. Several areas of the province have economic activities that are closely related to agriculture, plantations, mining, and other commodity-based activities. These sectors depend on adequate transportation and supporting infrastructure to move goods from production areas to markets. Better infrastructure can therefore make it easier for producers to access markets and may also support investment in other sectors. The result is consistent with the findings of Ghifara et al., (2022) and Sultana et al., (2022) who found that productive government expenditure can contribute to regional economic development.

The finding also suggests that the composition of the regional budget deserves attention. Increasing the total amount of expenditure is not necessarily sufficient if most of the expenditure is used for routine activities. A reasonable allocation for capital expenditure can provide assets that continue to support economic activities beyond the current budget year. Nevertheless, capital expenditure should not be judged only by its percentage of total expenditure. The quality of the projects, their usefulness to the community, and their maintenance are also important. A large capital budget will not necessarily generate economic benefits if the resulting infrastructure is poorly planned or underutilized.

Fiscal Independence and Regional Economic Growth

The Fiscal Independence Ratio has a positive coefficient of 0.029 and a probability value of 0.042. The result is statistically significant at the 5% level. This indicates that greater fiscal independence is associated with higher economic growth among the local governments observed in Jambi Province. Fiscal independence reflects the ability of local governments to obtain revenue from their own sources, particularly Original Local Government Revenue (PAD). Local governments with stronger own-source revenue may have greater flexibility when determining their spending priorities. They do not have to rely entirely on transfers from the central government to finance their programs.

This finding is consistent with the argument that stronger fiscal capacity can support better local financial management. Previous research by Holung et al. (2021) and Tajuddin and Kessi (2024) also points to the importance of fiscal independence in local government financial performance. In Jambi Province, strengthening PAD can provide additional fiscal space for local governments to support sectors that are important for regional development. These may include infrastructure, small and medium-sized enterprises, tourism, education, health services, and other local economic activities. However, increasing PAD should not be interpreted simply as increasing local taxes and charges. If additional local revenue is obtained through excessive charges, it may create difficulties for businesses and households. Therefore, the increase in local revenue needs to be accompanied by improvements in tax administration and a business environment that encourages economic activity. The positive result for FIR therefore suggests that fiscal independence matters, but the quality of local revenue generation and the way that revenue is subsequently allocated are also important.

Population and Regional Economic Growth

Population has a coefficient of -0.118 and a probability value of 0.035. The negative and significant coefficient indicates that, in this model, areas with larger populations tend to have lower economic growth after controlling for the other variables. This result does not necessarily mean that population growth is harmful to the regional economy. A larger population can provide a larger labor force and a wider consumer market. However, population growth also increases the demand for public services, infrastructure, housing, transportation, education, and health facilities.

If the expansion of economic activity and public infrastructure does not keep pace with population growth, the economic benefit of having a larger population may not be fully realized. The negative relationship found in this study may therefore reflect the pressure that a larger population places on regional resources and public services. This finding also differs from the

alternative expectation that population growth would automatically increase economic activity through greater labor supply and consumption. The difference may be related to the characteristics of individual local governments in Jambi Province. Population size alone does not determine economic performance. Employment opportunities, productivity, infrastructure, and the structure of the regional economy also need to be considered. For this reason, local governments should ensure that population growth is accompanied by sufficient infrastructure, employment opportunities, and public services. If these conditions are met, population growth may provide a greater contribution to regional economic development.

Regional Minimum Wage and Regional Economic Growth

The Regional Minimum Wage has a positive coefficient of 0.094 and a probability value of 0.025. The result indicates a positive and statistically significant relationship between the Regional Minimum Wage and economic growth. One possible explanation is the relationship between wages and household purchasing power. When workers receive higher wages, their ability to purchase goods and services may increase. Higher household consumption can then support local businesses and contribute to regional economic activity. The result can also be viewed from the labor market perspective. A higher minimum wage may be associated with regions that have stronger economic conditions and greater demand for labor. Therefore, the positive coefficient may reflect not only the effect of wages themselves but also differences in the economic conditions of the local governments.

At the same time, minimum wage increases need to consider the ability of businesses to absorb higher labor costs. This is particularly relevant for micro, small, and medium-sized enterprises. If wage increases are not accompanied by improvements in productivity, some businesses may face greater financial pressure. Therefore, wage policy needs to be considered together with labor productivity, employment opportunities, and the overall condition of the regional economy.

5. Conclusion

Contains This study analyzed the relationship between local budget efficiency and regional economic growth in 12 local governments in Jambi Province during the 2018–2024 period. The analysis was conducted using panel data regression. The results show that several aspects of local government financial management are significantly related to regional economic growth. The Efficient Spending Ratio has a positive and significant relationship with economic growth. This result indicates that better budget realization is associated with better economic performance. When the planned government expenditure is implemented properly, the funds can be used for public programs and activities that support the regional economy.

The Capital Expenditure Ratio also has a positive and significant relationship with economic growth. This finding indicates that the allocation of a larger share of the budget to capital expenditure is associated with higher regional economic growth. Capital expenditure can provide infrastructure and other public assets that support economic activities over a longer period. The Fiscal Independence Ratio has also been found to have a positive and significant relationship with economic growth. This suggests that local governments with greater ability to generate their own revenue tend to have better economic performance. A

stronger local revenue base can give local governments more flexibility in determining their spending priorities.

The results for the control variables also show that population and the Regional Minimum Wage are significantly related to economic growth. Population has a negative coefficient, while the Regional Minimum Wage has a positive coefficient. These findings indicate that regional economic performance is not determined by budget variables alone. Demographic and labor-market conditions also need to be considered when discussing economic growth in Jambi Province. Overall, the findings suggest that local government spending should not be assessed only from the amount of money spent. The way the budget is implemented and the type of expenditure that receives priority are also important. In particular, capital expenditure and the ability of local governments to generate their own revenue are related to better economic performance in the observed data.

However, the findings should be interpreted within the scope of this study. Sustainable Economic Growth in the regression is represented by the regional PDRB growth rate. Therefore, the results mainly describe the economic aspect of sustainability. They do not provide direct evidence about improvements in education, health, environmental quality, or other social and environmental dimensions. This study has several limitations. First, the analysis covers only 12 local governments in Jambi Province and a seven-year period from 2018 to 2024. Second, the study relies on secondary data, so the analysis depends on the availability and consistency of information published by government institutions. Third, the measurement of sustainable economic growth is mainly based on regional economic growth. Future studies could therefore include additional indicators related to social welfare and environmental conditions.

Future research could also use a longer observation period and include other provinces or local governments to obtain a broader comparison. Additional variables related to governance quality, poverty, employment, investment, and environmental conditions could also be included. Other panel-data approaches, such as dynamic panel models or spatial panel models, may provide additional information about the relationship between local government financial management and regional development.

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