

Analysis of the influence of regional spending on economic growth in Central Kalimantan

Rima Harati

Program Studi Ekonomi Pembangunan, Fakultas Ekonomi dan Bisnis,
Universitas Palangkaraya

Received : May, 16th 2026;
Received in revised form: June, 10th 2026;
Accepted: June, 13th 2026
Available online: June, 18th 2026

GROWTH
Jurnal Magister Ilmu Ekonomi,
Universitas Palangka Raya
Print ISSN: 2460-5204
e-ISSN: 2986-2639

Volume 10, Issue 1 (2026)
<https://doi.org/10.12345/growth.v10i1.001>

Corresponding author.
E-mail address : rimahrti74@gmail.com
Address : Palangka Raya, Central Kalimantan
Indonesia

© 2026 The Authors.
Published by *GROWTH*
Jurnal Magister Ilmu Ekonomi
Universitas Palangka Raya

This is an open access article under the CC BY
license

Abstract. *This study aims to analyze the effect of regional expenditure on economic growth in Central Kalimantan during the period 2016–2025. The study employs a quantitative approach using secondary data obtained from the Central Bureau of Statistics (BPS) of Central Kalimantan. The data were analyzed using simple linear regression with the assistance of SPSS version 25. The results indicate that regional expenditure has a positive and statistically significant effect on economic growth. The regression analysis shows that increased regional expenditure is associated with higher Gross Regional Domestic Product (GRDP), reflecting improved regional economic performance. Furthermore, the coefficient of determination reveals that regional expenditure explains a substantial proportion of the variation in economic growth. These findings suggest that regional fiscal policy plays an important role in supporting economic development. Therefore, improving the effectiveness and efficiency of regional expenditure allocation is essential to promote sustainable economic growth and enhance public welfare in Central Kalimantan.*

Keywords: *economic growth, fiscal policy, gross regional domestic product, regional development, regional expenditure*

I. INTRODUCTION

Economic growth is one of the primary indicators used to evaluate the success of regional development policies. Sustainable economic growth reflects an increase in the production of goods and services, expansion of employment opportunities, growth in income levels, and improvements in community welfare. At the regional level, economic growth is commonly measured through Gross Regional Domestic Product (GRDP), which represents the total value added generated by all economic sectors within a region during a specific period (Todaro & Smith, 2021). Therefore, local governments are expected to formulate and implement policies capable of stimulating economic activities and supporting sustainable regional development.

In Indonesia, the implementation of fiscal decentralization has provided regional governments with broader authority to manage public finances through the Regional Revenue and Expenditure Budget (APBD). This authority allows local governments to allocate financial resources according to regional priorities and development needs. One of the most important components of regional fiscal policy is regional expenditure, which includes all government spending allocated for public services, infrastructure development, education, health, social protection, and administrative activities. The effectiveness of regional expenditure management is expected to influence economic performance because government spending can stimulate

aggregate demand, improve production capacity, and create a favorable environment for investment and business activities.

The relationship between government expenditure and economic growth has been widely discussed in economic theory. Keynesian theory emphasizes that government spending plays a strategic role in increasing aggregate demand, particularly during periods when private sector investment is insufficient to support economic expansion (Keynes, 1936). Government expenditure on infrastructure, public facilities, and social services can generate multiplier effects that increase production, employment, and household income. Furthermore, endogenous growth theory argues that productive public expenditure contributes to long-term economic growth through investments in human capital, technological development, and institutional quality (Barro, 1990; Romer, 1990). These theoretical perspectives indicate that government spending is not merely a budgetary instrument but also an important driver of economic development.

Empirical evidence regarding the relationship between government expenditure and economic growth has produced varying results. Several studies have found that government expenditure positively contributes to regional economic growth. Fitriyani et al. (2020) reported that regional expenditure significantly influenced economic growth in Sumbawa Regency. Similarly, Jannah et al. (2022) found that regional expenditure had a positive and significant effect on regional economic growth in West Sumbawa Regency. Research conducted by Rahmanda et al. (2025) also indicated that government spending plays an important role in stimulating economic activities through improvements in public services and development programs. These findings support the argument that effective fiscal policy can become a catalyst for regional economic development.

However, other studies suggest that the impact of government expenditure on economic growth depends on the composition, efficiency, and effectiveness of spending. Government expenditure that is dominated by routine and administrative spending may not generate substantial economic benefits compared with expenditure directed toward productive sectors such as infrastructure, education, and health. Bose et al. (2007) argued that the growth effects of public expenditure vary depending on how resources are allocated and managed. Consequently, the relationship between regional expenditure and economic growth remains an important empirical issue, particularly in developing regions where fiscal capacity and development priorities differ significantly.

Central Kalimantan provides an interesting case for examining the relationship between regional expenditure and economic growth. As one of the largest provinces in Indonesia in terms of geographical area, Central Kalimantan possesses abundant natural resources and significant development potential. During the last decade, the province has experienced a generally positive trend in economic performance despite facing challenges associated with fluctuations in commodity prices and the economic disruption caused by the COVID-19 pandemic. At the same time, regional governments have continued to increase public expenditure to finance infrastructure development, improve public services, and support economic activities. Table 1 presents the development of regional expenditure and Gross Regional Domestic Product (GRDP) in Central Kalimantan during the period 2016–2025.

Table 1. Regional Expenditure and Gross Regional Domestic Product (GRDP) of Central Kalimantan, 2016–2025

| Year | Regional Expenditure (IDR Trillion) | GRDP at Constant Prices (IDR Trillion) |
|------|-------------------------------------|----------------------------------------|
| 2016 | 3.17 | 83.90 |
| 2017 | 3.69 | 89.54 |
| 2018 | 5.46 | 94.57 |
| 2019 | 5.10 | 100.35 |

| Year | Regional Expenditure (IDR Trillion) | GRDP at Constant Prices (IDR Trillion) |
|------|-------------------------------------|----------------------------------------|
| 2020 | 4.45 | 98.93 |
| 2021 | 4.89 | 102.48 |
| 2022 | 5.15 | 109.09 |
| 2023 | 6.22 | 113.61 |
| 2024 | 6.24 | 118.68 |
| 2025 | 7.27 | 124.38 |

Source: Central Kalimantan in Figures (2017–2026), processed data

As shown in Table 1, regional expenditure in Central Kalimantan exhibited an increasing trend during the period 2016–2025. Regional expenditure increased from IDR 3.17 trillion in 2016 to IDR 7.27 trillion in 2025, indicating an expansion of fiscal capacity and government commitment to supporting regional development. Although expenditure declined in 2020 due to budget refocusing during the COVID-19 pandemic, government spending gradually recovered and continued to increase in the following years.

A similar pattern can be observed in the development of Gross Regional Domestic Product (GRDP). GRDP at constant prices increased from IDR 83.90 trillion in 2016 to IDR 124.38 trillion in 2025. Despite experiencing a slight contraction during the pandemic period, the regional economy demonstrated resilience and returned to a positive growth trajectory after 2020. The simultaneous increase in regional expenditure and GRDP suggests a potential relationship between fiscal policy and regional economic performance.

From a theoretical perspective, increased government expenditure is expected to generate multiplier effects through infrastructure development, improvement of public services, stimulation of investment activities, and expansion of employment opportunities. Consequently, effective allocation of regional expenditure may contribute to higher levels of economic output and sustainable economic growth. However, the extent to which regional expenditure contributes to economic growth remains an empirical question that requires further investigation. Although numerous studies have examined the influence of government expenditure on economic growth in Indonesia, empirical evidence from Central Kalimantan remains limited. Previous studies have predominantly focused on other provinces and regencies, resulting in limited understanding of how regional expenditure affects economic performance within the unique economic structure of Central Kalimantan. Furthermore, differences in fiscal capacity, natural resource dependency, and development priorities may produce different outcomes across regions. Therefore, findings from previous studies cannot be directly generalized to the context of Central Kalimantan.

This study seeks to fill this empirical gap by examining the influence of regional expenditure on economic growth in Central Kalimantan during the period 2016–2025. The study contributes to the regional development literature by providing updated empirical evidence from a resource-based province that continues to experience increasing fiscal capacity and economic expansion. The findings are expected to provide practical insights for policymakers regarding the effectiveness of regional expenditure management in promoting sustainable economic growth and improving public welfare. Based on the theoretical framework, empirical evidence, and research gap identified above, this study aims to analyze the influence of regional expenditure on economic growth in Central Kalimantan during the period 2016–2025.

II. LITERATURE REVIEW

2.1 Economic Growth. The neoclassical theory developed by Solow states that economic growth is influenced by capital accumulation, workforce growth, and technological progress. Later, endogenous growth theory emphasized that internal factors such as investment in infrastructure, education, and innovation play a crucial role in driving long-term economic growth. In a regional context, government spending can act as a growth driver through infrastructure provision and improving the quality of human resources (Hidayat, 2026).

Keynesian theory suggests that government spending on goods and services can increase overall demand, thereby driving short-term economic growth. Research by Nadiyah Mawaddah and colleagues (2023), which explored the impact of employee spending, purchases of goods and services, and investment on economic growth in North Sumatra between 2008 and 2022, supports this finding. The study found that GRDP grew as a result of purchases of goods and services, which had a positive and significant impact because it increased the productivity and efficiency of public services. However, the success of goods and services spending also depends heavily on quality planning. Proper management of goods and services spending is crucial to ensure the focus is on programs that can improve the productivity of the economic sector and public services in the regions. However, if procurement of goods and services is carried out wastefully or inefficiently, the impact on economic growth will be minimal (Rahmanda, 2025).

One important indicator for understanding the economic conditions of a region during a specific period is Gross Regional Domestic Product (GRDP) data, either at current prices or at constant prices. GRDP is defined as the total value added generated by all business units in a specific region, or the total value of final goods and services produced by all economic units in a region. GRDP at current prices reflects the added value of goods and services calculated using the prevailing prices for each year, while GRDP at constant prices shows the added value of goods and services calculated using the prevailing prices at a specific point in time as the base price (Widodo, 2006:78) (Wardhiah, 2018).

2.2 Regional Expenditure. According to Law of the Republic of Indonesia Number 33 of 2004, expenditures constitute all net assets within the relevant fiscal year. According to Law Number 24 of 2005, expenditures constitute expenditures from the state/regional general treasury account that reduce the current equity of funds within the relevant fiscal year, and which will not be repaid by the government. Government expenditure is a primary instrument of fiscal policy used by the government to achieve various economic and social goals. The primary objectives of government spending are to improve public welfare, promote sustainable economic growth, support infrastructure development, and reduce inequality and poverty. Government expenditures are expenditures made by the government for various purposes and objectives. These expenditures encompass all financial activities undertaken by the government in carrying out its functions as a regulator, public service provider, and manager of economic policy. Government expenditure is a fiscal policy aimed at stabilizing prices, economic output levels, employment opportunities, and encouraging economic growth (Sukirno, 2014) (Patadungan, 2025).

In the context of economic growth, regional government spending can be an important driver if directed towards productive sectors. For example, spending on infrastructure development and human resource development can increase production capacity, improve economic efficiency, and expand employment opportunities. The impact of public spending on economic growth is strongly influenced by the type of expenditure, budget efficiency, and the budget's alignment with the real needs of the community. Therefore, not only the quantity of spending is important, but also the quality and effectiveness of its use. However, in practice, many local governments still face challenges in managing spending efficiently and effectively. A high proportion of spending on routine needs such as employee salaries and bureaucratic operations often leaves little room for productive spending. This raises concerns that regional spending is not fully directed to support long-term economic growth. On the other hand, limited fiscal capacity; dependence on central government transfers; and weak budget planning and oversight systems are inhibiting factors in realizing public spending that has a significant impact on development (Simanjuntak, 2025).

2.3 The Relationship between Regional Spending and Economic Growth. Government Spending on Economic Growth: Government spending is expenditure allocated for the public interest,

specifically to grow the regional economy and improve community capacity. Government spending prioritizes improving and protecting the quality of life of the community, fulfilling regional obligations through improvements in health, education, public and social facilities, basic services, and the development of social security, as stipulated in Law Number 32 of 2004. Nurmainah (2013) stated that the role of government spending in developing countries is significant due to the limited role of the private sector in the economy. Therefore, the government's role is crucial. Regional spending reflects government programs and activities to provide services to the public. Increased spending ideally increases economic growth, as measured by changes in gross regional domestic product (GRDP). Theoretically, government spending can directly and indirectly influence economic growth. Breaking down government spending by component allows us to understand the role of each component in economic growth. According to Devarajan et al. (1996), government spending is categorized as productive based on its impact on economic growth. Productive spending will positively influence economic growth. It is difficult to interpret these positive or negative impacts on aggregate spending. This is because spending components are difficult to group according to their productive nature. Therefore, it is necessary to examine the influence of each component of regional government spending based on its function (Patadungan, 2025).

III. METHODS

3.1 Research Design. This study employed a quantitative approach to analyze the influence of regional expenditure on economic growth in Central Kalimantan. A quantitative approach is appropriate because the study seeks to examine the causal relationship between variables using numerical data and statistical analysis. The research adopts an explanatory design that aims to examine the effect of regional expenditure, the independent variable, on economic growth, the dependent variable, through an objective, measurable analytical process (Creswell & Creswell, 2018).

3.2 Data Source and Type. This study utilized secondary data obtained from official publications of the Central Bureau of Statistics (Badan Pusat Statistik/BPS) of Central Kalimantan, particularly *Central Kalimantan in Figures* and related statistical publications. The data consist of annual observations covering the period 2016–2025. Secondary data were selected because they provide reliable, consistent, and officially verified information regarding regional fiscal performance and economic development. The study employed quantitative data represented in numerical form. The variables analyzed include regional expenditure and economic growth in Central Kalimantan. Regional expenditure represents total government spending allocated through the Regional Revenue and Expenditure Budget (APBD), while economic growth is represented by Gross Regional Domestic Product (GRDP) at constant prices.

3.3 Operational Definition of Variables. To facilitate measurement and analysis, each variable used in this study is operationally defined as presented in Table 2.

Table 2. Operational Definition of Variables

| Variable | Definition | Indicator | Measurement |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|--------------|
| Regional Expenditure (X) | Total expenditure allocated by the Provincial Government of Central Kalimantan through the APBD to finance government administration, public services, and development activities | Total Regional Expenditure | IDR Trillion |
| Economic Growth (Y) | Economic performance represented by the value of Gross Regional Domestic Product (GRDP) at constant prices | GRDP at Constant Prices | IDR Trillion |

Source: Developed by the author (2026)

3.4 Data Analysis Technique. The data were analyzed using Statistical Package for the Social Sciences (SPSS) version 25. Descriptive statistics were initially employed to describe the development of regional expenditure and economic growth during the observation period. Furthermore, simple linear regression analysis was used to examine the effect of regional expenditure on economic growth in Central Kalimantan.

The regression model used in this study is expressed as follows:

$$Y = \alpha + \beta X + \varepsilon$$

where Y represents economic growth, X represents regional expenditure, α denotes the constant, β represents the regression coefficient, and ε refers to the error term. According to Gujarati and Porter (2009), simple linear regression is used to estimate the direction and magnitude of the relationship between an independent variable and a dependent variable.

To determine whether regional expenditure significantly affects economic growth, a partial significance test (t-test) was conducted. The t-test evaluates the significance of the regression coefficient by comparing the significance value with a significance level of 5 percent. A significance value lower than 0.05 indicates that regional expenditure has a significant effect on economic growth, whereas a significance value greater than 0.05 indicates that the effect is not statistically significant (Ghozali, 2021). In addition, the coefficient of determination (R^2) was employed to measure the explanatory power of the regression model. The coefficient of determination indicates the proportion of variation in economic growth that can be explained by regional expenditure. A higher R^2 value reflects a greater ability of the independent variable to explain changes in the dependent variable (Hair et al., 2019).

IV. RESULTS AND DISCUSSION

This study examines the influence of regional expenditure on economic growth in Central Kalimantan during the period 2016–2025 using simple linear regression analysis. The analysis was conducted using SPSS version 25 to determine the direction, magnitude, and significance of the relationship between the variables. Before discussing the regression results, it is important to note that regional expenditure and Gross Regional Domestic Product (GRDP) in Central Kalimantan exhibited an increasing trend throughout the observation period. This pattern indicates a potential relationship between fiscal policy and regional economic performance, which is further examined through regression analysis.

4.1 Simple Linear Regression Analysis. Simple linear regression analysis was employed to estimate the effect of regional expenditure on economic growth in Central Kalimantan. The regression results are presented in Table 3.

Table 3. Results of Simple Linear Regression Analysis

| Variable | Coefficient (B) | Standard Error | t-value | Sig. |
|----------------------|-----------------|----------------|---------|-------|
| Constant | 53,335.210 | 7,352.812 | 7.254 | 0.000 |
| Regional Expenditure | 9.726E-6 | 0.000 | 7.001 | 0.000 |

Dependent Variable: Economic Growth

Source: Processed SPSS Output (2026)

Based on Table 3, the estimated regression equation can be expressed as follows:

$$Y = 53,335.210 + 9.726E-6 X$$

The regression coefficient of regional expenditure is positive (9.726E-6), indicating a positive relationship between regional expenditure and economic growth. This finding implies that increases in regional expenditure tend to be followed by increases in economic output in

Central Kalimantan. Conversely, decreases in regional expenditure are associated with lower levels of economic growth. The positive coefficient is consistent with the theoretical expectation that government expenditure stimulates economic activity by increasing public investment and service provision. The constant value of 53,335.210 indicates the estimated value of economic growth when regional expenditure is assumed to be zero. Although this condition is unlikely to occur in practice, the constant serves as the baseline level of economic output in the regression model.

4.2 Hypothesis Testing. The significance of the relationship between regional expenditure and economic growth was evaluated using the t-test. The results indicate that the t-statistic for regional expenditure is 7.001 with a significance value of 0.000. Since the significance value is lower than the 5 percent significance level (0.05), the research hypothesis is accepted. This finding confirms that regional expenditure has a positive and statistically significant effect on economic growth in Central Kalimantan during the period 2016–2025. Therefore, increases in government spending are associated with higher levels of regional economic performance.

4.3 Coefficient of Determination. To evaluate the explanatory power of the regression model, the coefficient of determination (R^2) was calculated. The results are presented in Table 4.

Table 4. Coefficient of Determination Results

| Indicator | Value |
|----------------------------|-----------|
| R | 0.927 |
| R Square | 0.860 |
| Adjusted R Square | 0.842 |
| Standard Error of Estimate | 5,112.782 |

Source: Processed SPSS Output (2026)

The R Square value of 0.860 indicates that approximately 86.0 percent of the variation in economic growth can be explained by regional expenditure. Meanwhile, the remaining 14.0 percent is influenced by other factors not included in the model, such as private investment, labor productivity, household consumption, exports, and other macroeconomic variables. The relatively high R Square value suggests that regional expenditure is an important determinant of economic performance in Central Kalimantan.

Discussion. The findings of this study reveal that regional expenditure has a positive and statistically significant effect on economic growth in Central Kalimantan. This result indicates that government spending plays an important role in stimulating regional economic activities and supporting economic development. The positive coefficient obtained from the regression model suggests that increases in regional expenditure contribute to higher levels of economic output as reflected in GRDP growth.

From a theoretical perspective, these findings support Keynesian economic theory, which argues that government expenditure serves as an important instrument for stimulating aggregate demand (Keynes, 1936). Increased public spending on infrastructure, education, healthcare, and public services generates multiplier effects throughout the economy. Government expenditure increases household income, stimulates consumption, creates employment opportunities, and encourages business activities, ultimately leading to higher economic growth.

The findings are also consistent with Endogenous Growth Theory proposed by Barro (1990) and Romer (1990), which emphasizes the importance of productive government expenditure in enhancing long-term economic performance. Public investment in infrastructure and public services improves economic efficiency, reduces transaction costs, and creates a more favorable environment for private sector investment. Consequently, government

expenditure not only stimulates short-term economic activity but also contributes to long-term economic development.

The positive influence of regional expenditure on economic growth in Central Kalimantan may be explained by the province's development characteristics. During the study period, the provincial government consistently increased expenditure allocations for infrastructure development, transportation connectivity, public facilities, education, and health services. Improvements in these sectors are expected to facilitate economic activities across districts and municipalities, particularly considering the large geographical area and relatively dispersed population distribution of Central Kalimantan. Increased infrastructure investment can reduce logistics costs, improve market accessibility, and support productive economic sectors such as agriculture, plantation, mining, trade, and services.

The results of this study are in line with those of Fitriyani et al. (2020), who found that regional expenditure positively affects economic growth in Sumbawa Regency. Similarly, Jannah et al. (2022) reported that government expenditure significantly contributes to regional economic growth in West Sumbawa Regency. Rahmanda et al. (2025) also concluded that government spending serves as an important fiscal instrument in promoting economic development through improvements in public services and infrastructure provision. The consistency of these findings suggests that effective government expenditure remains a critical driver of regional economic growth in Indonesia.

The coefficient of determination result further indicates that regional expenditure explains a substantial proportion of economic growth variation in Central Kalimantan. Nevertheless, approximately 14 percent of economic growth variation remains unexplained by the model. This finding suggests that other factors, including investment, labor force participation, technological development, natural resource utilization, exports, and household consumption, also contribute to regional economic performance. Future studies should therefore incorporate additional explanatory variables to obtain a more comprehensive understanding of the determinants of economic growth.

From a policy perspective, the findings imply that regional governments should continue to improve the effectiveness and efficiency of public expenditure allocation. Increasing expenditure alone may not be sufficient to sustain economic growth if resources are not directed toward productive sectors. Greater emphasis should be placed on infrastructure development, human capital investment, and public service improvement to maximize the economic benefits of government spending. By strengthening expenditure quality alongside expenditure quantity, local governments can enhance economic competitiveness and promote sustainable regional development.

V. CONCLUSION

Based on the results of the study, it can be concluded that regional expenditure has a positive and statistically significant effect on economic growth in Central Kalimantan during the period 2016–2025. The findings indicate that increases in regional expenditure are associated with improvements in regional economic performance, as reflected by the growth of Gross Regional Domestic Product (GRDP). Furthermore, the coefficient of determination demonstrates that regional expenditure contributes substantially to explaining variations in economic growth, highlighting the important role of fiscal policy in regional development. These findings support Keynesian and endogenous growth theories, which emphasize the strategic function of government expenditure in stimulating economic activity and fostering long-term development. Therefore, local governments should continue to improve the effectiveness and efficiency of regional expenditure allocation, particularly toward productive sectors, to support sustainable economic growth and enhance public welfare in Central Kalimantan.

REFERENCES

- Badan Pusat Statistik. (2017–2026). *Kalimantan Tengah dalam angka* (Central Kalimantan in figures). Badan Pusat Statistik Provinsi Kalimantan Tengah.
- Barro, R. J. (1990). Government spending in a simple model of endogenous growth. *Journal of Political Economy*, 98(5), S103–S125.
- Bose, N., Haque, M. E., & Osborn, D. R. (2007). Public expenditure and economic growth: A disaggregated analysis for developing countries. *The Manchester School*, 75(5), 533–556.
- Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). Sage Publications.
- Fitriyani, I., Ismawati, I., Wahida, N., & Asmini, A. (2020). Pengaruh belanja daerah terhadap pertumbuhan ekonomi Kabupaten Sumbawa tahun 2012–2018. *Jurnal Ekonomi dan Bisnis*, 8(2), 51–61.
- Ghozali, I. (2021). *Aplikasi analisis multivariate dengan program IBM SPSS 26* (10th ed.). Badan Penerbit Universitas Diponegoro.
- Gujarati, D. N., & Porter, D. C. (2009). *Basic econometrics* (5th ed.). McGraw-Hill Education.
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). *Multivariate data analysis* (8th ed.). Cengage Learning.
- Hidayat, R. N., Sholahuddin, A., Rahman, T., & Firmansyah, I. A. (2026). Pengaruh belanja pemerintah terhadap pembangunan ekonomi Kabupaten Probolinggo. *Jurnal Penelitian Nusantara*, 2(1), 15–27.
- Jannah, M., Kurniawansyah, K., & Ismawati, I. (2022). Pengaruh belanja daerah terhadap pertumbuhan ekonomi daerah Kabupaten Sumbawa Barat. *Jurnal Ekonomi dan Bisnis*, 10(3), 145–154.
- Keynes, J. M. (1936). *The general theory of employment, interest and money*. Macmillan.
- Patadungan, R. D., Isnanto, K. U., Fitrianingtyas, A., & Aslan. (2025). Pengaruh belanja pemerintah terhadap pertumbuhan ekonomi: Studi kasus Provinsi Kalimantan Utara tahun 2013–2023. *Socius: Jurnal Penelitian Ilmu-Ilmu Sosial*, 2(11), 87–99.
- Rahmanda, R., Andini, R., Sitepu, C. R. A. B., Malau, V. M. T., & Banjarnahor, A. T. N. (2025). Analisis pengaruh belanja daerah terhadap pertumbuhan ekonomi. *Journal of Artificial Intelligence and Digital Business (RIGGS)*, 4(4), 112–121.
- Romer, P. M. (1990). Endogenous technological change. *Journal of Political Economy*, 98(5), S71–S102.
- Simanjuntak, G. Y., Yulika, M., Putri, D. N., & Pangestoeti, W. (2025). Pengaruh belanja pemerintah daerah terhadap pertumbuhan ekonomi di Indonesia. *Jurnal Ilmiah Ekonomi dan Manajemen*, 3(6), 201–214.
- Todaro, M. P., & Smith, S. C. (2021). *Economic development* (13th ed.). Pearson Education.
- Wardhiah. (2018). Pengaruh pendapatan asli daerah dan belanja modal terhadap pertumbuhan ekonomi di Provinsi Aceh. *Jurnal Visioner & Strategis*, 7(1), 23–32.