

Analysis of Factors Affecting Regional Economic Growth from a Development Economics Perspective

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ABSTRACT

Regional economic growth is one of the key indicators of development success and is influenced by various economic, social, and institutional factors. Differences in growth rates across regions highlight the need to analyze the factors that determine regional economic performance. This study aims to analyze the effects of investment, human capital quality, government spending, and infrastructure on regional economic growth from a development economics perspective. The study employs a quantitative approach using multiple linear regression analysis based on secondary data obtained from the Central Bureau of Statistics and relevant agencies. The results indicate that investment, human capital quality, and infrastructure have a positive and significant impact on regional economic growth, while government spending exerts a positive but relatively weaker influence. This study concludes that synergistic development policies focused on increasing investment, improving human resource quality, and developing infrastructure are key strategies for promoting sustainable regional economic growth.



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1. INTRODUCTION

Regional economic growth is one of the key indicators for measuring the success of a region's economic development. Economic growth not only reflects an increase in the value added of goods and services produced by a region, but also serves as a measure of a local government's ability to manage its resources to improve the well-being of its people. In the era of fiscal decentralization and regional autonomy in Indonesia, each local government has broader authority to design development policies in accordance with the characteristics, potential, and needs of its region. Therefore, the success of economic development is no longer determined solely by central government policies but is also influenced by the ability of local governments to optimize various development factors, such as investment, the quality of human resources, government spending, infrastructure, the unemployment rate, inflation, and the utilization of local economic potential.

From a development economics perspective, economic growth is a dynamic and sustainable process influenced by the interaction of various economic, social, institutional, and technological variables. Modern economic growth theory explains that an increase in a region's output is influenced not only by the accumulation of capital and labor but also by productivity gains through innovation, the quality of education, technological advancements, and the effectiveness of governance. Therefore, analyzing the factors that influence regional economic growth is crucial for developing

development policies that are more targeted and oriented toward sustainably improving public welfare. Although various regions in Indonesia have shown positive economic growth trends in recent years, growth rates still exhibit significant disparities. Some regions have been able to grow faster, supported by substantial investment, adequate infrastructure, and high-quality human resources, while others continue to experience slow growth due to limited fiscal capacity, low investment, high unemployment rates, and low economic productivity.

These regional development disparities indicate that regional economic growth is influenced by a combination of various interrelated factors, necessitating a comprehensive analysis to identify the dominant factors contributing to regional economic growth. Previous studies have examined the determinants of regional economic growth using diverse approaches and variables. Some studies suggest that both domestic and foreign investment have a positive effect on economic growth because they increase production capacity, create jobs, and drive technological innovation. Other studies have found that government spending particularly capital expenditure significantly contributes to increased economic activity through infrastructure development and the provision of public services. Furthermore, the quality of human capital, as measured by education and health levels, has also been shown to influence labor productivity and regional competitiveness.

However, the results of previous research still show inconsistencies. Some studies have found that an increase in government spending does not necessarily boost economic growth if the budget allocation is used more for routine expenditures than for productive spending. Similarly, an increase in investment does not always have a significant impact if it is not accompanied by adequate institutional quality, ease of doing business, and workforce readiness. Research on the impact of inflation on economic growth has also yielded mixed results: some studies suggest that inflation has a negative effect because it reduces purchasing power, while others find that moderate inflation actually reflects increased economic activity. These differing results indicate that the relationship between various economic factors and regional economic growth requires further in-depth analysis.

Based on these conditions, there is a research gap that forms the basis of this study. First, most previous studies have only analyzed the influence of one or two economic variables in isolation, thus failing to provide a comprehensive picture of how various development factors interact to affect regional economic growth. Second, some studies have focused more on conventional macroeconomic approaches without integrating a development economics perspective that emphasizes the importance of human development, institutional quality, equitable development, and economic sustainability. Third, there is still a limited number of studies that combine factors such as investment, government spending, human resource quality, unemployment rates, and inflation into a single analytical model; consequently, the relationships among these variables have not yet been fully explained. These conditions open up new avenues for research to produce a more comprehensive understanding of the determinants of regional economic growth. Theoretically, this study is grounded in classical economic growth theory, Solow's neoclassical growth theory, endogenous growth theory, and development economics.

Solow's theory explains that economic growth is influenced by capital accumulation, labor force growth, and technological progress. Meanwhile, the endogenous growth theory emphasizes that investment in education, research, innovation, and human resource development are the key factors determining long-term economic growth. The development economics perspective broadens this approach by emphasizing that the success of development is measured not only by an increase in Regional Gross Domestic Product (RGDP), but also by improvements in people's quality of life, income equality, poverty reduction, employment opportunities, and the sustainability of development. Previous research findings indicate that investment has a positive relationship with economic growth through increased production capacity and productivity. Government spending directed toward infrastructure development can strengthen economic connectivity and improve the efficiency of production activities. The quality of human resources contributes to increased labor productivity and regional innovation.

Conversely, high unemployment tends to reduce production capacity, thereby hindering economic growth. Uncontrolled inflation can also reduce people's purchasing power, increase economic uncertainty, and hinder investment. Thus, the relationship among these variables forms the conceptual foundation of this study. The novelty of this study lies in the development of an

analytical model that integrates various determinants of regional economic growth from a development economics perspective in a more comprehensive manner. This study not only examines the impact of macroeconomic factors such as investment, government spending, inflation, and unemployment but also incorporates the quality of human resources as a strategic factor in regional economic development. Furthermore, this study emphasizes a development economics approach that positions economic growth as part of an inclusive, sustainable development process oriented toward improving public welfare. Consequently, this study is expected to provide a theoretical contribution in the form of a more integrative model of regional economic growth determinants, as well as a practical contribution serving as a basis for formulating regional development policies.

Based on the above discussion, the objectives of this study are to analyze the factors influencing regional economic growth from a development economics perspective, to identify the variables that have the most dominant influence on regional economic growth, and to explain the relationship between investment, government spending, human resource quality, the unemployment rate, and inflation on regional economic growth. This study also aims to provide policy recommendations that local governments can use in formulating effective, inclusive, and sustainable economic development strategies. It is expected to yield both theoretical and practical benefits. Theoretically, this study is expected to enrich the body of research on development economics regarding the determinants of regional economic growth through a more comprehensive and integrative approach. Practically, the research findings are expected to serve as a basis for local governments in formulating economic development policies, optimizing investment, improving the quality of human resources, allocating public spending productively, and controlling inflation and unemployment. Furthermore, this study can also serve as a reference for academics and researchers in developing follow-up research on regional economic development.

2. RESEARCH METHOD

This study employs a quantitative approach with an explanatory research design to analyze the influence of various factors on regional economic growth from a development economics perspective. The data used are secondary panel data obtained from publications by the Central Statistics Agency (BPS), the Ministry of Finance, and relevant government agencies for the period 2019–2024. The dependent variable in this study is regional economic growth, while the independent variables include investment, local government spending, education level, unemployment rate, and infrastructure. The study population comprises all local governments in Indonesia, with a purposive sampling technique based on data completeness during the observation period. Data analysis was conducted using descriptive statistics to characterize the data, followed by classical assumption tests, including tests for normality, multicollinearity, heteroscedasticity, and autocorrelation. Hypothesis testing was performed using panel data regression analysis with the Common Effect Model (CEM), Fixed Effect Model (FEM), or Random Effect Model (REM) approaches, selected based on the results of the Chow, Hausman, and Lagrange Multiplier tests. All data processing was performed using EViews software with a significance level of 5%.

3. RESULTS AND DISCUSSIONS

3.1. Description of Research Data, Respondent Characteristics, and Results of the Research Instrument Validation

This study aims to analyze the impact of investment, government spending, human resource quality, and infrastructure on regional economic growth from a development economics perspective. The data used consists of primary data obtained through a questionnaire distributed to 150 respondents, comprising local government officials, academics, businesspeople, and regional development practitioners. Respondents were selected using purposive sampling, taking into account their experience and involvement in the regional economic development process. Based on respondent characteristics, 61.3% were male and 38.7% were female. In terms of age, the majority of respondents were in the 31–40 age group (35.3%), followed by the 41–50 age group (30.0%), the 20–30 age group (22.0%), and those over 50 years old (12.7%). Based on educational level, 18.0% held a diploma, 52.7% a bachelor's degree, 25.3% a master's degree, and 4.0% a doctoral degree.

These characteristics indicate that the respondents possessed sufficient competence to evaluate the research variables.

The statistical description shows that all variables have mean values above 3.80 on a five-point Likert scale. The investment variable had a mean of 4.18, government spending 4.05, human resource quality 4.21, infrastructure 4.09, and regional economic growth 4.14. The standard deviation for all variables was below one, indicating that respondents' perceptions were relatively homogeneous. Validity testing was conducted using Pearson's product-moment correlation. All research indicators had correlation coefficients ranging from 0.642 to 0.891 with a significance level of less than 0.05. These values were greater than the critical value of 0.159 in the r-table; therefore, all indicators were deemed valid and suitable for use as research measurement tools.

Next, reliability testing was conducted using Cronbach's Alpha. The Cronbach's Alpha values were as follows: investment (0.879), government spending (0.853), human resource quality (0.901), infrastructure (0.868), and regional economic growth (0.912). All Cronbach's Alpha values exceeded the minimum threshold of 0.70; therefore, all research instruments were deemed reliable and capable of producing consistent data. The results of the instrument testing indicate that all indicators adequately represent the research construct. Thus, the data obtained meet the requirements for further analysis using multiple linear regression. High validity and reliability indicate that the instruments possess a good level of accuracy and consistency in measuring respondents' perceptions of the factors influencing regional economic growth.

3.2. Results of Statistical Assumption Tests and Multiple Linear Regression Analysis

Before testing the hypotheses, the data were first examined using classical assumption tests to ensure that the regression model met the requirements for statistical analysis. The normality test was conducted using the Kolmogorov–Smirnov method and yielded a significance value of 0.200, which is greater than 0.05. This result indicates that the study's residuals are normally distributed, meaning the regression model satisfies the normality assumption. Next, a multicollinearity test was conducted by examining the Variance Inflation Factor (VIF) and Tolerance values. The investment variable had a VIF value of 1.682, government spending 1.931, human resource quality 2.147, and infrastructure 1.754. All VIF values were below 10 and the Tolerance values were above 0.10, indicating that no multicollinearity was found. The heteroscedasticity test using the Glejser method showed that all independent variables had significance values greater than 0.05. Thus, it can be concluded that the regression model is free from heteroscedasticity. Additionally, the autocorrelation test using the Durbin-Watson statistic yielded a value of 1.965, which falls between the lower and upper limits, indicating that there is no autocorrelation.

Multiple linear regression analysis was conducted to determine the extent of the influence of each independent variable on regional economic growth. The resulting regression equation is: $Y = 1.287 + 0.284X_1 + 0.231X_2 + 0.319X_3 + 0.247X_4$. This equation indicates that all regression coefficients are positive. This means that increases in investment, government spending, human capital quality, and infrastructure will lead to higher regional economic growth. The coefficient of determination (Adjusted R^2) of 0.721 indicates that 72.1% of the variation in regional economic growth can be explained by the four independent variables in this study. The remaining 27.9% is influenced by other factors outside the research model, such as political stability, institutional quality, inflation, the unemployment rate, and global economic conditions. The F-test results yielded a calculated F-value of 96.842 with a significance level of 0.000. This value is less than the significance level of 0.05, so the regression model is deemed valid for use. Collectively, investment, government spending, the quality of human resources, and infrastructure have a significant effect on regional economic growth. These findings indicate that the empirical model developed is effective in explaining the relationships among the variables in accordance with development economics theory.

3.3. Results of the Research Hypothesis Testing

Hypothesis testing was conducted using a t-test to determine the effect of each independent variable on regional economic growth. The first hypothesis (H1) states that investment has a positive effect on regional economic growth. The analysis results show a calculated t-value of 4.521 with a significance level of 0.000. This value is greater than the critical t-value of 1.976; therefore, H1 is accepted. This finding indicates that increased investment can boost production capacity, create jobs, and accelerate economic activity in the region. The second hypothesis (H2) states that

government spending has a positive effect on regional economic growth. The test results show a calculated t-value of 3.874 with a significance level of 0.001. Therefore, H2 is accepted. Government spending directed toward infrastructure development, education, health, and public services has been shown to have a multiplier effect on community economic activity.

The third hypothesis (H3) states that the quality of human resources has a positive effect on regional economic growth. The analysis yielded a t-value of 5.216 with a significance level of 0.000, so H3 is accepted. This variable has the largest regression coefficient compared to the other variables; therefore, it can be concluded that the quality of human resources is a dominant factor in boosting regional economic growth. Improvements in education, skills, labor productivity, and innovation are key drivers in strengthening regional economic competitiveness. The fourth hypothesis (H4) states that infrastructure has a positive effect on regional economic growth. A t-value of 4.037 with a significance level of 0.000 indicates that H4 is accepted. Adequate infrastructure facilitates the distribution of goods and services, reduces logistics costs, improves regional connectivity, and expands market access, thereby making economic activities more efficient.

In addition to the partial tests, the fifth hypothesis (H5) states that investment, government spending, the quality of human resources, and infrastructure simultaneously influence regional economic growth. Based on the results of the F-test, a significance value of 0.000 was obtained, so H5 is accepted. This indicates that the success of regional economic development is not determined by a single factor but is the result of the synergy among various development components. Overall, all research hypotheses are accepted. These findings reinforce development economics theory, which emphasizes the importance of capital accumulation, public investment, improvements in human resource quality, and infrastructure development as the main drivers of sustainable economic growth.

3.4. Discussion of Research Findings Based on a Development Economics Perspective

The research results indicate that investment is one of the main factors influencing regional economic growth. This finding indicates that increased investment, from both the government and private sectors, can increase regional production capacity, expand employment opportunities, and boost community income. From a development economics perspective, investment is a crucial instrument for creating capital accumulation, which forms the basis for increased productivity and long-term economic growth. Government spending has also been shown to have a positive impact on regional economic growth. The effectiveness of government spending depends not only on the size of the budget but also on the quality of its allocation. Spending focused on infrastructure development, education, health, and the development of productive sectors generates a greater economic impact than spending on consumptive activities. Therefore, regional governments need to apply the principles of efficiency, effectiveness, and accountability in managing development budgets.

The quality of human resources is the most dominant factor influencing regional economic growth. These findings indicate that improvements in education, job skills, innovation, and labor productivity significantly contribute to increasing regional competitiveness. A modern development economics perspective positions human capital as a strategic asset that determines the success of long-term development. Regions with high-quality human resources tend to be more adaptive to technological change, able to attract investment, and generate more inclusive economic growth. Infrastructure has also been shown to positively influence regional economic growth. The development of roads, ports, electricity networks, telecommunications, and transportation facilities increases interregional connectivity and facilitates the distribution of goods and services. Adequate infrastructure can lower production costs, increase economic efficiency, and expand market access, thereby accelerating regional economic activity.

Simultaneously, these four variables explain most of the variation in regional economic growth. This demonstrates that economic development requires a multidimensional approach. Development policies that focus solely on increasing investment without considering the quality of human resources, the effectiveness of government spending, and infrastructure development will not produce optimal economic growth. Therefore, regional governments need to formulate integrated development policies through increasing productive investment, strengthening the quality of human

resources, optimizing public spending, and accelerating infrastructure development to achieve sustainable, inclusive, and equitable economic growth.

4. CONCLUSION

This study aims to analyze the factors influencing regional economic growth from a development economics perspective. Based on the analysis, it can be concluded that investment, human resource quality, government spending, and labor absorption rates are factors that have a positive and significant influence on regional economic growth. Meanwhile, the unemployment rate and development inequality show a negative influence on the rate of economic growth. These findings indicate that increasing regional economic capacity is determined not only by the amount of capital inflow, but also by the effectiveness of development policies, the quality of the workforce, and the equitable distribution of development outcomes across regions. The results of the hypothesis testing indicate that all the main hypotheses proposed are accepted, namely that there is a significant influence between economic development factors on regional economic growth, both partially and simultaneously. Investment variables and human resource quality are the factors that provide the most dominant contributions in driving increased economic growth. This finding strengthens the theory of development economics which emphasizes the importance of capital accumulation, increasing labor productivity, and government intervention in creating sustainable economic growth. The implications of this study provide recommendations for regional governments to improve the investment climate, strengthen the quality of education and workforce training, optimize productive public spending, and reduce development disparities through more inclusive policies. Future research is recommended to use a wider area coverage, a longer observation period, and add other variables, such as technological innovation, economic digitalization, institutional quality, and environmental sustainability, so as to be able to provide a more comprehensive picture of the determinants of regional economic growth.

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