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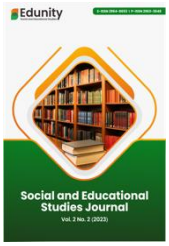

The Effect of Human Development Index, Poverty Rate and Labor Force Participation Rate on Regency/City Economic Growth in South Kalimantan Province

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ABSTRACT

South Kalimantan Province, a key contributor to Indonesia's economy, faces disparities in economic growth driven by uneven human development, poverty, and labor dynamics. Despite abundant natural resources, regional inequalities persist, necessitating evidence-based policy interventions. This study analyzes (1) the partial and simultaneous effects of HDI, poverty rate, and TPAK on economic growth; (2) identifies the most influential variable; and (3) provides actionable recommendations for equitable development. Using panel data regression (2019–2023) and EViews 13, the study applies CEM, FEM, and REM models, validated by Chow, Hausman, and Lagrange Multiplier tests. Classical assumption tests (normality, multicollinearity, autocorrelation) ensure robustness. HDI and TPAK significantly boost economic growth, while poverty's impact is statistically insignificant. HDI emerges as the dominant driver, underscoring the role of education, health, and income. Policymakers should prioritize HDI-enhancing investments (education, healthcare) and targeted poverty programs, particularly in high-disparity districts. Future research should expand variables (e.g., infrastructure) and timeframes for deeper insights.

Keywords: Human Development Index, Poverty Rate, and Labor Force Participation Rate

INTRODUCTION

As a developing country, Indonesia continues to strive to encourage planned development by ensuring equitable distribution and economic stability. In this context, economic growth is often considered a key indicator of progress (Chowdhury, 2024; Martins et al., 2021; Nkundabanyanga et al., 2017; Volpe Martincus et al., 2017). However, economic development is not only the responsibility of the central government, but also requires the active role of local governments, communities, and the private sector in managing local resources to create jobs and support regional economic growth (Chowdhury, 2024; Nkundabanyanga et al., 2017; Tri & Thanh, 2022; Volpe Martincus et al., 2017).

South Kalimantan Province, as one of the regions with abundant natural resource potential, has a significant contribution to the regional economy of Kalimantan Island and the nation. Leading sectors such as mining, processing industry, and agriculture are the main

drivers of economic growth in this province. However, in the period from 2019 to 2023, South Kalimantan experienced quite complex economic dynamics.

There is a lack of equity in economic growth in South Kalimantan Province. Of the 13 districts/cities, Banjarbaru City recorded the highest economic growth, reaching 6.81% in 2023. This achievement reflects the region's success in managing sources of economic growth optimally. Although the city of Banjarbaru does not have natural resources (SDA) in the form of coal mining, its economic growth is still rapid (Adekunle & Oyewole, 2022; Murthi, 2024; Nguyễn & Phan, 2023; Takhumova, 2020; Trong, N. N., & Hang, 2019).

Economic growth in South Kalimantan is still concentrated in the primary sector, namely mining and agriculture. In the 2021 annual report, Bank Indonesia said that the local government of South Kalimantan Province must find new sources of economic growth that need to be found immediately because if a slowdown occurs in key economic sectors, it will affect the economy as a whole

The endogenous growth theory developed by Romer emphasizes that investments in human capital, such as education, health, and technology, play an important role in increasing productivity and driving long-term economic growth.

South Kalimantan still faces significant disparities in human development between regions. Based on BPS South Kalimantan data in 2023, Banjarbaru City recorded the highest HDI with an average of 79.66, followed by Banjarmasin (77.52) and Tabalong (72.44), all of which are included in the high HDI category. On the other hand, the economic development process is also inseparable from various obstacles and obstacles. Among these obstacles is the phenomenon of poverty which is a big problem faced by all countries in the world, especially for developing countries.

The aspect of poverty is a challenge for districts/cities in South Kalimantan, with an uneven distribution pattern between regions. BPS data shows that North Hulu Sungai Regency has consistently recorded the highest poverty rate above 6% for the past five years, followed by Tabalong and Hulu Sungai Tengah, this is certainly an alarm for the government to immediately find solutions to reduce the level of poverty experienced by the community in the future. On the contrary, Banjar Regency managed to become the district with the lowest poverty rate.

Economic growth in terms of labor production factors is supported by the labor force participation rate (TPAK), which measures the extent to which the working-age population is actively involved in the world of work. This indicator provides a clear picture of how large the working-age population actually participates in economic activities, both working and looking for work (Gnangnon, 2018; Hess, 2016; Purwanto, 2023; Surya et al., 2021; Udeh et al., 2016). The average district in South Kalimantan Province has a Labor Force Participation Rate (TPAK) above 70, which is classified as high or good. The distribution of TPAK in this region is also relatively even, although it fluctuates from time to time, but the change is not too significant and is still under normal conditions. The condition of human resources in South Kalimantan shows complex dynamics in the period 2019 to 2023 there are several factors that affect the economic growth of a region or country. Some of them are the Human Development Index (HDI), poverty rate and labor force

The relationship between HDI, poverty, and TPAK to economic growth has been studied in various previous studies. For example, research conducted by Yuliani and Faelassuffa (2021) found that increasing HDI contributes significantly to economic growth in several provinces in Indonesia. Then also several other studies highlight the link between the quality of human resources and economic growth

This study aims to analyze the influence of HDI, Poverty, and TPAK on economic growth in South Kalimantan. Using a data panel from 2019 to 2023, this study explores how changes in HDI Poverty and Labor Levels can affect the rate of economic growth in districts/cities. This study advances existing literature by focusing on South Kalimantan Province, a region with unique economic dynamics due to its reliance on natural resources and uneven development. While prior studies (Yuliani & Faelassuffa, 2021; Murtala, 2023) examined HDI and labor's impact on growth in other Indonesian provinces, this research uniquely integrates panel data analysis (2019–2023) to assess simultaneous and partial effects of HDI, poverty, and labor force participation (TPAK) in a resource-rich yet disparity-prone area. It also identifies HDI as the most dominant variable—a finding contextualized by South Kalimantan's sectoral challenges and post-pandemic poverty fluctuations, which were not extensively covered in earlier works like Todaro (2008) or Naura et al. (2022). Additionally, the study employs rigorous econometric tests (Chow, Hausman, Lagrange Multiplier) to validate model robustness, a methodological enhancement over some cited studies.

RESEARCH METHOD

The research employs a quantitative descriptive analysis with a causality approach, using panel data that combines cross-sectional and time-series data. Hypothesis testing is conducted through panel data regression analysis, examining relationships both partially and simultaneously. Three primary models are considered: the Common Effect Model (CEM), which pools data without accounting for individual differences; the Fixed Effect Model (FEM), which assumes constant intercepts across entities; and the Random Effect Model (REM), which treats intercepts as random variables. Model selection is determined using the Chow test (FEM vs. CEM), Hausman test (FEM vs. REM), and Lagrange Multiplier test (REM vs. CEM).

Before hypothesis testing, classical assumption tests ensure data validity. These include a normality test (assessing data distribution), a multicollinearity test (checking for high correlations between independent variables), and an autocorrelation test (detecting residual correlations over time). The regression model must meet BLUE (Best Linear Unbiased Estimator) criteria, ensuring unbiased and efficient estimates.

Finally, hypothesis testing involves a partial significance test (t-test) to assess individual variable impacts, an F-test to evaluate overall model significance, and a coefficient of determination (R^2) test to measure explanatory power. A higher R^2 indicates a stronger influence of independent variables on the dependent variable, confirming the model's predictive capability.

RESULT AND DISCUSSION

Classic Assumption Test

Normality Test

Based on the results obtained in the normality test, the probability value of Jarque-Bera is 0.1209 which is greater than 0.05, so it can be concluded that the data of this study is normally distributed.

Multicollinearity Test

Based on the results in the table above, it can be seen that all correlations between independent variables have no value greater than 0.8. This means that in this regression model, there is no multicollinearity or in this model there is no correlation between independent variables.

Heteroscedasticity Test

Based on the above data, the probability value of the HDI variable (X1) was 0.508, the poverty variable (X2) was 0.610 and the TPAK variable (X3) was 0.172 so that the entire probability value was greater than 0.05 and it was concluded that the data used in this study did not experience symptoms of heteroscedasticity.

Autocorrelation Test

The Durbin Watson value is 1.932, the comparator uses a significance value of 5%, the number of samples is 65 (n), and the number of independent variables 3 (k=3), then in the DurbinWatson table a dU value of 1.6960 will be obtained. Since the DW value of 1.932 is greater than the upper limit (dU) of 1.6960, it can be concluded that there is no autocorrelation in this data

Hypothesis Test

F test

Based on the results of regression analysis of the influence of the variables of the Human Development Index and Poverty Level on Economic Growth in Regencies/Cities in South Kalimantan Province, in the period 2019-2023, it was found that the probability value of F was 0.000008, which indicates that this value is smaller than the significance level of 0.05. Thus, it can be concluded that all the independent variables, namely the Human Development Index, Poverty Rate and Labor Force Participation Rate, have a significant combined influence on the bound variable, namely Economic Growth.

T test

a. Human Development (X1) obtained a probability t value of 0.0005. This value is smaller than the real level or alpha (0.0005) < 0.05 and shows that the Ha1 hypothesis is accepted and H01 is rejected, so it can be concluded that the Human Development Index (HDI) variable partially has a significant influence on Regency/City Economic Growth in South Kalimantan Province.
b. The TPAK variable (X3) obtained a probability t value of 0.0054. This value is higher than the real level or alpha (0.0054 < 0.05). Based on these values, it can be concluded that the TPAK variable (X3) partially has a significant influence on the Economic Growth of South Kalimantan Province, and it is concluded that the Ha1 hypothesis is accepted and H01 is rejected.

c. The Coefficient of Determination (R2) test is used to measure the extent to which the model is able to explain the variation of the bound variable. A value close to one indicates that independent variables are capable of providing almost all the information needed to predict bound variables

Discussion

The Influence of the Human Development Index on Economic Growth in South Kalimantan Province

Based on the results of the study, it was found that HDI has a positive relationship with the economic growth of districts/cities in South Kalimantan Province. The coefficient of this relationship is 3.374897. This means that if the HDI rate increases, economic growth will also increase. On the other hand, if the HDI figure decreases, economic growth will also decrease. The results of the partial test also showed that the t-count was 2.885669, and the probability value (P-value) was 0.0005. This p-value is smaller than the significance used (α = 0.05), indicating that the positive relationship between HDI and Economic Growth is statistically significant.

This research is also in line with a previous study conducted by Naura Amalia Asko Putri et al (2022) in their work entitled "The Influence of the Human Development Index (HDI) on Economic Growth in Banten Province". The study revealed that the Human Development Index (HDI) variable has a positive and significant influence on economic growth in Banten Province. This is also in line with the research conducted by Murtala (2023) in his work entitled "The Influence of Labor and Human Development Index on Economic Growth in Regencies/Cities in Aceh Province", where the results of the study concluded that HDI, both in the long and short term, has a positive and significant effect on economic growth in districts/cities in Aceh Province.

The Influence of Poverty on Regency/City Economic Growth in South Kalimantan Province

Based on the results of the study, it was found that the Poverty Rate has a negative relationship with economic growth in South Kalimantan Province. The coefficient of this relationship is -0.371984. This means that any increase in the poverty rate tends to be followed by a decrease in economic growth And vice versa, if there is a decrease in the poverty rate, it will cause an increase in the economic growth rate. However, the results of the partial test showed that the calculated t-value was -1.384293, and the probability value (p-value) was 0.1713. This p-value is greater than the significance used (α = 0.05), indicating that the negative relationship between poverty levels and economic growth is not statistically significant.

The negative direction in the poverty variable in South Kalimantan is influenced by fluctuations in the number of poor people at the district/city level. Over the past four years, the poverty rate in the region has tended to decrease. However, in 2020 and 2021, the impact of the Covid-19 pandemic caused an increase in poverty rates, although in 2023 the figure fell again in all districts/cities in South Kalimantan. Although the nature of the poverty rate is still fluctuating, the decrease of 6.7 thousand people in this province in 2023 is a positive achievement.

The Effect of Labor Force Participation Rate on the Economic Growth of Regencies/Cities in South Kalimantan

Based on the results of the study, it was found that TPAK has a positive relationship with the economic growth of districts/cities in South Kalimantan Province. The coefficient of this relationship is 0.551138. This means that if the TPAK rate increases, economic growth will also increase. On the other hand, if the TPAK figure decreases, economic growth will also decrease.

The variable of the Labor Force Participation Rate has a positive relationship with the economic growth of districts/cities in South Kalimantan Province, this is in line with Todaro's (2008) theory which states that population growth and labor force are generally considered as positive factors that can increase economic growth. Increased Labor Force Participation Rates often reflect an increase in the number of people entering the labor market, which can be caused by expectations for better job opportunities or economic needs that encourage more individuals to seek work.

The Effect of the Human Development Index, Poverty Rate, and Labor Force Participation Rate on Regency/City Economic Growth in South Kalimantan Province

The results of the study analyzed using the EViews 13 software show that simultaneously, the variables of the Human Development Index (HDI), poverty level, and Labor Force Participation Level (TPAK) have a significant influence on economic growth in South Kalimantan Province.

In this study, the results of the partial significance test were obtained for each independent variable. Among the three variables, the Human Development Index (HDI) showed the highest level of significance at 0.0005. These results indicate that HDI is the most dominant variable in influencing economic growth in South Kalimantan Province. The dominance of HDI is due to its ability to comprehensively represent the relationship between human development and economic growth through three main dimensions, namely the education dimension (Length of School Expectancy and Average School Length), the health dimension (Life Expectancy), and the economic dimension (Per Capita Income).

The Human Development Index (HDI), poverty rate, and labor force participation rate are important factors that affect economic growth. HDI, which includes education, health, and living standards, is often seen as a measure of human capital that can drive economic productivity. Poverty and labor force participation rates, on the other hand, directly impact economic activity and resource allocation within a region.

CONCLUSION

The study finds that Human Development Index (X1), Poverty Rate (X2), and Labor Force Participation Rate (X3) collectively have a significant impact on Economic Growth (Y) in South Kalimantan Province (2019-2023), though individually, only HDI (X1) and Labor Force Participation (X3) show a positive and significant effect, while Poverty Rate (X2) does not. Economic growth in the region is closely tied to human resource quality, with policies focusing on education, infrastructure equity, digitalization, and local economic empowerment proving effective in reducing regional disparities and boosting long-term competitiveness.

Recommendations include increasing investments in education, health, and living standards to raise HDI, enhancing workforce quality, and developing targeted poverty alleviation programs, particularly in high-poverty districts. Additionally, local governments should create job opportunities to leverage labor force potential. Future research should incorporate additional variables or extend the study period for a more comprehensive analysis.

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