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The Influence of Unemployment, Human Development Index and Inflation on Economic Growth in Bengkulu Province

Novita Wulandari[1], Ellya Revolina[2], Fitriani Ariska[3]
Development Economics, Universitas Prof. Dr. Hazairin, SH, Bengkulu
email: : novitawu1305@gmail.com [1] revolina17@gmail.com [2] fitrianiariska20@gmail.com [3]

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Abstract

This study investigates the impact of the open unemployment rate (TPT), Human Development Index (HDI), and inflation on economic growth in Bengkulu Province over the 2014–2023 period. Employing a quantitative approach, the research utilizes secondary data sourced from the Central Bureau of Statistics. Data analysis was conducted using multiple linear regression with the assistance of SPSS version 25. The findings reveal that, on a partial basis, only the HDI has a statistically significant influence on economic growth, while the open unemployment rate and inflation do not demonstrate significant effects. However, when analyzed simultaneously, all three variables collectively exert a significant impact on economic growth in the province. These results underscore the pivotal role of human capital development in driving sustainable economic performance. Enhancing education, healthcare, and general welfare as reflected in HDI can contribute more effectively to long-term economic resilience. The study highlights the need for targeted policy interventions that prioritize improvements in human resource quality alongside macroeconomic stability. Future research may explore additional socio-economic indicators or extend the analysis to a broader regional scope for comparative insights. Overall, the findings provide empirical support for formulating inclusive development strategies aimed at achieving sustainable economic growth in Bengkulu and similar regions.
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1. Introduction

Economic growth is a crucial indicator for evaluating a country's or region's development performance. It reflects the increase in the production of goods and services within a certain period, commonly measured through Gross Domestic Product (GDP). Sustained economic growth is not only associated with rising output but also with improvements in income per capita, institutional quality, and the effectiveness of development distribution mechanisms (Wahid et al., 2020). In the long term, economic growth is expected to contribute to broader welfare improvements by enhancing access to education, health services, and employment opportunities.

However, GDP alone is insufficient to comprehensively capture societal welfare. Various social indicators, such as life expectancy, educational attainment, and living standards, are increasingly recognized as essential components of development evaluation. Iqbal and Mawaddah (2017) emphasize that development success should be assessed by integrating economic and social dimensions, as growth that is not accompanied by improvements in human capital may exacerbate inequality and vulnerability. Therefore, governments play a strategic role in allocating budgets to key sectors, particularly education, health, and other social services, to ensure that economic growth translates into tangible welfare gains.

In the context of regional development, Bengkulu Province faces several persistent economic challenges, one of which is unemployment. The Open Unemployment Rate (Tingkat Pengangguran Terbuka/TPT) remains a critical issue, reflecting imbalances between labor force growth and job creation, as well as mismatches between educational qualifications, workforce skills, and labor market demand. These structural challenges may hinder the province's ability to achieve inclusive and sustainable economic growth.

Unemployment Conditions in Bengkulu Province

Unemployment is a multidimensional problem that not only affects economic productivity but also social stability and household welfare. High unemployment indicates inefficiencies in labor absorption and may reduce the effectiveness of economic growth in improving living standards. Table 1 presents the Open Unemployment Rate in Bengkulu Province over the period 2014–2023.

Table 1. Open Unemployment Rate in Bengkulu Province (2014–2023)

Year	Open Unemployment Rate (%)
2014	3.47
2015	4.91
2016	3.30
2017	3.74
2018	3.35
2019	3.26
2020	3.93
2021	3.65
2022	3.59
2023	3.42
Average	3.66

Source: BPS Bengkulu Province

The data indicate that unemployment in Bengkulu Province fluctuated during the ten-year period. The highest unemployment rate was recorded in 2015 (4.91%), while the lowest occurred in 2023 (3.42%). The increase in unemployment in 2015 may be associated with economic adjustments and limited job creation, whereas the gradual decline toward 2023 suggests improvements in labor absorption, possibly driven by economic recovery and government employment programs. Nonetheless, the persistence of unemployment underscores the need for policies that better align education, skills development, and labor market needs.

Human Development Index as a Welfare Indicator

One of the most widely used indicators for assessing population welfare is the Human Development Index (HDI). HDI captures three fundamental dimensions of human development: life expectancy, education, and a decent standard of living. Unlike purely economic indicators, HDI reflects both physical and non-physical aspects of quality of life and highlights the capacity of individuals to actively participate as subjects of development.

Improvement in HDI is closely linked to access to quality education, adequate health services, and inclusive economic growth. Regions with higher HDI values generally demonstrate stronger human capital, which in turn supports productivity and long-term economic growth. Table 2 presents the HDI values for Bengkulu Province from 2014 to 2023.

Table 2. Human Development Index in Bengkulu Province (2014–2023)

Year	HDI
2014	68.06
2015	68.59
2016	69.33
2017	69.95
2018	70.64
2019	71.21
2020	71.40
2021	71.64
2022	72.16
2023	72.78
Average	70.57

Source: BPS Bengkulu Province

The data show a consistent upward trend in Bengkulu Province's HDI over the observed period. Starting at 68.06 in 2014, the HDI increased steadily to 72.78 in 2023. This improvement reflects positive developments in education access, health services, and income levels. The sustained increase suggests that regional development policies have contributed to enhancing the overall quality of life. Nevertheless, disparities may still exist across districts, indicating the need for more targeted and inclusive development strategies.

Inflation Dynamics and Economic Stability

In addition to human development, inflation is a critical macroeconomic indicator that requires careful management. Inflation is defined as a general and continuous increase in prices over time, which can erode purchasing power and reduce real income levels (Faizin & Ponorogo, 2020). Stable inflation is essential for maintaining economic certainty, encouraging investment, and supporting sustainable growth. Lukman Nugraha et al. (2023) highlight that well-controlled inflation contributes to a healthy economic environment by minimizing uncertainty and preserving household welfare.

According to Bank Indonesia, high inflation can reduce real household income, create uncertainty for economic actors, exert pressure on the exchange rate, and disrupt financial system stability. In Bengkulu Province, inflation is influenced by several factors, including rising prices of household consumption goods, increased transportation costs—particularly air transportation—and higher production costs driven by demand-side pressures.

Table 3. Inflation in Bengkulu Province (2014–2023)

Year	Inflation (%)
2014	10.58
2015	3.25
2016	5.00
2017	3.56
2018	2.35
2019	2.91
2020	0.89
2021	2.42
2022	5.92
2023	3.09
Average	4.00

Source: BPS Bengkulu Province

The inflation data reveal significant fluctuations over the ten-year period. The highest inflation rate occurred in 2014 (10.58%), while the lowest was recorded in 2020 (0.89%), likely reflecting reduced economic activity during the COVID-19 pandemic. The spike in inflation in 2022 may be associated with global economic recovery and rising commodity prices. These fluctuations highlight the importance of effective price stabilization policies at both national and regional levels.

HDI, Inflation, and Economic Growth

In the context of regional economic development, the interaction between HDI, inflation, and economic growth becomes highly relevant. Improvements in human development enhance labor productivity, innovation capacity, and economic resilience. Conversely, uncontrolled inflation may undermine growth by reducing purchasing power and increasing production costs. Therefore, understanding the influence of HDI and inflation on economic growth is essential for formulating effective development policies.

The regencies within Bengkulu Province contribute to overall economic performance through investments in education, health, and local economic activities. By strengthening human capital and maintaining macroeconomic stability, the province can promote more inclusive and sustainable growth. Accordingly, this study aims to analyze the effect of the Human Development Index and inflation on economic growth in Bengkulu Province during the period 2014–2023. The findings are expected to provide empirical evidence to support policy formulation in regional development planning and economic management.

2. Theoretical Study

2.1 Economic Growth

Economic growth is defined as a long-term process of increasing output per capita, reflecting economic dynamics, population productivity, and structural transformation driven by internal economic factors (Fadli, 2016). In empirical analysis, economic growth is commonly measured using Gross Domestic Product (GDP) at the national level and Gross Regional Domestic Product (GRDP) at the regional level (Noviarita et al., 2021).

Sustainable economic growth is essential for improving living standards, expanding employment opportunities, and enhancing social welfare.

2.2 Theories of Economic Growth

Several prominent economic theories have been developed to explain the mechanisms underlying economic growth.

2.3 Classical Growth Theory (Adam Smith and David Ricardo).

Classical economists argue that national wealth is derived from productive labor rather than the accumulation of precious metals. Adam Smith emphasized specialization and the division of labor as key drivers of productivity and growth. David Ricardo highlighted the relationship between population growth, labor supply, and wages. According to Ricardo, excessive population growth may lead to labor oversupply, wage suppression to subsistence levels, and ultimately economic stagnation (Arsyad, 2015).

2.4 Neoclassical Growth Theory (Solow–Swan Model).

The Solow–Swan model explains economic growth as a function of capital accumulation, labor input, and technological progress. This theory suggests that economies will converge toward a steady-state level of growth when production factors are optimally utilized, with long-term growth primarily driven by exogenous technological advancement (Arsyad, 2015).

2.5 Schumpeterian Growth Theory.

Schumpeter emphasizes the role of innovation, entrepreneurship, and industrial dynamics in driving economic growth. Economic development arises through a process of "creative destruction," in which new technologies, products, and organizational forms replace obsolete ones, thereby enhancing productivity and competitiveness.

2.6 Harrod–Domar Growth Theory.

The Harrod–Domar model focuses on the conditions required for stable economic growth, including full utilization of capital goods, a savings rate proportional to income, and a fixed capital–output ratio. Economic instability may occur when investment growth fails to meet the required level needed to sustain productive capacity.

2.7 Unemployment

Unemployment refers to a condition in which individuals who are part of the labor force and actively seeking employment are unable to find jobs (Lamatenggo et al., 2019). High unemployment represents a structural challenge, particularly in developing countries, where labor force growth is not matched by sufficient job creation (Indayani & Hartino, 2020). Persistent unemployment can reduce economic efficiency, increase poverty, and weaken social stability.

Unemployment can be classified into several types: (1) open unemployment, characterized by the absence of job opportunities; (2) hidden unemployment, referring to surplus labor, especially in the informal sector; (3) seasonal unemployment, caused by seasonal fluctuations in economic activity; (4) technological unemployment, resulting from the substitution of labor with machinery; and (5) structural unemployment, arising from structural changes in the economy or increased global competition.

Yunita (2019) argues that unemployment is a complex phenomenon influenced by multiple interacting factors, including the quality of human resources and labor market conditions. Nurcholis (2014) finds that improvements in the Human Development Index (HDI) do not automatically reduce unemployment unless they are accompanied by sufficient job creation, suggesting a potential positive relationship between HDI and unemployment in certain contexts.

2.8 Inflation

Inflation is defined as a general and sustained increase in the prices of goods and services over a given period (Pujadi, 2020). From a monetary perspective, inflation occurs when the money supply exceeds aggregate demand. Other macroeconomic factors, such as exchange rates and interest rates, also play a significant role in influencing inflation dynamics (Simon, 2023).

Several theories explain the causes of inflation. The **Quantity Theory of Money**, proposed by Irving Fisher, argues that inflation results from excessive growth in the money supply relative to output. **Keynesian theory** explains inflation as a consequence of aggregate demand exceeding aggregate supply due to increased wages, credit expansion, and government spending. **Structuralist theory** emphasizes that inflation in developing countries often stems from structural imbalances, such as agricultural supply constraints, foreign debt burdens, and inadequate infrastructure.

Based on its causes and severity, inflation can be categorized into demand-pull inflation, cost-push inflation, and imported inflation, as well as moderate inflation, high inflation, and hyperinflation. Inflation generally reduces purchasing power, worsens income distribution, discourages investment, increases economic uncertainty, weakens domestic product competitiveness, and may ultimately increase unemployment.

2.9 Relationship between Unemployment and Economic Growth

The relationship between unemployment and economic growth is commonly explained by Okun's Law, which posits a negative relationship between unemployment and output growth. Empirical studies suggest that a one-percentage-point increase in the unemployment rate may reduce GDP by approximately two percent. This indicates that higher unemployment reflects underutilization of labor resources and constrains economic growth.

2.10 Relationship between HDI, Inflation, and Economic Growth

Human development and economic growth are closely interconnected. Improvements in HDI—reflecting better education, health, and living standards—tend to enhance labor productivity, innovation capacity, and economic resilience, thereby stimulating economic growth. Conversely, higher economic growth can contribute to improvements in HDI by increasing income levels and government capacity to invest in social sectors.

Inflation also plays a critical role in economic growth. Mild and controlled inflation (generally below 10 percent) may stimulate economic growth by encouraging consumption and investment, as economic agents anticipate future price increases. However, high and volatile inflation can undermine growth by increasing uncertainty, eroding purchasing power, and discouraging long-term investment.

2.11 Previous Studies

Several previous studies have examined the relationship between HDI, inflation, and economic growth. Maulida, Hamid, and Hasibuan (2022) analyzed the effects of investment, inflation, and HDI on economic growth, using economic growth as the dependent variable. Their study employed multicollinearity tests using tolerance values and variance inflation factors (VIF) to ensure model reliability.

Similarly, Susanto and Rachmawati (2013) investigated the influence of HDI and inflation on economic growth and found that investment in human resources positively affects economic growth and household income, while poverty indicators tend to decline. Another study by Saptinno and Maatoke (2022) examined the relationship between HDI, economic growth, inflation, and unemployment, finding that these variables simultaneously explain variations in unemployment levels, as indicated by a significant coefficient of determination (R^2).

2.12 Research Hypotheses

Based on the theoretical framework and previous empirical findings, the hypotheses proposed in this study are as follows:

- H1: The unemployment rate has a significant effect on economic growth in Bengkulu Province.
- H2: The Human Development Index has a significant effect on economic growth in Bengkulu Province.
- H3: Inflation has a significant effect on economic growth in Bengkulu Province.
- H4: Unemployment, the Human Development Index, and inflation simultaneously have a significant effect on economic growth in Bengkulu Province.

3. Research Methods

3.1 Research Design and Approach

This study employs a quantitative research design using secondary data in the form of panel data, which combine time-series data from 2014 to 2023 and cross-sectional data across districts and cities in Bengkulu Province. The panel data approach allows for a more comprehensive analysis by capturing both temporal dynamics and regional variations, thereby improving the accuracy and explanatory power of the empirical results. Quantitative methods are applied because the data consist of numerical values that can be statistically analyzed to generate objective and generalizable conclusions (Sugiyono, 2018).

3.2 Data Type and Sources

The data used in this study include economic growth as the dependent variable, and unemployment rate, Human Development Index (HDI), and inflation rate as independent variables. All data were obtained from official publications of the Central Statistics Agency (Badan Pusat Statistik/BPS) of Bengkulu Province, ensuring data reliability and consistency.

3.3 Population and Sample

The population of this study comprises all districts and cities in Bengkulu Province. The sample was selected using a purposive sampling technique, based on specific criteria, namely: (1) the availability and completeness of data for the entire observation period (2014–2023), and (2) the relevance of the data to the research objectives (Sugiyono, 2013). This sampling approach ensures that only units with consistent and complete data are included in the analysis.

3.4 Research Variables

The variables analyzed in this study are defined as follows:

1. Economic Growth (Y): measured using the growth rate of Gross Regional Domestic Product (GRDP).
2. Unemployment Rate (X_1): the proportion of the labor force that is unemployed.
3. Human Development Index (HDI) (X_2): a composite index reflecting education, health, and living standards.
4. Inflation Rate (X_3): the annual percentage change in the general price level.

3.5 Model Specification

The empirical model applied in this study is a log-transformed multiple linear regression model, employing the natural logarithm to estimate elasticity relationships among variables. The model is specified as follows:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$$

Where:
Y = Economic growth
α = Constant term
β_1, β_2, β_3 = Regression coefficients
X_1 = Unemployment rate
X_2 = Human Development Index (HDI)
X_3 = Inflation rate
ε = Error term

The log transformation is applied to reduce heteroscedasticity and to facilitate

elasticity-based interpretation of the regression coefficients.

3.6 Data Analysis Techniques

Data processing and statistical analysis were conducted using SPSS software. The analysis includes classical assumption tests, namely the normality test, multicollinearity test, and coefficient of determination (R^2). The Kolmogorov–Smirnov test was used to examine whether the data are normally distributed. Multicollinearity was assessed using Tolerance and Variance Inflation Factor (VIF) values to ensure the absence of high correlations among independent variables.

3.7 Hypothesis Testing

Hypothesis testing was performed using the t-test to evaluate the partial effect of each independent variable on economic growth and the F-test to examine the simultaneous effect of unemployment, HDI, and inflation on economic growth. The coefficient of determination (R^2) was used to measure the extent to which variations in the independent variables explain variations in the dependent variable. Statistical significance was determined at a 5 percent significance level ($p < 0.05$).

4. Research Results

4.1 Data Analysis Results

4.1.1 Multiple Linear Regression Analysis

The multiple linear regression analysis was conducted to examine the effects of the open unemployment rate (TPT), Human Development Index (HDI), and inflation on economic growth in Bengkulu Province. The regression results are presented in Table 5.

Table 5. Multiple Linear Regression Results

Model	Unstandardized Coefficients (B)	Std. Error	Standardized Coefficients (Beta)	t	Sig.
(Constant)	43.343	134.969	–	0.321	0.759
TPT	−0.233	0.257	−0.165	−0.903	0.401
HDI	0.066	0.015	0.810	4.462	0.004
INF	0.105	0.105	0.188	0.999	0.356

Dependent Variable: Economic Growth (PE)
Source: Processed data using SPSS 25, 2025

Based on the regression output, the estimated regression equation is formulated as follows:

$$\boldsymbol{PE = 43.343 - 0.233X_1 + 0.066X_2 + 0.105X_3 + \varepsilon}$$

The regression results can be interpreted as follows. First, the constant value (α) of 43.343 indicates that when the unemployment rate, HDI, and inflation are held constant, economic growth is predicted to be 43.343 units. Second, the regression coefficient of the open unemployment rate ($\beta_1 = -0.233$) indicates a negative relationship, meaning that a 1 percent increase in unemployment is associated with a 0.233 percent decrease in economic growth.

Third, the HDI coefficient ($\beta_2 = 0.066$) shows a positive relationship, implying that a 1 percent increase in HDI leads to a 0.066 percent increase in economic growth. Finally, the inflation coefficient ($\beta_3 = 0.105$) indicates a positive relationship, suggesting that a 1 percent increase in inflation increases economic growth by 0.105 percent, ceteris paribus.

4.1.2 Coefficient of Determination

The results of the coefficient of determination are presented in Table 6.

Table 6. Coefficient of Determination

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.913	0.833	0.750	81.972

Source: BPS Bengkulu Province, 2025

The R-square value of 0.833 indicates that 83.3 percent of the variation in economic growth can be explained by the independent variables included in the model, namely unemployment, HDI, and inflation. The remaining 16.7 percent is explained by other factors not included in this study.

4.1.3 Partial Significance Test (t-test)

The results of the partial significance test (t-test) are presented in Table 7.

Table 7. t-test Results

Model	Unstandardized Coefficients (B)	Std. Error	Standardized Coefficients (Beta)	t	Sig.
(Constant)	43.343	134.969	–	0.321	0.759
TPT	−0.233	0.257	−0.165	−0.903	0.401
HDI	0.066	0.015	0.810	4.462	0.004
INF	0.105	0.105	0.188	0.999	0.356

Dependent Variable: Economic Growth (PE)

The t-test results indicate that the open unemployment rate has a negative but statistically insignificant effect on economic growth ($p = 0.401 > 0.05$). The HDI variable has a positive and statistically significant effect on economic growth ($p = 0.004 < 0.05$). Meanwhile, inflation shows a positive but statistically insignificant effect on economic growth ($p = 0.356 > 0.05$).

4.1.4 Simultaneous Significance Test (F-test)

The results of the simultaneous significance test are presented in Table 8.

Table 8. F-test Results (ANOVA)

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	201,289.987	3	67,096.662	9.985	0.010
Residual	40,316.913	6	6,719.486	–	–
Total	241,606.900	9	–	–	–

Source: BPS Bengkulu Province, 2025

The significance value of 0.010 is lower than the 0.05 significance level, indicating that unemployment, HDI, and inflation simultaneously have a significant effect on economic growth in Bengkulu Province.

4.2 Classical Assumption Tests

4.2.1 Normality Test

The normality test results using the Kolmogorov–Smirnov method are presented in

Table 9.
Table 9. Normality Test

Statistic	Value
N	10
Asymp. Sig. (2-tailed)	0.100

Source: BPS Bengkulu Province, 2025

The significance value of 0.100 exceeds 0.05, indicating that the residuals are normally distributed.

4.2.2 Multicollinearity Test

The multicollinearity test results are presented in Table 10.

Table 10. Multicollinearity Test

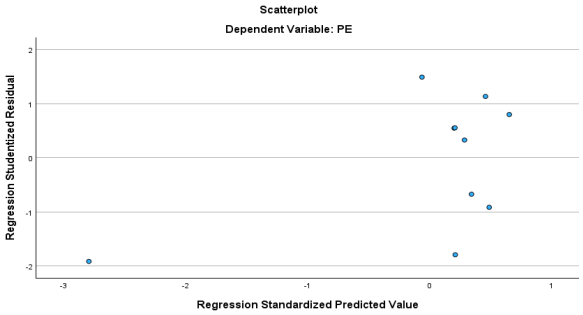
Variable	Tolerance	VIF
Open Unemployment Rate	0.830	1.205
Human Development Index	0.843	1.186
Inflation	0.782	1.280

Source: BPS Bengkulu Province, 2025

All tolerance values exceed 0.10 and all VIF values are below 10, indicating that multicollinearity is not present in the regression model.

4.2.3 Heteroscedasticity Test

Figure 1. Heteroscedasticity Test (Scatterplot)



The scatterplot shows no clear pattern, with data points randomly distributed above and below zero, indicating the absence of heteroscedasticity.

4.2.4 Autocorrelation Test

The autocorrelation test results are presented in Table 11.

Table 11. Autocorrelation Test

Model	R	R Square	Adjusted R Square	Std. Error	Durbin–Watson
1	0.913	0.833	0.750	81.972	0.754

Source: BPS Bengkulu Province, 2025

The Durbin–Watson value of 0.754 lies within the acceptable range (−2 to +2), indicating that the regression model does not suffer from autocorrelation.

4.2 Discussion

4.2.1 The Effect of the Unemployment Rate on Economic Growth

The results of this study indicate that the unemployment rate has a negative but statistically insignificant effect on economic growth in Bengkulu Province. This finding suggests that increases in unemployment do not necessarily lead to a measurable decline in regional economic growth. This condition is consistent with the argument of Todaro and Smith (2015), who emphasize that the dominance of the informal sector in developing regions can absorb labor without being fully captured in official unemployment statistics. As a result, the impact of unemployment on economic growth may not be directly observable.

This finding is supported by previous studies conducted by Umiyati et al. (2022) in ASEAN countries, Aryanta and Indrajaya (2022) in Bali Province, and Julianda (2024) in Lampung Province, which also found that unemployment does not have a significant effect on economic growth. However, this result contrasts with studies by Zahari and Prabowo (2022) in East Java, Doni (2024) in West Sumatra, and Hartati (2022), which reported a negative and significant relationship between unemployment and economic growth. These differences indicate that regional economic structures, labor market characteristics, and sectoral composition play a crucial role in shaping the relationship between unemployment and economic growth.

4.2.2 The Effect of the Human Development Index on Economic Growth

The findings of this study show that the Human Development Index (HDI) has a positive and statistically significant effect on economic growth in Bengkulu Province. This result implies that improvements in human capital—reflected in better education, health, and living standards—directly contribute to higher regional economic growth. This finding supports the human development theory proposed by Todaro and Smith, which emphasizes that sustainable economic growth can only be achieved when human development becomes the primary foundation of the development process.

This result is consistent with empirical evidence reported by Putra and Safri (2022), Dewi et al. (2017), Arisma and Robertus (2024), Asmoro et al. (2022), and Yuniana (2018), all of whom concluded that improvements in HDI significantly enhance economic growth. Nevertheless, this finding contradicts the results of Kartikawati et al. (2025) and Hasan (2024), who argued that increases in HDI do not always translate into higher economic growth, particularly when labor absorption and productivity remain low. These contrasting findings highlight the importance of considering regional structural and institutional conditions when evaluating the effectiveness of HDI in promoting economic growth.

4.2.3 The Effect of Inflation on Economic Growth

The results indicate that inflation has a positive but statistically insignificant effect on economic growth in Bengkulu Province. In general economic theory, moderate inflation may reflect rising demand and increased economic activity; however, when inflation becomes excessively high or unstable, it can suppress consumption and investment. In the context of Bengkulu Province, the observed inflation rate appears to remain within a manageable threshold, thereby exerting no significant impact on economic growth.

This finding is consistent with the Keynesian perspective, which suggests that the relationship between inflation and economic growth is highly dependent on price stability and the expectations of economic agents (Mankiw, 2016). Empirical support for this result is provided by Salman et al. (2023), Mahzalena and Juliansyah (2019), Liliyafi (2018), and Yuliana (2021), who found that inflation does not significantly affect economic growth, particularly when inflation is well controlled. However, this result differs from the findings of Utami et al. (2024), Safira et al. (2025), and Simanungkalit (2020), which reported a negative and significant effect of inflation on economic growth. These differences suggest that the impact of inflation is highly context-dependent and influenced by macroeconomic conditions, price stability, and regional economic structures.

4.2.4 The Joint Effect of Unemployment, HDI, and Inflation on Economic Growth

The results of this study demonstrate that the unemployment rate, Human Development Index (HDI), and inflation simultaneously have a significant effect on economic growth in Bengkulu Province during the period 2014–2023. This finding indicates that these three macroeconomic variables collectively play an important role in shaping regional economic growth dynamics.

From a theoretical perspective, high unemployment can hinder economic growth through reduced productivity and lower purchasing power. Conversely, improvements in HDI reflect higher-quality human resources that enhance productivity and economic efficiency. Controlled inflation also serves as an indicator of healthy demand within the economy. Therefore, the interaction of these variables forms an essential foundation for promoting sustainable economic growth in Bengkulu Province.

5. Closing

5.1 Research Conclusions

This study examines the influence of the open unemployment rate, Human Development Index (HDI), and inflation on economic growth in Bengkulu Province over the period 2014–2023 using a quantitative panel data approach. Based on the empirical results and discussion, several conclusions can be drawn.

First, the open unemployment rate has a negative but statistically insignificant effect on economic growth in Bengkulu Province. This finding indicates that fluctuations in unemployment do not directly translate into changes in economic growth, which may be explained by the dominance of the informal sector and labor market absorption mechanisms that are not fully captured in official unemployment statistics.

Second, the Human Development Index (HDI) has a positive and statistically significant effect on economic growth. This result confirms that improvements in human capital—reflected in better education, health, and living standards—play a crucial role in driving regional economic performance. HDI emerges as the most influential variable in the model, highlighting the central role of human development in achieving sustainable economic growth.

Third, inflation shows a positive but statistically insignificant effect on economic growth. This suggests that inflation in Bengkulu Province during the study period remained within a manageable range and did not substantially disrupt economic activity or growth dynamics.

Finally, when analyzed simultaneously, the unemployment rate, HDI, and inflation collectively have a significant effect on economic growth. This finding underscores the importance of an integrated macroeconomic framework, in which labor market conditions, human capital development, and price stability jointly shape regional economic growth outcomes.

5.2 Policy Implications

The findings of this study offer several important policy implications for regional development planning in Bengkulu Province.

First, the significant role of HDI in promoting economic growth suggests that government policies should prioritize investments in human capital development. Strengthening access to quality education, improving healthcare services, and enhancing living standards are essential strategies to foster long-term and inclusive economic growth.

Second, although unemployment does not show a significant partial effect, labor market policies should not be overlooked. Improving workforce skills, aligning education with labor market needs, and supporting job creation—particularly in productive and formal sectors—remain critical to ensuring that economic growth translates into broader employment opportunities.

Third, inflation management should continue to be maintained within a stable and moderate range. While inflation does not significantly affect growth in the short term, maintaining price stability is essential for sustaining investor confidence, household purchasing power, and long-term economic resilience.

Overall, the results suggest that regional economic growth policies should adopt a balanced approach that simultaneously addresses human development, employment dynamics, and macroeconomic stability.

5.3 Research Limitations

Despite its contributions, this study has several limitations. First, the analysis is limited to three explanatory variables—unemployment, HDI, and inflation—while other important determinants of economic growth, such as investment, government expenditure, industrial structure, and technological progress, are not included. Second, the study focuses exclusively on Bengkulu Province, which may limit the generalizability of the findings to other regions with different economic characteristics.

5.4 Recommendations for Future Research

Future studies are encouraged to expand the scope of analysis by incorporating additional socio-economic variables, such as investment flows, fiscal policy indicators, poverty levels, or sectoral productivity. Comparative studies across provinces or regions would also provide deeper insights into regional development disparities. Furthermore, applying alternative econometric techniques, such as dynamic panel models or spatial econometric analysis, may enhance the robustness of future findings.

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