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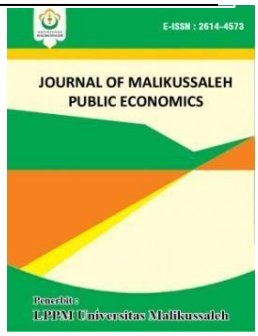
THE INFLUENCE OF THE HUMAN DEVELOPMENT INDEX, OPEN UNEMPLOYMENT RATE, AND INFLATION ON ECONOMIC GROWTH IN INDONESIA



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ARTICLE INFORMATION

Keywords:
Human Development Index, Open Unemployment Rate, Inflation, Economic Growth

ABSTRACT

Indonesia's economic growth over the past three decades has shown a downward trend, indicating a reduction in the national economic growth rate due to various structural changes and economic challenges faced. This study aims to determine the effect of the human development index (HDI), the open unemployment rate (OUR), and inflation on economic growth in Indonesia. This study uses time series data from 1994-2024, using Multiple Linear Regression analysis. The results of the data analysis show that HDI has a negative and significant effect on economic growth in Indonesia, OUR has a negative and insignificant effect on economic growth, and inflation has a negative and significant effect on economic growth. Simultaneously, HDI, OUR, and inflation have a significant effect on economic growth in Indonesia. The government is expected to balance improving the quality of human resources, price stability. And job creation to support economic growth in indonesia.

1. INTRODUCTION

Economic growth refers to the expansion of economic activities that increases the production of goods and services and improves societal welfare. It is a long-term macroeconomic process driven by factors such as labor, capital, and technological progress (Sukirno, 2010). As a key indicator of development success, economic growth reflects a country's production capacity and supports policy formulation, especially in developing countries like Indonesia (Masdi *et al*., 2023; Maulana *et al*., 2022).

However, economic growth does not always ensure equitable development. Todaro and Smith (2020) argue that development should also include improvements in quality of life, such as education, health, and living standards. In Indonesia, challenges such as inflation particularly in food prices can reduce purchasing power and worsen inequality, especially among low-income groups (Bank Indonesia, 2023; Sulistyowati & Dhewanto, 2021). Therefore, strengthening human development and maintaining price stability are essential to achieving inclusive growth (OECD, 2022; World Bank, 2023). In conclusion, although macroeconomic indicators may show improvement, challenges related to human resource quality, employment, and price stability must still be addressed in order to achieve inclusive and sustainable economic growth (World Bank, 2023; Asri & Hermawan, 2022). The following figure illustrates the development of Indonesia's economic growth in 2019-2024:

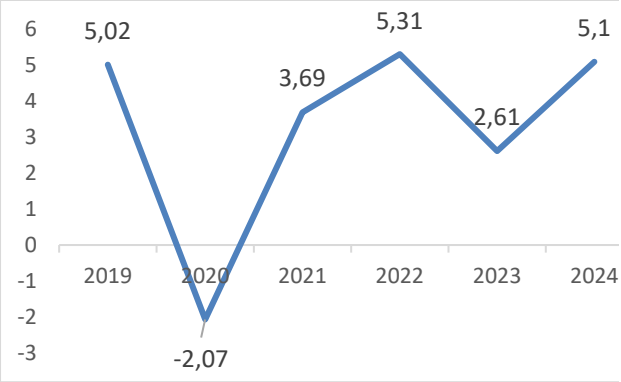

Figure 1.1 Indonesia's Economic Growth, 2019–2024 (Percent)
Source: World Bank, 2025

Figure 1.1 illustrates that Indonesia's economic growth during the 2019–2024 period experienced notable fluctuations. In 2019, the economy grew steadily at 5.02%, but in 2020 it contracted sharply by -2.07% due to the pandemic, which restricted economic activities and disrupted global supply chains (BPS Indonesia, 2025).

Recovery began in 2021, with growth reaching 3.69% as social restrictions were gradually eased and economic activity resumed. This positive trend continued in 2022, when the economy expanded by 5.31%, supported by stronger exports and rising domestic consumption.

However, in 2023, growth slowed to 2.61% as a result of global pressures, inflation, and declining purchasing power. In 2024, the economy rebounded, recording growth of 5.10%, driven by stable domestic consumption, a recovery in the tourism sector, and continued infrastructure development (BPS Indonesia, 2025).

Overall, despite the contraction caused by the pandemic, Indonesia's economy has demonstrated strong resilience and is gradually moving toward medium-term stability.

The Human Development Index (HDI) is a crucial indicator for assessing the quality of a country's development, as it encompasses key dimensions such as health, education, and a decent standard of living (BPS Indonesia, 2023). HDI is measured using three main components: life expectancy, educational attainment, and adjusted per capita expenditure.

From a theoretical perspective, improvements in HDI reflect investments in education and healthcare, which produce a more skilled, productive, and technologically adaptable workforce (Todaro & Smith, 2020). In the Indonesian context, HDI plays a strategic role in promoting sustainable economic growth, as a healthier and more educated population enhances productivity and contributes more effectively to economic activities (UNDP, 2020). The following is a picture of the human development index in Indonesia for 2019-2024:

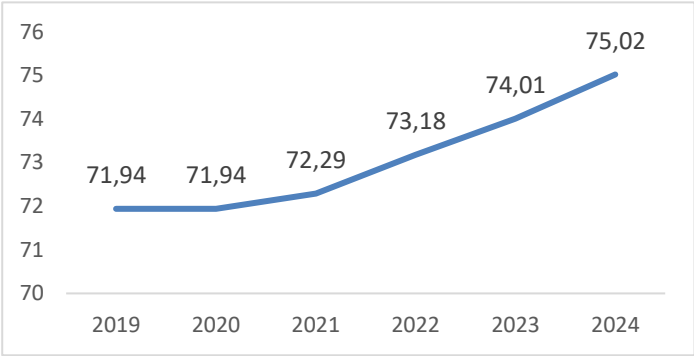

Figure 1.2 Human Development Index (HDI) of Indonesia, 2019–2024 (Percent)
Source: Statistics Indonesia (BPS), 2025

Figure 1.2 shows that Indonesia's Human Development Index (HDI) during the 2019–2024 period exhibited a relatively stable upward trend. At the beginning of the period, from 2019 to 2020, the HDI remained stagnant at 71.94. This condition reflects a temporary halt in improvements in the population's quality of life, largely due to the COVID-19 pandemic, which disrupted access to education, healthcare services, and overall economic activities (BPS Indonesia, 2025).

In 2021, the HDI began to recover, increasing to 72.29 as social activities gradually returned to normal and public services were progressively restored. This upward trend continued in 2022, reaching 73.18, indicating the effectiveness of government policies aimed at improving education, healthcare, and social protection.

Furthermore, in 2023, the HDI rose to 74.01, demonstrating sustained progress in human development despite facing global challenges such as inflation, energy crises, and economic uncertainty. By 2024, the HDI reached 75.02, marking the highest level during the observed period. This achievement reflects consistent and ongoing improvements in human development in Indonesia.

Overall, the HDI trend from 2019 to 2024 shows a stable and progressive increase without any decline, indicating the success of government efforts in continuously enhancing the population's quality of life (BPS Indonesia, 2025).

In addition to the Human Development Index, the open unemployment rate (OUR) is another important factor influencing economic growth. OUR is defined as the percentage of unemployed individuals relative to the total labor force, which includes working-age individuals who are employed, temporarily not working, or actively seeking employment (Kartasaita, 2019).

Theoretically, unemployment has a negative relationship with economic growth, as it reflects the underutilization of human resources in the production process. According to Mankiw (2021), a high unemployment rate indicates that a portion of the labor force is not contributing to the production of goods and services, resulting in suboptimal use of national production capacity.

From a Keynesian perspective (1936), unemployment arises due to weak aggregate demand in the economy. Declines in consumption and investment reduce demand for goods and services, prompting firms to cut production and reduce their demand for labor. This condition ultimately leads to higher unemployment and hinders economic growth. The following figure presents Indonesia's open unemployment rate from 2019 to 2024:

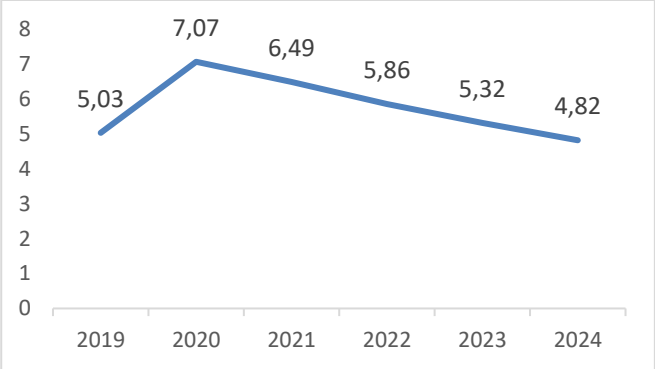

Figure 1.3 Indonesia's Open Unemployment Rate (OUR), 2019–2024 (Percent)
Source: Statistics Indonesia (BPS), 2025

Figure 1.3 illustrates that Indonesia's open unemployment rate (OUR) over the 2019–2024 period fluctuated but generally showed a declining trend. In 2019, the OUR stood at 5.03%, reflecting relatively stable labor market conditions prior to the pandemic (BPS Indonesia, 2025). However, in 2020, it increased sharply to 7.07% due to the COVID-19 pandemic, which forced many businesses to reduce their workforce and limit production activities.

In 2021, the unemployment rate began to decline to 6.49% as economic activities gradually recovered and social restrictions were eased. This downward trend continued in 2022 and 2023, falling to 5.86% and 5.32%, respectively, supported by increased job creation, economic recovery programs, and the expansion of informal and service sectors. By 2024, the OUR further decreased to 4.82%, the lowest level during the observation period, indicating stronger economic recovery and improved labor absorption (BPS Indonesia, 2025).

Overall, although there was a sharp increase during the pandemic, the OUR trend shows consistent improvement toward the end of the period. The decline in unemployment reflects better labor market conditions, which in turn can enhance productivity and support national economic growth. In addition to the Human Development Index and unemployment rate, inflation is another key factor influencing economic growth. Inflation is defined as a sustained increase in the general price level, not limited to one or two goods but affecting most commodities in the economy (Boediono, 2014).

Theoretically, inflation has a dual relationship with economic growth. Low and stable inflation can stimulate growth by indicating rising aggregate demand and healthy economic activity (Mankiw, 2021). Conversely, high inflation has negative effects, as it reduces purchasing power, increases production costs, and creates uncertainty for businesses, thereby potentially suppressing consumption and investment (Samuelson & Nordhaus, 2019).

From a monetarist perspective, inflation is viewed as a monetary phenomenon caused by excessive growth in the money supply relative to real output capacity. Friedman (1963) argued that inflation occurs when monetary expansion is not matched by an increase in production, leading to a general rise in prices. This view is supported by various empirical studies showing a positive relationship between money supply and inflation, as well as the importance of tight monetary policy in maintaining price stability (Nawaz *et al*., 2012; Choudhri & Malik, 2012). promoting sustainable growth. The following figure presents Indonesia's inflation rate from 2019 to 2024:

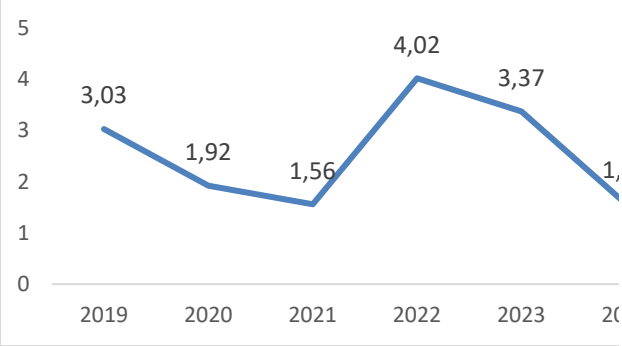

Figure 1.4 Indonesia's Inflation Rate, 2019–2024 (Percent)
Source: World Bank, 2025

Figure 1.4 illustrates that Indonesia's inflation rate from 2019 to 2024 fluctuated without a consistent trend. Inflation was initially relatively high, then declined significantly, reaching its lowest point in 2021. A sharp increase occurred in 2022 due to strong price pressures, before easing again in the following two years. This pattern reflects inflation instability influenced by post-pandemic recovery, global supply chain disruptions, and monetary policy responses aimed at maintaining price stability (BPS Indonesia, 2025).

The movement of inflation during this period demonstrates a close relationship with both domestic and global economic conditions. In 2019, inflation was recorded at 3.03%, remaining within the target range set by Bank Indonesia, indicating relatively stable economic conditions with controlled demand and prices of essential goods (BPS Indonesia, 2025).

However, in 2020, when the COVID-19 pandemic began, inflation dropped sharply to 1.92%. This trend continued in 2021, with inflation declining further to 1.56%. The decrease reflects weakened economic activity, reduced purchasing power, and disruptions to business operations due to social restrictions, which significantly lowered price pressures on goods and services (BPS Indonesia, 2025).

In 2022, inflation rose sharply to 4.02%, driven by several factors, including global energy and food price shocks caused by the Russia–Ukraine conflict, increased post-pandemic demand, and government adjustments to fuel prices and public service tariffs. This surge placed considerable pressure on households, particularly low-income groups (BPS Indonesia, 2025).

In 2023, inflation declined to 3.37% due to price control measures implemented by Bank Indonesia through interest rate policies and supply stabilization, particularly for food and energy. Despite this improvement, the government must remain cautious of global price fluctuations that may affect domestic stability.

By 2024, inflation dropped significantly to 1.57%, the lowest level since 2021. This decline reflects the success of both monetary and fiscal policies in controlling inflation. It also indicates that Indonesia's economy is on a stronger and more stable recovery path following the crisis caused by the pandemic and global pressures (BPS Indonesia, 2025).

Overall, the data shows that Indonesia's inflation rate is highly sensitive to global dynamics and domestic policies. Low inflation during the pandemic reflects weakened economic

activity, while rising inflation during the recovery phase indicates imbalances between demand and supply that must be carefully managed to avoid hindering national economic growth (BPS Indonesia, 2025).

Various previous studies show that the Human Development Index (HDI) has produced mixed results on economic growth. Several studies such as Muqorrobin & Soejoto (2017), Roidha (2024), Salamah (2020), Sari *et al*. (2020), Utami (2020), and Kristina *et al.* (2022) found that HDI has a negative and significant effect on economic growth. This indicates that improvements in human capital quality are not always followed by an increase in economic output, especially when they are not supported by a strong economic structure and equitable income distribution. In contrast, studies by Kusumawati *et al*. (2021) and Safii & Huda (2025) found that HDI has a positive and significant effect on economic growth.

In addition, other variables such as inflation and the open unemployment rate (OUR) also show varying results on economic growth. Studies by Mayasari & Mahinsaputri (2022), Tyo *et al*. (2024), and Rahmawati (2025) indicate that inflation has a negative and significant effect on economic growth, whereas Agustia *et al*. (2024) found a positive and significant effect. Meanwhile, Pratiwi (2022) and Kusumawati *et al*. (2021) found that OUR has a significant negative effect, but studies by Himmah *et a*l. (2024) and Oktarina (2025) show that OUR has no significant effect on economic growth.

Despite numerous studies examining the effects of HDI, unemployment, and inflation on economic growth, limitations remain. The studies often produce inconsistent findings regarding inflation. Studies that simultaneously analyze all three variables especially in the context of extraordinary conditions such as the COVID-19 pandemic are still limited. This study aims to provide a more comprehensive analysis of the effects of HDI, unemployment, and inflation on economic growth in Indonesia from 1994-2024.

2. LITERATURE REVIEW

This section discusses concepts, theories, and previous studies relevant to the research topic. The literature review is developed as a theoretical and empirical foundation to understand the relationships between variables, as well as a basis for constructing the conceptual framework and formulating research hypotheses.

Economic Growth

Economic growth is one of the key indicators used to measure the success of a country's development. In general, it can be defined as a continuous increase in the output of goods and services within an economy over a certain period. According to Todaro and Smith (2011), economic growth refers to an increase in a country's capacity to produce goods and services, typically measured by the growth of real Gross Domestic Product (GDP). Similarly, Mankiw (2012) defines economic growth as a long-term increase in a nation's ability to provide goods and services to its population. Meanwhile, Samuelson and Nordhaus (2004) emphasize that economic growth is reflected in the rise of real output per capita, indicating improvements in productivity and societal welfare. The most common measure of economic growth is the annual percentage change in real GDP.

Human Development Index

According to Todaro and Smith (2015), human development is a key factor in improving the quality of economic growth, as better education, health, and income levels increase labor productivity. Sen (1999) also emphasizes that economic development should focus on expanding human capabilities rather than merely increasing income. Therefore, the Human Development Index (HDI) reflects the quality of human capital, which can promote economic growth when effectively utilized in the production process.

Open Unemployment Rate

According to Mankiw (2021), the quality of human resources reflected in education and health represents an investment in human capital that plays an important role in increasing labor productivity and promoting long-term economic

growth. In Principles of Economics, it is explained that improving human quality not only affects economic output but also enhances overall societal welfare. This is in line with the concept of the Human Development Index (HDI), which measures development not only in terms of income but also through dimensions of education, health, and a decent standard of living.

Inflation

According to Mankiw (2021), inflation is defined as a sustained increase in the overall price level of goods and services in an economy over a period of time. In Principles of Economics, Mankiw explains that inflation reduces the purchasing power of money and can affect economic stability if not properly controlled. Therefore, maintaining low and stable inflation is important to support sustainable economic growth and protect the welfare of society.

Conceptual Framework

The conceptual framework is a systematic illustration that explains the relationships between the variables studied based on theory and previous research findings. This framework shows the direction of the relationship between the independent variables (HDI, OUR, and inflation) and the dependent variable, namely economic growth. The conceptual framework of this research can be seen in Figure 2.1 below:

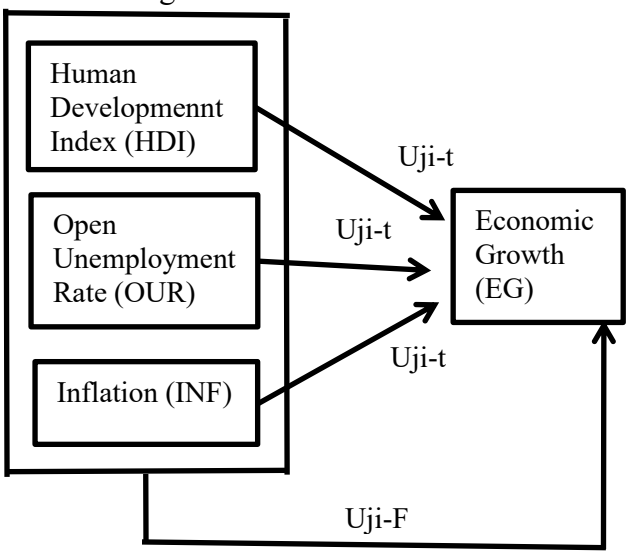

Figure 2.1 Conceptual Framework

The hypotheses in this study are as follows: (H_1): Human development index (HDI) has a significant effect on economic growth in Indonesia.
(H_2): Open unemployment rate (OUR) has a significant effect on economic growth in Indonesia.
(H_3): Inflation has a significant effect on economic growth in Indonesia.
(H_4): Human development index, open unemployment rate, and inflation simultaneously have a significant effect on economic growth in Indonesia.

3.RESEARCH METHODOLOGY

This section explains the research methodology used in the study. It covers the type and approach of the research, the object and location of the study, the data sources and data collection techniques, as well as the analytical methods used to address the research objectives.

Types and Sources of Data

The type of data in this study is quantitative data. Quantitative data is data that can be input into a statistical measurement scale. The data source in this study is secondary data, which is data that is not collected directly but obtained from a second party (Ridwan, 2014). The secondary data in this study is time series data. Time series data is a sequence of data about a particular object over several periods, such as weekly, monthly, or yearly.

The time series data in this study covers the period 1994–2024, obtained from official publications of the World Bank (economic growth and inflation) and Statistics Indonesia (BPS) (HDI and OUR).

Data Collection Method

The data collection methods used in this study are documentation and literature study. The documentation method is a data collection method based on written materials. The literature study method is a method used by understanding literature containing methods of obtaining information, documentation, and others relevant to the research.

Data Analysis Method

This study employs a multiple regression method using the Ordinary Least Squares (OLS) approach to examine the effect of independent variables on the dependent variable. The OLS method is considered to have ideal properties and advantages, as it is technically robust, simple in computation, and easy to interpret. The analysis is supported by the use of the EViews program (Gujarati & Porter, 2015).

The multiple linear regression equation used in this study is:

$$EG_t = \beta_0 + \beta_1 HDI_t + \beta_2 OUR_t + \beta_3 INF_t + e_t$$

Where:
EG = Economic Growth (%)
β_0 = Constant
HDI = Human Development Index (points / %)
OUR = Open Unemployment Rate (%)
INF = Inflation (%)
$\beta_1\beta_2\beta_3$ = Regression coefficients
e_t = Error term

Classical Assumption Tests

In multiple linear regression analysis, several classical assumption tests are applied, namely the normality test, autocorrelation test, multicollinearity test, and heteroskedasticity test. These tests are conducted to ensure that the data do not contain any issues, so that they are normally distributed and suitable for analysis. The results of the classical assumption tests in this study are as follows:

1. Normality Test

The normality test is used to determine whether the data are normally distributed or not. The distribution is considered normal if the significance value is greater than 0.05 (Gujarati & Porter, 2015). According to Panjawa & Sugiharti (2021), the normality test is conducted to test whether, in the regression model, the error or residuals are normally distributed.

There are several methods to test normality, including the Jarque-Bera (J-B) test and graphical methods. This study uses the J-B test, which is done by calculating skewness and kurtosis. If the calculated J-B value is less than the Chi-square table value, then the residuals are normally distributed, or if the J-B probability is greater than 0.05, then the data are normally distributed, and vice versa.

2. Multicollinearity Test

The multicollinearity test aims to determine whether there is a strong relationship among independent variables in the regression model. A good regression model should not have multicollinearity between independent variables because it can affect the accuracy of estimating the effect of each independent variable on the dependent variable.

Multicollinearity can be seen from the correlation coefficient between independent variables. If the correlation coefficient is greater than 0.8, multicollinearity is indicated. Conversely, if the correlation coefficient is less than 0.8, the regression model is considered free from multicollinearity (Gujarati & Porter, 2009).

3. Autocorrelation Test

This test is relevant for time series data to evaluate whether there is correlation between error terms in consecutive observations. The Breusch-Godfrey test is used to detect autocorrelation.

Autocorrelation is a condition where variables in one period are correlated with variables in another period (Gujarati & Porter, 2015). If the LM test result shows Obs*R-squared is greater than the Chi-square table value and the probability is less than 0.05, then the model has autocorrelation. Otherwise, if probability is greater than 0.05, the model is free from autocorrelation.

4. Heteroscedasticity Test

The heteroscedasticity test is used to determine whether there is unequal variance of residuals in the regression model. A good regression model is one that has constant variance or does not experience heteroscedasticity (Gujarati & Porter, 2009). The criteria are:

1. If Chi-square probability > 0.05 (5%), the model has no heteroscedasticity problem.
2. If Chi-square probability < 0.05 (5%), the model has heteroscedasticity problem.

Research Hypothesis Testing

In multiple linear regression analysis, hypothesis testing is conducted to examine whether the independent variables have a significant relationship with the dependent variable. This testing consists of several stages, namely:

1. t-Test (Partial Test)

In multiple linear regression analysis, the t-test is used to evaluate the partial effect of independent variables on the dependent variable. The conclusion is based on the significance value (Sig.) compared to 0.05.

1. If Sig. < 0.05 or $t_{statistic} > t_{table}$, H_1 is rejected. This indicates a significant effect between the independent and dependent variables.
2. If Sig. > 0.05 or $t_{statistic} < t_{table}$, H_0 is accepted. This indicates no significant effect between the independent and dependent variables.

2. F-Test (Simultaneous Test)

According to Gujarati & Porter (2015), the F-test is used to evaluate the simultaneous effect of all independent variables on the dependent variable in the regression model.

The criteria are:

1. If Sig. < 0.05 or $F_{statistic} > F_{table}$, H_0 is rejected. This indicates a significant simultaneous effect.
2. If Sig. > 0.05 or $F_{statistic} < F_{table}$, H_0 is accepted. This indicates no significant simultaneous effect.

3.Coefficient of Determination

The coefficient of determination measures the contribution of independent variables to the dependent variable. It is represented by R Square (R^2), ranging from 0 to 1.

If R^2 is close to 0, the explanatory power is weak. If R^2 is close to 1, the explanatory power is strong.

However, because R^2 increases when more independent variables are added, Adjusted R Square is used in this study. Adjusted R^2 is preferred because it has been adjusted for the number of independent variables in the model. If Adjusted R^2 is closer to 1, the model has better explanatory power (Gujarati & Porter, 2015).

4. RESULTS AND DISCUSSION

This section presents the research findings and discussion derived from data processing and analysis in accordance with the applied research methods. The analysis aims to determine the effect of HDI, the Open Unemployment Rate, and inflation on economic growth in Indonesia.

1. **Normality Test**

The results of the normality test are shown below:

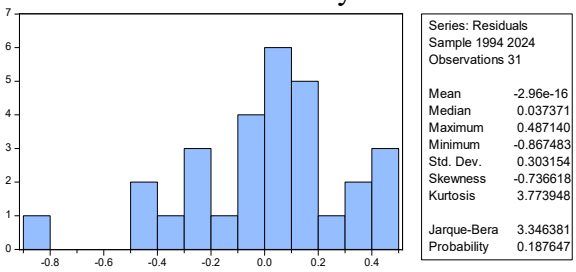

Figure 4.1 Normality Test Results

Source: EViews, Data Processed (2025).

Based on the figure above, it is known that the Jarque-Bera value is 3.346 < the chi-square (X^2) table value of 5.991 and the probability value is 0.187 > 0.05. Thus, it can be concluded that the data are normally distributed.

2. Multicollinearity Test

The results of the multicollinearity test in this study indicate that there is no multicollinearity among the independent variables, as follows:

Table 4.1
Multicollinearity Test Result

Covariance Analysis: Ordinary				
Correlation				
t-Statistic	EG	HDI	OUR	INF
EG	1.000000			

HDI	0.033132	1.000000		

	0.178519	-----		
OUR	0.025744	-0.150358	1.000000	
	0.138684	-0.819013	-----	
INF	-0.804399	-0.434559	0.015550	1.000000
	-7.291529	-2.598337	0.083752	-----

Source: EViews, Data Processed (2025).

Based on Table 4.1 above, the results of the multicollinearity test obtained through the Covariance Analysis (Ordinary) output indicate that all correlation values among the independent variables are below 0.8. This can be seen from the correlation value between HDI and the Unemployment Rate, which is -0.150358, between HDI and inflation at -0.434559, and between the Unemployment Rate and inflation at 0.015550. All of these correlation values are less than 0.8, thus it can be concluded that there is no multicollinearity problem in this study.

3.Autocorrelation Test

The results of the autocorrelation test in this study are as follows:

Tabel 4.2
Autocorrelation Test Result

Breusch-Godfrey Serial Correlation LM Test:			
F-statistic	1.232284	Prob. F(2,25)	0.3087
Obs*R-squared	2.781825	Prob. Chi-Square(2)	0.2488

Source: EViews, Data Processed (2025).

Based on Table 4.2 above,It can be seen that the Prob Chi-Square value is 0.2488 < the Chi- square table value of 5.991, and the probability value is greater than 0.05. This means that the model is free from autocorrelation indications.

4.Heteroskedasticity Test

The results of the heteroskedasticity test in this study are as follow:

Table 4.3
Heteroskedasticity Test Result

Heteroskedasticity Test: Breusch-Pagan-Godfrey			
F-statistic	0.306748	Prob. F(3,27)	0.8203
Obs*R-squared	1.021751	Prob. Chi-Square(3)	0.7960
Scaled explained SS	2.967773	Prob. Chi-Square(3)	0.3966

Source: EViews, Data Processed (2025)

Based on Table 4.3. it can be seen that the p- value (Prob Chi-Square) is greater than the 5% significance level or 0.05 (Prob Chi-Square value of 0.7960 > 0.05). This indicates that the model.

5. Multiple Linear Regression Analysis

The results of the multiple linear regression analysis can be seen in Table 4.5 as follows:

Table 4.4
Results of Multiple Linear Regression Analysis

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	32.16548	6.898439	4.662719	0.0001
HDI	-0.364814	0.096111	-3.795753	0.0008
OUR	-0.034934	0.178840	-0.195338	0.8466
INF	-0.361250	0.037960	-9.516670	0.0000
R-squared	0.770818	Durbin-Watson stat		1.511685
Adjusted R-squared	0.745353			
F-statistic	30.27004			
Prob(F-statistic)	0.000000			

Source: EViews, Data Processed (2025)

From Table 4.4 above, the multiple linear regression model is as follows:

$$EG_t = 32.17 - 0.36\ HDI_t - 0.03\ OUR_t - 0.36\ INF_t$$

From the results above, the interpretation of the multiple linear regression analysis is as follows:

1. The constant value is 32.1, indicating that if the variables Human Development Index (HDI), Open Unemployment Rate (OUR), and Inflation (INF) are equal to zero, then Economic Growth (EG) is estimated to be 32.17%.
2. The HDI coefficient is negative at -0.36. This means that when HDI increases by 1%, economic growth will decrease by 0.36%, assuming the OUR and INF variables remain constant.
3. The OUR coefficient is also negative at -0.03. This means that if the Open Unemployment Rate increases by 1%, economic growth will decrease by 0.03%, assuming the HDI and INF variables remain constant.
4. The inflation coefficient is negative at -0.36. This means that every 1% increase in inflation, economic growth will decrease by 0.36%, assuming the HDI and OUR variables remain constant.

Hypothesis Testing

In the hypothesis testing process, an important step is the interpretation of regression results. This interpretation aims to understand the extent of the relationship between the independent variables and the dependent variable, both simultaneously and individually. In this study, hypothesis testing is conducted using several statistical tests, namely the t-test (partial), the F-test (simultaneous), and the coefficient of determination (R^2).

1. t-test (Partial Test)

The results of the t-test indicate that some independent variables have a significant effect on the dependent variable, while one variable does not have a significant effect:

Tabel 4.5
Result of Partial Test (t-test)

Independent Variable	t-Statistics	t-table (5%)	t-table (1%)	Probability	Remarks
HDI	-3.795753	2.05183	2.77068	0.0008	Significant
OUR	-0.195338	2..05183	2.77068	0.8466	Not Significant
INF	-9.516670	2.05183	2.77068	0.0000	Significant

Source: EViews, Data Processed (2025).

Based on the partial test results in table 4.5, the explanations are as follows:

1. The HDI variable has a t-statistic value of $|-3.795753| > 2.77068$ with a probability of $0.0008 < 0.01$ (α). Thus, it can be concluded that HDI has a negative and significant effect on the dependent variable (H_0 is rejected, H_1 is accepted).
2. The OUR variable has a t-statistic value of $|-0.195338| < 2.05183$ with a probability of $0.8466 > 0.05$ (α). Thus, it can be concluded that the Open Unemployment Rate does not have a significant effect on the dependent variable (H_0 is accepted, H_2 is rejected).
3. The inflation variable has a t-statistic value of $|-9.516670| > 2.77068$ with a probability of $0.0000 < 0.01$ (α). Thus, it can be concluded that inflation has a negative and significant effect on the dependent variable (H_0 is rejected, H_3 is accepted).

2.F- test (Simultaneous Test)

The results of the F-statistic test indicate that the independent variables simultaneously have a significant effect on the dependent variable:

Table 4.6
Results of Simultaneous Test (F-test)

F Statistic	F Table	Probability	Remarks
30.27004	2,96	0.000000	Significant

Source: EViews, Data Processed (2025)

Based on the calculation results in table 4.6 above, the F-statistic value is 30.27004 with a probability value of $0.00000 < 0.05$. Meanwhile, the F-table at df = (k − 1) (n − k) = (4 − 1) (31 − 4) = (3) (27) is 2.96 at α = 1%. Since F-statistic > F-table (30.27004 > 2.96), this indicates that H_4 is accepted simultaneously. This means that the Human Development Index (HDI), Open Unemployment Rate (OUR), and inflation have a significant effect on economic growth in Indonesia.

3.Coefficient of Determination Test (R^2)

The following results of the coefficient of determination show the extent to which the independent variables explain the dependent variable in the research model:

Table 4.7
Coefficient of Determination (R^2)

Adjusted R-squared	0.745353	S.D. dependent var	3.756337

Source: EViews, Data Processed (2025).

Based on Table 4.7 above, the results show that the Adjusted R-squared value is 0.745353 or 74.53%. which means that 74.53% of the variation in economic growth can be explained by the variables HDI, OUR, and Inflation. The remaining 25.47% is explained by other factors outside the model.

Discussion

Referring to the multiple linear regression model, the following presents an explanation of the results of the analysis of the relationship between the independent variables and the dependent variable through both partial and simultaneous tests.

The Effect of the Human Development Index on Economic Growth in Indonesia

The research results indicate that the Human Development Index (HDI) has a negative and significant effect on economic growth in Indonesia. This finding is not in line with the economic development theory proposed by Todaro and Smith (2015), which states that improvements in human quality should enhance productivity and accelerate economic growth.

Theoretically, human resources are the main capital of development; therefore, an increase in HDI is expected to have a positive impact on economic growth. However, this negative result suggests that improvements in human quality have not been able to directly boost economic output.

This study is in line with previous research conducted by Muqorrobin *et al*. (2017), Roidha (2024), Utami (2020), and Salamah (2020), which also found that the Human Development Index (HDI) has a negative effect on economic growth. This indicates that higher human development does not necessarily lead to increased economic output, especially when it is not supported by an adequate economic structure and labor absorption.

This finding contradicts Todaro and Smith (2015), as well as studies by Kusumawati *et al*. (2021) and Safii & Huda (2025), which show that HDI has a positive and significant effect on economic growth.

One of the causes of this negative effect is regional income inequality, as observed in Banten Province. Although HDI has increased due to better access to education and healthcare, disparities persist between regions. Areas such as Lebak and Pandeglang rely on agriculture, while Cilegon, Tangerang, and Serang are dominated by industry and services, leading to unequal economic growth.

In addition, the increase in HDI tends to reflect improvements in social welfare rather than immediate gains in productivity, so its impact on economic growth is not directly visible in the short term.

The Effect of Open Unemployment Rate on Economic Growth in Indonesia

This study finds that the open unemployment rate has a negative but insignificant effect on economic growth in Indonesia. This implies that an increase in unemployment tends to reduce economic growth, but the effect is not statistically strong.

Theoretically, unemployment lowers output due to the underutilization of labor, as explained by Mankiw (2021). In addition, Keynes (1936) states that unemployment arises from insufficient aggregate demand, which reduces production and labor absorption.

Previous studies by Pratiwi (2022), Kusumawati (2021), and Kristina *et al*. (2022) find a negative and significant effect of unemployment on economic growth, indicating that lower unemployment increases growth.

However, this study is consistent with findings by Agustia *et al*. (2024), Oktarina (2025), and Himmah *et al*. (2024), which show no significant effect.

This insignificant relationship may be explained by structural factors in Indonesia's labor market, such as sectoral shifts in employment and the dominance of the informal sector. Therefore, although unemployment is negatively related to economic growth, its overall impact on national output remains relatively weak.

The Relationship Between Inflation and Economic Growth in Indonesia

The research results show that inflation has a negative and significant effect on economic growth. This is consistent with the theory of Dornbusch and Fischer (1990), which states that high inflation creates economic uncertainty, reduces purchasing power, and discourages investment. Rising inflation can also reduce market efficiency due to price instability, thereby weakening real sector performance.

Based on existing theories, low and stable inflation can encourage economic growth as it reflects healthy demand and economic activity (Mankiw, 2021). However, when inflation rises excessively, it becomes harmful by reducing purchasing power, increasing living costs, and creating uncertainty in business activities.

This study is supported by Mayasari & Mahinsaputri (2022), whose findings indicate that inflation has a negative and significant effect on economic growth. Similarly, Tyo *et al*. (2024) find that high inflation hampers Indonesia's economic growth. Rahmawati (2025) also shows that inflation has a negative and significant impact on economic growth. These findings confirm that rising inflation can suppress economic growth, in line with macroeconomic theory stating that high inflation reduces purchasing power and discourages investment.

5. CLOSING

This section serves as the conclusion, presenting the summary of the research findings as well as recommendations based on the results of the study.

Conclusion

Based on the results of the analysis and discussion regarding the effect of the Human Development Index (HDI), Open Unemployment Rate (OUR), and Inflation on Economic Growth in Indonesia during the study period using a multiple linear regression approach, several conclusions can be drawn as follows:

1. Partially, the Human Development Index (HDI) has a negative and significant effect on economic growth in Indonesia. This indicates that improvements in HDI have not been accompanied by increases in economic productivity. The increase in HDI tends to reflect improvements in social welfare rather than direct enhancements in economic productivity. Therefore, although HDI increases, it has not yet contributed positively in a direct manner to the rate of national economic growth.
2. Partially, the Open Unemployment Rate (OUR) has a negative but not significant effect on economic growth in Indonesia. The negative relationship indicates that an increase in unemployment can suppress economic growth, but the effect is not strong enough. This condition suggests that the labor market structure in Indonesia is still dominated by the informal sector, so changes in the open unemployment rate do not significantly affect total national output.
3. Partially, inflation has a negative and significant effect on economic growth in Indonesia. This result indicates that when inflation increases, people's purchasing power declines, investment decreases, and economic activity is hindered. This is in line with macroeconomic theory, which states that high inflation creates economic uncertainty and negatively affects economic growth performance.
4. Simultaneously, it can be concluded that HDI, OUR, and inflation have a significant effect on economic growth in Indonesia.

Suggestions

Based on the research results and conclusions obtained, the author proposes several suggestions as follows:

1. The Government of Indonesia should improve the effectiveness of human development programs through higher education, skill mastery, job training, and improvements in healthcare quality aimed at increasing labor productivity. Thus, improvements in HDI can contribute directly to economic growth.
2. To address unemployment, the government needs to expand job opportunities, especially in the formal sector, by encouraging investment and developing labor- intensive industries. Skill-based training programs are also important so that the workforce can adapt to the needs of the modern labor market.
3. In controlling inflation, the government together with Bank Indonesia should maintain price stability through coordinated monetary and fiscal policies, as well as ensuring a balance between supply and demand of essential goods. Stable inflation will create a conducive business climate and encourage economic growth.

Future research is recommended to include additional variables that may also influence economic growth, such as investment, exports-imports, government expenditure, poverty levels, or labor productivity. In addition, a panel data approach across provinces or districts/cities can be used to examine economic dynamics and regional disparities in Indonesia.

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