
DETERMINATION OF ECONOMIC GROWTH, HUMAN DEVELOPMENT INDEX, AND OPEN UNEMPLOYMENT RATE ON POVERTY LEVEL IN THE PROVINCE OF THE SPECIAL REGION OF YOGYAKARTA

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Abstract

As one of the provinces that has special features and is nicknamed as a student city, DI Yogyakarta still ranks first with the highest poverty rate on Java Island. Therefore, this study aims to determine the factors that influence the high poverty rate in the Special Region of Yogyakarta Province. Quantitative analysis with the Multiple Linear Regression method is used in this study to determine the effect of each variable. The results of the study show that in the Special Region of Yogyakarta Province in 2009-2023, Economic Growth and Open Unemployment Rate have no effect on the Poverty Rate, while the Human Development Index has an effect on the Poverty Rate in the Special Region of Yogyakarta Province.

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

INTRODUCTION

One of the main goals of Indonesia's national development, as mandated in the Preamble to the 1945 Constitution, is to improve the welfare of the people. General welfare refers to a state in which all the material, spiritual, and social needs of citizens are adequately met, enabling them to live decently and develop optimally in both social and economic aspects. One of the main parameters for assessing the level of public welfare is the poverty rate. There is a negative correlation between the level of poverty and overall societal happiness, with a decrease in poverty rates tending to go hand in hand with an increase in the population's welfare.

According to Nurkse(1953)There are two cycles of poverty traps when viewed from a supply and demand perspective. The supply side shows that low incomes due to low productivity result in minimal savings capacity. This leads to insufficient investment capital formation, which in turn impacts productivity. From the demand side, in poor countries, the motivation to invest is quite minimal due to limited markets for various types of goods. This situation arises from very low incomes, which are caused by low productivity stemming from limited capital formation in the past. Capital scarcity is primarily caused by a lack of incentives to invest.

Poverty certainly exists among Indonesia's 34 provinces, including the Special Region of Yogyakarta. Yogyakarta is a unique province in Indonesia due to its unique characteristics related to poverty levels. The city is known as a student hub, accommodating over 300,000 students, creating a unique dynamic within its social and economic framework (Kemendikbudristek, 2023). Urban population growth, coupled with a lack of formal employment opportunities, can lead to increased poverty in rural areas. Furthermore, food security faces challenges such as agricultural land loss and climate change, which impact poverty alleviation efforts.

The poverty rate refers to the percentage of the population in poverty relative to the basic needs of the community. The situation of individuals in society who are excluded from the process of change due to a lack of resources, both in terms of ownership of production factors and the ability to create quality production factors, causes them to miss out on the benefits of development efforts. Economic growth indicates an increase in the quantity of goods and services produced per individual over a long period of time.

Economic growth reflects success and is very important to reduce unemployment rates.(Boediono, 2018). According to Boediono(2017)A country's ability to promote societal peace is influenced by its level of economic growth. Strong and sustained economic growth over the past year and beyond indicates a marked improvement in economic well-being. Human resource development is a key element of economic progress.

Human resource development is primarily assessed based on the Human Development Index (HDI). The Human Development Index comprises a set of criteria used to evaluate the success of initiatives aimed at improving the quality of life of individuals. This development index plays a crucial role in ranking and measuring the growth rate of a particular region or country.(Central Statistics Agency, 2023). As stated by the United Nations Development Programme (UNDP) in its annual Human Development Report, which has been published since 1996, the Human Development Index covers three main areas(UNDP, 1996), namely longevity and health, education, and standard of living.

The open unemployment rate includes individuals who are actively looking for work or starting a business, as well as those who have given up looking for work because they believe it is impossible to find a position (previously inactive) and those who have a job but have not started work (previously classified as employees) and are also unemployed.

This study aims to analyze the influence of the variables of Economic Growth, Human Development Index, and Open Unemployment Rate on the Poverty Level in the Special Region of Yogyakarta Province.

REVIEW OF LITERATURE

Poverty Level

The poverty rate refers to the percentage of the population living in poverty in relation to the basic needs of society. This situation affects individuals who are excluded from the transformational process because they lack the means, whether it be access to factors of production or the ability to produce quality goods, preventing them from benefiting from development efforts. This problem of poverty has emerged as a significant concern in developing countries, particularly in Indonesia, stemming from low incomes and poor quality human resources. Poverty is characterized by a lack of essential goods that are normally available, such as food, clothing, shelter, and drinking water. These aspects are fundamentally related to the standard of living. According to John Friedmann, poverty arises from unequal access to opportunities among various social forces, including productive capital, financial resources, political and social organizations pursuing interests, networks, knowledge, skills, and more.

Economic Growth

According to Sukirno(2016)Economic growth is a process related to increasing the production of goods and services in a region, with the aim of improving the welfare of the entire population. The term economic growth has two distinct meanings. The first meaning relates to economic growth, which signifies a high level of development. Meanwhile, the second meaning describes the various economic challenges a country faces in the long term. Increased economic growth can facilitate the achievement of effective economic development, which is often accompanied by improvements in social welfare. The data used to assess economic growth is GDP growth expressed as a percentage.

Human Development Index

The HDI is an important measure for assessing the effectiveness of quality human development, as stated by Safruidar.(2019)The significance of this lies in the fact that the HDI indicates how well individuals can access outcomes related to education, health, income, and overall well-being. Furthermore, the HDI serves as a metric for assessing progress across various regions, particularly in evaluating improvements in the quality of life of a community or population. In general, while the HDI may not always accurately reflect real-life conditions, it remains a key indicator for improving individuals' quality of life. Currently, the HDI is the only measure used to evaluate progress in human living standards.

Open Unemployment Rate

Sukirno(2017)states that unemployment is a situation where a group of people who are able to work do not have jobs, despite their efforts to find them. Unemployment is a problem consistently faced by almost all economic systems, especially in developing

countries like Indonesia. In general, unemployment can be defined as a condition in which individuals in the workforce are unable to find work that meets their needs and desires. In other words, unemployment describes a situation where someone lacks the opportunity to find work.

RESEARCH METHOD

This study applies a quantitative approach with the aim of analyzing the causal relationship between independent variables (Economic Growth, HDI, and Unemployment Rate) and the dependent variable, namely the Poverty Rate. The data for this study are sourced from the official website of the Central Statistics Agency (BPS) covering the years 2009 to 2023. The dependent variable in this study is the Poverty Rate measured in percentage, while the independent variables include Economic Growth in percentage, HDI as a numerical value, and Unemployment Rate in percentage. The sample was selected using a purposive method determined by the researcher, focusing on the Poverty Rate from 2009 to 2023, Economic Growth (percentage) from 2009 to 2023, HDI from 2009 to 2023, and Unemployment Rate from 2009 to 2023, resulting in a total sample size of 15. The data obtained were then analyzed using multiple linear regression methods to identify the influence of each variable.

RESULTS AND DISCUSSION

Normality Test

Table 1.
Normality Test Results

One-Sample Kolmogorov-Smirnov Test	
	Unstandardized Residual
Asymp. Sig. (2-tailed)	.102c

Source: Data Processing Results

Based on Table 1, it is known that the significance value of Asymp.Sig (2-tailed) is 0.102, which exceeds the significance limit of 0.05. Therefore, according to the decision-making criteria in the Kolmogorov-Smirnov normality test, it can be concluded that the data is normally distributed.

Multicollinearity

Table 2.
Multicollinearity Test Results

Variables	Tolerance	VIF	Provision	Information
Economic Growth (X1)	0.845	1,183	≤10	Multicollinearity Free
Human Development Index (X2)	0.775	1,291	≤10	Multicollinearity Free

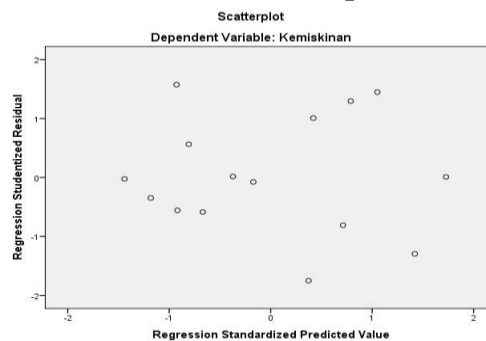
Open Unemployment Rate (X3)	0.709	1,411	≤ 10	Multicollinearity Free
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Source: Data Processing Results

The results of the multicollinearity test conducted using the Variance Inflation Factor (VIF) value show that the Economic Growth variable (X1) has a VIF of 1.183 with a tolerance value of 0.845. Meanwhile, the Human Development Index variable (X2) shows a VIF value of 1.291 and a tolerance value of 0.775. The Open Unemployment Rate variable (X3) has a VIF value of 1.411 with a tolerance value of 0.484. Based on these results, all independent variables (X1 to X3) have VIF values less than 10 and tolerance values greater than 0.1. Therefore, it can be concluded that the regression model used does not indicate any multicollinearity problems.

Heteroscedasticity

Figure 1.
Scatter Plot Graph



Source: Data Processing Results

The results of the heteroscedasticity test based on the scatterplot show a graph that displays an unclear or irregular pattern, with points scattered throughout the plot. Therefore, it can be concluded that the data used does not show signs of heteroscedasticity.

Autocorrelation

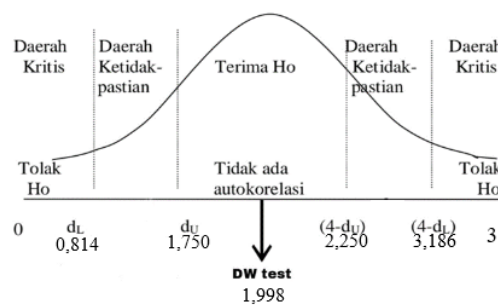


Figure 2.

Durbin Watson Statistical Curve

Source: Data Processing Results

Based on the Durbin Watson calculation results, the DW test value of 1.998 is between d_U and $(4-d_U)$. This value is greater than 0. Thus, it can be interpreted that this model test does not show signs of autocorrelation because the DW test is in an area where there is no autocorrelation.

Results of Multiple Linear Regression Analysis

Table 3.

Multiple Linear Regression Results

Model		Unstandardized Coefficients
		B
1	(Constant)	86,206
	Economic growth	.002
	Development Index Man	-.933
	Unemployment Rate Open	.144

Source: Data Processing Results

The regression equation is $VT\ Poverty = 87.389 + 0.003\ PE - 0.948\ HDI + 0.143\ UER$. This shows that the constant value of 87.389 implies that if the values of PE, HDI, and UER are 0, the Poverty Rate will be 87.389%. The regression coefficient for the PE variable is 0.003, which means that for every 1% increase in Economic Growth, the Poverty Rate (Y) will increase by 0.003%. The coefficient for the Human Development Index is -0.948, which indicates that if the Human Development Index (X2) increases by 1 unit, the Poverty Rate (Y) will decrease by 0.948%. The coefficient for the Open Unemployment Rate is 0.143, which indicates that a 1% increase in the Open Unemployment Rate (X3) will cause a 0.143% increase in the Poverty Rate (Y).

Coefficient of Determination (R2)

Table 4.

Results of the Coefficient of Determination (R2) Test

Model Summary				
Model	R	R Square	Adjusted R Square	Standard Error of the Estimate
1	.970a	.941	.925	.52407

Source: Data Processing Results

From the values in the table above, it can be observed that the strength of the independent variable in influencing the dependent variable is indicated by the coefficient of determination (R Square) of 0.941 or 94.1%. This indicates that the poverty level (Y) can be explained by Economic Growth (X1), the Human Development Index (X2), and the Open Unemployment Rate (X3) by 94.1%. The remaining 5.9% is caused by other factors not covered in this study.

F test

Table 5.

F Test Results

ANOVA		
Model	F	Sig.
Regression	58,653	.000b

Source: Data Processing Results

From the table, it can be seen that the significance value is 0.000. If the significance value is 0.000 and the F table is 3.49, then it can be concluded that the hypothesis is accepted, which means that simultaneously the Poverty Level (Y) is influenced by Economic Growth (X1), the Human Development Index (X2), and the Open Unemployment Rate (X3).

T-test

Table 6.
T-Test Results

Variables	t	Sig
Economic growth	0.045	0.965
Human Development Index	-11,282	0,000
Open Unemployment Rate	0.843	0.417

Source: Data Processing Results

Economic Growth

Based on the results of the regression analysis, the Economic Growth variable has a significance value of 0.965, which is above the significance threshold of 0.05. Therefore, the first hypothesis (H1) is rejected. This finding indicates that there is no significant influence of Economic Growth (X1) and the Poverty Level (Y). This conclusion is also supported by the calculated t-value of 0.045, which is smaller than the t-table value of 2.179, thus further confirming that the first hypothesis cannot be accepted.

These findings imply that economic growth in the Special Region of Yogyakarta Province has not significantly contributed to poverty reduction. One possible cause is that the distribution of economic growth is still unequal across all levels of society, particularly among the poor. In other words, the benefits of increased regional gross domestic product have not been fully channeled to those in need. This inequality can occur if economic growth is not accompanied by adequate job creation. Under such conditions, increased income will only be enjoyed by certain groups, ultimately widening the economic gap. Theoretically, non-inclusive economic growth can create a situation where poverty persists or even increases, even though economic growth figures show a positive trend. In some regions in Indonesia, economic growth has indeed been shown to contribute to poverty reduction. However, the phenomenon occurring in the Special Region of Yogyakarta Province suggests otherwise. Overall, these findings contradict theoretical predictions that economic growth should have a positive and significant impact on poverty reduction.

Human Development Index

The analysis results show that the Human Development Index (HDI) variable has a significance value of 0.000. This value is far below the significance threshold of 0.05, so the second hypothesis (H2) can be accepted. This indicates that there is a significant influence between HDI (X2) and the Poverty Level (Y). Furthermore, the calculated t value is 9.461, which exceeds the table t value of

2.179 strengthens the acceptance of this hypothesis. Therefore, it can be concluded that the HDI has a substantial and negative effect on poverty levels in the Special Region of Yogyakarta Province.

These findings imply that increasing the HDI can reduce poverty levels. This is because the HDI reflects three key dimensions of human well-being: education, health, and a decent standard of living. Individuals with higher levels of education generally have better job opportunities and higher incomes. Furthermore, good health allows individuals to work

more productively, which in turn leads to increased household income. These findings align with the initial hypothesis that the HDI has a significant negative effect on poverty. These findings also support Todaro's view.(2006), which emphasizes that education and health are essential goals in economic development. Improvements in these two aspects are considered capable of helping communities escape the cycle of structural poverty, as they are crucial factors in driving improvements in the quality of human resources.

Open Unemployment Rate

The results of the regression analysis show that the Open Unemployment Rate (TPT) variable has a significance value of 0.417, which is greater than the probability level of 0.05. Therefore, the third hypothesis (H3) is rejected. Thus, it can be concluded that there is no significant influence between TPT and the poverty rate. This result is supported by the calculated t value of 0.843, which is smaller than the t table value of 2.179, further strengthening that H3 cannot be accepted.

In the context of this study, the Open Market Index (TPT) has a positive but insignificant relationship with the poverty rate in the Special Region of Yogyakarta Province. This means that despite the increase in unemployment, it does not directly significantly affect the poverty rate in this region. This finding indicates that the TPT is not a major factor in the dynamics of poverty alleviation in the province. Theoretically, unemployment can influence poverty through various mechanisms. If a household faces liquidity constraints, the loss of income due to unemployment will have a direct impact on consumption and increase the risk of poverty. However, if a household does not experience liquidity constraints, that is, their consumption is not highly dependent on current income, the impact of unemployment on poverty tends to be smaller in the short term, although it can have an impact in the long term. This finding reflects that most households in the Special Region of Yogyakarta Province are likely not experiencing liquidity constraints, thus weakening the direct effect of unemployment on poverty. Furthermore, not all unemployed individuals are classified as poor, given that the majority of unemployed individuals in this region come from highly educated groups and have relatively stable economic backgrounds. Furthermore, the local economic structure, dominated by the agricultural sector, also influences this dynamic. A large portion of the population works in the informal sector, such as agriculture, so formal employment is not the sole source of income. Thus, even though the unemployment rate is increasing, this does not necessarily reflect a significant increase in poverty.

CONCLUSION

Research conducted in the Special Region of Yogyakarta Province from 2009 to 2023 shows that the poverty rate is not significantly affected by economic growth. This is due to the disparity in development between regions, which results in poor communities not fully benefiting from this growth. Conversely, the Human Development Index (HDI) has been shown to play a significant role in reducing poverty through increased labor productivity. Meanwhile, the unemployment rate does not show a significant relationship with the poverty rate. This can be explained by the characteristics of the unemployed in the region, where the majority are highly educated individuals who tend to be selective in choosing jobs, so not all unemployed people are categorized as poor. Based on these findings, it is recommended that the government further promote equitable distribution of economic growth outcomes by

strengthening the small and medium enterprise (SME) sector and reducing dependence on the agricultural sector through the development of the creative economy in non-primary sectors. Furthermore, improving the quality of human resources needs to be done through education and training relevant to labor market needs. To achieve this, To obtain more comprehensive and representative research results, further studies are also recommended to use additional variables and a wider time span.

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