

THE EFFECT OF HUMAN DEVELOPMENT INDEX AND OPEN UNEMPLOYMENT RATE ON THE NUMBER OF POOR PEOPLE IN EAST JAVA PROVINCE.

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Abstrak

Penelitian ini bertujuan untuk mengetahui pengaruh variabel independen yaitu indeks pembangunan manusia, dan tingkat pengangguran terbuka terhadap variabel dependen yaitu jumlah penduduk miskin di Provinsi Jawa Timur Tahun 2014-2022. Penelitian ini menggunakan pendekatan kuantitatif yang bersumber dari data sekunder yang diperoleh dari Badan Pusat Statistik Provinsi Jawa Timur. Metode analisis yang digunakan adalah regresi linier berganda. Dalam penelitian ini di dapatkan hasil variabel indeks pembangunan berpengaruh negatif signifikan, sedangkan variabel tingkat pengangguran terbuka berpengaruh positif signifikan dan kedua variabel independen berpengaruh secara simultan (bersamaan) terhadap jumlah penduduk miskin di Provinsi Jawa Timur.

Kata Kunci : Indeks Pembangunan Manusia, Tingkat Pengangguran Terbuka, Jumlah Penduduk Miskin

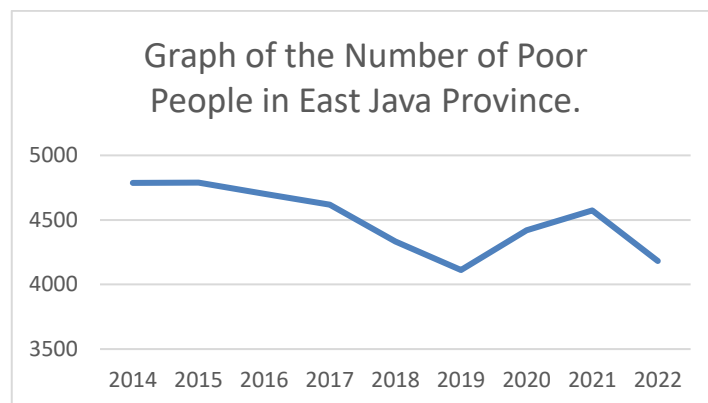
Abstract

This study aims to determine the effect of independent variables, namely the human development index, and the open unemployment rate on the dependent variable, namely the number of poor people in East Java Province in 2014-2022. This research uses a quantitative approach sourced from secondary data obtained from the Central Bureau of Statistics of East Java Province. The analysis method used is multiple linear regression. In this study, the results of the development index variable had a significant negative effect, while the open unemployment rate variable had a significant positive effect and both independent variables had a simultaneous effect on the number of poor people in East Java Province.

Keywords: Human Development Index, Open Unemployment Rate, Number of Poor People

INTRODUCTION

National development is a state initiative in order to improve the overall welfare of its population. The government through its policies and programs seeks to implement national development that covers economic, social, infrastructure and other aspects. The essence of human development is a process that is useful for increasing the variety of options accessible to people, so that they can benefit from the various resources and opportunities available. The goal of development is to promote general welfare. General welfare in Indonesia can be measured by poverty indicators. There is a significant negative correlation between general welfare and poverty in the country. The problem of poverty is a complex and difficult social challenge, because it has consequences for the life of a community. The root of this poverty problem involves many factors, such as low wages that cannot meet needs, low quality of life, limited employment opportunities, so that many people do not work and lack of income. This is supported by Nurkse, (2006) statement that market imperfections lead to decreased productivity, then income also decreases, and savings, investment and capital will also decrease, then return to decreased productivity and so on, because poverty is interconnected with one another.



Sumber : Badan Pusat Statistik Provinsi Jawa Timur

In the East Java region, there is a significant downward trend in the number of poor people from year to year. However, it should be noted that between 2020 and 2021 there was an increase in the number of poor people. The increase then experienced an improvement in 2022 so that the number of poor people decreased. The main factor causing this fluctuation is the impact of the Covid-19 pandemic which has caused economic disruption in various sectors. Based on BPS data in 2022, the poverty rate in East Java reached 10.38%. Although this figure has decreased slightly to 10.35% in March 2023, East Java has not yet reached the government's target. According to BPS, (2022) the number of poor people in East Java amounted to 4,181.29 thousand people. With this figure, East Java ranks

highest nationally with the largest number of poor people. This is followed by the West Java region with a poor population of around 4,071.0 thousand people. The Central Java region is ranked third with a population of 3,831.44 thousand poor people. This increase reflects the challenges faced by East Java in overcoming poverty, especially in the midst of economic dynamics influenced by the global pandemic. Then, if a person cannot meet the standard of living set by the poverty line, and cannot fulfill their daily needs, then they are classified as poor. This shows that if the population has expenditure below the poverty line of Rp. 535,547, then the population can be classified as poor (BPS Indonesia, 2022). Therefore, the role of the government is needed in reducing the poverty rate, and the government needs to first observe what are the factors that cause poverty by organizing several strategies to overcome these problems.

The Human Development Index plays a key role as an important metric in evaluating poverty levels. Essentially, human development is a journey to expand the options accessible to people. This calculation process involves three main elements. First, achievements in longevity and health reflect the health sector. Second, the expected years of schooling and average years of schooling are used as indicators of education. Finally, the purchasing power of the community towards basic needs is evaluated through the average expenditure per capita as an approach (Badan Pusat Statistik, 2023). The Human Development Index has increased every year, and a significant increase can be measured in the period 2020-2022. Although, in 2020 East Java was faced with the Covid-19 pandemic, this development index still increased by 71.71 percent and continued to rise until 2022 by 72.75 percent. This shows a positive representation in building and developing the economy in the region. Similarly, with research Yustie, (2017) states that the human development index has a positive effect on reducing the number of poor people in districts and cities in East Java. In line with what Andykha et al., (2018) said, the human development index has a significant negative effect on the number of poor people in Central Java. Then Zuhdiyaty, (2018) in his research explained that in the period 2011 to 2015, it was recorded that the human development index had a negative and significant effect on poverty in Indonesia. Then on research Alhudori, (2017) stated that the human development index has a significant effect on the number of poor people in Jambi Province.

In addition to the human development index, the open unemployment rate has the potential to affect the poverty rate. The open unemployment rate is the proportion of individuals who are of working age, but are not currently working or are not absorbed by the labor market (Badan Pusat Statistik, 2023). Andykha et al., (2018) in his research states that the open unemployment rate has a positive and significant effect on the poverty rate in Central Java. Then Anggoro & Kriswibowo,

(2023) in his international journal states that the open unemployment rate affects the poverty rate in East Java. While Bintang & Woyanti, (2018) also found that the open unemployment rate has a positive and significant effect on the poverty rate in Central Java. Then in research Alhudori, (2017) stated that the number of unemployed people has a significant effect on the number of poor people in Jambi Province. The Open Unemployment Rate in East Java has a fluctuating pattern. It can be seen that in 2020 the unemployment rate rose sharply, because at that time covid-19 was hitting East Java. The existence of the covid-19 pandemic, one of which caused a decrease in investor confidence which had an impact on the decline in investment. From this uncertainty in various sectors, many people lost their income due to layoffs. So that people in general accept this response by being selective in managing finances. In the 2021-2022 period, the government gradually carried out economic recovery through the implementation of various policies, such as providing social assistance to the community and creating new job opportunities. As a result, there was a slight decrease in the trend of the open unemployment rate in East Java.

In this study, researchers paid attention to the three variables mentioned earlier, which were then used as a topic with the title "The Effect of Human Development Index and Open Unemployment Rate on the Number of Poor People in East Java Province."

METHODS

This research belongs to the quantitative category whose use is to identify the relationship between the independent variable and the dependent variable that refers to previous theories. The data obtained from these variables is then converted into numerical form, and then analyzed as the output of these results (Creswell, 2014). This study explains how the relationship between the number of poor people, the open unemployment rate, and the human development index. The data used in this study is from the official website of the Central Bureau of Statistics of East Java Province, which comes from secondary data and is obtained from *time series* 2014 to 2022.

In addition, in collecting and compiling this data, researchers conducted literature and document reviews from various literature sources and published research journals, then recorded them as references. The aim is to form consistent, structured research results, and have a good relationship between one another.

Researchers conducted this study by applying the multiple linear regression method whose approach uses OLS (Ordinary Least Square), then processing it with Eviews 12 software. The following is the formula for multiple linear regression equations according to Gujarati & Porter, (2010) in this study :

$$Pov = \alpha + \beta_1 HDI + \beta_2 OUR + e^{(1)}$$

Description :

POV : Number of Poor Population

α : Constant

β : Coefficient of multiple linear regression

HDI : Human Development Index

OUR : Open Unemployment Rate

e : Standard Error

HASIL DAN PEMBAHASAN

Research Result

This study uses a type of quantitative research that uses multiple linear regression methods, then processed using the eviews 12 analysis tool. The purpose of this study is to determine the effect of the Human Development Index and the Open Unemployment Rate on the Number of Poor People in East Java Province. In detail, multiple linear regression can be defined as follows :

1. Multiple Regression Analysis

Based on the results of multiple linear regression analysis, the following equation can be found:

$$POV = 16776.86 - 184.8029HDI + 169.2223OUR + e$$

The multiple linear regression model states the result of the constant value of the regression equation of 16776.86. This means that if the Human Development Index (HDI) and the Open Unemployment Rate (OUR) in a region are constant then the Number of Poor People (POV) is 16776.86. The regression coefficient value of the human development index variable is -184.8029. This shows that if the human development index increases by 1%, the number of poor people in East Java Province will decrease by 184.8029 thousand people. Meanwhile, the coefficient value of the open unemployment rate variable is 169.2223 and is positive. This indicates that if the open unemployment rate decreases by 1%, the number of poor people in East Java Province will decrease by 169.2223 thousand people.

2. Statistical Test

a. Partial Test (t Test)

Based on the t-test results, it shows that the human development index variable is obtained from a probability value of $0.0022 < \alpha 0.05$. This means that the human development index has a significant negative effect on the number of poor people in East Java Province. Meanwhile, the open unemployment rate variable is obtained from a probability value of $0.0449 < \alpha 0.05$, which means that the open unemployment rate has a significant positive effect on the number of poor people in East Java Province.

b. Simultaneous Test (F Test)

Based on the results of the F test, the probability value of the f-statistic is $0.006174 < \alpha 0.05$. It can be interpreted that the human development index and the open unemployment rate have a simultaneous (joint) effect on the number of poor people in East Java Province.

c. Determination Coefficient R^2 (R-Square)

Based on the R^2 test results, the R-squared value = 0.816552 or 81%. This result states that as many as 81% of the human development index variables and the open unemployment rate affect the number of poor people in East Java Province, and the remaining 19% is explained by other variables outside the variables of this study.

3. Classical Assumption Test

a. Normality Test

Based on the results of the residual normality test, it can be seen that the Jarque-Bera value is 1.127284 with a probability of 0.569133. The probability value > 0.05 which means that the data is normally distributed.

b. Autocorrelation Test

Based on the results of the autocorrelation test, the Durbin-Watson (DW) value obtained is 1.899417. To interpret the DW value, it is necessary to compare it with the Durbin-Watson critical value (D_u) for the upper limit and lower limit. In this context, with a significance level of 0.05, a sample size (n) of 9, and a number of independent variables (k) of 2, the Durbin-Watson (D_u) critical value for the upper limit is 1.6993 and the lower limit (D_l) is 0.6291. Based on the comparison, the DW value of 1.8994 is between D_u (1.6993) and $4 - D_u$ (2.3007). This result indicates that there is no positive or negative autocorrelation in the data.

c. Multicollinearity Test

Based on the multicollinearity test results, it can be identified that the Centered Variance Inflation Factor (VIF) value for each variable is 1.545981. The VIF value which is below the limit of 10, or more precisely < 10 , explains if there is no multicollinearity problem.

d. Heteroscedasticity Test

Based on the results of the heteroscedasticity test, the Chi-Square probability value is 0.7943 which is $>$ from the α value of 0.05, which means that the data is free from heteroscedasticity problems.

e. Linearity Test

Based on the results of the linearity test, the probability value of the f-statistic was found to be $0.0736 > \alpha 0.05$. This result indicates that the data meets the assumption of linearity in the regression model.

Discussion

After conducting the testing stage, the next step will explain the effect of the independent variables, namely the Human Development Index (HDI) and the Open Unemployment Rate (OUR) on the dependent variable, namely the number of poor people in East Java Province as follows :

1. Effect of Human Development Index on the Number of Poor People

Based on the regression analysis, the Human Development Index has a significant negative effect on the number of poor people in East Java Province. An increase in the value of the human development index will contribute to a decrease in the number of poor people, and vice versa. Agree with research Andykha et al., (2018) that the human development index negatively affects the poverty rate in Central Java. This finding supports the conclusion of the study Yustie, (2017) which states that the human development index has a negative and significant effect on poverty in various districts and cities in East Java. In addition, similar results were also found in research Zuhdiyaty, (2018) which covers the national level in Indonesia. The consistency of these findings gives validity to the contribution of the human development index as an indicator of human development that not only reflects people's health and education conditions, but also has a direct impact on poverty levels. This is in line with Ragnar Nurkse theory on the vicious cycle of poverty. When quality education and access to resources increase, then people will have better opportunities to manage and improve their economic welfare, so that they can get out of the vicious cycle of poverty.

And the elements on which the human development index is calculated, such as longevity and health, reflect people's quality of life and well-being. With improved access to health services and knowledge of the importance of a healthy lifestyle, the human development index can also act as a catalyst to improve the health conditions of people. On the other hand, the level of knowledge included in the human development index shows the extent to which people have access to and understanding of education. Quality and equitable education can provide a foundation for economic and social progress, as well as being a determining factor in reducing poverty levels.

2. Effect of Open Unemployment Rate on the Number of Poor People

The results of the regression analysis show that the Open Unemployment Rate has a significant positive effect on the number of poor people in East Java Province. This means that when the open unemployment rate increases, it indicates that the working-age population has not been successfully absorbed in the labor market. On the other hand, a decrease in the open unemployment

rate indicates good job absorption, which in turn reduces the volume in poverty. This result is consistent with the concept that a low open unemployment rate can create wide and diverse employment opportunities, thus enabling people to earn an adequate income.

East Java has a significant contribution to the economy in Java, playing an important role in the development of leading sectors that anchor the economy in this region. The agricultural sector or and the goods and services industry are the two main sectors that form the basis of East Java's economy. It is known that the factories in East Java Province can absorb many workers, including the productive age population, in filling various positions and functions. Thus, the abundant availability of jobs in these key sectors directly impacts the absorption of the productive-age population into the labor market. The abundance of jobs provides opportunities for people to engage in economic activities, improve their living standards, and reduce the open unemployment rate.

The findings of this study contribute to the understanding of the impact of unemployment on the poverty rate in East Java. Anggoro & Kriswibowo, (2023) concluded that unemployment plays an important role in reducing the poverty rate in East Java. This finding reinforces the view that labor that is absorbed by the labor market can have a positive influence on the economic welfare of the community. Journal by Bintang & Woyanti, (2018) The previous study highlighted the effect of the open unemployment rate on the poverty rate in Central Java. The Open Unemployment Rate as an indicator of unemployment, plays a key role in determining the poverty rate. In this theory, Nurkse emphasizes that low productivity, especially in the context of unemployment, can be the main trigger of poverty. Low productivity leads to low income, which makes it difficult for individuals to fulfill their basic daily needs. The importance of work as a source of income is clearly illustrated in the vicious circle of poverty theory. Income earned from work becomes the main foundation for fulfilling primary needs.

3. Effect of Human Development Index and Open Unemployment Rate on the Number of Poor People

The results of the F test show that the Human Development Index and the Open Unemployment Rate simultaneously affect the number of poor people in East Java Province. An increase in the human development index generally reflects progress in the aspects of education, health, and purchasing power. Improved education quality and access to resources can provide people with better opportunities to manage their economy and improve welfare. The importance of education as a determinant in the poverty rate can be seen from the F-test results. Improving the quality of education can have a positive impact on improving the competitiveness of the workforce and opening up better job opportunities. This can help create an environment where people have the ability to manage production well in economic activities. In addition, the result of the decline in the open unemployment rate also contributes to reducing the poverty rate. A decrease in the open unemployment rate signifies that more of

the working-age population has been absorbed into the labor market, reducing the unemployment rate and increasing income to supplement primary needs.

The findings of this study have a significant correlation with other studies, such as those revealed by Andykha et al., (2018) in showing that the GRDP, HDI, and OUR variables simultaneously affect the Poverty Level in Central Java. Alhudori, (2017) also noted the influence of HDI, GRDP, and unemployment variables on the number of poor people in Jambi Province.

CONCLUSION

From the regression equation, the results show that the human development index variable has a significant negative effect on the number of poor people in Central Java. Meanwhile, the open unemployment rate variable has a significant positive effect on the number of poor people. Then, the development index and the open unemployment rate simultaneously affect the number of poor people in East Java Province. From the conclusions described above, the researcher would like to provide some suggestions to several parties. Regarding the human development index, the hope is that the government can equalize the level of access by increasing extension programs in the health, education and healthy lifestyle sectors. Then provide an injection of funds to households that do not have poor sanitation. This step aims to improve public health and reduce the death rate from disease, so that the human development index will continue to increase. Furthermore, in order to keep the open unemployment rate at a steady decline, the government is expected to provide training related to the establishment of businesses, as well as the provision of capital for the informal sector. This step aims to develop the availability of new jobs to be more varied, and support these efforts through the process of simplifying business licenses, by providing convenience in taking care of all aspects of business legality to the authorities. In addition, it is recommended for future researchers to continue this study by combining new variables to provide a clearer picture of the variable number of poor people. The goal is that this research also provides benefits to readers and acts as a useful reference source that can be utilized optimally.

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