

**ANALYSIS OF FACTORS AFFECTING THE
UNEMPLOYMENT RATE IN 10 DISTRICTS OF CENTRAL
JAVA IN 2010-2017**

SCIENTIFICS JOURNAL

By:

Fredy Nashihin

155020107121003



**INTERNATIONAL UNDERGRADUATE PROGRAM OF ECONOMICS
ECONOMICS DEPARTMENT
FACULTY OF ECONOMICS AND BUSINESS
UNIVERSITAS BRAWIJAYA**

2019

ANALYSIS OF FACTORS AFFECTING THE UNEMPLOYMENT RATE IN 10 DISTRICTS OF CENTRAL JAVA IN 2010-2017

By:

Fredy Nashihin

Supervisor :

Dias Satria, SE., M.App.Ec., Ph.D.

ABSTRACT

This study aims to analyze economic growth, inflation, total population and poverty levels against the Open Unemployment Rate (TOT) in 10 Central Java Province Districts for 2010-2017. The data of this study are secondary data sourced from the Central Statistics Agency (BPS). The data analysis tool of this research is panel data regression. The results of this study indicate that the total population and the level of poverty have a positive and significant effect on open unemployment, meaning that the higher the population and the level of poverty, the open unemployment rate in 10 regencies in Central Java will increase. While economic growth has a negative but not significant effect on Open Unemployment. These results indicate that the increase in economic growth was not able to cause an increase in open unemployment in 10 districts in Central Java which became the object of this research. Conversely, if there is a decline or a slowdown in economic growth, then this also will not cause a decrease in the number of open unemployment in the area. Inflation variables have a positive but not significant effect on Open Unemployment. These results indicate that the increase in the total population is not able to cause an increase in open unemployment in 10 districts in Central Java which is the object of this research. Conversely, if there is a

decrease in inflation, then this also will not cause a decrease in the number of open unemployment in the area.

Keyword: Economic Growth, Inflation, Total population, Poverty Level

INTRODUCTION

Unemployment is a topic that is often discussed and becomes one of the macroeconomic problems that directly affect one's income and standard of living. The policy of reducing the number of unemployed is a challenge for developing countries with a surplus of labor, Indonesia is no exception. The condition of the economy, whose production capacity has not been fully able to accommodate the entire workforce, is sometimes a barrier to development. (Pawestri, 2010).

Unemployment is closely related to several factors that influence it, in every country or region, unemployment is a problem that often occurs. Factors that can affect the decline or increase in unemployment are the total population, inflation and economic growth. According to Sukirno, (2004:331), if the economic growth has increased, it is expected that it will affect the decline in the number of unemployed, this is followed by the wage rate. If the wage rate rises it will affect the decrease in the number of unemployed, while a high inflation rate will affect the increase in the number of unemployed.

The level of unemployment in an area can describe in the region experiencing economic development or decline. In addition to that, it can be seen also the inequality or gap in income distribution received by a community in the region.

The selection of 10 districts is based on the high level of potential in Central Java. Based on data from the Central Java government, it is known that the greatest potential in economic growth in Central Java is dominated by agriculture and fisheries. Other sectors such as industry are still inferior to agriculture and fisheries.

These 10 districts have good potential from other districts in Central Java. Good potential in agriculture and fisheries. Like a program that has been implemented by the Central Java government, namely increasing food productivity and increasing labor. Geographical support that makes Central Java a province that has high competitiveness in the economy. The policy now carried out by the Central Java government is to open 100% of foreign investment into Central Java. This is useful for improving the economy in Central Java and is useful for the absorption of labor in Central Java. As for the 10 districts taken in this study were Cilacap, Banyumas, Purbalingga, Banjarnegara, Kebumen, Purworejo, Wonosobo, Magelang, Boyolali, Klaten.

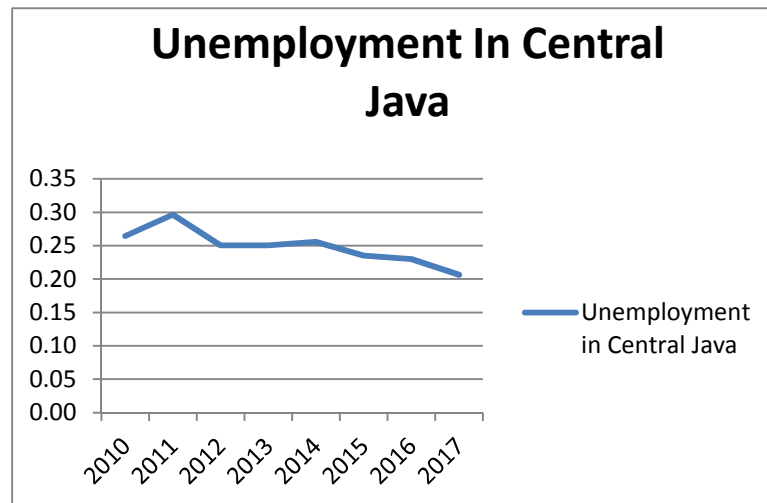


Figure 1.1 Unemployment in Central Java
Source: BPS (data processed)

The open unemployment rate (TPT) may be a value that indicates the quantity of working-age population UN agency area unit searching for work or don't have work. TPT indicators area unit typically employed by the govt in assessing the success of performance within the field of employment. The graph higher than states that the open unemployment rate in Central Java Province tends to decrease.

Economic development is a series of activities carried out consciously and continuously to realize better and mutually sustainable conditions (Boediono, 1999). One indicator that is important in assessing the performance of an economy, particularly for analyzing the results of economic development that has been administered by a country or

region is economic growth. The economy is claimed to expertise growth if production of products and services will increase from the previous year. Thus, economic growth shows the extent to that economic activity will generate further financial gain or community welfare during a certain amount. Economic growth of a country or region that continues to point out a rise illustrates that the economy of the country or region is developing well.

LITERATURE REVIEW

Unemployment Theory

According to the Badan Pusat Statistik (BPS, 2019) in employment indicators, unemployment is a population that does not work but is looking for work or is preparing a new business or residents who are not looking for work because they have been accepted to work but have not started work.

According to Sukirno (1994), unemployment is a situation where someone who is included in the labor force wants to get a job but has not got it. A person who does not work but does not actively seek employment is not classified as unemployed. The main factor that causes unemployment is the lack of aggregate expenditure. Employers produce goods and services for the purpose of obtaining profits, but these benefits will be obtained if the entrepreneur can sell the goods and services they produce. The greater the demand, the greater the goods and services they make. Increased production will increase the use of labor.

Hyphothesis

Hypothesis 1: It is assumed that there is a positive influence between the population number on the level of open unemployment, that the higher the population, the higher the level of open unemployment.

Hypothesis 2: It is assumed that there is a positive influence between the inflation rate on the level of open unemployment, that the higher the level of inflation, the higher the level of open unemployment.

Hypothesis 3: It is assumed that there is a negative influence between economic growth on open unemployment, that the higher the economic growth, the less the open unemployment.

Hypothesis 4: It is assumed that there is a positive influence between the level of poverty on open unemployment, that the higher the level of poverty, the higher the level of open unemployment.

PREVIOUS RESEARCH

Research by (Bayu Dirga, 2011) entitled "*The Effect of Economic Growth, Inflation and Investment on Unemployment in the Province of Bali in 1995-2014*". In the preparation of this scheme the author used multiple linear regression. The results obtained from this study were, all independent variables are simultaneously significant to the dependent variable. Partial economic growth and inflation were not significant to unemployment (dependent) and investment had a negative and significant effect on unemployment.

RESEARCH METHODOLOGY

This research was included in descriptive quantitative research because this research was more based on data that can be calculated to produce a robust quantitative assessment. Where the results of these data were described the nature or characteristics of a particular phenomenon so as to reach a conclusion that is needed.

In this study researchers used secondary data sources. To collect the data needed in the study, secondary data was obtained through library studies and theories from reading books related to the problem under study. These data were issued by BPS (Central Java in form of figures). The data used was annual and covered the period of 2010-2017. The data used in this study were unemployment, economic growth, inflation, poverty rate and total population 10 districts in 2010-2017 in Central Java.

RESEARCH VARIABLES

The research variables used in this study included the dependent variable, namely open unemployment and independent variables namely economic growth (X1), inflation (X2), number of population (X3) and poverty rate (X4).

Regression Analysis Model

Quantitative analysis is a method of analyzing data from things related to numbers and using formulas and calculation techniques used to analyze the problems being studied.

To test it, it can be used to test the hypothesis. The statistical test is needed as follows:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \mu$$

Where:

Y = Open Unemployment

α = constant number

μ = error

β_1 = Coefficient regression Economic Growth

β_2 = Coefficient regression on Inflation

β_3 = Coefficient regression on Number population

β_4 = Coefficient regression on poverty rate

X_1 = Economic Growth

X_2 = Inflation

X_3 = Total population

X_4 = Poverty

RESULT AND DISCUSSION

Overall Model Test

From the results of logistic regression, the overall model test results are obtained as follows:

Variabel Independen	Koefisien	P-Value
---------------------	-----------	---------

Total population	0,000000108	0,000
Inflation	0,0565127	0,363
Economic Growth	-0,0078429	0,215
Poverty	0,003788	0,041

Independent Variable	Significant	Coefficient	Hypotesis Testing
Number of Populaton	Significant	Positive	Accepted
Inflation	No Significant	Positive	Rejected
Economic Growth	No Significant	Negative	Rejected
Poverty	Significant	Positive	Accepted

1. Robust PLS regression coefficient for the number of population variable had a positive sign, so it can be stated that the total population had a significant positive effect on open unemployment. The coefficient of 0.000000108 showed that an increase in the population of 1 million will cause an increase in open unemployment of 0.1%, assuming that other variables that affect open unemployment are permanent. The robust PLS regression coefficient for the Inflation variable had a positive sign, so it can be stated that inflation had a positive but not significant effect on open unemployment.
2. The robust PLS regression coefficient for the economic growth variable had a negative sign, so it can be stated that economic growth had a positive but not significant effect on open unemployment.
3. The robust PLS regression coefficient for the poverty variable had a positive sign, so it can be stated that poverty had a significant positive effect on open unemployment.

The coefficient of 0.003788 indicated that poverty increment of 1% will cause open unemployment increase of 0.0037%, assuming that other variables that affect open unemployment are permanent.

Economic Analysis

Effect of Number Population on Open Unemployment

In accordance with the results of the robust PLS regression, it is known that the total population variable had a significant positive effect on open unemployment. These results indicated that the increase in the total population will cause an increase in open unemployment in 10 districts in Central Java which is the object of this research. Conversely, if there is a decrease in the total population, then this will also cause a decrease in the number of open unemployment in the area. Thus, the first hypothesis of this study which stated that there was a positive influence between the population number on the level of open unemployment, that the higher the population, the higher the level of open unemployment, was accepted.

This result is in line with the findings of previous research conducted by Sidania et al. (2017) which states that the population amount variable has a positive and significant influence on the level of open unemployment. The population is actually one of the main capital in the economy. However, population growth must be balanced with increased employment opportunities to be able to move the economy in a region. The increase in population which is not followed by an increase in the number of employment opportunities will cause more and more people to not work and become unemployed. Thus, the results not only show the existence of a connection between the population in Central Java and the open unemployment rate, but also explain the existence of problems of employment opportunities that are unable to keep pace with the increase in the population in the area.

The Effect of Inflation on Open Unemployment

In accordance with the results of the robust PLS regression, it is known that the inflation variable has a positive but not significant effect on open unemployment. These results indicated that the increase in the total population was not able to cause an increase in open unemployment in 10 districts in Central Java which is the object of this research. Conversely, if there is a decrease in inflation, then this also will not cause a decrease in the number of open unemployment in the area. Thus, the second hypothesis of this study which states that there was a positive influence between the rates of inflation on the level of open unemployment, that the higher the level of inflation the level of open unemployment will be higher, was rejected. The results of this study were not in accordance with the inflation theory proposed by A.W. Phillips (1958) which described the correlation between the value of currencies and employment opportunities in an economic curve called the Phillips curve. According to Phillips's analysis, the higher the value of the currency (low inflation) and the more employment opportunities are two things that cannot exist simultaneously, so as to get an increase in the number of employment opportunities in a region, or in other words to reduce the unemployment rate open, it must accept the consequences of high inflation in the area.

Effect of Economic Growth on Open Unemployment

In accordance with the results of the robust PLS regression, it is known that the economic growth variable had a negative but not significant effect on open unemployment. These results indicated that the increase in economic growth was not able to cause an increase in open unemployment in 10 districts in Central Java which became the object of this research. Conversely, if there is a decline or a slowdown in economic growth, then this also will not cause a decrease in the number of open unemployment in the area. Thus, the third hypothesis of this study which stated that there was a negative influence between economic growth on open unemployment, that the higher the economic growth, the less the open unemployment, was rejected.

The Effect of Poverty on Open Unemployment

In accordance with the results of the robust PLS regression, it is known that the poverty variable has a significant positive effect on open unemployment. These results indicated that the increase in the poverty level caused an increase in open unemployment in 10 districts in Central Java that were the object of this research. Conversely, if there is a decrease in the level of poverty, then this will also cause a decrease in the number of open unemployment in the area. Thus, the first hypothesis of this study which stated that there was a positive influence between poverty on the open unemployment rate, that the higher the poverty, the higher the level of open unemployment, was accepted. The results of this study are in accordance with the concept of poverty and open unemployment described in the study by Akwara et al. (2013). According to Akwara et al. (2013), poverty is a condition that makes a person unable to utilize the resources around him to develop his own situation, both in the economic, social, political, and development fields in other important fields. While unemployment is a situation where someone has entered work age but still does not have a job.

CONCLUSION

Based on the results of the discussion conducted, the conclusions obtained to answer the research problem formulations include:

1. The total population in 10 regencies in Central Java in the period 2010-2017 had a positive and significant influence on open unemployment. The increase in population is actually one of the vital economic capital, but this must be balanced by the increasing number of job opportunities. If the increasing population is not balanced by the increasing number of job opportunities, it will cause an increase in the number of open unemployment.
2. Inflation that occurs in 10 districts in Central Java in the 2010-2017 period did not have a significant effect on open unemployment. This is because inflation occurs not because of an increase in production needs to meet market demand, but because of other problems

such as the global economic crisis, an increase in fuel prices, or an increase in basic electricity tariffs.

3. The economic growth of 10 districts in Central Java in the period 2010-2017 was not able to encourage a decrease in open unemployment in the region. This can occur because the business sector that experiences economic growth is not a labor intensive field that requires human resources for its development, but more in the capital intensive business sector. Another factor that could be the cause is the economic slowdown in the 2010-2017 period in 10 districts in Central Java which were the object of this research.
4. Poverty levels in 10 Regencies in Central Java in the 2010-2017 period had a positive and significant influence on open unemployment. Poverty will cause the community to not be able to increase their ability to meet the level of ability required by the world of work, so poverty was able to encourage the increasing number of open unemployment in 10 districts in Central Java in the 2010-2017 period.

Suggestion

Based on the conclusions that have been obtained, the author gave some suggestions, among others:

1. The government needs to design an economic strategy to encourage the creation of employment opportunities, especially in the Central Java region. This is based on the ongoing population growth from year to year in the region, which is not balanced by an increase in employment opportunities, leading to an increase in unemployment.
2. The issue of inflation requires intervention from the local government in order to maintain an increase in general prices not to burden the people in the Central Java region. Moreover, this inflation was not able to reduce the level of open unemployment in the region. Local governments can implement a self-sufficiency strategy to reduce

the dependence of people from other regions in fulfilling their basic needs, while at the same time maintaining the price of these basic commodities does not experience a high increase.

3. The government needs to prioritize economic development in labor-intensive sectors to reduce unemployment in the Central Java region. This is because economic development in the period 2010-2017 in the Central Java region was still concentrated in capital intensive business sectors only, so economic growth achieved was not able to reduce the level of open unemployment.
4. Efforts to alleviate poverty have indeed been a government program for a long time. However, these efforts need to be prioritized on concrete efforts to overcome the root causes of poverty, namely the inability of the community to develop their potential and resources around them. Therefore, the government can implement a capacity-building program for the community, both through formal and non-formal channels, to improve the capacity of the community in accordance with the needs of the workforce, which in turn will encourage a decline in the number of open unemployment in Central Java region.

BIBLIOGRAPHY

- Maulana, D. A. (2018). Analisis pengaruh pengangguran, pendidikan, jumlah penduduk terhadap kemiskinan di daerah pedesaan (studi kasus di pulau jawa tahun 2005-2015), 19.
- Liu, Y., & Yamauchi, F. (2014). Population density , migration , and the returns to human capital and land : Insights from Indonesia. *Food Policy*, 48, 182–193. <https://doi.org/10.1016/j.foodpol.2014.05.003>
- Irhamni. (2017). *Pengaruh Jumlah Penduduk, Pengangguran, Dan Pengeluaran Pemerintah Terhadap Kemiskinan Di Indonesia Tahun 1986-2015*. Yogyakarta University.

- Novriansyah, M. A. (2018). Pengaruh Pengangguran dan Kemiskinan Terhadap Pertumbuhan Ekonomi di Provinsi Gorontalo. *Gorontalo Development Review*, 1(1), 59–73.
- Diah Retnowati. (2014). Pengaruh Pengangguran Terhadap Tingkat Kemiskinan Di Jawa Tengah. *Pengaruh Pengangguran Terhadap Tingkat Kemiskinan Di Jawa Tengah*, 608–618.
- Ariefta, R. R. (2014). *Analisis Pengaruh Pertumbuhan Penduduk, Inflasi, Gdp, Dan Upah Terhadap Tingkat Pengangguran Di Indonesia Periode 1990-2010*. Diponegoro University. Diambil dari <http://eprints.undip.ac.id/42893/1/ARIEFTA.pdf>
- Bayu Dirga, I. N. (2011). Pengaruh Pertumbuhan Ekonomi, Inflasi dan Investasi Terhadap Pengangguran Di Provinsi Bali Tahun 1995-2014. *Economics Help*. Diambil dari <http://www.economicshelp.org/blog/2006/economics/cost-push-inflation-2/>

