THE EFFECT OF THE UNEMPLOYMENT RATE AND MINIMUM WAGE ON POVERTY RATE IN WEST JAVA

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Abstract
This study aims to determine the analysis of the effect of the unemployment rate and minimum wage on the poverty rate in the province of West Java in 2015 – 2019. This type of research uses quantitative data analysis. The data used in this study is secondary data obtained from the Central Statistics Agency (BPS). The secondary data used in this study is panel data that uses a combination of time series (time series) from 2015 - 2019 and a cross section of 6 cities in West Java Province and succeeded in producing 30 observations. Panel Data Regression Calculation using Eviews 9 software.

The results of the study indicate that the Unemployment Rate has a positive and insignificant effect on the Poverty Level in the province of West Java. It can be seen from the results where the coefficient value is 0.016342 with a probability value of 0.9232 > 0.05. The Minimum Wage has a negative and significant effect on the Poverty Level in the province of West Java. It can be seen from the results of data processing where the coefficient value is -1.472288 and the probability value is 0.0000 < 0.05. The panel regression equation is known to have a constant of 9.807146, the Unemployment Rate and Minimum Wage Variables have an effect on the Poverty Level with a probability value of F-statistics 0.0000 < 0.05, and the coefficient of determination (R²) is 0.980167. That is, the independent variable (Unemployment Rate and Minimum Wage) is able to explain the dependent variable (Poverty Level) of 98.01% and the remaining 1.99% is explained by other variables outside the model.

Keywords: Unemployment rate, Minimum Wage, and Poverty Level

INTRODUCTION

The province of West Java is one of the nearest provinces near the capital city of Indonesia, DKI Jakarta. West Java Province has an area of 35,377,763 km² and the total population in West Java in 2020 is 49,935,858 people. West Java Province consists of 27 regencies/cities, covering 18 regencies and 9 cities (Central Bureau of Statistics, 2020). As more people live in West Java, the need for housing, decent work, and public facilities such as health and education is also increasing. An understanding of the poverty profile is a prerequisite for determining poverty reduction strategies. The low level of life, which is often used as a measure of poverty, is essentially a link in a
number of factors that create the poverty syndrome (Bayo, 1981). One of the benchmarks in the success of a country can be seen from the decline in the number of poor people. According to the World Development Report (2008), apart from being seen from the number of poor people, poverty also needs to be seen from other dimensions such as income dimensions, social dimensions, health dimensions, education dimensions, access to clean water and housing dimensions.

Poverty is a state of inability to meet basic needs such as food, clothing, shelter, education and health. Poverty can be caused by the scarcity of basic necessities, or the difficulty of accessing education and employment. Poverty is a global problem. According to the Central Bureau of Statistics, the poor are those who have an average monthly per capita expenditure below the poverty line. Poverty is also related to limited employment opportunities and usually those who are categorized as poor do not have a job (unemployment), and their education and health levels are generally inadequate. Addressing the problem of poverty cannot be done separately from the problems of unemployment, education, health and other problems that are explicitly related to the problem of poverty. In other words, the approach must be carried out across sectors, across actors in an integrated and coordinated and integrated manner (Susanty, 2013).

A lot of negative effect causes from poverty. Along with the emergence of social problems, poverty can also affect the development of a country's economy. High poverty will cause the costs incurred to carry out economic development to be greater, so that it will indirectly hamper economic development. Economic development centered on the island of Java, cannot be separated from the problem of poverty. From data from the Central Statistics Agency, the problem of poverty lies on the island of Java, especially in the provinces of East Java, Central Java, and West Java. In turn, this poverty alleviation effort will lead to areas that have a fairly high poverty rate. So far, the tendency of economic development to be concentrated on the island of Java, in fact, the problem of poverty has emerged which is concentrated on the island of Java. This proves that so far economic growth in Java has only been felt by certain groups of people and is not evenly distributed to all communities.

LITERATURE REVIEW

Poverty
Poverty is one of a condition of someone who is unable to fulfill their life economically in some areas. This phenomenon usually happens because of someone’s income who is low and can’t fulfill their need for clothing, food supplies, and shelters. Low incomes cause a leading to a lack of ability to meet living standards such as health and education standards. The problem of poverty is very common in several developing countries with high population levels, resulting in inequality in community welfare which can lead to social inequality between communities.
The poor do not only live with a lack of money or low incomes levels, but also have low levels of health and education, receive unfair treatment in law and are vulnerable to the threat of criminal acts (Suryati, 2005). Poverty experienced by individuals or households cannot be separated from the achievement of their level of welfare. The existence of poverty in a society is a sign of not achieving individual or household welfare. To see the level of welfare, there are several approaches that can be used, namely (Zastrow, 2000; 237):

A. Absolute approach, this approach looks at the minimum limits that must be owned to achieve the minimum needs of a family. A family is said to be poor if it does not have income or does not reach the minimum limit that can be used to meet its needs. Through this approach, the number of poor families will be known. With the same minimum limit, it will be possible to compare one area with another. The weakness of this approach is in the fact that the needs of each family will not be the same, because it depends on time and place. Poverty is closely related to conditions in society. However, this approach is still widely used, especially in relation to the comparison of the number of poor people.

B. Relative approach, this approach compares the income of a person or household with the average income of the population. This approach looks more at income inequality. As long as income inequality exists, poverty will remain. This approach has accommodated that poverty will not be the same everywhere, but this approach cannot show how badly or how well people distribute income in real life.

C. Basic Needs Approach, the approach proposed by Townsend emphasizes two important elements, (encyclopedia of social sciences, 2000), namely: first, poverty is defined as a condition of income that cannot meet subsistence needs for food, shelter, clothing, and goods. Certain household items. Second, the income also cannot fulfill other important services, such as safe drinking water, sanitation, public transportation, health services, and education. This approach is more complete than the two previous approaches, because it places more emphasis on meeting needs, which vary depending on the place and time.

Unemployment

Unemployed are individuals who are at the age of the workforce and are looking for work at the prevailing wage level (Irawan and Suparmoko, 2002). Unemployed are individuals who are grouped in the active labor force who are looking for work, but do not or have not found work (Sukirno, 2006). The types of unemployment are:

From the characteristic:

a. Open Unemployment

Open unemployment is caused by a lack of job opportunities compared to the growth of the available workforce so that it can lead to open unemployment, as a result, many workers are unemployed or unable to find work.

b. Under Unemployment

Underemployment or underemployment is also referred to as workers who work under normal working hours. Normal working hours in Indonesia are 35 hours per
week, so people who work less than 35 hours per week are included in the underemployed group.

From the causes:

a. Natural Unemployment

Natural unemployment is caused by full employment opportunities. Full employment opportunity is when 95% of the workforce is working at a time and 5% is called natural unemployment.

b. Structural Unemployment

Structural unemployment is caused by changes in economic growth. Three things that cause structural unemployment are advances in technology, the decline in competition between local products and products abroad, and the decline in economic development in a region.

Frictional unemployment happened because of the action of worker who left their work to find another one which is more suitable for them.

Minimum Wage

According to UU No. 13 of 2003 concerning Manpower, wages are defined as the rights of workers/laborers received and expressed in the form of money as a reward from the entrepreneur or employer to the worker/labourer who is determined and paid according to an employment agreement, agreement, or regulation, legislation, including allowances for workers/laborers and their families for a job or service that has been or will be performed. In the Government Regulation of the Republic of Indonesia Number 78 of 2015 concerning Wages article 1 paragraph (1), wages are defined as the rights of workers/laborers received and expressed in the form of money as a reward from the entrepreneur or employer to the worker/labourer who is determined and paid according to an agreement, work, agreements, or laws and regulations including allowances for workers/laborers and their families for a job or service that has been or will be performed.

Previous research

a. Fariz Abdurrohman’s research (2018) used Fixed Effect Method analysis shows that poverty in Province of West Java ---

b. Nugroho and Nico’s research (2018) used K-Means Clustering method analysis shows that ------

c. Acep Kurniawan’s research (2018) used Panel data Regression analysis shows that ---
The Effect Of The Unemployment Rate And Minimum Wage On Poverty Rate In West Java

Figure 1
Conceptual Framework

Hypothesis
Based on the previous research, then the hypothesis in this analysis is:

H1: It is suspected that the unemployment rate has a positive effect on the poverty rate in the West Java Province.

H2: It is suspected that the minimum wage rate has a negative effect on the poverty rate in the West Java Province.

H3: It is suspected that the unemployment rate and minimum wage rate simultaneously affect the level of poverty in West Java Province.

RESEARCH METHODS

The purpose of this study was to determine whether the independent variable (Unemployment and Minimum Wage) had an effect on the dependent variable (Poverty Level). The purpose of this research is to analyze the effect of unemployment and the minimum wage on the poverty rate in West Java Province in 2015 – 2019.

Data Analysis Technique
This research is quantitative research with data analysis method using Panel Data Regression Analysis Method. To process the data in this study using analysis and quantitative, which aims to determine whether the independent variable can affect the dependent variable. The method used is the Panel Data Regression Method.
$TK = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \varepsilon$

**Where:**

$TK$: is the poverty rate in The Province of West Java 2015-2019

$\beta_0$: constant

$\beta_1$ $\beta_2$: Multiple regression coefficient

$TP (X_1)$: open unemployment rate in 6 cities in West Java (percent)

$UM (X_2)$: Amount of City Minimum Wage that has been set by 6 Cities in West Java Province (units of million rupiah)

$\varepsilon$: Error Term

**Estimation Selection**

In the opinion of Sriyana (2014) where panel data itself is defined as a combination of cross section and time series data, the use of panel data provides the availability of the amount of data analyzed and provides a large amount of data so that it can meet the requirements and statistical properties with various estimation options.

a. **Common Effect Model**

The common effects approach assumes that the intercept and the slope remain related both between individuals and over time. It can be assumed that the difference between the intercept and the slope will be explained by the confounding variable (error or residual). (Sriyati, 2014) The common effect model can be said to be the simplest model because it only combines time series data and cross section data into panel data (pool data). From the results of these data can then be regressed using the Ordinary Least Square (OLS) method.

b. **Fixed Effect Model**

This model can be assumed that the object of observation and the regression coefficient (slope) remains large from time to time. In the fixed effect estimation, it is done using a dummy in accordance with the definitions and criteria for each assumption. Least Square Dummy variables (LSDV) which are often mentioned in this estimation model. This fixed effect approach has the possibility of a mismatch of the model to the real situation. So, we need a model that can show differences with intercepts that assume differences between objects and between times (Sriyana 2014).

c. **Random Effect Model**

This model assumes that differences in intercepts and constants can be caused by residuals or errors as a result of differences between units and time periods that occur randomly. This estimation model is called the Error Component Model (ECM). Described by (Sriyana, 2014).
Model Selection

1. Chow test
Tests to determine the right Common effect or Fixed effect model to be used in estimating panel data.

The hypothesis in the Chow test is:

Ho: Can be used to choose the Common effect or pooled OLS model if the probability value of the cross-section F is not significant at 0.05%.

Ha: Dapat digunakan untuk memilih model Fixed effect, jika nilai probabilitas cross-section F signifikan pada α 0.05%.

The hypothesis used must have an intercept with the same value. If the cross-section probability value F > from F table (α 0.05%) it will cause H₀ to be rejected, meaning that the right model to use is the fixed effect model, and vice versa (Sriyana, 2014).

2. Hausman test
Used as a statistical test in choosing whether the Fixed effect or Random effect model is very appropriate to use. Hausman test testing is carried out with the following hypothesis:

Ho: Choose the Random Effect model, if the random cross-section probability value is not significant at 0.05%.

Ha: Choose the Fixed effect model, if the random cross-section probability value is significant to 0.05%.

If the value of the Hausman statistic (the W-count) probability of a random cross-section is > compared to, then the random effect model is the right one to use, and vice versa. (Sriyana, 2014).

Hypothesis Selection

a. Determinant Coefficient Test (R²)
Sriyana (2014) explained that the determinant coefficient was carried out to find out how well it was in the analysis, which was indicated by the R² value in the form of a percentage. The amount of R² comes from the proportion of the dependent variable that is explained using the model and the rest is not explained using the model. The higher the R² value, the stronger the relationship between the independent variable and the dependent variable.

b. Coefficient of Regression Together (Test F)
Testing the dependent variable on the independent variable alone can be tested simultaneously with the F test. To test the regression coefficient simultaneously it is necessary to make a hypothesis:

If F count > F table (critical) it will reject H₀ but if F count < F table (critical) it will accept H₀ (Sriyana 2014).
c. Partial Regression Coefficient (T Test)

T-test can be used to develop statistical hypotheses, to determine the degree of error (\( \alpha \)), to determine critical t and hypothesis decisions. The value of t table is obtained with \( \alpha = 0.05\% \) and df. If the value of t count \( > t \) table then \( H_0 \) is accepted or \( H_1 \) is rejected, if t count \( < t \) table then \( H_0 \) is rejected, and \( H_a \) is accepted.

RESULT AND DISCUSSION

From the data analysis using panel data, the right model to analyze poverty in the province of West Java is the Fixed Effect model.

| Variable       | Coefficient | Std. Error | t-Statistic | Prob. 
<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
</tr>
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<tbody>
<tr>
<td>C</td>
<td>9.807146</td>
<td>2.151795</td>
<td>4.557658</td>
<td>0.0002</td>
</tr>
<tr>
<td>TP?</td>
<td>0.016342</td>
<td>0.167495</td>
<td>0.097566</td>
<td>0.9232</td>
</tr>
<tr>
<td>UM?</td>
<td>-1.472288</td>
<td>0.302426</td>
<td>-4.868255</td>
<td>0.0001</td>
</tr>
<tr>
<td>Fixed Effects</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Cross)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>_BANDUNG--C</td>
<td>-1.736402</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>_BEKASI--C</td>
<td>0.004777</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>_BOGOR--C</td>
<td>1.599064</td>
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<td></td>
<td></td>
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<tr>
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<td>_DEPOK--C</td>
<td>-2.793377</td>
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<tr>
<td>_SUKABUMI--C</td>
<td>0.912103</td>
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</table>

This research was conducted to examine the variables of the Unemployment Rate and Minimum Wage on the Poverty Level. In this study, the objects of research were 6 cities in West Java Province with a time span of 2015–2019 and produced as many as 30 observations. Based on the processing and results of data analysis and discussion, the following conclusions can be drawn:

The Unemployment Rate has a positive and insignificant effect on the Poverty Level where the coefficient value is 0.016342 and the probability value is 0.9232 > 0.05. If the unemployment rate increases by 1%, it will affect the increase in the poverty rate by 0.01%. So, the first hypothesis (H1) can be accepted.

Minimum Wage has a negative and significant effect on the Poverty Level where the coefficient value is -1.472288 and the probability value is 0.0000 < 0.05. If the minimum wage increases by 1 million rupiah, the poverty rate will decrease by 1.47%. So that the increase in the city's minimum wage has an impact on reducing the poverty rate in cities in West Java Province. So, the second hypothesis (H2) can be accepted.
Simultaneously, the Unemployment Rate and Minimum Wage variables have an effect on the Poverty Level with a probability value of F-statistics \(0.0000 < 0.05\). Then the third hypothesis (H3) can be accepted.

It was found that the coefficient of determination (R\(^2\)) was 0.980167. That is, the independent variable (Unemployment Rate and Minimum Wage) is able to explain the dependent variable (Poverty Level) of 98.01% and the remaining 1.99% is explained by other variables outside the model.

The panel regression equation is known to have a constant of 9.807146. This shows that if the magnitude of the independent variables is equal to zero, then the value of the dependent variable of the Poverty Level is 9.8%.

**The Effect of Unemployment Rate on Poverty Levels in West Java Province in 2015 – 2019**

The results of calculations on the fixed effect model, the unemployment rate variable has a coefficient value of 0.016342 and has a probability value of 0.9232 greater than 0.05 (0.9232 > 0.05) which means that every 1% increase in the unemployment rate, it has an influence on the increase in the unemployment rate. Poverty in West Java Province in 2015 – 2019 was 0.01%. However, the non-significance indicates that the unemployment rate does not dominantly affect the poverty rate in West Java Province.

The relationship between unemployment and poverty is very close. Someone who is unemployed certainly does not get an income. This poverty rate will move with the unemployment rate. The lower the unemployment rate, the lower the poverty rate and vice versa. This shows that an increase in the number of unemployed will cause people's income to decrease so that it will reduce the level of prosperity achieved by the community. With this it can be stated that unemployment has a positive and insignificant effect on the poverty level.

**Effect of Minimum Wage on Poverty Level in West Java Province 2015 – 2019**

The results of calculations on the fixed effect model, the minimum wage variable has a regression coefficient value of \(-1.472288\) and has a probability value of 0.0000 which is smaller than 0.05 (0.000 < 0.05) which means that for every 1 million rupiah increase in the minimum wage, the poverty rate in West Java Province in 2015 – 2019 will decrease by 1.47%.

Furthermore, it was found that the minimum wage has a negative effect on the poverty level. So even if the minimum wage increases or decreases, it will cause the level of poverty to decrease or increase. This is because an increase in the minimum wage can reduce poverty because the minimum wage can increase the income of workers so that it can help improve welfare and get out of poverty when the worker is included in the poor category. The minimum wage can be used as a way to reduce poverty based on the results of the analysis in this study. With this, it can be stated that the minimum wage has a negative and significant effect on the level of poverty.
The Effect of Unemployment Rate and Minimum Wage on Poverty Level in West Java Province in 2015 – 2019

Based on the results of the study, the prob value (F-statistic) was 0.000000 with a significance level of 5% (α=0.05). The significance value of 0.000000 < 0.05, it can be concluded that the unemployment rate and minimum wage variables together have a significant effect on the poverty level variable in West Java Province in 2015 - 2019.

Limitations

The research period used is only 5 years of observation, namely 2015 to 2019. The number of observation data is only 30, of course, it is still not enough to describe the real situation.

The data used is secondary data which may contain errors in entering data in the form of numbers.

CONCLUSIONS AND SUGGESTIONS

This research was conducted to examine the variables of the Unemployment Rate and Minimum Wage on the Poverty Level. In this study, the objects of research were 6 cities in West Java Province with a time span of 2015 – 2019 and produced as many as 30 observations. Based on the processing and results of data analysis and discussion, the following conclusions can be drawn:

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Simultaneously, the Unemployment Rate and Minimum Wage variables affect the Poverty Level with a probability value of F-statistics 0.0000 < 0.05. Then the third hypothesis (H3) can be accepted.

It was found that the coefficient of determination (R2) was 0.980167. That is, the independent variable (Unemployment Rate and Minimum Wage) is able to explain the dependent variable (Poverty Level) of 98.01% and the remaining 1.99% is explained by other variables outside the model.
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