

The Effect of Education, Regional Minimum Wages and Population Density on Labor Absorption in Indonesia Year (2015-2019)

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Abstract: Absorption of labor that is less than optimal is one of the causes of the high unemployment rate which is one of the biggest problems in all countries in the world. Indonesia is one of the developing countries in which economic development requires a quality workforce. This research technique uses a quantitative approach with time series data types. The variables in this research are four independent variables, namely Education, Regional Minimum Wage and Population Density, the independent or dependent variable is Labor Absorption. The data source used this time is data that is still available and published by the Central Statistics Agency of East Java Province. The data analysis technique in this research is using multiple linear regression analysis with the tool used is E-Views. The independent variable simultaneously has a significant effect on Employment Opportunities in Indonesia. The F-statistic probability of 0.0004 is less than 0.05. Partially, the Education variable has a negative and significant effect on employment opportunities in Indonesia based on the education variable coefficient value -0.002308 with probability less than 0.05. Regional Minimum Wage variable with coefficient value -1.01E-05 and Population Density with coefficient value 0.028155 is not significant. With a probability value of the Regional Minimum Wage of 0.9103 and a probability value of 0.8368, it is greater than 0.05.

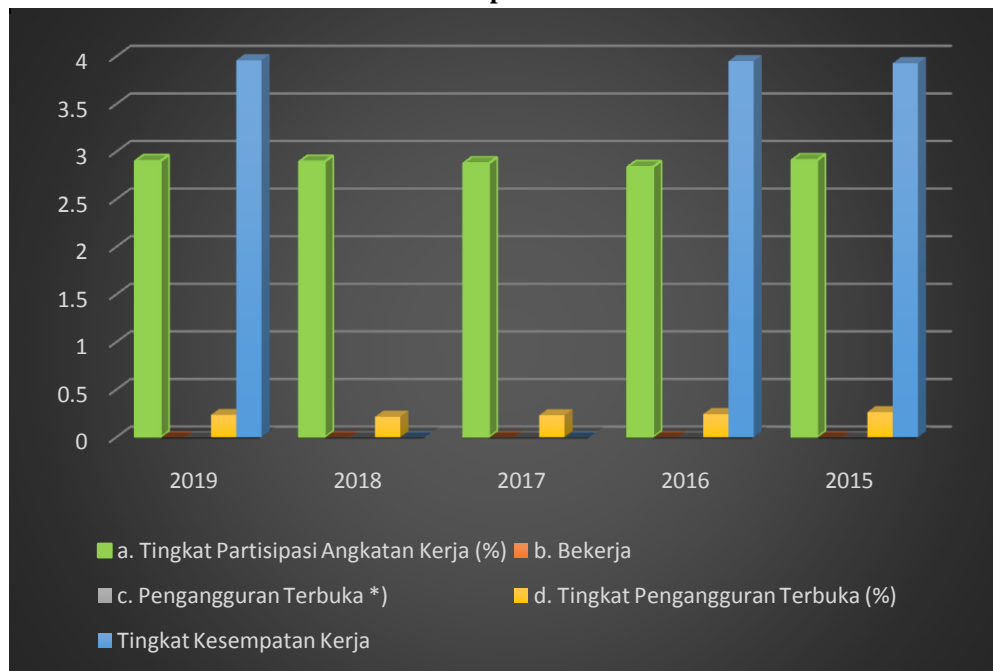
Keywords: Employment, Education, Regional Minimum Wage, and Population Density

I. INTRODUCTION

Absorption of labor that is less than optimal is the cause of the high unemployment rate which is one of the big problems for all countries in the world, including Indonesia, which is a developing country. Any country in the world, whether categorized as a developed country or a developing country, always faces the problem of unemployment, the difference is that developing countries are not able to provide benefits to their unemployed citizens, while developed countries are able to provide this guarantee (Astria, 2012).

Unemployment is a problem that has a very bad effect on the economy and society (Sukirno, 2006). Low labor absorption will result in higher unemployment from year to year which can have a negative impact on economic development, individuals and society, such as the high number of unemployed will cause the community to be unable to maximize the welfare that may be achieved, productivity and income of the community will decrease resulting in poverty, crime, and other social problems.

Graphics 1

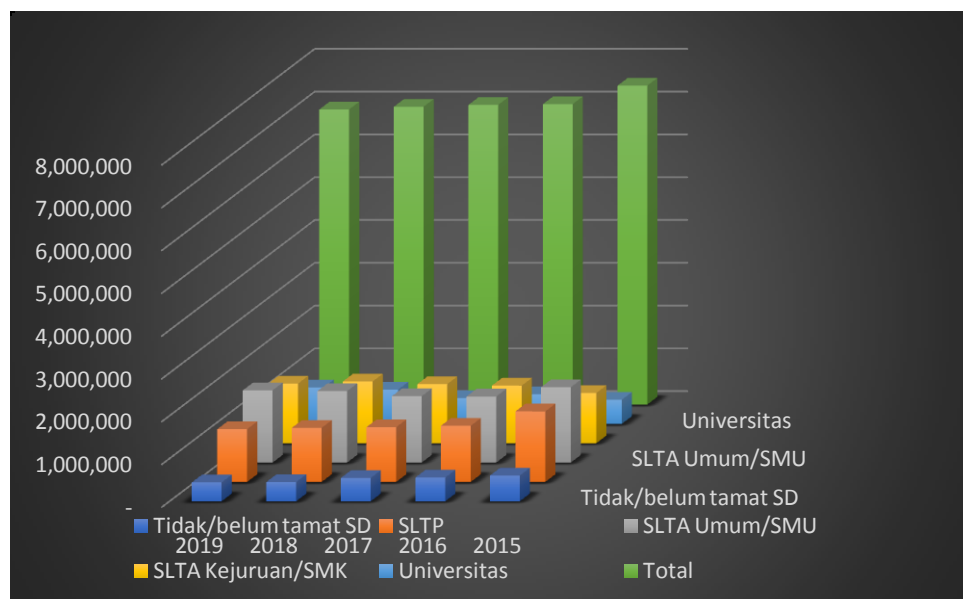


Source: BPS 2015-2019 (Processed)

From the graph above, the indications can be seen in 2015 where the population aged 15 years and over was 184,559,615 people, an increase of 199,785,195 in 2019, the increase in the working population is in line with the number of unemployed in Indonesia where in 2015 unemployment amounted to 7,454,767 people. decreased to 6,898,796 people in 2019. The working age population increased from year to year in line with the increase in population, and as a result, the supply of labor increased. This reduces job opportunities because there are fewer available jobs, and there is competition in the world of work for both job seekers and permanent workers.

Education is one factor in the absorption of labor. Education affects the demand for labor to fulfill the labor market. According to (Citra, 2014) the length of time to attend school is related to the quality of the population's human resources.

Graphics 2



Source: BPS 2015-2019 (Processed)

In graph 2 above there is data on open unemployment according to the highest education graduated (person). In 2015-2019 unemployment in Indonesia decreased except for the unemployed population with higher education in 2015 as many as 565,402 people and in 2019 it increased by 855,854 people. From the data above, unemployment is still in the domicile of the highly educated population.

Labor absorption is influenced by other factors, namely the Regional Minimum Wage. The minimum wage policy is a wage system that has been widely applied in several countries, which basically can be seen from two sides. First, the minimum wage is a means of protection for workers to maintain that the value of the wages received does not decrease in meeting the needs of daily life. Second, as a means of protection for companies to maintain worker productivity (Djupiansyah, 2017).

In the Central Bureau of Statistics it was published that the increase in the minimum wage from 2015-2019 showed that the highest minimum was in 2015 namely DKI Jakarta Rp. 2.700.000.000,00, East Java province with the lowest Minimum Wage with a minimum wage of Rp. 1.000.000.000,00 . Meanwhile, in 2019, the highest minimum wage was in DKI Jakarta with a minimum wage of Rp. 3,940,973.00 and the lowest minimum wage was in DI Yogyakarta Province with a minimum wage of Rp. 1,570,923.00. Increasing the minimum wage of workers means increasing their purchasing power, which in turn can increase the enthusiasm of the workforce to work and increase their productivity. However, for employers who see wages as a cost, an increase in the minimum wage results in an increase in the wages paid to workers. Therefore, with this increase in the minimum wage, employers tend to reduce the number of workers employed in the production process. This means that the labor market continues to decline.

Labor absorption is not only influenced by education and minimum wages, but population growth also affects the role of population in national development, one of which is as a source of capital (Sukirno, 2013). The increase in population every year in this study, the province with the highest Population Density is DKI Jakarta with 15,328 people in 2015 and 15,900 people in 2019. Then, the lowest Population Density is West Papua Province with a Population Density of 6 people in 2005 and 9 people in 2019. The conclusion of the table above is that with the high population density, the low workforce is absorbed. From these data, it is hoped that the government will consider the quality factor of education to improve the quality of the workforce.

II. METHODS

The research approach used in this research is quantitative research. Quantitative data is data that is in a set of numbers. According to Sugiyono (2019), quantitative research methods can be interpreted as research methods based on the philosophy of positivism, used to examine certain populations or samples, collect data using research instruments, analyze quantitative/statistical data with the aim of testing predetermined hypotheses. The type of data in this study is secondary data in the form of panel data using measuring instruments (time series) and cross section. The time series data used in this study is 5 years of data starting from 2015-2019. And the cross section data used are 34 provinces in the Indonesian region.

In this study, secondary data was obtained from the Central Java Statistics Agency in 2015-2019 which includes data on the population aged 15 years and over and their activities, regional minimum wages, and population density. The scope of this research is to analyze the influence of education, minimum wage, and population density on labor absorption in Indonesia in 2015-2019.

III. RESULT AND DISCUSSION

Based on the results of multiple linear regression analysis, it can be seen the relationship between the dependent variable and the independent variable and determine how much influence the independent variable has on the dependent variable either partially or simultaneously.

The equations used in this study are:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e$$

Information:

Y = Employment

X1 = Education level

X2 = Regional minimum wage

X3 = Population Density

a = constant

b1 = Regression Coefficient X1

b2 = Regression Coefficient X2

b3 = Regression Coefficient X3

ei = Variable error

Table 1

Fixed Effect Model Regression Results

Dependent Variable: Y

Method: Panel EGLS (Cross-section random effects)

Date: 04/19/22 Time: 16:35

Sample: 2015 2019

Periods included: 5

Cross-sections included: 34

Total panel (balanced) observations: 170

Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistics	Prob.
C	137.4763	37.66159	3.650304	0.0004
X1	-0.002308	0.005511	-0.418767	0.6759
X2	-1.01E-05	1.27E-05	-0.790987	0.4301
X3	0.028155	0.035279	0.798066	0.4260

Effects Specification

	SD	Rho	
Random cross-section	0.000000	0.0000	
Idiosyncratic random	79.50696	1.0000	
Weighted Statistics			
R-squared	0.010854	Mean dependent var	106.3647
Adjusted R-squared	-0.007022	SD dependent var	80,43835
SE of regression	80.72028	Sum squared resid	1081617.
F-statistics	0.607171	Durbin-Watson stat	2.565975
Prob(F-statistic)	0.611236		
Unweighted Statistics			
R-squared	0.010854	Mean dependent var	106.3647
Sum squared resid	1081617.	Durbin-Watson stat	2.565975

Source: The result of processing from eviews 10

Based on the results of the Fixed Effect Regression Model, it can be written with the model regression and the equation is as follows:

$$Y = + 1 \ln X_1 + \beta_2 \ln X_2 + 3 \ln X_3 + e$$

$$Y = 137.4763 + -0.002308 \ln X_1 - 1.01E-05 \ln X_2 + 0.028155 \ln X_3 + e$$

The constant value of 137.4763 means that if the independent variable has a value equal to zero (0), then the dependent variable or Y is 137.4763. The regression coefficient value for the X1 variable has a value of -0.002308 with a negative sign meaning that if X1 increases by 1 unit then Y will decrease by -0.002308. On the other hand, if X1 decreases by 1 unit, then Y will increase by 0.002308.

The regression coefficient value for the X2 variable has a value of -1.01E-05 with a negative sign meaning that if X2 is increased by 1 unit, Y will decrease by 1.01E-05. On the other hand, if X2 decreases by 1 unit then Y will increase by 1.01E-05. The regression coefficient value for the X3 variable has a value of 0.028155 with a positive sign meaning that if X3 increases by 1 unit then Y will increase by 0.028155. Conversely, if X3 decreases by 1 unit then Y will decrease by 0.0028155.

IV. CONCLUSIONS

The results of the analysis of this study show that The independent variables, namely Education, Regional Minimum Wage and Population Density simultaneously have a significant effect on Employment Opportunities in Indonesia. The probability F-statistic is 0.0004 less than 0.05.

Partially, the education variable has a negative and significant effect on employment opportunities in Indonesia based on the coefficient value of the Education variable -0.002308 with a probability of less than 0.05. The greater the value of the education figure in Indonesia, the more employment opportunities will increase. While the Regional Minimum Wage variable with a coefficient value of -1.01E-05 and Population Density with a coefficient value of 0.028155 is not significant. With a probability value of the Regional Minimum Wage of 0.9103 and a probability value of 0.8368, it is greater than 0.05.

V. ACKNOWLEDGMENTS

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