

## **Analysis of Labor Absorption in Central Java Province**

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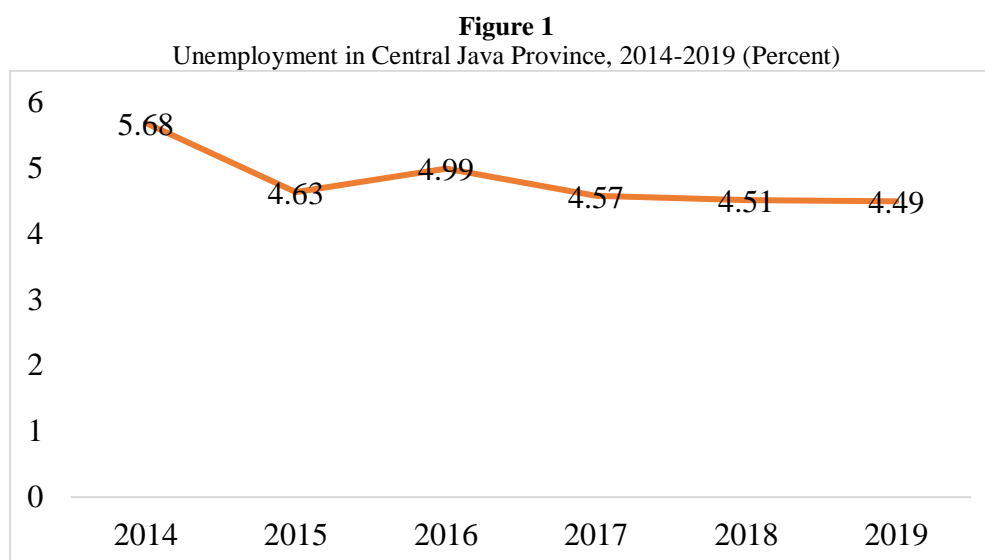
**Abstract.** One of the labor problems is the availability of job opportunities which are very limited, while the number of workforce is increasing. This type of research used in this research is quantitative. The data used in this research is panel data with multiple linear regression analysis techniques. This data uses 35 districts / cities in Central Java Province from 2014-2019. The results showed that economic growth and inflation did not have a significant effect on employment in Central Java Province in 2014-2019. Meanwhile, Regional Minimum Wage and Human Development Index have a positive and significant effect on employment in Central Java Province in 2014-2019. The implications that can be given are the need to improve the quality of the population in Central Java Province. To increase the Human Development Index, it is possible to facilitate access to health and education facilities at affordable prices.

**Keywords:** Labor; Economic Growth; Inflation; Regional Minimum Wage; HDI

### **INTRODUCTION**

The economic development of a country is essentially a multidimensional process involving several interacting variables such as natural resources, capital, human resources, technology and social structures, mental attitudes of society and national institutions that undergo changes such as rapid growth of reduced inequality, and reducing the number of poor people (Todaro & Smith, 2011). Thus, the need for appropriate economic policies in regulating the problem of unemployment and the provision of jobs in the government and private sectors. In general, the unbalanced supply and demand for labour can lead to reductions in both quantity and quality. Several causes of unemployment are: first, the mismatch between the supply of labour and the needs or qualifications, despite the demand. Second, it is caused by problems in the labour wages that are not sufficiently feasible. Third, the reduction in labour caused by companies to make capital efficient due to inflation. Fourth, the job opportunities created are limited by the ability of economic growth, so that not all of the additional workers are absorbed by the workforce (Arsyad, 2011).

One of the stresses in development in Central Java is the problem of unemployment, especially the available employment opportunities. Unemployment in Central Java Province from 2014 to 2019 experienced an insignificant decrease. This can be seen from 2014 to 2019 the unemployment rate in Central Java Province only decreased by 1.19 percent. In addition, the unemployment rate for 2014 to 2019 in Central Java Province ranges from 4 percent, this also indicates that additional job opportunities are slowing down. The number of unemployed in Central Java Province can be seen in Figure 1.



Source: Central Bureau of Statistics Central Java Province, 2019

One solution that can be done to increase employment is by creating high economic growth. The good economic development of a country or region can be shown by the increase in economic growth (Amir, 2007). The higher the economic growth, the lower the number of unemployed because of the absorption of labour. Conversely, if there is a decline in economic growth, it will reduce labour absorption, which means that unemployment will increase. One indicator of the level of welfare of the population of a region is the Gross Regional Domestic Product. The number of labour force can be affected by the Gross Regional Domestic Product with the assumption that if there is an increase in the value of the Gross Regional Domestic Product, the added value of output will increase in all economic units in a region. The increase in output will encourage an increase in the amount of labour demanded. Gross Regional Domestic Product also reflects how regional economic development is performing (Arsyad, 2011).

In addition, inflation also plays an important role in employment. Inflation is not synchronous between the commodity procurement system and the level of income owned by the community, causing an increase in the price of goods in general and continuously (Putong, 2009). High inflation can result in a decrease in the rate of economic growth, which in turn encourages the high number of unemployed, which means that labor absorption also decreases. The Phillips curve is a curve that describes the relationship between inflation and unemployment proposed by Phillip. The explanation of this in the Phillips Curve is that there is a negative relationship between unemployment and an increase in nominal wages where if the level of unemployment is high, it will reduce the rate of wage inflation. In other words, wage inflation and unemployment have a tradeoff. An increase in the number of unemployed will be accompanied by a decrease in wage inflation as shown in the Phillips Curve (Fischer, 2004). The reduction in the amount of budgeting is indirectly due to inflation due to a demand pull. In accordance with the law of demand, an increase in demand for a good causes an increase in the price of a good due to the limited availability of that item. In this condition, there is an increase in the capacity of producers by producers in meeting market demand. This increased production capacity has an impact on employment

Another variable that is thought to have an effect on labor absorption is the Regional Minimum Wage. According to Sumarsono (2003), increasing the welfare of workers is done by increasing the minimum wage at the district and city levels each year. Increases in production or output and a decent standard of living are driven by increased wages offset by an increase in labor productivity. With an increase in production, regional income will also increase and show the welfare of the population of the district or city. In addition, the last variable that is thought to affect labor absorption is the Human Development Index. The Human Development Index is a number of human development achievements and has an influence on the level of productivity as measured by the basic components of quality of life (Saputra, 2011). According to the Indonesian Central Bureau of Statistics (2019), it is clear that the human development index is built through a three-dimensional approach. These dimensions include long life and a healthy life, knowledge, and a decent standard of living. The better the health level of the workforce, the higher the knowledge and the getting a decent life, the better and better quality the work results will be. On the contrary, the bad condition of the workforce can worsen the results of the work and are not qualified. Based on the background description that has been presented above, that the unemployment rate is still high, which reflects the inadequate absorption of labor in Central Java, where this employment issue is very important in the process of economic development aimed at the welfare of society, especially in Central Java. Thus, this study aims to analyze the effect of economic growth, inflation, Regional Minimum Wage and human development index together on employment in Central Java in 2014-2019.

**METHODS**

This type of research used in this research is quantitative. Quantitative method is a method in which the value of the analysis is numerical (Sugiyono, 2012). This research is an empirical study conducted to analyze the effect of gross regional domestic product, inflation, regional minimum wage and human development index on labor absorption in Central Java Province in 2004-2019. Secondary data is the source of data in this study which is obtained from various literature published by related institutions such as the website of the Central Bureau of Statistics, Bank Indonesia, the Manpower and Transmigration Office, journals, and other literature. In this study using panel data, namely a combination of time series data with the research period analyzed for 6 years (2014-2019) and cross sections of 35 region in Central Java Province. The following table 2 shows the definitions of the research variables.

**Table 1**  
Definitions of Research Variables

No.	Variable	Definition	Unit
1	Employment	Amount of employment field that has been fulfilled seen from the number of working population	People's
2	Economic Growth	an increase in the ability of an economy to produce goods and services	Percent
3	Inflation	increases in the prices of goods and services in general and continuously within a certain period of time	Percent

4	Regional Minimum Wage	A minimum standard used by employers to provide wages to employees, employees, or laborers in their business or work environment.	Rupiah
5	Human Development Index	Comparative measurement from life expectancy, literate, education and standard of living.	Index

The following is the panel data regression equation used in this study:

$$\text{Log}E_{it} = \beta_0 + \beta_1EG_{it} + \beta_2RMW_{it} + \beta_3I_{it} + \beta_4HDI_{it} + \varepsilon_{it}$$

Information: E : Employment; EG: Economic Growth; RMW : Regional Minimum Wage; I : Inflation  
 HDI : Human Development Index; *i*: cross-section data; *t* : time-series data;  $\beta_0$  : *Intercept*  $\beta_{1,2,3,4}$  : regression coefficient;  $\mu$  : *Error Term*

The panel data model equation above is then estimated using the common effect, fixed effect and random effect model approaches, while determining which method which is more in accordance with this research, the Chow Test, Hausman Test, and Lagrange Multiplier Test are used (Ghozali, 2016). The next step is to test the classical assumptions. The classic assumption test of the regression model used is done in order to find out what the model is regression is a regression model that is good or not, this research model the classic assumption test used is the normality test, multicollinearity test, heteroscedasticity test, and autocorrelation test.

## RESULTS

On election model appropriate panel data regression using the Chow test and the Hausman test results that the fixed effect model is the right regression model in this study. The output of the fixed effect model can be summarized as in Table 2.

**Table 2**  
 Results of Panel Data Regression Analysis of Fixed Effect Model

No.	Independent Variable	Coefficient Regression	thitung	P.Value
1	Economic growth	0.0033	0.4340	0.7883
2	Inflation	-0.0013	-0.4231	0.8753
3	District / City Minimum Wage	0.0831	2,3350	0.0245
4	Human Development Index	0.0159	8,6354	0.0000

*R Square* = 0.6418

*Adj R2 Square* = 0.6846

Source: Regression output

Economic growth has no effect on employment in Central Java Province from 2014 to 2019. This is in line with the research of Nurrohman & Arifin (2010) and Ganie (2017) which resulted in the conclusion that economic growth has no effect on labor absorption. According to Nurrohman & Arifin (2010), the increasing economic growth is due to the dominance of the use of technology rather than human resources. This causes labor to be no longer needed in many industries, so that the absorption of labor will be narrower. The rapid development of technology causes the use of labor to use technology, because it is more efficient and has higher productivity Krušković (2020), Dimas & Woyanti (2009), Pangesti & Prawoto (2018) and Anamathofani (2019). Inflation has no effect on labor absorption in the Central Java Provision from 2014 to 2019. This is in line with research by Indradewa & Natha (2015), Anamathofani (2019). This is because inflation affects the amount of money in circulation, so when the availability of money in circulation in a stable society will have an impact on increasing purchasing power, so that economic sectors will continue to increase production capacity and will have an impact on increasing employment opportunities. The results of this study are not in accordance with previous research conducted by Khan & Chaudhry (2019), Krušković (2020), Vermeulen (2017) and the theory of the inflation relationship that can affect labor absorption as well as the Philips theory which states that the inflation rate can affect the unemployment rate, which is related to labor absorption. According to Indradewa & Natha (2015), things that cause inflation have no effect on labor absorption because the inflation that occurs mostly occurs in consumer goods and the district / city inflation rate in Central Java Province is still classified as moderate inflation, so that the effect on labor absorption is very significant. small.

The Regional Minimum Wage has a significant influence in a positive direction on employment in Central Java Province from 2014 to 2019. This is in line with the research of Cahyadi (2018), Indradewa & Natha (2015), Putra (2012). who found that the regional minimum wage has a positive and significant effect on labor absorption. The purchasing power of the people per capita from the research year, namely 2014 to 2019, has increased. In 2014, the purchasing power was IDR 9.639.740 to 11.102.000 in 2019 or an increase of IDR 1.462.260. The increase in purchasing power in Central Java Province is in line with the increase in labor absorption in Central Java Province,

which has increased. In 2014 the employment of 455.242 people became 495.745 people in 2019 or an increase of 40.503 people (Central Bureau of Statistics Central Java Province, 2020). This proves that an increase in wages will increase people's purchasing power, thus increasing demand which causes companies to increase production activities which in turn will increase labor to meet market demand. This result is different from the theory put forward by Sumarsono (2003: 106) that wages are one of the factors of production where the level of labor wages will affect the addition or reduction of labor required by the company. In addition, the results of this study are also different from previous studies conducted by Dimas & Woyanti (2009), Azaini (2014) and Gindling & Terrell (2007) which state that wages have a negative effect on labor absorption. The human development index has a positive and significant effect on employment in Central Java Province from 2014 to 2019. This result is in line with the research of Khan & Chaudhry (2019), Nurhardiansyah et al. (2017) which shows that the human development index has a positive and significant effect on labor absorption. According to Idris (2016: 30) the human development index which includes education, health, and real income will affect the quality of human resources which is very important in increasing labor productivity in production activities. The relationship between education and health is closely related to the income earned. Therefore, the higher the human development index level in an area, the easier it will be to find work because the labor absorption is wider.

## CONCLUSION

The results showed that economic growth and inflation had no effect on employment in Central Java Province in 2014-2019. Meanwhile, the Regional Minimum Wage and human development index have a significant effect in a positive direction on employment in Central Java Province in 2014-2019. This finding implies the need to improve the quality of the population in the province of Central Java, including the quality of health which is a component of human development index. To increase the human development index, it can be done through easy access to health and education facilities at affordable prices. In addition, the government needs to increase the regional minimum wage but it does not burden business actors and does not harm the community.

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