

DETERMINANTS OF EDUCATED UNEMPLOYMENT: EMPIRICAL EVIDENCE FROM SOUTH SULAWESI INDONESIA

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***Abstract:** One of the obstacles faced in the field of employment, namely the problem of unemployment, especially educated unemployment. The purpose of this study was to determine the effect of the minimum wage in districts / cities and inflation on the level of educated unemployment in South Sulawesi, either directly or indirectly through labor productivity. This type of research is explanatory research. Objects in this study is the educated unemployment rate, minimum wage in districts / cities, inflation and labor productivity. In this study uses panel data by the method of Path Analysis. Search data is performed by the research literature. The results showed that the minimum wage in districts / cities directly influence the rate of unemployment of educated but had no effect on labor productivity. Inflation does not affect the level of educated unemployment rate in the province of South Sulawesi, either directly or indirectly through labor productivity. Labor productivity directly influence the level of educated unemployment rate in the province of South Sulawesi.*

***Keywords:** Educated Unemployment Rate, Minimum Wage in districts /city, Inflation, Labor Productivity*

1. INTRODUCTION

Educated unemployment is a crucial issue for the job seekers. Educated unemployment problem is actually not due to lack of job but this is happening because people are not willing to work, and picking out the job. On the one hand, there are people who do like and do not want to work because of laziness . On the other hand, there are people who want to work and looking for job but they have not got it because it does not fit option or taste. There is still no earned income from work (non-labor income) is also one of the reasons they choose not to work.

Sanisah (2010) explains that there are at least three things that the main reason why many college graduates who do not work, namely the cultural barriers, the quality and relevance of the curriculum and the job market. Cultural barriers to their culture and work ethic. While the problem is the lack of education curriculum quality and

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relevance of teaching curriculum in higher education institutions are able to create and develop the independence of human resources (HR) corresponding needs of the workforce. While the labor market barriers is due to the low quality of human resources to meet the needs of the job market.

In the Indonesian labor market, there is a kind of mismatch between graduate education and the world of work. It can be seen from the increase in the wage index of skilled manpower (high school and up) relative to the uneducated workforce. The increase indicates that the demand for educated labor is faster than the overall labor demand and demand for educated labor faster than supply of educated labor. Implications include increased wage inequality, and the scarcity of labor demand is not met, and the surprise is the relatively high number of educated unemployed, especially in urban areas (Sumartono, 2008).

Another factor that can contribute to the unemployment rate is inflation. Inflation has two sides of the same coin. According to Philip's curve, there is a negative relationship between the unemployment rate and the inflation rate. This means that the higher the unemployment rate results in the lower rate of increase in wages, in the sense that the rate of inflation pressure. On the other hand, the high inflation rate but can worsen the ability of purchasing power can also increase the cost of production. Increased production costs will impact on workforce reduction resulting in increased unemployment.

Based on the background above, this research aims to investigate the determinant of educated unemployment: emirical evidence from South Sulawesi, Indonesia. Originality of this reseach can be seen from the following explanation: based on the results of data processing there are interesting things, which of Minimum Wage and Inflation as the exogenous variable, Labour Productivity as intervening endogenous variable, and Education Unemployment Rate as pure endogenous variable. This means that more and more Labour Productivity as mediating variable, which implies that the Minimum Wage and Inflation should or indirect impact to education unemployment rate. location of study as originality (no previos research for this relationship): district in South Sulawesi in Indonesia as focus of this study.

2. LITERATURE REVIEW

A major benefit of education is the lower risk of unemployment at higher educational levels. In PSID (Panel Study of Income Dynamics) data on the male labor force¹ the reduction of the incidence of unemployment is found to be far more important than the reduced duration of unemployment in creating the educational differentials in unemployment rates. In turn, the lesser unemployment incidence of the more educated workers is, in about equal measure, due to their greater attachment to the firms employing them, and to the lesser risk of becoming unemployed when separated from the firm. The lesser frequency of job turnover of more educated workers, which creates fewer episodes of unemployment, is in large part attributable to more on-the-job training. In explaining the lesser conditional unemployment of educated workers and

the somewhat shorter duration of their unemployment, indirect evidence is provided that (1) costs of on-the-job search for new employment relative to costs of searching while unemployed are lower for more educated workers; (2) that these workers are also more efficient in acquiring and processing job search information; and (3) that firms and workers search more intensively to fill more skilled vacancies.

A minimum wage is the lowest remuneration that employers may legally pay to workers. Equivalently, it is the price floor below which workers may not sell their labor. Although minimum wage laws are in effect in many jurisdictions, differences of opinion exist about the benefits and drawbacks of a minimum wage. Supporters of the minimum wage say it increases the standard of living of workers, reduces poverty, reduces inequality, boosts morale and forces businesses to be more "efficient". In contrast, opponents of the minimum wage say it increases poverty, increases unemployment (particularly among unskilled or inexperienced workers) and is damaging to businesses, because excessively high minimum wages require businesses to raise the prices of their product or service to accommodate the extra expense of paying a higher wage (Black, 2003).

In economics, inflation is a sustained increase in the general price level of goods and services in an economy over a period of time. When the price level rises, each unit of currency buys fewer goods and services. Consequently, inflation reflects a reduction in the purchasing power per unit of money – a loss of real value in the medium of exchange and unit of account within the economy. A chief measure of price inflation is the inflation rate, the annualized percentage change in a general price index, usually the consumer price index, over time. The opposite of inflation is deflation (Walgenbach, *et al.*, 1973).

Inflation affects economies in various positive and negative ways. The negative effects of inflation include an increase in the opportunity cost of holding money, uncertainty over future inflation which may discourage investment and savings, and if inflation were rapid enough, shortages of goods as consumers begin hoarding out of concern that prices will increase in the future. Positive effects include reducing the real burden of public and private debt, keeping nominal interest rates above zero so that central banks can adjust interest rates to stabilize the economy, and reducing unemployment due to nominal wage rigidity.

Economists generally believe that high rates of inflation and hyperinflation are caused by an excessive growth of the money supply. However, money supply growth does not necessarily cause inflation. Some economists maintain that under the conditions of a liquidity trap, large monetary injections are like "pushing on a string". Views on which factors determine low to moderate rates of inflation are more varied. Low or moderate inflation may be attributed to fluctuations in real demand for goods and services, or changes in available supplies such as during scarcities. However, the consensus view is that a long sustained period of inflation is caused by money supply growing faster than the rate of economic growth.

Today, most economists favor a low and steady rate of inflation. Low (as opposed to zero or negative) inflation reduces the severity of economic recessions by enabling the labor market to adjust more quickly in a downturn, and reduces the risk that a liquidity trap prevents monetary policy from stabilizing the economy. The task of keeping the rate of inflation low and stable is usually given to monetary authorities. Generally, these monetary authorities are the central banks that control monetary policy through the setting of interest rates, through open market operations, and through the setting of banking reserve requirements.

Labour Productivity or Workforce productivity is the amount of goods and services that a worker produces in a given amount of time. It is one of several types of productivity that economists measure. Workforce productivity, often referred to as labor productivity, is a measure for an organization or company, a process, an industry, or a country. Workforce productivity is to be distinguished from employee productivity which is a measure employed at individual level based on the assumption that the overall productivity can be broken down to increasingly smaller units until, ultimately, to the individual employee, in order to be used for example for the purpose of allocating a benefit or sanction based on individual performance (see also: Vitality curve). The OECD defines it as "the ratio of a volume measure of output to a volume measure of input". Volume measures of output are normally gross domestic product (GDP) or gross value added (GVA), expressed at constant prices i.e. adjusted for inflation. The three most commonly used measures of input are: hours worked; workforce jobs; and number of people in employment (OECD, 2002).

3. METHODOLOGY

The research was conducted in South Sulawesi Province from September-November 2014 by taking the data in several districts / cities in South Sulawesi which has an open unemployment rate above the provincial and national levels. The limitations of the data were obtained only in six districts / cities including : 1) Luwu; 2) Makassar City; 3) Palopo; 4) East Luwu District; 5) Pangkep; 6) Bantaeng. This research is an explanatory research that aims to explain the influence of the human resources (HR) to the educated unemployment rate in the province of South Sulawesi, either directly or indirectly through labor productivity.

Data collection method used in this research is the library research through several books, literature or scientific proofs to obtain the underlying theory in analyzing the data obtained from the study site. The data search technique is by means of documentation and recording the data that have been published in reports and literature.

The method of analysis used in this study is the method of data panels (merging the data time series and cross section) by using a simultaneous equations model by Path Analysis by WarPLS 4, for each variables in this study is manifest variables (observable variables). The simultaneous equation model can be Educateseen in the following equation:

$$(1) Y_1 = f(X_1, X_2) \tag{1}$$

$$(2) Y_2 = f(X_1, X_2, Y_1) \tag{2}$$

Where Is:

X1 = Minimum Wage Districts/ City in dollars

X2 = Inflation in percent

Y1 = Labor Productivity (dollars / person)

Y2 = Educated Unemployment Rate (percent)

Based on the above functional model, the regression equation is formed as follows:

$$e^{y_1} = \alpha_0 \alpha_1 X_1 \alpha_2 X_2 + e^{\mu_1} \tag{3}$$

$$e^{y_2} = \beta_0 \beta_1 X_1 \beta_2 X_2 \beta_3 Y_1 + e^{\mu_2} \tag{4}$$

because the above equation is non-linear equations, the equation in the natural logarithm (on), so we will get the following equation:

$$\ln Y_1 = \alpha_0 + \alpha_1 \ln X_1 + \alpha_2 \ln X_2 + \mu_1 \tag{5}$$

$$\ln Y_2 = \beta_0 + \beta_1 \ln X_1 + \beta_2 \ln X_2 + \beta_3 \ln Y_1 + \mu_2 \tag{6}$$

Or can be formed following equation:

$$\ln Y_1 = \alpha_0 + \alpha_1 \ln X_1 + \alpha_2 \ln X_2 + \mu_1 \tag{7}$$

$$\ln Y_2 - \beta_3 \ln Y_1 = \beta_0 + \beta_1 \ln X_1 + \beta_2 \ln X_2 + \mu_2 \tag{8}$$

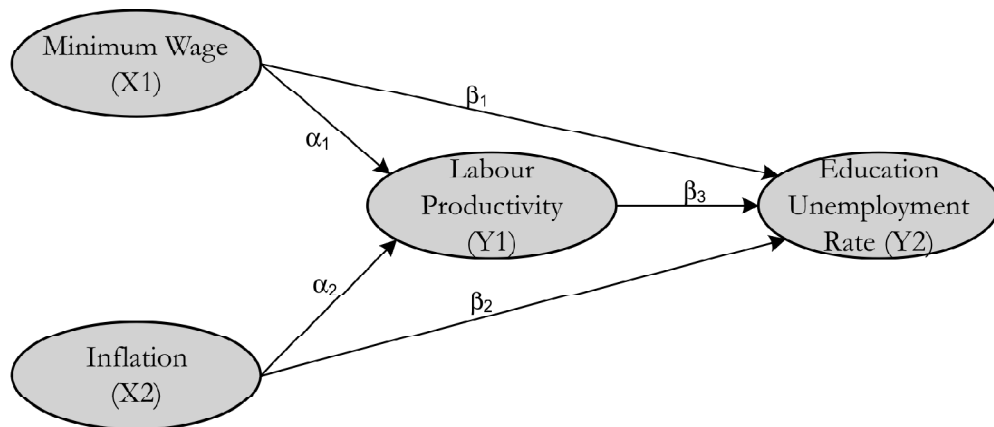


Figure 1: Conceptual Framework

Hypothesis testing as follow:

1. Minimum wage is significantly effect to Labour Productivity
2. Inflation is significantly effect to Labour Productivity

3. Minimum wage is significantly effect to Education Unemployment Rate
4. Inflation is significantly effect to Labour Education Unemployment Rate
5. Labour Productivity is significantly effect to Labour Education Unemployment Rate

4. RESULTS AND DISCUSSION

The analysis result show in Figure 2. Effect of Minimum Wages Districts / City Labor Against Productivity. Minimum wage coefficients districts / cities on labor productivity is equal to 0.058. However, the minimum wage districts / cities have no effect on labor productivity.

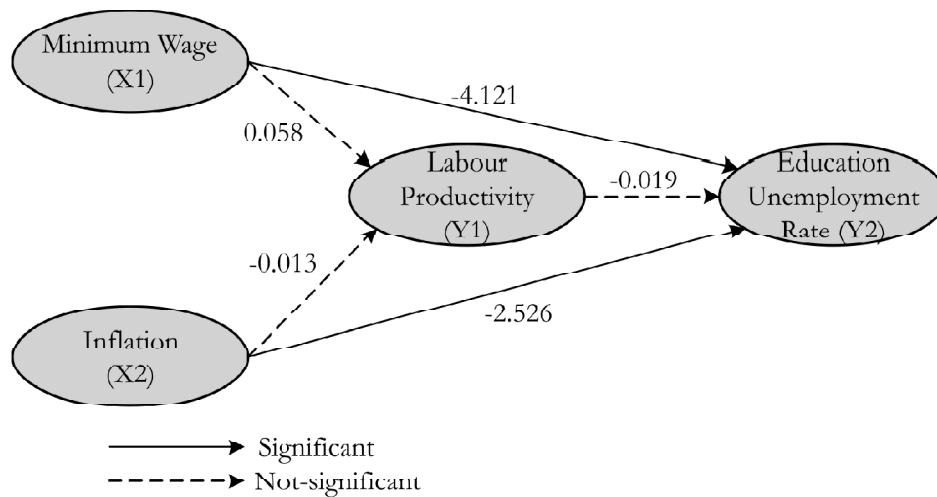


Figure 2: Path Analysis Result

Against Inflation Effect of Labor Productivity. The coefficient of inflation on labor productivity is equal to -0.013. However, the inflation rate has no effect on labor productivity.

Effect of Minimum Wages in District / City of Educated Unemployment Rate. Based on the results obtained data estimates that the Minimum Wage Districts / City (X1) and a significant negative effect on the Educated Unemployment Rate (Y2). Educated Unemployment levels are influenced by the Minimum Wages District / City of -4.121, which means that a 1 percent increase in the minimum wage changes Districts / City resulted Educated Unemployment Rate (Y2) decreased by 4.121 percent with a significance level of 5% (0.05).

Inflation Influence against Educated Unemployment Rate. The coefficient on the inflation rate of educated unemployment rate is equal to -0.019. However, the inflation rate did not affect the level of educated unemployment.

Effect of Labor Productivity Against Educated Unemployment rate. Labor Productivity (Y1) and a significant negative effect on the Educated Unemployment Rate (Y2) at the 5 percent significance level. Educated Unemployment levels are influenced directly by Labor Productivity of -2.526, which means that a 1 percent increase in labor productivity will lead to a decrease in educated unemployment rate at 2.526 percent.

Effect of Minimum Wages in District / City Against Educated Unemployment through Labor Productivity. Based on the results obtained data estimates that the minimum wage districts / cities (X1) and a significant negative effect on the educated unemployment rate (Y2) through labor productivity (Y1). Educated unemployment rate is affected by the minimum wage districts / cities of -0.146, which means that a 1 percent increase in the minimum wage changes in the district / city resulted in educated unemployment rate (Y2) decreased by 0.146 percent through labor productivity with a significance level of 5% (0.05).

Influence of Inflation Rate against educated Unemployment through Labor Productivity. The coefficient on the inflation rate of educated unemployment rate is equal to 0.032. However, the inflation rate did not affect the rate of educated unemployment through labor productivity.

The influence of the minimum wage in districts / cities on labor productivity in South Sulawesi province based on the results of data processing show that the minimum wage in districts / cities do not have a significant effect on labor productivity directly though a positive relationship. This study does not conform with the presentation (Mankiw, 2003) which states that the rate of labor productivity in developing countries affected by the minimum wage.

The effects of inflation on labor productivity in South Sulawesi province based on the results of data processing show that the inflation rate had no significant effect on labor productivity is directly though the negative relationship.

According to (Nanga, 2005), Inflation may lead to changes in output and employment, with a more direct way to motivate companies to produce more or less than what has been done, and also motivate people to work more or less than what has been done for themselves. It is called the output and employment effects of inflation.

Based on the results of data processing, Minimum Wage in District / City and a significant negative effect on the educated unemployment rate in South Sulawesi. This study was in accordance with that proposed by (Sukanto, 2008) that the negative effect of the minimum wage can be seen from the amount of labor supply, where the increase in the level of the minimum wage will lead to increased labor supply so that the unemployment rate is reduced. These results together with previous empirical studies conducted by (Sari, 2010; Nirmala, 2014) which showed that the wages provide a significant negative effect on the unemployment rate.

The effects of inflation on the level of educated unemployment in South Sulawesi Province based on the results of data processing show that the inflation rate does not significantly influence the level of educated unemployment is directly though the negative relationship. These results together with the results of research conducted by (Prasaja, 2013) about the influence of foreign investment, the number of people on educated unemployment and inflation in Central Java. This study uses time series data from the years 1980-2011. The results showed that inflation does not significantly influence the educated unemployed in Central Java.

The results are consistent with previous studies (Alghofari, 2010) which found that there was no effect of inflation on unemployment in Indonesia. Rise and fall of inflation will not cause the rise and fall of unemployment in Indonesia. The results of this study are in accordance with Philip's theory which states that there is a negative relationship between inflation and unemployment. However, in this study it was found that there is no significant relationship between inflation and educated unemployment in South Sulawesi. This means that the increase and decrease in inflation does not give effect to the educated unemployment rate in the province of South Sulawesi.

Effect of labor productivity to the level of educated unemployment in South Sulawesi province based on the results of data processing show that labor productivity significantly and negatively related to the level of educated unemployment. If the labor productivity has increased the ability of labor to produce output will increase so will result in an increase in labor demand. The increase in labor demand will impact on the level of educated unemployment. Conversely, if the labor productivity decreased the ability of the workforce will have an impact on reducing the demand for labor so educated unemployment rate will rise.

The results are consistent with the theory Bellante and Jackson (2000) which states that if productivity has increased the use of labor Cosmos will also increase. Vice versa, if the productivity has decreased the use of labor will also be decreased. This decline will increase the unemployment rate.

5. CONCLUSIONS AND SUGGESTIONS

Based on the problems, objectives and discussion presented earlier, it can be concluded from this study that the minimum wage districts / cities directly influence the rate of educated unemployment but had no effect on labor productivity. Inflation does not affect the level of educated unemployment rate in the province of South Sulawesi, either directly or indirectly through labor productivity. Labor productivity directly influence the level of educated unemployment rate in the province of South Sulawesi.

Based on the analysis in this study, it can be suggested that to reduce the level of educated unemployment, the government should further improve employment opportunities for educated unemployed and improve the quality or the quality of education and technology-based skills in the face of the job market. For further research

on the problem of educated unemployment is advisable to conduct further studies to include other independent variables.

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