

The Effect of Education on Unemployment Rate in Indonesia

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Abstract— This study aimed to assess the effect of educational level on the unemployment rate as an aspect of human capital. This study analyzed using descriptive statistics and simple linear regression analysis. The results showed that the unemployment rate are influenced by the level of education, especially graduates of universities in Indonesia. Then it is suggested to the Government of Indonesia to pay more attention to policies that do deal with public affairs and macroeconomic namely in the field of education. In addition to the companies that exist in Indonesia is expected to more attention to the welfare of its workers in order to improve labor productivity to benefit the company itself.

Keywords—education, graduated University, the unemployment rate

I. INTRODUCTION

Humans begin by birth into the world has gained educational until he entered the school bench. The word education had not foreign anymore because all human lives necessarily require education so that the direction his life is manifest and could wipe out ignorance.

Education as the preparation of the workforce is defined as the activities guide the learners so having a basic provision for work. The basic form of providing the formation of attitudes, knowledge, and skills to work on the external candidates. It's becoming an important mission of education because the work becomes a staple in people's lives. Work into a person's life and Sustainer of the family so that it does not depend and bother other people.

As stated in the preamble of the 1945 Indonesia's Constitution, "the State Government Indonesia which protects all the Nations of Indonesia and the rest spilled the blood of Indonesia and to implement a world order based on freedom, eternal peace, and social justice" [1]. It is one of the nation's faiths in the effort that is by applying the implementation of basic education of twelve years to meet the demands of work. But these requirements are still a constraint on applicants, so as to get the required quality of work and knowledge that superior again.

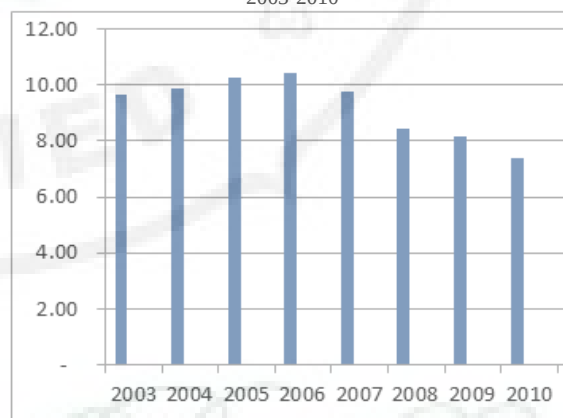
The importance of education is also very evident in the world of work, applying for a job that's worth certainly requires a diploma fit the position which we will apply. High position certainly requires people that have a high level of

education is also attested by a diploma. As a result, the community in doves attended extended.

With higher levels of education will provide more capabilities or to give a greater chance to get a job. However, a new problem will arise is when an increase in the number of jobs that are not proportional to the number of graduates from college. Thus causing unemployment in Indonesia. This issue will be the question to be solved in the Indonesia economy.

Unemployment is indeed still a serious problem of Indonesia because almost all over the region in Indonesia is experiencing the same problems of the areas of employment such as unemployment. It can be associated with economic indicators such as level of education influenced them. Where education is expected to give birth to the qualified human resources in order to gain employment in accordance with the level of education that he has. The unemployment rate of Indonesia in 2003-2010 can be seen in Picture 1.1 below:

PICTURE 1.1
UNEMPLOYMENT RATE (%) IN INDOONESIAN
2003-2010



Source: Central Bureau of Statistics (BPS)

From the picture above, it can be said that the development of the unemployment rate Indonesia during 2003 to 2006 continues to increase each year. In 2003 the unemployment rate has increased from the previous years i.e. 9.67% to 10.45%. And in 2006 the unemployment rate decreases in the year 2010 are 5.81%.

According to Becker, in theory of human capital that is not just a human resources but is capital returns and any

expenditure that is done in order to develop the quality and quantity of capital is the investment activities. The basic assumption of the theory of human capital is that a person can increase his earnings through increased education [2].

In the table below we can see that the college level education data from the year 2003 until 2010 has increased, with the high level of education is marked by growing levels of public and private Universities in Indonesia. And move on to the college level, already considered a must.

TABLE 1.1
LEVEL OF EDUCATION COLLEGE (%) IN INDONESIAN 2003-2010

No	Year	Level of Education College
1	2003	11,71
2	2004	12,07
3	2005	12,23
4	2006	11,38
5	2007	13,08
6	2008	13,29
7	2009	12,72
8	2010	13,72

In terms of educational level influence over the unemployment rate has many researchers that prove it, such as Emeritus Suaidah and Cahyoo Hendry who conduct research on the influence of educational level Against the unemployment rate in Jombang. From this research, it can be concluded that the unemployment rate is affected by the level of education High School graduates mainly in Jombang. High School graduates increased to affect the magnitude of the unemployment rate.

II. LITERATURE REVIEW

A. Level of Education

Under the laws of the Republic of Indonesia Number 20 in 2003, article I of the national education system, education is a planned and conscious effort to bring about an atmosphere of learning and the learning process so that learners are actively developing the potential for her to have a religious, spiritual power of self-control, personality, intelligence, morals, as well as the necessary skills themselves, the community, the nation and the State. Education is a process that aims to increase the skills, knowledge and increase the independence nor the formation of a person's personality [3]. It can be concluded from the above understanding that education is a process or an attempt on individuals to add to the knowledge and understanding necessary to the higher self, community, the nation, and the State.

Secondary education stages are defined based on the level of development of the learners, the goal will be achieved, and the ability that is developed. According to Law Sisdiknas of 2003, the level of formal education consists of basic education, secondary education, and higher education.

B. Human Capital

According to Davenport, human capital as a whole business that brought labor to be invested in their work. It also includes capabilities, behavior, passion and time. So is the human capital value and or quality of the labor force someone or determine how potential people or labor can produce in the economy mainly produce goods and services [2].

The basic assumption of the theory of human capital is that a person can increase his earnings through increased education. Each additional one year school mean, on the one hand, improve the work and the level of earnings for one year in the following school. In addition to the delays in receiving the income, the person must pay the school directly, such as school fees, purchase of books and tools of the school. Then the amount of income received, calculated in present value or Npv. Present Value is distinguished between two respects, namely in education only up to High School or attended college before working.

C. Unemployment Rate

Unemployment is a matter of macroeconomics that affects humans directly and is the most severe problem that will cause a decline in the standard of living and psychological distress [4]. Unemployment is a person that entered the labor force (15 to 64 years) who is looking for a job and have yet to get it. People who do not work are looking for examples such as housewives, High School, Junior High school students, college students, and others are due to something not/have not been in need of a job.

III. METHOD

The Method used in this research is the descriptive quantitative approach in which the descriptive approach is used to describe the State of the bound variable (Y) and the free variable (X). The research design for a simple regression analysis shows how big the influence of educational level (X) as the independent variable/not against unemployment rate (Y) as the dependent variable/bound. Research instrument of the variable levels of education is the population aged 15 years and over who graduated college level. While the research instrument of the unemployment rates variable is the number of the unemployed. While the data collected with the analysis of the document i.e. secondary data from the Central Bureau of Statistics (BPS) from 2003 to 2010. Then data analyzed by Simple regression analysis, T-test, F-test and a test of Determination.

RESULTS AND DISCUSSION

A. Simple Regression Analysis

Simple regression is based on a functional or causal relationship of one independent variable with a single dependent variable [5]. Based on the processing of data with the help of the program SPSS Statistics 17.0 simple regression results are obtained as follows:

TABLE 1.2
SIMPLE LINEAR REGRESSION RESULTS

Coefficients					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	-14.427	8.182		-1.763	.128
Education	1.693	.652	.728	2.598	.041

a. Dependent Variable: Unemployment

The data processing results in a simple linear regression model are as follows:

- 1) $Y = -14.427 + 1.693X + e$
- 2) Description:
- 3) Y : Unemployment
- 4) a : Constant
- 5) b : Regression Coefficients
- 6) X : Education

The interpretation of the model :

- a. Constant (a) = -14.427, shows the price constant, which means that if the variable is a constant level of education or do not change then the unemployment decreased by-14.427 while others are considered fixed.
- b. The coefficient X (education level) = 1.693, indicating that the variable X (education level) positive effect on unemployment in Indonesia. This means that each Educational Level increase in 1 percent, then the unemployment in Indonesia will experience a rise of 1.693. Sign (+) indicates a connection that is direct between the educational level and the unemployment rate.

B. F Test

According to Ghazali [6], test statistic F basically indicated whether all nonindependent or variable are included in the model have the same influence together-dependent variables against/bound. The results of the calculation of test F in this research are:

TABLE 1.3
RESULT F TEST
ANOVA^b

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	13.613	1	13.613	6.748	.041 ^a
Residual	12.104	6	2.017		
Total	25.718	7			

a. Predictors: (Constant), Education

b. Dependent Variable: Unemployment

The table above shows that the value of F_{count} is 6.748 with a significant level of 0.041. While F_{table} on a confidence level of 95% ($\alpha = 0.05$) was 5.99. Because of these two calculations is $F_{count} > F_{table}$ ($6.748 > 5.99$) and their significance level 0.041 0.05 indicates that variable < independent namely educational level (X) is the simultaneous effect of a dependent variable is significant to unemployment in Indonesia (Y) 2003-2010.

C. T-Test

According to Ghazali (2011; 98) [6] statistical tests t basically shows how much influence one explanatory variable/independent individually in the dependent variable explained. T-test results of this research are:

TABLE 1.4
T-TEST RESULT

Coefficients					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	-14.427	8.182		-1.763	.128
Education	1.693	.652	.728	2.598	.041

a. Dependent Variable: Unemployment

Based on table 4.1 above, the level of significance a variable level of education (X) is 0.041. The significance of value is smaller than the value of 0.05 probabilities or $0.041 < 0.05$. Education Level Variables (X) has a t_{count} is 2.598 and t_{table} are 2.01505 so $t_{count} > t_{table}$. So influential education level can be inferred partially against unemployment in Indonesia 2003-2010.

D. Determination Test

According to Arikunto [7], influence the determination of the coefficients reflected the magnitude of the change in the independent variable on the dependent variable changes run jointly, with the aim to measure truth and goodness of the relationships between variables in the model used. The determination of the test results of this research is:

TABLE 1.5
DETERMINATION TEST RESULT

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.728 ^a	.529	.451	1.42035

a. Predictors: (Constant), Education

b. Dependent Variable: unemployment

Based on the above table it can be seen that :

1. $R = 0,728$, means the relationship between the Education Level of the variable (X) against unemployment rate variable (Y) of 72.80%.
2. *Adjusted R Square* = 0,529, means 52.90% unemployment rate of Indonesia (Y) can be explained by variable levels of education (X). While remaining 47.10% can be explained by other variables – variables not examined by this study.

IV. CONCLUSIONS

Based on the results of the analysis it can be concluded that:

- Based on a simple linear regression test results, note that the educational level of the positive effect the unemployment rate against Indonesia in 2003-2010.
- Based on the results of test f, note that the level of education simultaneously significant effect on the unemployment rate in Indonesia in 2003-2010.
- Based on the results of the test t, note that the educational level of influential partially against the unemployment rate in Indonesia in 2003-2010.
- The regression Coefficient said that the existence of a positive increment between educational level with

the level of unemployment. This means the existence of an imbalance of the theory of human capital with the results of the data analysis despite the level of education affects the level of unemployment is there in Indonesia. This is due to a large number of college graduates that are not offset by the job opportunities that exist.

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