ANALYSIS OF EDUCATION LEVEL AND INCOME EFFECT TO THE NUMBER OF POOR INHABITANT IN INDONESIA

Syamsul Arifin
Sekolah Tinggi Ilmu Ekonomi Pemuda
syamsularifin.stiepemuda@gmail.com

ABSTRACT

This research aims to analyze the level of education and income per capita of the number of poor people in Indonesia in 2004 - 2019 either partially or simultaneously. The population in this study was Indonesia in 2004 - 2019. The sampling technique is purposive sampling technique. The data collection method is documentation. Although the method of analysis using regression analysis techniques of time series data. The results of data analysis showed that the level of education is partially significant effect on the number of poor people in Indonesia. On the other hand revenues significantly influence the number of poor people in Indonesia. While simultaneously the levels of education and income influence significantly to the number of poor people in Indonesia.

Keywords: Poverty rates, population growth, level of education, income

I.   INTRODUCTION

Developing countries in the world including Indonesia are faced by a problem called as poverty. According to economic experts (in Arsyad 2010) the poverty in Indonesia is multidimensional. it can be viewed from various aspects including aspects of primary and secondary. The primary aspects for instance like poor assets, socio-political organization, knowledge, and skills which are categorized in low level. While the secondary aspects such as poor social network, financial resources and information.

Nowadays, the economic circumstance is very disquieting. What we recognize, especially in Indonesia now there are varieties of issues concerning with the life of society among others, issues of poverty, unemployment, environmental problems, etc. The problems arise due to the rising of economic circumstances that are not adapted to the conditions of society, especially in the middle class. Currently, the poverty is still a part of the toughest and the most crucial issue in the world.

The issue of poverty is a problem being faced by many regions in Indonesia. The number of poor population in Indonesia in 2015 reached 28.59 million or 11.22% of the total population of Indonesia. It shows that the economic development has not been successful. As described by Todaro (2006) that the primary purpose of economic

development is to create an increasing growth, but on the other hand it also must reduce the poverty, the income inequality, and the unemployment sticks. Central Bureau of Statistics (BPS) explains that poverty is the inability to achieve the minimum standard requirements, either food or non-food needs. BPS said that poverty is the condition of a person who is only able to fulfill the needs of eating less than 2100 calories per capita per day. In West Nusa Tenggara there are many people who cannot fulfill their food needs maximally. This can be caused by their income which is not enough to complete their demand. Otherwise it is also caused by the revenue they don't earn to be spent on their needs. According Didin burhanuddin, (2018) poverty is seen as an economic inability to accomplish the basic needs of food

Poverty is often understood as a state of lack of money and goods to ensure survival. According to BPS (2012), poverty is seen as an economic inability to accomplish the basic needs of food and non-food which is measured from the expenditure side. According to Ravallion (2001) (in Arsyad 2010) poverty is "starving, have no place to stay, if the sick do not have money for treatment" From the definitions above the poverty can be defined as the inability to fulfill various needs such as foodstuff, housing, clothing, education, health, and so on.

In general, the causes of poverty includes, (1) growth of rate population, growth of Indonesia's population continues to increase in each 10 years according to the results of the population census. Increasing population makes Indonesia become worse by the economic circumstance that has not been established. The working population is not proportional to the amount of load dependency. The minimal income plus the amount of dependency must be borne to make people living under the poverty line. (2) Employment and income, low labor work will cause in declining incomes, so that poverty has increased. (3) The low educational level, the low quality of the population is also one of the causes of poverty in a country. This is caused by the low levels of education and knowledge of the labor. For their economic development, especially industry, it is obviously used more manpower who has skill or at least be able to read and write. (4) The lack of awareness from the government and the government is less sensitive to the growth rate of the poor population can be one of the factors of poverty. The government cannot decide policy which capable to control the level of poverty in the country. (5) The

distribution is uneven, the macro level, poverty arises because of the inequality of resource ownership patterns which lead to the unequal income distribution, and poor people only have limited resource in quantities and low quality (Suharto, 2013).

At this time the land jobs for people have been replaced by machines. According to Sukirno (2006) the increase job is lower than the increase of labor will lead many workers to have no a job. These events will add to the list of poor people in Indonesia.

To reduce the cost burden for poor households, the government took policy to help the costs of education, health costs, cash aid, rice and infrastructure such as water supply, village roads and etc. In order to increase the income of poor and nearly poor households, the government gives training such as productive economy, economic business, working stimulant capital or business (women's cooperatives), markets, and empowerment of local economic activities and increased production through appropriate technology (BAPENAS).

Education is acknowledged widely that it has role as a leader in instrument of economic development. Therefore education developed increasingly. A few years ago the education was focused on primary and secondary education. However, the current study has been developed to higher education. This is conducted because education is able to improve the welfare and reduce the poverty (Bloom, 2006). Education has an important role in reducing poverty both in Indonesia or any other country in long term. Both indirectly through training for the lower class with the skills needed to improve their productivity and increase their income (Arsyad, 2010).

Education is one way to improve the quality of human resources. Through education, the knowledge of someone will grow to learn skills that are useful in work field. Thus, education can be included as the investments of development in which the result can be enjoyed later. As the development in another field, education becomes the main field except health and economic (BPS, 2013).

Education is a conscious and deliberate effort to create atmosphere of learning and the learning process so that learners are actively in developing their potential and to have the spiritual power of religion, self-control, personality, intelligence, character, and skills needed, society, nation and state (Act No.20 of 2003).

Based on Gillis (2000) there are two reasons why education is important. First, because there are a lot of high demands for education, this is because many people who believe that higher education will give many advantages to them. Second, because many observations stated that high level of education will affect to the income and social status in the community will be uplifted.

According to Ihsan (2011) the level of education is a stage of ongoing education, which is determined based on the development of learners, the level of complexity of teaching materials and teaching how to present the material. The level of school education consists of primary education, secondary education and higher education.

Based on some of definition above can be concluded that education is a process conducted by the community in order to improve the quality of human resources. Hence, the rate of education can be defined as the level of education which is traversed by the people in order to improve the quality of human resources that characterized by obtaining a diploma.

The research conducted by Appleton (2001) explains that poverty in Uganda during several period make people's lives worse. However, all of those ended after increased levels of public education. Through the improvement of education in Uganda, it makes people's lives more meaningful. They acquire decent jobs with comparable wages. So they are able to improve their welfare which has a big impact on decreasing poverty.

The results of same research presented by Doshi (2000) states that education can reduce poverty directly, namely by improving productivity for lower class, improve their chances for getting a job with better wages. Therefore, education can reduce the number of poor inhabitant there. The level of education is an important factor affecting poverty. Thus, educational levels will influence the distribution of income that also affects the poverty. Higher education level and income distribution will be uneven so that poverty can be reduced.

According to Sukirno (2006) revenue is the amount of income received by a resident as the top achievements of his work during a certain period, whether daily, weekly, monthly or yearly. Revenue is the basis of poverty. Income of individuals is obtained from their work. So high and low incomes will be made of someone as working

guidelines. People who have job with low salaries tend to be not optimal in production. While people who have high salaries have special motivation to work and productivity of their work is better and maximum. Without their conscious that their actions would harm themselves, because the result of productivity, they will generate revenue (Teal, 2001).

One of the basic concepts that can be used as the basis to understand the development and its relation to a person is poor or not is the adequacy to fulfill basic needs. The basic needs of human being are not only about food, but also including foodstuff, clothing, shelter, health and safety. Meanwhile, to achieve those things, people must accomplish productivity in order to obtain revenue or that will be used to fulfill the basic needs (Todaro, 2006)

The conditions of income within a country (PDB) can be measured in three ways: by the Gross National Product (GNP), Net National Product (NNP) and the national income which of the three measurements can provide the same information about the condition economy. If PDB increases then the third size of revenue also will increase, and vice versa. So to see fluctuations of economy, this may use any income measurements (Mankiw, 2013).

The aspect of revenue that can be used as an indicator of poverty is the income per capita (Suryana, 2010). Per capita income is the average proceeds of a resident of a country in a certain period, usually one year. Per capita income can also be interpreted as the sum of the value of goods and services that are available for the residents in a given period. Per capita income is derived from the national income in a given year divided by the population of a country in that year (Sukirno, 2004).

The results of research presented by Singh (2012) states that a person's income is able to reduce poverty in a country. Like in Asian countries that in 1990 some countries in Asia has decreased the amount of poverty. That is largely due to the increase in terms of revenue. Similarly, the findings from Janjua (2011) who stated the increase of income can reduce the number of poor people. Due to the increase in people's income can improve the fulfillment of their needs. So that the public welfare increases and the number of poor people decreased.

Based on the explanation above, the objectives of this study included: (a) to analyze the education level and income to the number of poor people in Indonesia in

2000-2015 partially; (b) to analyze the education level and income to the number of poor people in Indonesia simultaneously.

II.   RESEARCH METHODS

This research is quantitative research. This study use correlation method to find the influence between independent variables (independent) that is the level of education (X^1) and income (X^2) on the dependent variable (dependent) i.e. the number of poor (Y). The population in this study is a resident of Indonesia in 2004-2019. While the sampling technique in this study using purposive sampling technique, namely determination of sampling technique with a certain considerations (Sugiyono, 2011).

Data collection methods used in this research is documentation, since the data used is secondary data already available in the Central Bureau of Statistics Indonesia. The method of data analysis used to determine the relationship between independent variables and the dependent variable partially and simultaneously.

III. RESULTS AND DISCUSSION

The analysis in this study using multiple linear regression analysis by SPSS application that serves to determine whether there is a significant effect between the independent variable that is the level of education (X1) and income (X2) on the dependent variable is the number of poor inhabitant (Y).

From the results were obtained the following data:

Year	Education Level (APM)	Revenue (millions)	Poor Inhabitant
2004	39,33	6,17	19,14
2005	37,13	7,02	18,41
2006	38,11	7,54	18,2
2007	40,56	8,11	17,42
2008	42,96	9,19	16,66
2009	43,5	11,01	15,97
2010	43,77	13	17,75
2011	44,56	15,22	16,58
2012	44,75	19,09	15,42

2003	45,06	20,94	14,15
2014	45,48	23,97	13,33
2015	47,93	27,49	12,49
2016	51,77	35,11	11,96
2017	54,12	36,5	11,37
2018	59,24	41,81	10,96
2019	59,46	48	11,22

To determine the effect of X_1 and X_2 to Y partially used T test and regression of coefficient values. The results of the analysis of the influence partially can be seen in Table 1 below:

Table 1 Results of Analysis of Effect of X_1 and X_2 Regressions to Y

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	22,258	11,167		1,993	,064
	Education level	-,051	,312	-,095	-,165	,871
	Income	-,213	,159	-,771	-1,336	,200
a. Dependent variable: Poor inhabitant						

Based on the results of the regression analysis above can be arranged regression equation as follows:

$$Y = 22.258 - 0.051 \text{ to } 0.213 + ei.$$

From these equations can be explained:

a. Constants (α) is equal to 22.258% means that if there is no change the value in the variable level of education (X_1) and income (X_2), then Y will be obtained for 22.258%.

b. The coefficient of the variable level of education (X_1) is approximately 0.051 indicate if the level of education increased 1%, while the other variables are constant (income), then the number of poor people will be decreased 0.005%. Negative sign (-) indicates negative inverse association between level of education

and the number of poor people in Indonesia. If education level is higher, the number of poor people will be decreased.

c. The coefficient of income variable -0.213 means that if the variable revenue increased 1%, while other variable fixed (education level), the number of poor people will be decreased by 0.213%. Negative sign (-) indicates negative inverse association between income and the number of poor people in Indonesia. If the income is high, the number of poor people will decline.

To know the effect of X_1 and X_2 to Y simultaneously used F test and the regression coefficient values. The result of simultaneously analysis can be seen in Table 2 below:

Table 2. The Analysis of Regression Effect X_1 and X_2 to Y

ANOVAa					
Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	194,239	2	97,120	23,477	,000b
Residual	66,190	16	4,137		
Total	260,429	18			
a. Dependent Variable: Poor inhabitant					
b. Predictors: (Constant), income, education level					

From the results of F-test in the table above shows the calculated F value is 23.477 in which the error rate or a probability of 0.000 which is smaller than 0.05. So it can be concluded that the level of education and income are joint positive effect significantly on the number of poor people.

The findings of this study indicate that there is the effect of educational level toward the number of poor inhabitant in Indonesia, which means the first hypothesis in this study received. Education is widely acknowledged has important role as a leader in economic development instrument. Therefore the education is more developed. A few years ago the education was focused on primary and secondary education. However, the current study has been developed to higher education. This is conducted because education is able to improve the welfare and reduce the poverty (Bloom, 2006). Education has an important role in reducing poverty both in the State of Indonesia or any other country in long term. Both indirectly through training for the lower class with the skills needed to improve their productivity and increase their income (Arsyad, 2010).

The results are consistent with the results of previous studies conducted by Appleton (2001) who explains that poverty in Uganda during several periods makes people's lives worse. However, all of those ended after increasing levels of public education. Through the improvement of education in Uganda, it makes people's lives more meaningful. They acquire decent jobs with comparable wages. So they are able to improve their welfare which has a big impact on decreasing poverty.

The findings of this study indicate that there is significant revenue to the number of poor people in Indonesia, which means that the second hypothesis in this study has received. One of the basic concepts that can be used as the basis to understand the development and its relation to a person is poor or not is the adequacy to fulfill basic needs. The basic needs of human being are not only about food, but also including foodstuff, clothing, shelter, health and safety. Meanwhile, to achieve those things, people must accomplish productivity in order to obtain revenue or that will be used to fulfill the basic needs (Todaro, 2006)

The aspect of revenue that can be used as an indicator of poverty is income per capita (Suryana, 2010). Per capita income is the average proceeds of a resident of a country in a certain period, usually one year. Per capita income can also be interpreted as the sum of the value of goods and services that are available for the residents in a given period. Per capita income is derived from the national income in a given year divided by the population of a country in that year (Sukirno, 2004).

The results of research presented by Singh (2012) states that a person's income is able to reduce poverty in a country. Like in Asian countries that in 1990 some countries in Asia has decreased the amount of poverty. That is largely due to the increase in terms of revenue. Similarly, the findings from Janjua (2011) who stated the increase of income can reduce the number of poor people. Due to the increase in people's income can improve the fulfillment of their needs. So that the public welfare is increase and the number of poor people is decrease. Likewise, research by Mustika (2012) entitled *'The Effect of PDB and The Number of Inhabitant Against Poverty in Indonesia During Period 1990-2008'*. The results showed that the variables of PDB and the number of population variable have significant effect on poverty levels in Indonesia.

The findings of this study indicate that simultaneously there are effects of education and income levels against the number of poor population. Based on the analysis by using SPSS 21, it shows that education and income levels manipulate significantly to the number of poor people in Indonesia. This is supported by the evidence of F- test results, in which it is known that significant value is 0,000 <0,05 this result indicates that the independent variable is the education and income levels significantly manipulate the dependent variable that is the number of poor people. The results are consistent with the previous research conducted by Carm (2003) and Vanderberg (2002) who states that education and income have a big impact on poverty. Based on the results and the theories above prove that Ho is rejected, which means the level of education and income jointly have significant influence on the number of poor people in Indonesia.

IV. CONCLUSION

There is a significant effect of educational level on the number of poor people in Indonesia and both variables have a negative relationship that indicate the increase of education level can decrease the number of poor people in Indonesia. There is a significant effect of income on the number of poor people in Indonesia and both variables have a negative relationship. It shows that high income can reduce the number of poor people in Indonesia. There is a significant influence of education and income levels against the number of poor people in Indonesia. It shows that two independent variables have an important role to manipulate the measurement of poor inhabitant in Indonesia.

REFERENCES

Arikunto, suharsini.2002. Fundamentals of Evaluation pendidikkan Jakarta: Earth Literacy.

Appleton, Simon. 2001. Education, Income and Poverty in Uganda. Credit Research Papers, Vol. 1, No. 2, (PP: 5-20).

Arsyad, L. 2010. Microeconomics. Yogyakarta: Gajah Mada University BPFE.

Arsyad, Lincolin. 2010. Economic Development. Yogyakarta: UPP STIM YKPN.

Bloom, David; Canning, David and Chan, Kevin. 2006. Higher Education and Economic Development in Africa. Human Development Research, Vol. 5, No. 1, (PP: 25-90).

BPS. 2012. Poverty. (Http://bps.go.id/menutab.php?tabel=1&kat=1&id subjects = 23, accessed May 20, 2012).

Carm, Ellen. 2003. Education, Income, and Its Impact on Poverty. International Education Centre at Oslo University Journal, Vol. 7, No. 2, (PP: 50-72).

Didin, burhanuddin, S. arifin. (2018). Jurnal Mitra Manajemen (JMM Online). *Jurnal Mitra Manajemen*, *2*(4), 265–475. http://e jurnalmitramanajemen.com/ index .php /jmm/article/view/125/69.

Case, K., & Fair, R. 2000. Of Economic Principle. Jakarta: Prenhalindo.

Ministry of Education (2003): Law Number 20 Year 2003 on National Education System, Jakarta.

Harbison, F. 2000. Educational Planning and Human Resources. Jakarta: Bhratara Works Script.

Hurd, Michael D and Rohwedder, Susana. 2006. Income and Consumption-Based Poverty Measures. National Bureau of Economic Research, (PP: 1-34).

Ihsan, Fuad. 2008. Basic Education Component MKDK. Jakarta: PT Rineka Reserved.

Ihsan, F. 2011. Development of Students. Jakarta: Rineka Reserved.

Irawan and Suparmoko. 2002. Development Economics. Fifth Edition. Yogyakarta: Yogyakarta BPFE.

Kuncoro, M. 2006. Development Economics: Theory, Issues and Policies. Yogyakarta: UPP STIM YKPN.

Lipsey, Richard G et al. 2001. Introduction to Macroeconomics. Eighth Edition, Jakarta: Erland.

Mankiw, N. Gregory. 2013. Introduction to Macroeconomics. Jakarta: Four Salemba.

Mulyadi. 2008. Economic Human Resources Development in Perspective. Jakarta: Rajawali Pers.

Nurhadi. 2000. Effect Against Revenue consumption levels. Journal of Development Economics, Vol. 1, No. 1, (PP: 1-31).

Nirvana, Beautiful Goddess. 2013. Influence of Education Variable Against Percentage of Poor People (Studies in 33 provinces in Indonesia, 6 provinces in Java, and 27 provinces outside Java In the year 2006-2011). Scientific Journal (Online).

Permana, Anggit Yoga and Arianti, Fitrie. 2012. Analysis of Effect of the GDP, Unemployment, Education, and Health Against Poverty in Central Java in 2004-2009. Diponegoro Journal Of Economics (Online) .Vol. 1, No. 1,

Rica, Darma. 2012. Effect of Education, income per capita and unemployment Against Poverty in Jakarta, Econosains, Vol. 10, No. 2, (PP: 17-30).

Sukirno, Sadono. 2006. Introduction to Macroeconomic Theory. Jakarta: King Grafindo Persada.

Sukirno, Sadono. 2004. Macroeconomic Theory introduction. Jakarta: PT.Raja Grafindo persada.

Said, Rusli. 2001. Introduction Population. Jakarta: Research and Development Institute for Economic and Social.

Vitello, Ravi Dwi. 2010. Analysis of Effect of the GDP, Education Against Poverty and Unemployment in the District / City of Central Java in 2005-2008. Thesis (Online). (Http://eprints.undip.ac.id/23008/1/SKRIPSI.PDF, accessed March 26, 2013).