

# Relationship Education with Poverty in Indonesia

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**Abstract:** This study aims to find out and analyse the relationship between education with poverty in Indonesia. Education is measured by the level of education of the poor, while poverty is measured by the percentage of the population with poor status is they who live below the poverty line. This study uses an explanatory survey method with secondary data in the form of time series data during the period 2004-2015 obtained from the Central Bureau of Statistics to obtain poverty data. The results show that education has a strong and negative relationship with poverty in Indonesia. This finding implies that education can reduce poverty because education can improve the quality of human resources that ultimately increase productivity.

## 1 INTRODUCTION

Education and poverty are two very interesting phenomena to be studied, because they have influence with each other (Thirlwall, 2006). Income poverty does not permit one to make adequate investment in education, and a low level of investment in education, finally, accentuates poverty. It is widely recognized that investment on education is one of the important keys to break the circular relationship of poverty of education (ADB, 2003).

In the modern era, education is considered as a component of basic need the lack of which contributes a lot to generate income poverty (Thapa, 2010). The significance of education on reducing poverty is that it generates a variety of benefits. These benefits of education are classified as direct and indirect benefits. Education provides direct benefits in the form of higher income, more stable employment and better working condition (Psacharopoulos and Maureen, 1985) and in the form of indirect benefits such as people's empowerment with knowledge, improvement of values and institutions for better quality of life (ADB, 2003).

The nation will not develop without investment in education and Poverty has a strong relationship with education and economic growth. (Afzal, Ehsan, Ishrat, Kafeel & Hina (2012)). Education is one of the major components that shape human models has an important role in economic growth (Abiodun and Iyiola, 2011). Previous studies of the linkage between education and poverty in different countries. It has

been done by several previous researchers, among others Todaro (2001), Knight et al. (2007), undefined Berg (2008), Cloud et al. (2011) undefined Afzal et al. (2012), Faux and Ntembe (2013). The results from their study show that between education, and poverty has a significant relationship. However, the relationship is inversely related.

This study aims to analyze the relationship between education and poverty in Indonesia, re-test the hypothesis of previous researchers. The findings are expected to serve as input for policy makers related to poverty and education.

## 2 METHODS

This study uses an explanatory survey method, with an explanation rate of associative research or relationships. The population of this study is the number of population in Indonesia who received education up to senior high school level and the absolute level of poverty in Indonesia. The sample in this study is the Indonesian population who obtained education until senior high school level, the absolute poverty level in Indonesia in 2004-2015. This study uses secondary data with time series data types during the period of 2004-2015. The data required in this research is secondary data obtained from the Central Bureau of Statistics and the National Team for Acceleration of Poverty Reduction in the form of education data and poverty data.

The variables in this study consist of dependent variable and independent variable the dependent variable in this research is poverty and independent variable in this research is education in Indonesia. The collected data is then analyzed by classical assumption assays include normality, heteroscedasticity, linearity, multicollinearity and autocorrelation, and simple linear regression test. The linear regression model has some basic assumptions that must be met to produce a good estimate otherwise known as BLUE (Best Linear Unbias Estimator). These basic assumptions include homoscedastic, no-multicollinierity, and no-autocorrelation.

### 3 RESULTS AND DISCUSSION

#### 3.1 Result Study

Based on the research results obtained results as in Table 1.

Table 1: Results of Education and Poverty Regression in Indonesia in the Period 2004-2015

Method: Least Squares

Sample: 2004 2015

Included observations: 12

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.100447	3.554918	0.872157	0.4058
LNX1	-1.255775	0.627501	-2.001233	0.0764
R-squared	0.567544	Mean dependent var	1.654353	
Adjusted R-squared	0.471443	S.D. dependent var	0.173690	
S.E. of regression	0.126276	Akaike info criterion	-1.088379	
Sum squared resid	0.143510	Schwarz criterion	-0.967153	
Log likelihood	9.530276	Hannan-Quinn criter.	-1.133262	
F-statistic	5.905680	Durbin-Watson stat	2.135695	
Prob (F-statistic)		0.023001		

Table 1 shows the correlation or relationship (R) of 0.567 with the coefficient of determination (R<sup>2</sup>) of 0.4714 which implies that education has an influence of 47.14 percent on poverty in Indonesia, the rest of 52.86 percent influenced by other factors. The relationship between education and poverty in Indonesia is included in a moderate relationship. Significantly significant influence between education and poverty (Fhitung & nbsp; & gt; & nbsp; F table

on nf 5 (N-1) means that the regression model can be used to predict poverty education. Constant of 3.100447 means that if there is no education then poverty is 3.1005. The coefficient of education regression equal to -1,256 mean every education have increase 1 percent hence poverty will decrease equal to 1,256 percent. Result of significance test with; t test show statistically Education has a significant effect on poverty in Indonesia

#### 3.2 Discussion

Education in this study focused on high school education level taken from the highest education level. Based on the results of research conducted found that education has a significant effect on poverty variables. This is evidenced by the t test showing the significance value of 0.07 and the regression coefficient of -1.255775. Thus it can be stated that in this study education has a negative effect on poverty and if education variables increase by 1%, then poverty will experience a decline of 1.255775%. Todaro (2006) states that the Education sector plays a major role in shaping the ability of a developing country to absorb modern technology and develop production capacity to create sustainable growth and development. High quality human resources will increase national output and income. Improving the quality of education provides many benefits in accelerating economic growth of the company's management that will be developed more efficiently, mastery of science and technology development, productivity improvement and improving people's mind power. The results of this study are in accordance with the research undertaken by Faux and Ntembe (2013) who researched the impact of educational attainment on poverty in Cameroon. This research uses logistic regression model to know the probability of poor person using gender, work experience and education level as explanatory variable. The approximate coefficient shows that as one level of education increases, the probability of declining population.

Afzal et al. (2012) examines the relationship between education, poverty and economic growth in Pakistan based on secondary data for the period 1971/72 and 2009/10. They found that education affects real GDP positively and significantly only in the long run and concludes that better education can be an effective tool for reducing poverty and promoting economic growth. Cloud et al. (2011) evaluated the impact of education on poverty in Pakistan based on secondary data for 1998/99 and 2001/02. They conclude that education and poverty

are inversely proportional. The higher the education level of the lower population will be the number of the poor. Berg (2008) analyzes the relationship between education and poverty in developed and developing countries. He explained that access to education varies depending on the level of income and provides concrete evidence that education can reduce poverty in a number of ways. However, poverty is just one of several factors that prevent access to education. Knight et al. (2007) analyzed the relationship between education and income in rural China based on data from a national household survey for 2002. They found evidence that community participation was positively associated with community incomes and suggested that education and income increase reduce risk of being in poverty.

Education has always been the main agenda of a country to form a country with competent human resources quality, so as to increase its national income. According Friawan (2008) implication of development in education is human life will be more qualified. In relation to the economy in general (national) the higher the quality of life of a nation, the higher the growth rate and welfare of the nation. The higher quality of life / investment of human resources will also have implications for the national economic growth rate. Aboidin and Iyiola (2011) have also shown that educational investments have a direct and significant impact on economic growth. The theory used in this research is also the theory of economic growth Solow-Swan. Many empirical studies show that the main source of economic growth is the level of technology. In mastering the increasingly modern technology required high quality human resources. Human capital is needed to create the desired economic growth. It can be obtained through education. Education is not just learning to do something, education is also one of the instruments to increase human capital.

Pradhan (2011) in his research also revealed that there is a uni-directional uniformity between education and economic growth in the Indian economy. The analysis tool used is ECM (Error Correction modeling). The results of the analysis using ECM (Error Correction modeling) also confirmed that there is a short-term dynamics between education and economic growth in India that bring long-term economic stability. It shows that qualified human resources will sustain the progress of a country, so that countries with qualified human resources will have advantages in all fields, especially in the economic field.

In Becker's theory of human capital explains that a person increases his income through educational

improvement. Increased education will be able to provide opportunities for higher economic growth in the future. Education is the path to progress and the achievement of social and economic well-being. While the failure to build education will give birth to various crucial problems: unemployment, crime, it is concluded that the higher level of public education of a country will have an impact on increasing the productivity of human resources in the process of economic growth. Increased physical capital development becomes more efficient and labor is more productive if followed by increased development in the field of human capital, which will further enhance economic growth. Therefore, it can be said that high school education has a significant influence on economic growth

Education serves as a driving force or the driving force of community transformation to break the poverty chain. Education helps reduce poverty through its effects on labor productivity and through social benefit channels, education is an important development goal for the nation (World Bank 2005). This means education is an important instrument for poverty alleviation. People with a high level of education will have the skills and skills to improve the welfare of their lives, through increased productivity that can increase the output of the company so as to increase workers' wages. When the welfare of society is guaranteed, the actual economic growth will increase. This is consistent with the endogenous growth theory pioneered by Lucas and Romer (1996) in Arsyad (2010), education is one of the driving factors for economic growth. Education becomes a means to improve the quality of human resources which will produce more productive workforce. A high productivity workforce will produce more output so that aggregate will increase economist growth.

## 4 CONCLUSIONS

Based on findings previously implies that to reduce poverty can be done by taking into account the quality of education. Therefore, the government should pay more attention to the quality of education to reduce the poverty rate which in turn can encourage; economic growth rate. Steps that can be done between 1) Improve the education system in Indonesia, this can be done by re-designing the curriculum. 2) Improve education infrastructure. During this time the quality of education infrastructure in Indonesia is very lame between urban and rural. Where in urban areas the quality of education infrastructure is very

good, but in the countryside many school buildings are almost collapsed or even already collapsed, the educational facilities are also very limited. Therefore, the government should pay more attention to education in rural or remote areas by improving its infrastructure. 3) Develop qualified learners. One of the most important instruments in education is the presence of high-quality learners. The quality and competence of educators in Indonesia is very sad. To obtain high-quality educational staff the government needs to conduct special training and qualifications about teachers and lecturers. A teacher must have academic qualification that has completed the degree program, competence in this matter can be seen from pedagogic competence that is related to teacher ability in teaching and learning process that is preparation of teaching which includes designing and executing learning scenario, choosing method, media, Evaluation for students to achieve educational objectives both in the cognitive, affective, and psychomotor aspects of students

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