



THE IMPACT OF EDUCATION AND INVESTMENT ON POVERTY IN INDONESIA

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Abstract

Poverty is a problem which faced by various country in the world, one of them is Indonesia. Several province in Indonesia still have a large number of poor people, Papua and West Papua Province have percentage of poor people of 27.43% and 22.66% in 2018. In addition, the length of schooling in these province is consecutively amounted to 6.52 and 7.27 year. This study aims to determine the effect of the level of education and investment on poverty in Indonesia. This study used a panel data of 12 provinces in Indonesia, namely, Papua, West Papua, Maluku, North Maluku, West Sulawesi, Gorontalo, Southeast Sulawesi, Central Sulawesi, South Sulawesi, North Sulawesi, West Nusa Tenggara, and East Nusa Tenggara Province in time 2016-2018. The theory used in this research is Keynesian Theory, this theory state that by increasing education and investment, it can be a solution to reduce poverty. The data processed using Eviews 11. Result shows that the level of education has a negative significant effect on poverty and investment has negative insignificant on poverty..

Abstrak

Kemiskinan merupakan masalah yang dihadapi oleh berbagai negara di dunia, salah satunya Indonesia. Beberapa provinsi di Indonesia masih memiliki jumlah penduduk miskin yang cukup banyak, Provinsi Papua dan Papua Barat memiliki persentase penduduk miskin sebesar 27,43% dan 22,66% pada tahun 2018. Disamping itu, rata-rata lama sekolah pada provinsi tersebut secara berturut turut sebesar 6,52 dan 7,27. Penelitian ini bertujuan untuk mengetahui pengaruh tingkat pendidikan dan investasi terhadap kemiskinan di Indonesia. Penelitian ini menggunakan panel data 12 Provinsi di Indonesia yakni Provinsi Papua, Papua Barat, Maluku Utara, Maluku, Sulawesi Barat, Gorontalo, Sulawesi Tenggara, Sulawesi Tengah, Sulawesi Selatan, Sulawesi Utara, Nusa Tenggara Barat dan Nusa Tenggara Timur dalam rentang waktu 2016-2018. Teori yang digunakan merupakan teori Keynesian, teori ini menyatakan bahwa dengan peningkatan pendidikan dan

investasi, dapat menjadi solusi bagi masalah kemiskinan. Data diolah menggunakan Eviews 11. Hasil penelitian menunjukkan bahwa tingkat pendidikan memberikan pengaruh negatif dan signifikan terhadap kemiskinan, dan investasi

memberikan pengaruh tidak signifikan terhadap kemiskinan.

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INTRODUCTION

Economic growth is one of the indicators in the success of economic development in a country. Indonesia's economic growth, in the last 4 years, is at a fairly stagnant number. Consecutively from 2014 to 2017, Indonesia's economic growth was 5.01%, 4.88%, 5.03% and 5.07%. In 2018, economic growth in Indonesia amounted to 5.17%. When compared to the previous few years, economic growth in 2018 became the highest point since 2014. In the same year, Papua Province as one of the provinces in eastern Indonesia, has a percentage of Gross Regional Domestic Product (PDRB) of 7.33%. This figure is quite good when compared to 2017 where the economic growth of Papua Province was 4.64%. Not only that, the provinces of North Maluku and South Sulawesi have PDRB of 7.92% and 7.06%. This figure is far superior to the PDRB of the capital DKI Jakarta which is 6.17%. However, with the high GDP owned by each province, it should be a benchmark in the success of economic development, has not been able to reduce the number of poor people who are there. Poverty is one of the economic problems in Indonesia, especially in eastern Indonesia, according to Kuncoro (1997) poverty is the inability of a person to meet the minimum standard of living. Basic needs in life consist of clothing, food, boards, education and health. Based on data released by the Central Statistics Agency (BPS). Papua province is the province with the highest percentage of poor population in Indonesia. Overall, the percentage of the number of poor people in eastern Indonesia in 2018 is still quite high with the papua province in the first place with 27.43% followed by West Papua at 22.66% Maluku at 17.85% Gorontalo 15.83% and Central Sulawesi 13.69%. This problem of poverty, occurs due to various factors, such as community limitations, low levels of education, limited health services, to low employment opportunities, resulting in insufficient living needs. According to Nugroho in Jacobus, Kindangen, & Walewangko (2018), stated poverty as a relatively low income ability, will cause a person's purchasing power in meeting needs to be low as well. This is very concerned with consumption in meeting daily needs, nutritional needs, and health. In this case there are several factors that cause low incomes that lead to poverty, including relatively low nutritional availability, poor health, less livable settlements and low levels of education.

In 2018, among the 10 provinces in eastern Indonesia, only 2 provinces whose average length of schooling is equivalent to the Upper School. The low level of education owned by 8 provinces in eastern Indonesia is one of the factors that are suspected to affect poverty in each province. Based on data from BPS. The average length of school in Papua Province in 2018 was only at 6.52, then West Papua Province was only 7.27 and the highest was Maluku Province with 9.58, although Maluku Province recorded the highest number, the average length of school owned was equivalent to graduates of Junior High School or equivalent. According to Anderson, Renzio, & Levy (2006), states that there is a strong relationship in reducing poverty by increasing public investment, at least in increasing public investment, poverty ranging from the state level to the region can be reduced or minimized. It is noted that the lowest province is West Papua with the amount of domestic investment only 50 billion per year, followed by papua province with 104 billion per year, then maluku province with 1013 billion per year. This is in line with the data on the percentage of poor people in the 3 provinces is quite high with data still above 17% of the poor population in 2018.

Similar research conducted by Aristina, Sri Budhi, Wirathi, & Darsana (2017), showed that education levels and economic growth have a negative influence on poverty in Bali Province. Furthermore, research by L.O & Ani (2019), showed that education has a negative influence on poverty in East Java Province. Further research by Pateda et al. (2016), states that investment has a negative influence on poverty, so that with increased investment it will reduce poverty.

The theory used in this study is a liberal theory, because in liberal theory states that the occurrence of poverty in a country, is due to the weakness of various aspects, some of the factors are human capital, business capital, infrastructure, natural capital, public institutional capital, and knowledge capital. In this regard, liberal theory supports the drive in the development of humans, one of which is from the educational factor to increase human capital owned by a country. In liberal theory, one of the backwardness in business capital, investment, can lead to poverty. So this theory supports to increase investment in order to reduce poverty. (Davis & Sanchez-martinez, 2015).

METHOD

The study used secondary data. Poverty data uses the percentage of the poor population, education levels using the average length of schooling, investment using the realization of domestic investment. The data was obtained from the Indonesian Central Statistics Agency. The data used is data per province and in the period 2016-2018. The variables tied to this study are poverty (Y), while the free variables in this study are education level (X1) and investment (X2).

The study used panel data that is a combination of *cross section* and *time series* data. The data analysis used is multiple linear regression. The equations used are as follows:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_n X_n + e$$

Information:

Y = Dependent variable

α = Constant

β_n = Coefficient of determination

X_n = Independent variable

e = Unemployed

The equation above is a multiple linear regression model of several free variables with one variable bound. Multiple linear regression model estimation aims to predict the parameters of the regression model i.e. constant values, and regression coefficients (α) β

RESULTS AND DISCUSSIONS

Based on the results of the selection of panel data regression models, the best model used in this study was the *Random Effect Model* (REM). Table 1 shows the results of the *Lagrange Multiplier* test.

Table 1. Lagrange Multiplier Test Results

chi^2	Probability	Test Indicator	Information
0,0000		Prob. < alpha (0.05) chi^2	REM selected method

Based on Table 1, the *Lagrange Multiplier* test in this study shows that the prob

value. It has a magnitude of 0.0000 which means it is smaller than 0.05. So in this study the REM model is the best model. χ^2

Once it is known that REM is the best model, it can be obtained the results of the following panel data estimates:

Table 2. Estimated Results

Dependent Variable: POVERTY		
Variable	Coefficient	Prob.
C	63.18745	0,0000
LOG(EDUCATION)	-23.28216	*0.0000
LOG(INVESTMENT)	-0.011148	0.8746
R-squared	0.471378	
Adjusted R-squared	0.439340	
F-statistic	14.71321	
Prob(F-statistic)	0.0000	

Based on table 2 shows that the regression coefficient of education level variables is -23.28216 with a *probability* of 0.0000. This shows that the level of education has a significant effect ($\alpha = 0.05$) on poverty. This is supported by the theory used in this study, that a high level of education is expected to reduce poverty. With the high level of education that the individual goes through, the individual can be educated and trained so that he can work and support himself and not become a poor individual. According to the results of the estimates obtained, increasing education by 1%, will reduce poverty by 23%, *ceteris paribus*.

Based on the results of estimates in table 2 shows that the regression coefficient of investment variables amounted to -0.011148 with a *probability* of 0.8746. This shows that investment has a negative and insignificant influence ($\alpha = 0.05$) on poverty. Similar results found in research Klein, Aaron, & Bitu (2001), stated that increasing investment will provide improvements to domestic capabilities. The relationship is very close to worker productivity, which will further increase worker incentives from increased investment. Supported by Sukirno in Pateda (2016), stated that investments made continuously can increase economic activities, so that investment can increase people's income and community prosperity.

Based on the results of the estimate in table 2 shows that the value of the coefficient of determination (R^2) is 0.47138 with a *probability* of 0.0000. The *probability* value is smaller than the level of significance ($\alpha = 0.05$), so the value can explain that the ability of education and investment level variables is able to explain the 47.13% of the probability variable. This proves that there is a significant influence of the level of education and investment together on poverty in Indonesia.

CONCLUSIONS AND SUGGESTIONS

1. The level of education has a significant negative influence on poverty in Indonesia. The regression coefficient of education level variables of -23.28216 means that every 1% increase in education level will be followed by a decrease in poverty by 23%.
2. Investment has a negative but insignificant influence on poverty in Indonesia. This is

indicated by the investment variable regression coefficient value of -0.011148 with a *probability* value of 0.8746.

3. The level of education and investment together has an influence on poverty in Indonesia. This is indicated by a determination value (R^2) of 0.47138 with a *probability* of 0.0000.

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