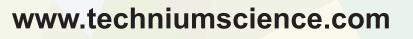# A new decade
for social changes

The Influence of Education and Income Poverty in East Java

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Abstract. This study aims to analyze the effect of education level and income on poverty in East Java either partially or simultaneously. The population in this study are East Java Province 2014-2018. This study uses a quantitative approach. The sampling technique with purposive sampling technique. The data collection method used is a method of documentation. The education variable is indicated by senior high school graduates equivalent, income is indicated by income per capita, and the number of poor people is taken from poverty information data based on the average expenditure per capita per month. The population in this study is the percentage of education aged 15 years who completed or equivalent to senior high school, data per capita income and poverty from 38 districts / cities. The samples taken by the researcher were 2 districts / cities with a high number of poor people in each the coordination territory While the method of analysis uses techniques panel data regression analysis. Based on the test results in this study, it is found that education and income have a significant effect on poverty.

Keywords. Poverty, Education, Income

Introduction

In East Java there are still many people who cannot fulfill their needs maximally. This is because the income they have is not sufficient to meet their needs. Or it could be because they don't have income to spend on their needs. The large number of poor people in an area will have a bad impact on the community. this impact can arise in the form of social problems caused by poverty. Such as murder, theft, robbery and many other crimes due to poverty. Especially in areas that have a dense population. If the problem of poverty is not immediately addressed, this social problem will increase and of course will harm the community.

Besides social problems, high poverty will also hinder the economic development of a country. Due to the high level of poverty, a country must pay more to solve or overcome this poverty. So that economic development will be hampered.

Based on data on poverty information from the Central Statistics Agency, East Java is one of the top 20 contributors to the number of poor people in Indonesia from 2014-2018, therefore it is necessary to observe the movement of the percentage of poor people in East Java, namely from 2014 to 2018 that has decreased from number 12, 42 percent in 2014 to 12.34 percent in 2015, fell again to 12.05 percent in 2016, fell again to 11.77 percent in 2017, then the number of poor people fell again to 10.98 percent in 2018 .

According to Sharp (in Kuncoro, 2006) when viewed from an economic standpoint, there are three factors causing poverty. First, poverty arises because of differences in resource ownership patterns which lead to unequal income distribution (inequality). Second, poverty arises from differences in the quality of human resources, low quality of human resources is caused by low education, unfortunate luck, discrimination or descent. In the end, low education will result in low wages received. Third, poverty due to differences in access to capital.

The educational problems above certainly hamper the improvement of the quality of our country's human resources. In connection with the problem of the number of poor people, education has a role in it. Because with education, the ability of the community can develop with the mastery of knowledge provided through formal education. Thus the community will have the ability and skills that can be used to meet the necessities of life.

Ihsan (2011) states that the level of education is a continuous stage of education which is assessed based on the level of student progress, the level of difficulty of learning materials and the method of delivery of learning materials. Furthermore, for the level of education that is in school is elementary school education, middle school and college.

Highly educated people can have high-paying jobs so they can finance their lives now and in the future. In today's modern era, education is very important because with higher education, people are expected to be able to keep up with existing technological developments, so that companies that need workers who can operate the latest technology will quickly get the desired workforce. Thus, a high level of community education will reduce poverty. This is in line with what Ustama (2009) explains, namely the main component of *human capability,* namely education which plays an important role in solving poverty problems. The level of higher education a person completes will reduce poverty in an area.

According to Gillis (2000) there are two reasons why education is important. First, because there is a lot of high demand for education, this happens because many people believe that higher education will benefit them. Second, because there are many observations that state that with a high level of education, income and social status in society will be lifted.

Research conducted by Azizah (2018) shows that education has a negative and significant effect on poverty. This shows that low education results in changes to poverty. Education is an investment in Human capital is at least as important as investing in physical capital for achieve a country's long-term economic success. Investments in human capital, the same as investments that can support economic success in a region. The higher the education, the more prosperous the community will be. This is different from the results of research conducted by Herman (2018) that the level of education does not have a significant effect on the poverty level, in this case it shows that a high level of education cannot guarantee reducing the amount of poverty in an area.

Poverty can also be based on a person's income resulting from his / her job, so that someone's work guideline is the level of income. A person who has a job with a low wage tends to be less than optimal in working and producing. Conversely, someone who has a high wage will have a special motivation to work and produce optimally. They do not realize that these actions will make themselves lose, because their wages are determined by the results of their own productivity (Teal in Maulidah, 2015).

Research conducted by Azizah (2018) states that per capita income has a negative and significant effect on poverty, because if the per capita income of a community decreases, poverty will increase. The per capita income of the community in an area can be used as a parameters of community welfare in the area. When per capita income increases then people can meet their basic needs easily so that poverty can reduced. It also identifies that the greater the income per capita a society, the more prosperous an area is. This is supported by research

by Fadlillah (2016) which states that per capita income has a negative and significant effect on poverty. It is also stated in Candra's (2012) research that per capita income has a negative and significant result on the number of poor people in Central Java. Sukirno (2006) explains that income is the wage a person gets after doing his job for a predetermined period of time, it could be every day, every week, every month or it could be every year. Based on the explanation above, the researcher is interested in making a study entitled the effect of education and income on poverty in East Java Province.

Method

This research uses a quantitative approach to research on a specific population or sample, data collection using research instruments, data analysis techniques that are quantitative or statistical in nature, with the aim of testing predetermined hypotheses. In this research using the correlation method to find the influence between the independent variables (independent), namely the level of education (X1) and income (X2) to the dependent variable, namely poverty (Y). Population In this study, the population of East Java province is divided into 38 district / city in 2014-2019. While the sampling technique using simple random sampling considerations is stated simple because the sampling of members of the population is done randomly (Sugiyono, 2015). So that the sample taken by the researcher is 2 districts / cities with a high number of poor people in each the coordination territory. As for the method The data analysis used was panel data regression analysis. Panel data is known as pooled data, namely the combination of *time series* and *cross section*data, micropanel data, longitudinal data, even history analysis and cohort analysis (Ghozali, 2013). The results of this analysis can then be used to determine the magnitude of the effect of the independent variables on the reciprocal relationship between theory formulation, testing and empirical estimation. Analysis Panel data regression is used to determine the magnitude of the relationship between the independent variables and the dependent variable partially and simultaneously.

Results and discussion

The constant value of 24.15 indicates that if the independent variables are considered zero, poverty is 10.42%. Based on the results of the t-test, it was found that the education variable on poverty obtained a significance value of 0.0089 <0.05 with a constant value of -0.448857, so it can be interpreted that the education variable has an effect on poverty. If education increases by 1%, it will reduce poverty by 0.4%.

This result is in accordance with the theory and framework developed, that the higher the education, the lower the poverty rate. Such as thetheory *human capital* according to Becker (2000) which explains that human investment in education, training and health will increase productivity. By improving the quality of education, training, and health, it will be able to improve the quality of education, training, and health, it will be able to improve the quality of the human being, because the view of one's assessment of the education that has been taken will be able to increase productivity so that it will have an impact on the income earned.

This research is in line with the results of research conducted by Aziz (2017), namely education has a negative effect on poverty, meaning that if public education increases it will reduce the poverty rate in society, the results of research on the education variable have a significant effect on poverty.

This research is also supported by Rumawas (2014) in his research that the variable level of education has a significant effect on poverty and the variable level of education shows a negative sign, this indicates that increasing education for the community will reduce poverty. But in this study it is different from the results of Giovanni's (2018) study, which explains that

the education variable has no significant effect on poverty, which means that there is no influence between education and poverty.

In addition, as explained by Amartya Sen (in Ustama 2016) that one way to reduce poverty is through education, education can be achieved if individual independence has been fully granted. So, to create a good quality education, the environment becomes a factor that affects the quality of one's education (Lucci et al, 2016). As the data obtained shows the low level of public awareness for higher education, from the the coordination territory data, the average population who attends the highest high school level is only around 20.76%. This figure is classified as very low, considering that East Java has launched a 12 year compulsory education program, so that residents in East Java are required to study at least high school graduation. There is still a lack of public awareness to get higher education, and they think that it is enough to get basic education. Basic education is also considered to be less effective in alleviating poverty because further education is needed so that the quality of its resources is better and is able to adapt to the environment (Wahyudi and Rejekiningsih, 2013). In addition, the results of the study are in line with the theory explained by Chambers that poverty occurs because basic human needs have not been fulfilled, and the opinion according to Suryawati (2004) is that poor conditions are caused by several things and one of them is the low level of education.

Thus can be explained the education level variable negative effect on poverty that is if the level of education increases then poverty will be reduced, so that the hypothesis alleged effect on the poverty level of education received and truth or Ha received and $H_{0 \text{ is}}$ rejected.

Based on the results of the t-test, it was found that the variable income to chemiskina obtained a significance value of 0.0055 <0.05 with a coefficient of 0.173613, so it can be concluded that there is an influence between the income variable on the poverty variable with a coefficient value of 0.173613 indicating if the income variable increases by 1% it will can reduce poverty by 0.17%.

The results of tests that have been carried out to see whether there is an influence between income variables on poverty. This is because the panel data regression test results show that the significant value of income to poverty is 0.0055 <0.05, which means that if income increases, it will reduce the level of poverty as well. The relationship between the influence of education variables on poverty in East Java is according to data taken in the five years 2014-2018.

The results of this study are consistent with the results of research conducted by Gultom (2013), namely income has a significant effect on poverty, so that an increase in income is always followed by a decrease in poverty. Besides that, the results of research by Fadlillah (2016) have different results, namely that in his research, if per capita income increases, the number of poor people will decrease. The per capita income variable has the largest coefficient, so that the per capita income variable is the variable that has the greatest elasticity that affects the number of poor people the most.

In addition, the results of research conducted by Frans (2017) indicate that the research results show that the results of research on income variables have a significant effect on poverty. This means that the higher income and income per capita can reduce the level of poverty.

Thus the results in this study explain that the income variable has a significant effect on poverty in East Java. So the hypothesis alleged effect on poverty of income, so the hypothesis allegedly received income poverty tehadap influential and proved truth or Ha received and H_0 is rejected.

Based on the results of the examiners in the study showed that education and income had a simultaneous effect on poverty. This is evidenced by thesignificance value *prob (f-*

statistic) of 0.000180 <0.05, which means that all dependent variables affect the independent variables. Thus, if all these variables increase, poverty will decrease. These results were obtained based on data taken from 2014 to 2018.

These results are in accordance with the results of research conducted by Amalia (2015) which explains the level of education taken by women. If they get a good education, it will be able to increase productivity, so that they will produce a decent wage to improve welfare. In addition, research conducted by Harlik et al (2013) states that good education will produce good quality human resources so that it will increase productivity and high productivity will produce good wages and are expected to alleviate poverty. This research is in accordance with research conducted by Maulidah (2015), namely that there is a significant effect of education and income on poverty.

Conclusion

There is a significant influence and has a negative value between the level of education on poverty. The negative value implies the effect of the opposite direction between the level of education on poverty, namely when the level of education decreases, poverty will increase and vice versa when the level of education increases, poverty in East Java will decrease.

There is a significant influence and has a negative value between income and poverty. The negative value implies the effect of the opposite direction between income and poverty, namely when income decreases, poverty will increase and vice versa when income increases, poverty in East Java will decrease.

There is a significant joint effect between education and income on poverty in East Java. The results of the data test have asignificance value *prob (f-statistic)* of 0.000180 <0.05, which means that all dependent variables affect the independent variables. Thus, if all these variables increase, poverty will decrease. These results were obtained based on data taken from 2014 to 2018. This means that if education and income towards poverty have increased, then poverty has decreased.

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