

The Effect Of Population And Economic Growth Towards Poverty Level In The East Borneo Province

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Diterima Pebruari 2020, Dipublikasikan Juli 2020

ABSTRACT

The purpose of this research was to determine the effects of population growth and economic growth on poverty levels in East Borneo Province. The analytical tool used in this research multiple linear regression with the help of the Eviews 10 program. Based on the results of the regression analysis, indicated that partially population growth shows the value of t-count was 0.413709 with the value of t-table was 2.77645, then $t\text{-count} < t\text{-table}$ so that population growth was positive and has no significant effect on poverty levels in East Borneo Province in 2011 to 2017, and economic growth showed that the value of t-count was 3.521670 with t-table 2.77645, then $t\text{-count} > t\text{-table}$ so that economic growth was positive and has a significant effect on poverty levels in East Borneo Province from 2011 to 2017. While simultaneously the results indicated that population growth and together economic growth shows the value of F-count was 8.39 and F-table was 6.94, the value of $F\text{-count} > F\text{-table}$ so that population growth and economic growth together have a significant effect on poverty levels in East Borneo Province in 2011 to 2017 at a 95% confidence level.

Keywords : population growth, economic growth, poverty rate

ABSTRAK

Tujuan penelitian ini adalah untuk mengetahui pengaruh pertumbuhan penduduk dan pertumbuhan ekonomi terhadap tingkat kemiskinan di Provinsi Kalimantan Timur. Alat analisis yang digunakan dalam penelitian ini regresi linier berganda dengan bantuan program Eviews 10. Berdasarkan hasil analisis regresi menunjukkan bahwa pertumbuhan penduduk secara parsial menunjukkan nilai t-hitung sebesar 0,413709 dengan nilai t-tabel 2,77645, kemudian $t\text{-hitung} < t\text{-tabel}$ sehingga pertumbuhan penduduk bertanda positif dan tidak ada berpengaruh signifikan terhadap tingkat kemiskinan di Provinsi Kalimantan Timur tahun 2011 hingga 2017, dan pertumbuhan ekonomi menunjukkan nilai t-hitung 3,521670 dengan t-tabel 2,77645, kemudian $t\text{-hitung} > t\text{-tabel}$ sehingga pertumbuhan ekonomi bertanda positif dan berpengaruh signifikan terhadap tingkat kemiskinan di Provinsi Kalimantan Timur dari tahun 2011 hingga 2017. Sedangkan secara simultan hasil penelitian menunjukkan bahwa pertumbuhan penduduk dan pertumbuhan ekonomi secara bersama-sama menunjukkan nilai F-hitung 8,39 dan F-tabel 6,94, nilai $F\text{-hitung} > F\text{-tabel}$ sehingga pertumbuhan penduduk dan pertumbuhan ekonomi secara bersama-sama berpengaruh signifikan terhadap tingkat kemiskinan di Provinsi Kalimantan Timur tahun 2011 hingga 2017 pada tingkat kepercayaan 95%.

Kata Kunci: Pertumbuhan Penduduk, Pertumbuhan Ekonomi, Tingkat Kemiskinan

INTRODUCTION

The development is a multidimensional process that includes changes in social structure, community life attitudes and a national institutions. The development also includes changes in economic growth rates, reducing income inequality and eradicating poverty. Poverty is a condition of people who do not / have not participated in the process of change because they do not have the ability, both ability in the possession of production factors and adequate quality of production factors so that they do not acquire the benefit from the results of the development process (Subandi, 2008: 78). According to experts, poverty is multidimensional. That is, because human needs are diverse, poverty also has many aspects. Judging from the general policy, poverty includes primary aspects in the form of poverty in assets, socio-political organization, knowledge and skills, and secondary aspects in the form of poverty in social networks, financial and information resources. The dimensions of poverty are manifested in the form of malnutrition, water, healthy housing, poor health care, and low levels of education (Arsyad, 2010: 299)

There are several factors that can affect the level of poverty that occur in a region, including population growth and economic growth. The root problem of poverty in relation with the higher population growth is the existence of jobs that cannot accommodate the needs of the labor force, so

that unemployment is created which become the results in poverty formation. Another factor that can affect poverty in a region is economic growth. The high economic growth in a region indicates that the government in that area is able to improve the welfare of the community. Economic growth is a process of changing the economic condition of a country continuously towards better conditions for a certain period. Economic growth can also be interpreted as a process of increasing the production capacity of an economic that is realized in the form of an increasing a national income generation. The existence of economic growth is an indication of the success of economic development (Putra, 2018: 41). Economic growth is the key to decreasing poverty in a region. It is an indicator to see the success of development and require poverty reduction. A decrease in poverty level in a region indicates that the development carried out a success. When the economy develops in a region (a country or certain smaller region), there is more income to spend, in which if it is well distributed among the population in the region will reduce poverty. In other words, theoretically, economic growth plays an important role in overcoming poverty reduction (Kuncoro, 2006: 18). Problem statement in this research are : 1). Does population growth have a significant effect on poverty rates in East Borneo Province?, 2) Does economic growth have a significant effect on poverty rates in East Borneo Province?, 3) Does population growth and economic growth have a significant effect on poverty rates in East Borneo Province?. The purpose of this study is to determine whether population growth has a significant effect on poverty rates in East Borneo Province, to find out whether economic growth has a significant effect on poverty rates in East Borneo Province, and to find out whether population growth and economic growth have a significant effect on poverty rates in East Borneo Province. In other words, the significance of this research is expected to provide useful information in understanding the effects of population and economic growth on poverty, so that a poverty alleviation solution can be found in the future.

REVIEW OF RELATED LITERATURE

Economics Development is a field of study in economics that studies about economic problems in developing countries and policies that need to be implemented to realize economic development (Sukirno, 2006: 3). Population growth is a change in population at any time, and can be calculated as a change in the number of individuals in a population using "per unit time" for measurement (Putra, 2018: 79). Population is the number of people who live in an area at a certain time and it is as a the result of demographic processes, namely fertility, mortality, and migration (Said, 2012: 136). Economic growth is a process of changing a country's economic conditions continuously towards a better conditions for a certain period. Economic growth can also be interpreted as a process of increasing the production capacity of an economy that is realized in the form of an increasing a national income generation. The existence of economic growth is an indication of the success of economic development (Putra, 2018: 41). Gross Regional Domestic product (GRDP) According to the Central Statistic Agency (BPS) is defined as the amount of added value generated by all business units within a region, or it is the total value of all the final value of goods and services produced by all economic units in a region. GRDP can be describe as the ability of a region to manage its natural resources. Therefore, the amount of GRDP produced by each region is highly dependent on the potential factors of production in the area. Todaro argues that poverty is a person or group of people who have often poor health conditions, many of them who cannot read and write, unemployed, and the prospect of achieving a better standard of living is very bleak (Todaro, 2011: 289).

Meanwhile, according to Subandi (2008: 77-78) that poverty can be seen as a state of society with a weak economic level, and coupled with government policies that generally directed to solve short-term problems. So the policy has not succeeded in solving the lower economic groups of the people. In addition, the influence of foreign conditions, among others in terms of development funding.

Relationship between Population Growth and Poverty Rate

There are three reasons that lead to high a population growth in retard the development (Kuncoro, 2007: 32):

1. High population growth will make a complicate choosing between increasing current consumption and the investment needed to make future consumption even higher.

2. Many countries that are still highly dependent on the agricultural sector, population growth threatens the balance between scarce natural resources.
3. Rapid population growth makes increasingly difficult to make the changes needed to increase economic and social change.

Based on this description, the population growth has a relationship with poverty rates. Where if the population growth is high, it will increase the rate of poverty in a region. Because of the high population growth not balanced with a good quality of a human resources, it will only become a burden of development that could potentially increase the poverty rate in the region.

The Relationship between Economic Growth and Poverty Rate

According to Siregar and Wahyuniarti (2008: 25), poverty is a situation where the annual income of individuals in an area cannot fulfill the minimum expenditure standards required by individuals to be able to live properly in the region. Individuals living under the expenditure standard are classified as poor. When the economy develops in an area (a country or a smaller region), there is more income to spend, which is distributed among the population in the region, will reduce poverty. In other words, theoretically economic growth plays an important role in overcoming poverty reduction (Kuncoro, 2006: 18). Based on the description of the theory, there is a relationship between economic growth and poverty levels. Where if the economic growth of a region is high, it will reduce the level of poverty in the region.

Hypothesis

1. It is suspected that population growth has a significant effect on poverty levels in East Borneo Province.
2. It is suspected that economic growth has a significant effect on poverty levels in East Borneo Province.
3. It is suspected that population growth and economic growth have a significant effect on poverty levels in East Borneo Province.

RESEARCH METHODS

This research used quantitative data, which is in the form of data expressed in units of numbers. The data used in this study are secondary data, i.e. data obtained from existing sources. It was an annual data from 2011 to 2017 and it obtained from the Central Statistics Agency in Berau in the form of publications. The analytical tools used in this study are multiple linear regression. The equation of multiple linear regression according to Sugiyono (2017:275) can be formulated as follows: $Y = \alpha + b_1X_1 + b_2X_2 + e$. In this case, the researcher performed a statistical regression test in studying the relationships between the variables so these relationships can be estimated if the independent variable is known (or vice versa). Partial test (t test) is used to determine the effect of each independent variable on the dependent variable. The simultaneous influence test (F test) is used to find out whether the independent variables together or simultaneously affect the dependent variable.

According to Ghozali (2013: 97), the coefficient of determination (R^2) basically measures how far the model's ability to describing the variations of independent variables. The coefficient of determination is between zero and one ($0 < R < 1$). A small R^2 value means the ability of independent variables to describe the dependent variables are very limited. A close value means that the independent variables provide almost all the information needed to predict the dependent variables

RESEARCH RESULTS

General Overview of East Borneo Province

East Borneo has an area of 127,346.92 km². East Borneo is the fourth largest province after Papua, central Borneo and West Borneo. East Borneo is located between 113°35' 31" and 119°12' 48" East longitude, and between 2°34' 23" North latitude and 2°44' 14" south latitude. Based on its geographical position :

1. East Borneo has boundaries:
2. North Borneo is in the north.

3. South Borneo is in the southern part.
4. West Borneo, Central Borneo, and the State of Malaysia are located in the west.
5. Celebes Sea and Makassar Strait are in the eastern part.

East Borneo is one of the gateways of development in the eastern part of Indonesia. The area also known as the wooden warehouse and mining products, it has hundreds of rivers spread across almost all regencies/cities and it is became the main means of transportation besides land transportation, and the longest river is the Mahakam River. East Borneo consists of seven districts, three cities, 103 districts, 834 villages and 198 villages. The seven regencies are Paser with Tanah Grogot capital, West Kutai with Sendawar capital, Kutai Kartanegara with Tenggarong capital, East Kutai with Sangatta capital, Berau with Tanjung Redeb capital, North Pasajam Penajam with Penajam capital, and Mahakam Ulu with Long Bangun capital (the expansion area) from West Kutai Regency). While the three cities are Balikpapan, Samarinda and Bontang. Of the 1,032 definitive villages / urban village there are 794 villages / urban village that are still self-supporting, 200 villages / urban village are self-employed and 38 villages / Urban Village are self-sufficient

The Research Result Data

Table 1. Population Growth Rates of East Borneo Province

No	Year	Populations	Growth (%)
1	2011	3.131.964	2,52
2	2012	3.216.101	2,69
3	2013	3.300.517	2,62
4	2014	3.350.932	1,53
5	2015	3.426.638	2,26
6	2016	3.501.232	2,18
7	2017	3.575.449	2,12

Table 2. Economic Growth Rates of East Borneo Province

No	Year	Gross Regional Domestic Product (GRDP) (million rupiah)	Growth rate (%)
1	2011	407.703.715,05	6,37
2	2012	429.255.473,63	5,29
3	2013	439.125.186,40	2,30
4	2014	448.138.120,80	2,05
5	2015	443.679.916,97	-0,99
6	2016	441.212.427,92	-0,56
7	2017	451.972.423,33	2,44

Table 3. Poverty Rates of East Borneo Province

No	Year	The number of poor (thousand people)	Poverty Rates (%)
1	2011	190,27	6,77
2	2012	189,20	6,46
3	2013	193,55	6,34
4	2014	195,33	6,26
5	2015	209,99	6,10
6	2016	211,24	6,00
7	2017	218,67	6,08

Analysis

The analysis in this study used multiple linear regression with Eviews 10 program. Based on the results of the regression analysis using Eviews 10, an estimation model was formed as follows.

Poverty rate = $5.932277 + 0.067458$ population growth + 0.083440 economic growth

Thus, it can be interpreted for each of the independent variables as follows:

1. The population growth variable has positive effect (+) on poverty levels in East Borneo Province with a regression coefficient value of 0.067458. It means that if the population growth rises by 1 percent, the poverty level will increase by 0.0675 percent.
2. The economic growth variable has a positive effect (+) on poverty levels in East Borneo Province with a coefficient value of 0.083440. It means, if economic growth rises by 1 percent, the level of poverty will increase by 0.0834 percent.

Based on partial hypothesis test results or t test results obtained for the independent variable X1 or population growth variable that $t_{count} < t_{table}$ means that H0 is accepted. Thus it can be concluded that the population growth variable (X1) is positive and has no significant effect on poverty levels (Y) in East Borneo Province with a regression coefficient value of 0.067458. That is, if population growth rises by 1 percent, the poverty level will increase by 0.0675 percent. Whereas the results of the t test for independent variables X2 or economic growth variables that $t_{count} > t_{table}$ means that Ha is accepted. Thus it can be concluded that the economic growth variable (X2) is positive and has a significant effect on the poverty rate (Y) in East Borneo Province with a coefficient value of 0.083440. It means, if economic growth rises by 1 percent, then the poverty rate will increase by 0.0834 percents. Based on the results of the simultaneous hypothesis test or F test, the results show that $F_{count} > F_{table}$ means that Ha is accepted. Thus it can be concluded that the population growth variable (X1) and economic growth (X2) together have a significant effect on the poverty rate (Y) in East Borneo Province at a 95 percent confidence level. From the regression results that have been processed, the R-square value of 0.807499 is obtained. It showed that population growth and economic growth had an effect on poverty level of 80.75 percent, while the remaining 19.25 percent is influenced by other variables not explained in the estimation model

Discussion

The Effect of Population Growth on Poverty Rate

The previous hypothesis on the equation in this study did not prove its existence. The first hypothesis said that population growth has a significant effect on poverty rates in East Borneo Province. From the results of the processed data (Eviews 10), the population growth variable was positive and had no significant effect on poverty levels in East Borneo Province in 2011 to 2017 with a regression coefficient of 0.067458 and a tcount of 0.413709. These results are in line with research conducted by Feby Septajaya (2014: 57) that population growth does not have a significant effect on poverty levels in Bengkulu Province. In calculating the population growth things that need to be considered therein are fertility, mortality and migration. In East Borneo Province, fertility (birth) and mortality (death) affect population growth but do not affect poverty levels. This can be seen on the infant birth or death of a family member, then the family concerned does not directly become poor or indirectly become rich. Similarly, the problem of migration which can affect population growth in the province of East Borneo. When there is a family that moves either in and out of East Borneo Province, the economic conditions was vary, it means that there were families whose economics can be said to be poor entering or leaving East Borneo Province, (and vice versa.). It also affects the level of poverty that is examined and makes population growth an insignificant influence. Population growth had a positive value and it had no significant effect on poverty in the province of East Borneo. This can be seen when population growth has increased, the level of poverty has also increased. And it can also be seen in certain years that when population growth increased, the poverty rate decreased (and vice versa.). That's why it is said that the population growth was not significant to the level of poverty in the province of East Borneo in 2011-2017.

The Effect of Economic Growth on Poverty Rate

The previous hypothesis said that economic growth had a significant effect on poverty levels in East Borneo Province. The results of the regression analysis showed that the variable of economic growth showed a tcount of 3.521670 with a table of 2.77645, then $t_{count} > t_{table}$ so that H_0 was rejected and H_a was accepted. Economic growth is positive and has a significant effect on poverty levels in East Borneo Province in 2011 to 2017. This is consistent with the previous hypothesis that economic growth has a significant effect the level of poverty. In general, economic growth has a positive and significant impact on poverty levels. This can be seen when economic growth has increased, the poverty rate has increased, (and vice versa.). This is in line with research conducted by Asrianti (2017: 71) who obtained the result that economic growth has a significant effect (0.019) and it is positively related to poverty levels in Indonesia. In this study also suggests the theory according to Todaro (2000: 211) that although the rate of economic growth does not automatically provide answers to various questions and welfare issues, but it remains an important element in its development program designed to alleviate poverty. Various studies conducted by economists have noted that economic growth plays an important role in reducing long-term poverty rates. Rapid economic growth and even distribution of income must be separated as development objectives. The results of data analysis showed that economic growth has a significant effect on poverty levels in East Borneo Province. If economic growth increased, income will increased and if income is well distributed to all levels of society, it will have an impact on the declining poverty rate. However, if economic growth increased, revenues were also increasing but not well distributed, and it will have an impact on the increasing level of poverty. Because if the increase in income is only perceived by a particular group or in other words a rich person, then poverty will not be decreased.

CONCLUSIONS AND SUGGESTIONS

Conclusion

Population growth has a positive value and does not have a significant effect on poverty levels in East Borneo Province from 2011 to 2017. In East Borneo, fertility (birth) and mortality (death) affect population growth but do not affect poverty levels. This can be seen in the event of infant birth or death of a family member, then the family is not directly poor or indirectly become wealthy. Similarly, the problem of migration which can affect population growth in the province of East Borneo. When there is a family that moves either in and out of East Borneo Province, the economic conditions was vary, it means that there were families whose economies can be said to be poor entering or leaving East Borneo Province, (and vice versa.) So that it also affects the level of poverty under study and makes population growth an insignificant influence. Economic growth has a significant influence on poverty levels in East Borneo Province. If economic growth increases, income will increase and if income is well distributed to all levels of society, it will have an impact on poverty levels that decline. However, if economic growth increases, the income also increases but if it is not well distributed, it will have an impact on poverty levels that increase as well. Because if the increase in income is only felt by certain groups or in other words, the rich, poverty will not decrease. Population growth and economic growth together show a Fcount value of 8.39 and a Ftable of 6.94 where the value of $F_{count} > F_{table}$ so that population growth and economic growth together have a significant effect on poverty levels in East Borneo Province in 2011 until 2017 at a 95 percent confidence level.

Suggestion

With the results of this research that economic growth has a significant impact on poverty levels in East Borneo Province, the local government should be able to implement a development oriented to the revenue distribution. Because if economic growth has increased, the income will also increase and if it well distributed to all levels of society will result in increased community welfare so as to reduce poverty levels in the province of East Borneo. Because this research is still far from perfection, the authors expect that the future studies to be more attentive to the analytical method to be used, the selection of independent variables also needs to be considered so that there are no similar errors in the F test and its t test. The period of the year should be increased even more so that when processing data the results obtained are satisfactory and the use of data processing software is better to use the latest version so that the data presentation is clearer and maximal.

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