International Journal of Science Academic Research
Vol. 01, Issue 08, pp.564-567, November, 2020
Available online at http://www.scienceijsar.com

ISSN: 2582-6425

Research Article

ANALYSIS OF THE INFLUENCE OF ECONOMIC GROWTH, PER CAPITA EXPENDITURE ON POVERTY IN JAMBI PROVINCE

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Received 19th September 2020; **Accepted** 15th October 2020; **Published online** 30th November 2020

Abstract

This research is a study that uses skunder data namely Time Series data from 2000 - 2019 conducted in Jambi Province. This research using analysis tools is a multiple linear regression using Eviews 8 as a software in analyzing the data used in this study. The variables used in this study are variable independent of economic growth and per capita expenditure, while the independent variables used in this study are poverty. The results of this study show simultaneously economic growth and per capita expenditure have a negative effect on poverty in Jambi Province, while partial economic growth and per capita expenditure have a positive relationship and influence on poverty.

Keywords: Poverty, Economic growth, Per capita spending.

INTRODUCTION

Suharto (2009) Poverty is basically a classic issue that has existed since mankind existed on this earth. Until now, there has not been a formula or prescription (formula) of poverty management that is considered the most precise, and there is no single concept about poverty. Poverty reduction strategies must still be continuously developed. Friedman in Kuncoro (1997), poverty is an inequality of opportunity in accumulating a social power base. Social power bases include: productive capital, financial resources, social and political organizations, social networks, knowledge and skills, and information useful for life progress. Widodo (2006). Poverty can be divided into two: absolute poverty and relative poverty. Absolute poverty is a degree of poverty where the minimum need for survival cannot be met, whereas relative poverty is a measure of inequality in its income distribution that can usually be defined in relation to the average level of distribution. Zakaria in sudirman (2017) Poverty is a complex problem influenced by various interconnected factors, including the income level of society, unemployment, health, education, access to goods and services, location, geography, and environment. According to Emil SalimKemiskinan is a situation where people or residents cannot meet basic needs and they are said to be below the poverty line if income is not enough to meet the most basic needs. Poverty in Jambi Province in the period 2010 to 2019 showed a relatively low poverty rate where in 2010 the poverty rate in Jambi Province of 260,400 people with the growth of the poverty rate in 2011 -3.30 percent showed that poverty in jambi province decreased, but in 2012 the poverty rate in Jambi Province increased by 6.63 percent. But the poverty rate fell back in 2016 to -3.62 percent, with the average annual poverty growth in Jambi province over the past 10 years being 0.66 percent. Poverty Mapping in Jambi Province must determine the depth and severity of poverty so as to determine the scale of priority in poverty alleviation. The following can be seen the percentage growth of the poor (P0), poverty depth index (P1) and poverty severity index (P2) of Jambi Province during 2010-2018 which can be seen from the following Table 01.

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Table 1. Percentage Growth of Poor People (P0), Poverty Depth Index (P1) and Poverty Severity Index (P2) of Jambi Province during 2010-2019

Year	Percentage of The Poor (P0)	Poverty Depth Index (P1)	Poverty Severity Index (P2)
2010	8,40	1,21	0,30
2011	7,90	1,02	0,23
2012	8,28	1,37	0,26
2013	8,41	1,12	0,26
2014	8,39	1,12	0,23
2015	8,86	1,42	0,35
2016	8,41	1,47	0,37
2017	8,19	1,28	0,29
2018	7,92	1,30	0,32
2019	7,60	1,23	0,30
Average	8,24	1,25	0,29

Table 01 above describes the percentage of poor occupation (P0) during the period 2010 to 2019 averaging 8.24 percent. As for the poverty depth index (P1) and the poverty severity index (P2) in the same year period, the average is 1.25 for the poverty depth index (P1) and 0.29 for the poverty severity index (P2) respectively.

The Foundation of theory

Poverty

Todaro (2003) Economic Growth plays an important role in driving the nation's economic life, as capital formation increases production capacity, raises national income and creates new jobs, in this case further expanding employment opportunities. Arsyad, (1999) Shows that there is a Labor effect on poverty through economic growth. According to The Solow-Swan economic growth theory, economic growth depends on the increase in the provision of production factors (population, labor, and capital accumulation) and the rate of technological advancement. This theory view is based on the assumption underlying the Classic analysis, which is that the economy will continue to experience full employment and the capacity of capital equipment will remain fully in use at all times. Supriatna (2000) Poverty is an all-round situation that

occurs not desired by the poor. The general population is characterized by low levels of education, work productivity, income, health, and nutrition and well-being thus indicating a circle of helplessness. Poverty is caused by limited human resources owned and utilized primarily from formal and informal levels of education and carries consequences for low informal education. Kuncoro (2006) described poverty as an inability to meet minimum living standards. The World Bank as quoted by Prayitno (2001) shows the three dimensions of poverty, namely First, multidimensional poverty, meaning that because human needs are diverse, then poverty has many aspects. Judging by general policy, poverty covers the primary aspects of poor assets, socio-political organizations, and knowledge and skills; and secondary aspects of poor social networking, financial resources and information. These dimensions of poverty manifest in the form of malnutrition, water, unhealthy housing, poor health care, and low levels of education. Second, aspects of poverty are interconnected both directly and indirectly. It is. This means that progress and or setbacks in one aspect can affect progress or setbacks in other aspects. Third, that the poor are human beings, both individually and collectively. Where we often hear the words urban poverty and rural poverty.

Economic Growth theory

Berardi and Marzo, (2015). The relationship between economic growth and poverty is complex and controversial. In general, economic growth is precondition for poverty reduction. But this is not enough, various studies have tried to analyze the relationship between economic growth and poverty which can methodologically be grouped into the first two Groups focusing on the relationship between poverty, income growth and income distribution. Sukirno in sudirman *et al.* (2018), economic growth and development has a different definition, namely economic growth is the process of continuous increase in per capita output in the long term. Such economic growth is one indicator of development success. Thus, the higher economic growth usually the higher the welfare of the people, although there are other indicators namely income distribution. Wijaya (2009) stated that economic growth is a situation where there is an increase in Gross National Product or Rill National Income. Economic growth occurs when there is an increase in output per capita. Arsyad (2009) growth is defined as a rise in GDP/GNP regardless of whether the increase is greater or smaller than the population growth rate, or whether there is a change in economic structure or not.

Agrawal, (2008). Economic growth has a negative relationship with poverty, while inequality has a positive relationship with poverty. When economic growth is followed by an increase in the number of workers and high levels of real wages, it will have a significant effect on poverty reduction. Ahmad, (2008). Economic growth has a negative and significant effect on the number of poor people, meaning that the higher the economic growth, the less the number of the poor. Siregar *et al.* (2008). Economic growth has a significant effect on the decline in the number of poor people even with smaller magnitudes, such as inflation, population, agricultural sector, and industrial sector. Wongdesmiwati, (2009) Economic growth and variable literacy rates negatively and significantly affect the number of the poor. Yusmarita, (2009). Economic growth negatively and significantly affects the poverty of the poor and the poverty rate will decrease.

Per capita expenses

Hasibuan in Alawi (2006) affirmed the budget to address poverty levels. The study's findings shed light on the negative relationship between income budgets and the number of poor people. This means that the higher the income budget, the lower the poverty level. Of course, the budget in question is allocated to make the program to address the level of poverty well that ng. short-termmaupn long term. Sukirno, (2012) The amount of government per capita expenditure to be made in a given period depends on many factors. One is the amount of tax received. The tax received by the government will be used to finance various government activities. Part of the government's spending is to finance government administration and partly to finance development activities. These expenditures will increase aggregate spending and increase the level of economic activity of a Country. Wahyu et al, (2018) Per capita income has a negative and significant effect on the poverty of east Java regency and province. With a probability value of $0.0903 < \alpha = 0.10$ and t-count -1.702527 < t-table 1.28612.

METHODS

Research Methods Used

The research method used in this study is a secondary data analysis method presented in the form of annual data /series 2000 until 2019. Secondary data is obtained from the relevant agencies and then the data is described in quantitative and qualitative descriptive terms.

Data Analysis Methods

The analysis model used for hypothesis testing in this study is: Boediono, (2000) Model regression equation in this study with the following basic model specifications:

Poverty = f { GE, PP}, based on the basic model can be formulated into multiple linear regression equations with time series data as follows:

$$\mathbf{LogPoverty_t = \beta_{0t}+\beta_1 GE_t+\beta_2 LogPP_t +\mu_t}$$

Poverty = Number of Poor People (Souls)
GE = Pertumbuhan Ekonomi Provinsi Jambi (Persen)
PP = Economic Growth of Jambi Province (Percent)
Log = Logaritma
β_0 = Constanta
β_1,β_2 = koefisienregresion
μ = standar error
t = Time

For variable relationship of Economic Growth (GE), Per capita Expenditure (PP), with poverty (Poverty in Jambi Province in general, using pearson correlation analysis model with SPSS sofware version 21.0 which can be described in the following functions:

$$r = \frac{n\Sigma xy - \Sigma x\Sigma y}{\sqrt{n\Sigma x^2 - (\Sigma x)^2}\sqrt{\Sigma y^2 - (\Sigma y)^2}}$$

Multiple linear regression tests using the Least Square Ordinate (OLS) can be performed after the model of this study

meets the requirements that are to escape the classic assumptions. The conditions that must be met are that the data does not contain multicholinearity, and heterokedastisitas. Therefore, before conducting multiple linear regression tests it is necessary to first test the classic assumptions, which consist of:

a. **Multicholinearity Test:** Multicholinearity is a symptom where there is a correlation between independent variables. A good regression model is that there is no correlation between independent variables. In the event of a correlation, then this variable is not orthogonal which means that independent variables have correlation values between fellow variables equal to zero. To detect whether multicholinearity occurs or not in the model, it can be seen whether R-Squared is generated by high estimation, but individually many independent variables are insignificant.

b. **Auto correlates test:** Auto correlation (serial correlation) is a correlation that occurs among adjacent observation members. If this assumption is not met then the OLS (Ordinary Least Square) estimator is no longer efficient. As the confidence lapse gets wider, it means the t and F tests become invalid and less powerful.

Hypothesis Test

Statistically hypothetical test, at least this can be measured from statistical value t, statistical value F and determination coefficient value. Statistical calculations are called statistically significant if the statistical test scores are in critical areas (areas where Ho was rejected). Instead it is called insignificant when the statistical test score sits in the area where Ho was received.

a. **Individual Parameter Significance Test (Statistical Test t):** The t test was conducted to see the significance of the influence of individually free variables on bound variables by assuming other free variables are constant. At the significance level $\alpha = 5\%$ with the test used is as follows: H0 is rejected H1 is received if t statistical > t probability value (p value), which means its independent variable (X) significantly affects dependent variables.

b. **Simultaneous Significance Test (Statistical Test F):** tatistical Test F basically shows whether all independent or free variables included in the model have a co-effect on dependent variables. Hypothesis used: $H0 : \beta1 = \beta2 = 0$

c. **Determination Coefficient:** The R2 determination coefficient essentially measures how far the model is able to explain variations in independent variables. The determination coefficient value between 0 and 1 ($0 < R2 < 1$), a small value (R2), a small value means the ability of independent variables to describe variations in independent variables is very limited. A value approaching 1 means that an independent variable provides almost all the information needed to obtain a prediction of dependent model variations. The higher the coefficient of determination, the better the ability of independent variables to describe dependent variables.

RESULTS

In accordance with the research method to look at the factors that affect poverty level, quantitative analysis is needed to see how much influence economic growth, per capita expenditure, population, human development index and labor force on poverty in Jambi Province, with quantitative model testing using The Multiple Linear Method, through Eviews program version 8.0, where the results of the Hypothesis testing of Multiple Linear Regression models can be seen as follows :

Table 2. Multiple Linear Regression Results With Eviews 8.0

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	297.3802	82.93893	3.585532	0.0030
GE	-0.157488	0.048441	-3.251130	0.0023
LOG(PP)	-1.351797	0.961098	1.406513	0.1814
R-squared	0.870003	Mean dependent var		9.761500
Adjusted R-squared	0.823575	S.D. dependent var		1.906093
S.E. of regression	0.800615	Akaike info criterion		2.636452
Sum squared resid	8.973781	Schwarz criterion		2.935172
Log likelihood	-20.36452	Hannan-Quinn criter.		2.694765
F-statistic	18.73895	Durbin-Watson stat		0.925810
Prob(F-statistic)	0.000009			

Dependent Variable: LOG(Poverty)
Method: Least Squares
Date: 09/23/20 Time: 08:47
Sample: 2000 2019
Included observations: 20

Significant on $\alpha = 5\%$
$LogPoverty = 297.38 – 0.157GEt – 1,352LogPPt + \mu t$

The value of the β0 coefficient for the district /city is 297.38 means that, if in the period 2000-2019 there is no change in economic growth (GE), per capita expenditure (PP), assuming constant, then poverty (Poverty) in Jambi Province is increasing by 297.38 people per year. The variable regression coefficient of economic growth (GE) (β1) is obtained a value of -0.157 meaning that in the event of an increase or increase in economic growth (GE) of 1 percent, it will decrease poverty in Jambi Province by 0.157 percent assuming that another variable remains (Cateris paribus) or no change or constant. In this case, it is explained that the poverty reduction efforts of local governments have not been optimal, as a result of the rapid economic growth that is not followed by the system of controlling the surge of human urbanization towards the mobility of production factors. So the potential that the area has becomes an attraction for the surrounding area. This is a negative response to poverty, so that high economic growth has little impact on the decrease in poverty rate in Jambi Province. The variable regression coefficient of per capita expenditure (PP) (β2) is obtained a value of 1,352 meaning that in the event of an increase or increase in per capita expenditure (PP) in Jambi Province by 1 percent, it will decrease poverty by 1,352 percent assuming that other variables remain (Cateris paribus) or no change or constant.

Hypothesis Test

Based on a partial statistical test with a confidence level of $\alpha = 5\%$, obtained t-statistical values for economic growth variables (GE) (β1) whose value is greater than t-prob (3.251130>0.0023), meaning H0 rejected H1 is accepted. This indicates that economic growth (GE) during the period 2000-2019 had a significant effect on the decrease in poverty in Jambi Province, with the confidence level below $\alpha = 5\%$. In

contrast to the t-statistical value for the per capita expenditure variable (PP) (β2) obtained a value greater than t-prob (1.406513>0.1814), meaning H0 rejected H1 is accepted. This shows that per capita expenditure (PP) has no significant effect on the decrease in poverty in Jambi Province, with a confidence level above α = 5% (confidence level α 18.14 %). Nevertheless in this study used a confidence level α = 5%. So the effect of per capita expenditure is greater than other variables but not significant in lowering the poverty rate of jambi province. Local government efforts to allocate per capita spending are not optimized to lower poverty rates. Therefore, it is necessary to have the right policies in addressing this issue in order for per capita spending to be effective and optimal to reduce poverty in Jambi Province. The variable regression coefficient of per capita expenditure (PP) (β2) is obtained a value of 1,352 meaning that in the event of an increase or increase in per capita expenditure (PP) in Jambi Province by 1 percent, it will decrease poverty by 1,352 percent assuming that other variables remain (Cateris paribus) or no change or constant. Based on the equation of the table above, the F-statistical value is greater than the value of F-prob (18.73895>0.000009) at the = 5%. That is, H0 is rejected and H1 is accepted. This shows that together the variable economic growth (GE), per capita expenditure (PP), has a significant effect on the ups and downs of poverty in Jambi Province during the period 2000 to 2019. From the calculation of R-squared shown in the equation above obtained a value of 0.870003. This shows that about 87.00 percent of the ups and downs of district/city poverty in Jambi Province from 2000 to 2019, influenced by economic growth variables (GE), per capita expenditure (PP), while the remaining 13.00 percent, are explained by other variables that are not included in the regression equation in this study.

Multicholinearity Test

One way of detecting whether multicholinearity occurs or not in the model, can be seen R- Squared produced by a high estimate of 0.870003 and individually one of the significant independent variables against dependents then there is no multicholinearity in this equation.

Auto correlation test

Testing the phenomenon of auto correlation in this study using the Durbin-Watson test. Based on durbin-watson testing it is known that the equation is free of auto correlates. Dw calculated value (2.694765) is located between 4-du ≤ DW ≤ 4-dl or (2.0226 ≤ 2,694765 ≤3.3148) with the sum of n = 20 and dl =0.6852 and du = 1.9774 i.e. in the region there is no negative autore correlation. In the results of the DW test calculation it can be said that the regression equation above passed the classic assumption test of auto correlation.

Conclusions and Suggestions

Economic growth (GE) and Per capita Expenditure (PP) partially negatively and significantly in reducing the poverty of Jambi Province, but simultaneously economic growth, per capita expenditure, had a significant effect on the ups and downs of jambi province poverty with a large R-squared 87.00 percent. This indicates the high role of economic growth and per capita spending in determining the high poverty in a region.

The growth of a region is a real manifestation of development in a region in order to decrease the poverty rate, but this can in fact be inversely proportional to the high poverty rate in Jambi Province, this is due to the high inequality of income distribution in Jambi Province. Perkapita expenditure is the amount of public consumption caused by the high volume of people's income, of course this as a symbol of the productivity of the community that is ultimately to suppress the poverty rate in Jambi Province. In order to reduce poverty rates in Jambi Province the government should increase production in all economic and non-economic sectors in order to increase the volume of income of a region. In order to increase per capita spending the government must increase people's productivity by creating jobs and optimizing optimal utilization of natural resources.

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