

Analysis of the Number of Population, the Number of Unemployment and Human Development Index (HDI) on Poverty Level in District / City of Bengkulu Province Indonesia



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ABSTRACT: The objectives of this research are to analyze the influence of the number of population, the number of unemployment and Human Development Index (HDI) to poverty level in Bengkulu Province Indonesia. The types and sources of data used in this study was secondary data. The method of analysis used the data panel analysis as a data processing tool by using Eviews program. With the Common effect approach, Fixed Effect Model Approach, and Random Effect Model Approach. Based on the result of data analysis, the result of the research show that the regression analysis of panel data yields the conclusion that equation with the right fixed effect model used. The calculation of panel analysis is obtained from the equation of fixed effect model as follows:

$$Y = 1.584864 - 5,206005 X1 + 0,282030 X2 + 0.000173 X3.$$

Based on the F test the probability F value obtained is 0.0000 (smaller than $\alpha = 0.05$). Thus we can reject H_0 and draw the conclusion that the number of population, the number of unemployment and HDI variables simultaneously or together significantly influence poverty level in Bengkulu district/ city. Partially the number of population (X_1), and the number of unemployment (X_2) have significant influence to poverty level (Y) whereas HDI (X_3) has insignificant influence on poverty level (Y) in District / City of Bengkulu significant ($\alpha = 0,05$) with value R^2 equal to 0,991.

KEYWORDS: The number of Population, The number of Unemployment, Human Development Index, and Poverty Level

INTRODUCTION

Background of the problem

National development is one of the efforts to create a just, prosperous, competitive, advanced and prosperous society. Various development activities have been carried out by the Indonesian government, especially in areas that are still lagging behind other regions to generalize development in various regions. One of the main indicators of development success is the reduction in the number of poor people. According to the Central Statistics Agency (BPS), poverty is seen as an economic inability to meet basic food and non-food needs as measured from the expenditure side. So the poor are people who have an average monthly per capita expenditure below the poverty line. The problem of poverty is a strategic issue for Bengkulu Province and a priority to be addressed. On average, Bengkulu Province is in second place with the highest poverty rate on the island of Sumatra after the Province of Nanggroe Aceh Darussalam (NAD).

The fast growth rate of the labor force and the relatively slow growth of employment have caused the unemployment problem in an area to become more serious. The large number of unemployed is a reflection of the lack of success of development in a country. Unemployment can affect poverty in various ways (Tambunan, 2001). This is supported by the research of Wirawan (2015) with the results of research that the unemployment rate partially has a positive and significant effect on the number of poor people in Bali Province in 2013-2017.

Based on the background of the problem above, the poverty rate in Bengkulu Province is the second highest after NAD Province when compared to the poverty rate in all provinces on the island of Sumatra. Therefore, it is important to know the factors that influence poverty in Bengkulu Province. In this study, we will see how the variables of population, number of unemployed and HDI, on the level of poverty in the district/city of Bengkulu Province in 2016-2020.

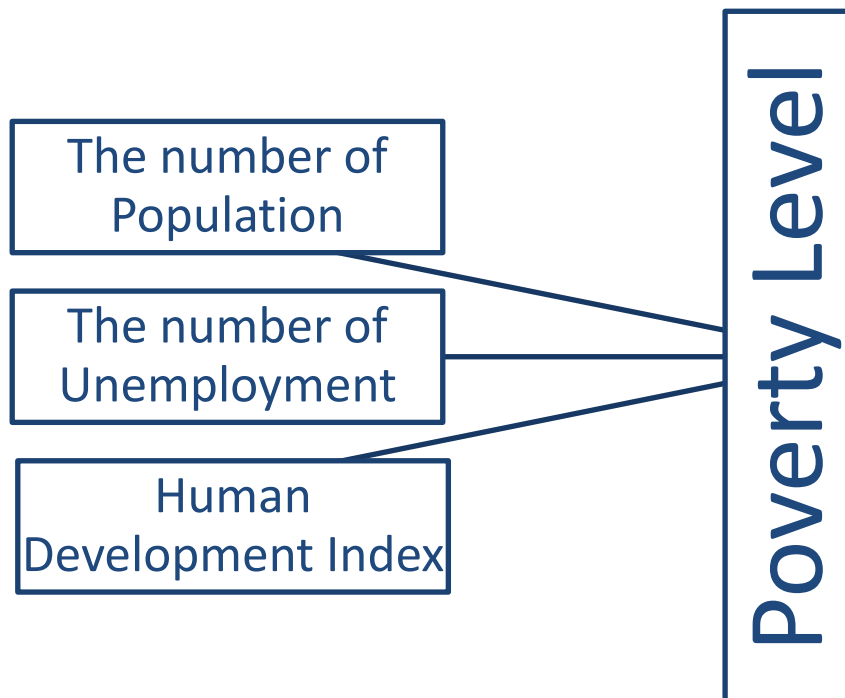
The Objectives of the Research

1. To analyze the effect of population on poverty in Bengkulu Province.
2. To analyze the effect of unemployment on poverty in Bengkulu Province.
3. To analyze the influence of the Human Development Index (HDI) on poverty in Bengkulu Province
4. To analyze the effect of the number Population, the number of Unemployment

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and Human Development Index (IPM) on poverty in Bengkulu Province

RESEARCH FRAMEWORK



Picture 2.1 Research Framework

RESEARCH METHODS

Types of research

This type of research is an empirical study of the effect of the number of population, the number of unemployment and the Human Development Index (HDI) to the poverty rate in Bengkulu Province which was conducted based on secondary data for 2016-2020.

Data Types and Sources

The type of data used in this study is secondary data in the form of time series with a period of 5 years (2016-2020). These data include the number of population, the number of unemployed and the human development index (IPM) to the poverty level in the district/city of Bengkulu Province. The source of the data was obtained from the Central Statistics Agency (BPS) of Bengkulu Province.

Analysis Method

Panel Data Regression Analysis

This study uses panel data analysis (pooled data) as a data processing tool using the Eviews program. Analysis using panel data is a combination of time-series data and cross-sectional data.

RESEARCH RESULTS AND DISCUSSION

Model Interpretation

From the regression equation of the Fixed Effects model, it can be seen that the right equation model to see the effect of the number population, the number unemployment and HDI on the poverty level of the Regency/City in Bengkulu Province can be described in the following equation:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + u_i + \varepsilon_{it}$$

$$Y = 1,584864 - 5,206005 X_1 + 0,000173 X_2 + 0,282030 X_3$$

$$t\text{-statistik} = 0,206150 - 2,859763 + 2,038042 + 1,982824$$

$$F \text{ statistic} = 370,9783$$

$$R^2 = 0,991757$$

Where:

Y = Poverty Level (%)

X₁ = The number of Population (person)

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X₂ = The number of Unemployment (person)

X₃ = HDI (%)

From the regression results above, it can be interpreted as a regression coefficient test as follows:

a. In the regression equation, the value of 0 is obtained or a constant of 1.584864 percent, this means that if all the independent variables are 0 then the poverty rate in the Regency/City in Bengkulu Province is 1.584864 percent.

b. β_1 = Regression coefficient for X₁ = -5.206005 people, this shows the magnitude of the effect of the population variable on the poverty level, meaning that if the population variable increases by 1 percent, the poverty rate will decrease by 5.206005 percent, assuming the variable X₂, X₃ is fixed.

c. β_2 = Regression Coefficient for X₂ = 0.000173 people, this shows the magnitude of the influence of the variable number of unemployed on the poverty rate, meaning that if the variable number of unemployed increases by 1 percent, the poverty rate will increase by 0.000173 percent, assuming the variables X₁, X₃ are fixed.

d. β_3 = Regression Coefficient for X₃ = 0.282030, this shows the magnitude of the influence of the HDI variable on the poverty level, meaning that if the HDI variable increases by 1 percent, the poverty rate will increase by 0.282030 percent, assuming the variables X₁, X₂ are permanent. Whereas in theory it should be inversely proportional, that the influence of the HDI variable is negative on the poverty level.

Dependent Variable: Y?				
Method: Pooled Least Squares				
Date: 10/31/17 Time: 09:17				
Sample: 2011 2015				
Included observations: 5				
Cross-sections included: 10				
Total pool (balanced) observations: 50				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.584864	7.687907	0.206150	0.8378
X1?	-5.206005	1.82E-05	-2.859763	0.0069
X2?	0.000173	8.48E-05	2.038042	0.0487
X3?	0.282030	0.142236	1.982824	0.0534
Fixed Effects (Cross)				
_BS—C	3.470499			
_RL—C	4.403036			
_BU—C	2.116955			
_KAUR—C	3.282059			
_SELUMA—C	6.314507			
_MUKO2—C	-3.894751			
_LEBONG—C	-7.317940			
_KPHYANG—C	-3.013774			
_BT—C	-12.57478			
_KB—C	7.214184			

From the results of the fixed effect model regression above regarding the effect of the number of population, the number of unemployed and HDI, to the poverty rate in the district/city of Bengkulu Province, it can be described in the following equation:

$$\begin{aligned}
 Y_{BS} &= 3,42 - 5,21 X_1 + 0,37 X_2 + 0,000173 X_3 \\
 Y_{RL} &= 4,40 - 5,21 X_1 + 0,37 X_2 + 0,000173 X_3 \\
 Y_{BU} &= 2,12 - 5,21 X_1 + 0,37 X_2 + 0,000173 X_3 \\
 Y_{KAUR} &= 3,28 - 5,21 X_1 + 0,37 X_2 + 0,000173 X_3 \\
 Y_{SELUMA} &= 6,31 - 5,21 X_1 + 0,37 X_2 + 0,000173 X_3 \\
 Y_{MUKO2} &= -3,89 - 5,21 X_1 + 0,37 X_2 + 0,000173 X_3 \\
 Y_{LEBONG} &= -7,31 - 5,21 X_1 + 0,37 X_2 + 0,000173 X_3
 \end{aligned}$$

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$$Y_{\text{KPHYANG}} = -3,01 - 5,21 X_1 + 0,37 X_2 + 0,000173 X_3$$

$$Y_{\text{BT}} = -12,57 - 5,21 X_1 + 0,37 X_2 + 0,000173 X_3$$

$$Y_{\text{KB}} = 7,21 - 5,21 X_1 + 0,37 X_2 + 0,000173 X_3$$

From the equation above, it can be seen that the values of the BS, RL, BU, Kaur, Seluma, and Bengkulu City constants are positive. This shows that when the population and unemployment are assumed to be zero (none), the poverty rate increases. And conversely the value of the constants of Muko-Muko, Lebong, Kepahyang, and Bengkulu Tengah districts is negative, then the district experiences a decrease in poverty levels.

The Effect of the number of Population to the Poverty Levels.

If we look at the problems that affect the poverty level, it is not only because of unemployment but can also be seen from the side of the large number of people or it can be said that quantity does not match quality. Facts show that in most countries with a large population the poverty rate is also greater than in countries with a small population. From the model equation above, it can be interpreted that the population variable has a negative influence on the poverty level in the Regency/City of Bengkulu Province with a coefficient of -5.206005. To interpret the slope coefficient, it can be stated that for every 1 person increase in the value of the population, the poverty rate will decrease by 5.206005 people (note: we divide the estimated slope coefficient by 100) with the assumption of *ceteris paribus*. Taking into account the p-value of the probability of 0.0069 which is greater than = 0.05, it shows that partially the population variable has a significant effect on the poverty level.

The Effect of the number of Unemployment to the Poverty Levels

From the model equation above, it can be interpreted that the variable number of unemployed has a positive influence on the poverty rate in the Regency/City of Bengkulu Province with a coefficient of 0.000173. To interpret the slope coefficient, it can be stated that for every 1 person increase in the number of unemployed, it will result in a decrease in the poverty rate by 0.000173 people (note: we divide the estimated slope coefficient by 100) with the assumption of *ceteris paribus*. Taking into account the p-value of the probability of 0.0487 which is greater than = 0.05, it shows that partially the number of unemployed variables has a significant effect on the poverty level. This is supported by the theory of Todaro (2003), Unemployment has a very close relationship in influencing the level of poverty. The low standard of living is manifested qualitatively and quantitatively in the form of very low-income levels, inadequate housing, poor health, minimal or even non-existent education provision, high infant mortality rate, relatively very low life expectancy. short and low chances of getting a job. In terms of opportunities to get a job low means unemployment. High unemployment will cause income to decrease so that it cannot meet daily needs which will eventually experience poverty, thus the number of unemployed has a positive relationship to poverty.

The Effect of HDI to the Poverty Level

Based on the results of the study, it shows that HDI does not have a significant effect on the poverty level, this is evidenced by the positive and insignificant regression coefficient value.

The increase in HDI in Bengkulu Province is accompanied by an increase in the poverty rate, this is due to the unavailability of sufficient job opportunities for many high school graduates and even college graduates. For example, the University of Bengkulu alone annually releases no less than 1,500 alumni. All of them become job seekers and not all of them are accommodated by existing job opportunities. Coupled with other university and college graduates in Indonesia. Thus it can be concluded that the level of poverty that occurs in Bengkulu Province is caused by the high number of intellectual unemployment as a result of the unavailability of adequate employment opportunities.

Facts on the ground prove that many honorary workers are paid only Rp. 300,000 per month, while they themselves are undergraduates. Such as honorary teachers in kindergarten, early childhood, elementary, to high school. Moreover, at this time, schools were prohibited from collecting committee fees, and only relied on BOS funds. This is the fact that is the reason why a high HDI does not reduce poverty levels.

CONCLUSIONS AND SUGGESTIONS

1.1 Conclusion

1. The number of population and the number of unemployed causes the regencies of BS, RL, BU, Kaur, Seluma, and Bengkulu City to experience an increase in poverty levels. Meanwhile, the districts of Muko-Muko, Lebong, Kepahyang, and BT experienced a decrease in poverty levels.

2. The number of population and the number of unemployed affect the poverty level in Bengkulu Province. Meanwhile, HDI has no effect on the level of poverty, because the level of poverty continues to increase from year to year while the level of quality of human resources also increases in tandem. This shows that the quality of human resources is not able to reduce the level of poverty because the productivity of human resources is lacking, one of the reasons is the lack of business opportunities while every year the number of job seekers continues to increase, especially college graduates.

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1.2. Suggestion

It is hoped that the Bengkulu Provincial government needs to pay attention to improving the quality of human development in the field of education by providing scholarship assistance for outstanding students and students from underprivileged families. In the health sector, public health status must be continuously improved by providing adequate health facilities and conducting various programs through health education, provision of clean water and sanitation and health services.

Local governments are expected to continue to strive to reduce the number of unemployed by encouraging the entry of investment which is expected to create new jobs and local governments are expected to focus on creating infrastructure projects that are labor-intensive so that they can absorb more workers, especially local workers who have graduated from bachelor degrees who enter the workforce. resource category with a high HDI.

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