

## THE EFFECT OF UNEMPLOYMENT, EDUCATION AND THE NUMBER OF POPULATION ON THE POVERTY LEVEL OF REGENCY/CITY IN BALI PROVINCE

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**Abstract:** Poverty is a condition involving the inability to meet economic prosperity as a minimum requirement of a certain standard of living. Poverty is also a problem that is influenced by various interrelated factors. This study aims to analyze simultaneously and partially the effect of unemployment, education and population on the poverty level in the regency/city of Bali Province in the 2015-2020 period, as well as to analyze the variables with the dominant contribution in reducing poverty levels. The data analysis technique used is multiple linear analysis. The results of the analysis show that unemployment, education and population simultaneously have a positive and significant effect on the poverty level in the regency/city of Bali Province in the 2015-2020 period. The results show that 1) unemployment has a positive and significant effect on the poverty level. 2) education has a negative and significant effect on the poverty level and 3) the population has a positive and significant effect on the poverty level. The population has a dominant influence on the poverty level in regency/city in Bali Province in the 2015-2020 period compared to unemployment and education.

**Keywords:** *Poverty Rate, Unemployment, Education, Population*

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### 1. Introduction

Poverty is a condition that involves the inability to fulfill the minimum demands of life, especially in terms of consumption and income. In a proper sense, poverty is understood as a state of lack of money and goods to fulfill their standard of living. Therefore, poverty alleviation efforts must be carried out in a comprehensive manner that includes several aspects of people's lives, and implemented in an integrated manner (Nasir, 2008). Bali Province is one of the areas that are still facing problems and poverty alleviation. The high poverty rate in each regency/city in Bali Province makes this province still hit by poverty problems. Poverty in the province of Bali, one of which is caused by unemployment. This is due to the decline in people's income so they have to live with poverty and deprivation. An increase in the unemployment rate with a positive sign will cause poverty to strengthen. Unemployment has the effect of reducing people's income, so that it will reduce the level of community prosperity.

The COVID-19 pandemic has had a major impact on the economy, especially for workers who have been laid off and unemployed due to massive layoffs. Therefore, many workers decide to return to their hometowns and some change jobs in order to survive. During the pandemic, the government has consistently distributed social assistance (bansos)

in the form of direct cash assistance. The assistance was given in rural areas which was converted through village funds. This is quite effective in preventing the increase in rural poverty rates. According to research by Sileika & Bakeryte (2013), Malat & Timberlake (2013), Hu & Genevieve (2017), Aiyedogbon, & Ohwofasa (2012) which found that the unemployment rate had a positive and significant effect on poverty, which means that the higher the unemployment rate, the poverty will increase.

Another factor that also affects poverty is education. Education is one way to increase the knowledge of the population, because in current development it is very necessary to have the participation of an educated and skilled population in order to fully participate in regional development. Education is an investment in human resources in order to get a better life (Sudiharta & Sutrisna, 2014). Higher education can reduce the number of poverty. Purnami & Saskara (2016) in their research obtained the results that the education variable has a negative and significant influence on the number of poverty in regency/city in Bali Province. The low level of regional education can be seen from the average length of schooling of the population. The higher the education, the lower the poverty of the population.

The third factor that causes poverty is population. Population growth will have a positive impact if it can encourage economic development. This means that when there is an increase in population, more workers are able to encourage the production sector to increase economic activity. Meanwhile, population growth can also have a negative impact if its growth becomes an obstacle to economic development. Population growth can reduce poverty if people get jobs to fulfill their needs. According to Malthus' theory, rapid population growth in a country will lead to chronic poverty, and a universal tendency that the population of a country will increase very rapidly according to a geometric progression. In a study conducted by Azizah et al. (2018) concluded that the population has a positive and significant effect on the poverty level. This means that if the population increases, poverty will also increase. This is because the growth in food supply cannot keep pace with the rapid and high population growth, which then causes per capita income to tend to fall, which causes the population to be unstable.

## **2. Research Method**

This research design uses quantitative research in the form of associative. The research was conducted in all regencies/city of Bali Province, because it was found that there were inequality in poverty rates in each region. The object of this research consists of: poverty which is measured in thousand people, unemployment is measured by percentage, education level is measured in years, and the total population is measured in thousand people. This study uses secondary data obtained through BPS Bali Province. This data uses panel data, namely cross section data (9 regency/city in Bali Province) and time series (6 years of observations from 2015-2020), so the number of observations in this study is 54 data. The research data were analyzed using multiple linear regression analysis techniques.

## **3. Results and Discussion**

### **3.1. Results**

**Table 1.**  
Descriptive Analysis

	<b>Y Poverty</b>	<b>X1 Unemployment</b>	<b>X2 Education</b>	<b>X3 Population</b>
<b>Mean</b>	19.54	2.10	8.19	473.14

<b>Median</b>	19.47	1.59	8.08	444.60
<b>Maximum</b>	43.43	7.62	11.47	947.10
<b>Minimum</b>	8.76	0.34	5.42	175.70
<b>Std. Dev.</b>	8.32	1.75	1.61	220.06
<b>Observations</b>	<b>54</b>	<b>54</b>	<b>54</b>	<b>54</b>

Based on table 1 above, it is known that each variable consists of 54 data with the following explanation. The poverty rate has an average value of 19.540 people with a standard deviation of 8.320 people. The lowest poverty rate (minimum) is 8.760 people obtained by Klungkung regency in 2020 and the highest poverty rate (maximum) is 43.430 people in Buleleng regency in 2015. Unemployment has an average value of 2.10 percent with a standard deviation of 1.75 percent. The lowest unemployment rate (minimum) is 0.34 percent obtained by Badung regency in 2015 and the highest unemployment (maximum) is 7.62 percent obtained by Denpasar city in 2020. Education has a total average value of average of 8.19 years with a standard deviation of 1.61 years. The lowest education (minimum) is 5.42 years obtained by Karangasem regency in 2015 and the highest education level (maximum) is 11.47 years obtained by Denpasar city in 2020. The population shows an average value an average of 473.140 people with a standard deviation of 220.060 people. The lowest population (minimum) of 175.700 people obtained by Klungkung regency in 2015 and the highest population (maximum) of 947.100 people obtained by the city of Denpasar in 2019.

**Table 2.**  
**Multiple Linear Regression Test Results**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	39.96372	2.751969	14.52186	0.0000
Unemployment (X1)	0.768087	0.314989	2.438459	0.0183
Education (X2)	-5.032109	0.416786	-12.07360	0.0000
Population (X3)	0.040572	0.003029	13.39270	0.0000

Based on the results of the above analysis, the following regression equation is obtained:

$$\hat{Y} = 39,96 + 0,76 X_1 - 5,03 X_2 + 0,04 X_3$$

Based on the equation of the regression variable, it shows that the variable X1 (unemployment) has a positive coefficient with poverty, coefficient  $\beta_1 = 0.768087$  with a positive sign, which means that for every 1% increase in unemployment, the poverty rate will increase by 768 people. Variable X2 (education) has a negative coefficient with poverty, coefficient  $\beta_1 = -5.032109$  with a negative sign, meaning that for every one year increase in education, the poverty rate will decrease by 5,030 people. Variable X3 (population) has a positive coefficient with poverty, coefficient  $\beta_1 = 0.040572$ , which is positive, which means that for every 1 increase in population, the poverty rate will increase by 40 people.

Classical assumption is a hypothesis testing in a study that shows the regression model is feasible or not for further testing. classical assumption test consists of normality test, multicollinearity test, autocorrelation test, and heteroscedasticity test. The normality test aims to test whether the residual value of the regression modal that is made has a normal distribution or not, by using the jarque-bera test. The test results obtained that the jarque fallow value in the regression model was 1.892637 and the probability was 0.388167 greater

than = 0.05 which stated that the data was normally distributed or passed the normality test. Then the method used to test the presence or absence of multicollinearity is to look at the Variance Inflation Factors (VIF). The test results show that the value of centered VIF on the X1 variable is 1.110352, X2 is 1.707144 and X3 is 1.678090 is less than 10, so the regression model can be said to not contain multicollinearity symptoms.

The autocorrelation test aims to test the regression model whether there is a correlation between the confounding error in the current period and the previous period. the test results using the difference test obtained the value of Prob. F 0.0983 is greater than the alpha level of 0.05 (5%) then it is said to be free from autocorrelation symptoms or no autocorrelation symptoms occur. The heteroscedasticity test was carried out to test the regression model whether there was an inequality of variance from the residuals of one observation to another, using the statistical method with the White Test. the test results obtained a calculated probability F value of 0.5013 which means it is greater than the alpha level of 0.05 (5%) which means that there is no heteroscedasticity.

The F statistical test was carried out to see whether the independent variables included in the model were feasible to explain the dependent variable, and to prove whether simultaneously the independent variables had an influence on the dependent variable, namely poverty. the test results obtained the value of  $F_{\text{count}} (70.53633) > F_{\text{table}} (2.79)$  with a probability of  $0.000000 < 0.05$  which means that unemployment, education and population simultaneously have a positive and significant effect on poverty levels in the Regency/City of Bali Province. Evidenced by the coefficient of determination of 0.808875 which indicates that the proportion of the influence of the variable unemployment, education and population on poverty in the Regency/City of Bali Province is 80.88%. While the remaining 19.12% is influenced by other variables that are not included in the regression model.

### **3.2. Discussion**

The test results of the effect of unemployment on poverty levels in Table 2 show that unemployment has a positive effect on poverty levels in the Regency / City of Bali Province. These results mean that the higher the unemployment rate, the poverty rate will also increase. In line with Putra & Arka (2018) research that open unemployment has a positive and significant effect on poverty levels. In this case there is a relationship between unemployment and poverty levels. because people who are unemployed certainly do not have income so they cannot fulfill their daily needs, thus causing poverty. Unemployment certainly has a big influence on the level of poverty, because with the increase in the unemployment rate, the poverty rate will also increase. The poverty and unemployment rate in the regency/city of Bali Province will always increase, this happens because when there is a lack of job opportunities with a minimal number of vacancies opened but inversely proportional to the number of job seekers. The lack of job opportunities can also be sustainable with the quality of education.

The results of the test of the effect of education on the poverty level in Table 2 show that education has a negative and significant effect on the Poverty Level in the Regency / City of Bali Province. Education plays an important role in reducing poverty in the long term indirectly or directly through productivity training. The higher the education level, the greater the opportunity to get a decent job and a better income to maximize their welfare. The higher a person's education level, the knowledge and skills will also increase so that it will encourage an increase in work productivity. By having quality human resources, they can

compete in increasingly fierce competition. When job competition is getting tougher, the main indicators to look at are experience and education.

The results of the test of the influence of the population on the poverty level in table 2 show that the population is positively related to poverty, this means that the more the population increases and is not accompanied by productivity, the more the number of poor people. Increased and uncontrolled population growth will cause an increase in the number of people living in poverty. Poverty if it is not accompanied by an increase in the quality of human resources. To overcome these problems, the Indonesian government, especially the Bali provincial government, must also pay more attention to reducing the rate of population growth by implementing the Family Planning (KB) program in the community.

Based on the test results of the dominant variable, it is known that the variable that has the largest standardized coefficient value is the population of 1.07 so it can be concluded that the population variable is the variable that has the dominant influence on the poverty level in the Regency/City in Bali Province. This happens because the population affects development as well as the poverty level, where the population is all people who live in an area for a month or more or vice versa those who live less than 6 months but aim to settle down. In this case, population growth can increase rapidly and make it increasingly difficult for the government to make the changes needed to solve economic problems, especially poverty and the level of community welfare.

#### **4. Conclusion**

Based on the results of the analysis and discussion, it can be concluded that unemployment, education and population have a simultaneous and partial effect on the poverty level in the Regency/City of Bali Province. The population variable has a dominant effect on the poverty level of the Regency/City of the Province of Bali. It can be suggested that the Bali Provincial Government should further expand job opportunities. Offsetting the increase in the number of workers with more job opportunities. The government should also provide training that can improve the skills possessed by the workforce, so that people can get jobs that match their expertise. In this case, unemployment needs to be suppressed so that poverty does not increase. It is hoped that the provincial government of Bali will further improve the quality of education, which is marked by the increasing number of graduates at the high school and tertiary level. Thus, it allows residents to be able to work according to their educational background and be able to earn a better income. In this case, it is necessary to make efforts to reduce the rate of population growth, for example by intensifying family planning programs for the community, through regulating the number of children so that family needs can be achieved. In addition, population growth can be accompanied by the progress of other development factors that support the quality of life of the community

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