Effect of Human Development Index (HDI), Unemployment, and Investment Realization toward Poverty in South Sulawesi-Indonesia

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Keywords

Abstract

\textit{HDI};
This research aims to find out the impact of the manufacturing sector and the agricultural sector on poverty alleviation in the province of South Sulawesi during the period 2005-2017, and to know the sector that has the greatest impact on poverty. The data analysis to be carried out in this study is divided into two: descriptive analysis and inferential analysis. Both of these techniques were used together in the analysis. The results showed that between 2005 and 2017, the agricultural sector had a positive and significant effect on poverty alleviation of 56.8 per cent. At the same time, the impact of the manufacturing sector and the agricultural sector on poverty alleviation in the South Sulawesi province was only 58.8%.

\textit{Manufacturing; Industry sector; Agriculture sector; Poverty Alleviation;}

1. Introduction

Increasing the Human Development Index (HDI) through increasing Human Resources (HR) is one of the efforts to overcome the existing poverty problem (Martinez et al., 2019). The need to increase human resources in the future needs to be done by improving or strengthening existing interventions to be more effective and beneficial to vulnerable and poor population groups. The

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main priority is to improve the quality of health and nutrition services for the population, apart from improving education and reducing poverty. There is a need to improve the quality of health and nutrition services for the population as a priority, apart from improving education and reducing poverty, especially in districts/cities where the level of severity is very high (Paramita & Purbadharmaja, 2015; Lamba et al., 2020).

The Human Development Index is one source that affects the size of the number of poor people. The Human Development Index (HDI) is a breakthrough in assessing the level of human development. HDI consists of 3 (three) components that affect the success rate of development, namely the health component, the education component and the purchasing power component. The Human Development Index is a development indicator in an area that has a negative correlation with poverty conditions in that region. Low Human Development Index (HDI) is one of the causes of poverty. The human development index is one of the development indicators of a region that has a negative relationship with poverty conditions in that area. Therefore, when the HDI value in an area is high, ideally, the quality of life of the community will be better, and the poverty rate is also low (Lamba et al., 2020). The components of the Human Development Index are Life Expectancy Rate which measures success in the health sector, Literacy Rate and Average Length of Schooling which measures success in the field of education and the purchasing power of the community towards basic needs as seen from the average per capita expenditure (Alhudori, 2018).

The current research was conducted in Bone regency, South Sulawesi- Indonesia. The problem that needs to be considered is the HDI value of Bone Regency which is very low compared to other areas in South Sulawesi. The low HDI value in Bone Regency needs attention from the local government because a low Human Development Index has a positive correlation with poverty levels. When the HDI value is low, the poverty rate will be even higher.

In reality, even though the economic growth in Bone is quite high, on the other hand, the number of unemployment has also increased. The number of unemployed people in 2017 was quite high, reaching 4.55 percent of the total population of Bone Regency. This large number of unemployment indicates the government’s failure to stimulate job creation so that the job market can also absorb job seekers every year. The main cause of the increase in the unemployment rate is due to the agricultural sector due to the high use of agricultural equipment with new technology. Especially in Bone Regency, many of the residents work in the agricultural sector.

There are so many impacts caused by a large number of unemployed; therefore unemployment must be immediately addressed, because it is not only related to economic life, but also has an impact on social, political and cultural life. Besides, unemployment is one of the inhibiting factors for national development and the level of social welfare (Boediono, 1993). Unemployment has a positive and significant effect, meaning that if unemployment cannot be handled properly so that it continues to increase, then this will result in an increase in the poverty rate in the community so that the government needs to make efforts to expand employment opportunities so that job opportunities can be increased and unemployment can be reduced.

Referring to BPS data in 2012, the rate of unemployment can only be reduced by 2 percent, so that even though it has decreased, the unemployment percentage is still high. BPS data shows that the population in Bone in 2013 was around 734,119 thousand people, and around 3.8% of the population was still unemployed. Moreover, this unemployment is the unemployment of productive age. The high number of unemployed is still due to the people’s mindset that only tends to pursue civil servants and the lack of increasing the empowerment of MSMEs through the home industry.

One way to reduce poverty is to increase investment in the regions, both investment in the form of PMDN (Domestic Investment) and the form of PMA (Foreign Investment). Investment is a link between economic growth and poverty reduction. A large amount of existing investment will

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provide a strong impetus for the achievement of high economic growth and will further reduce poverty levels. Actions taken in order to reduce structural unemployment are by increasing employment opportunities, thereby also increasing potential income. This job creation is through investment. There are social benefits that can be obtained when investment in an area gets bigger, namely a decrease in the unemployment rate, especially long-term unemployment that occurs. Through investment activities, it will increase potential income caused by changes in the supply of production factors (labour and capital) or the productivity of production factors (output per unit of input of production factors).

According to data from BPS, the investment value in Bone Regency in 2017 was IDR. 3,470,000,000 and in 2018, the investment value has decreased. IDR. 1,638,900,000. This decline in investment did not only occur in Bone Regency but almost all areas of South Sulawesi. The cause of the decline in investment value was due to the uncertainty in the world economy and the decreasing activity volume of investors. The fundamental problem in investment activities in South Sulawesi, including in Bone district, is that investment is generally capital-intensive, not labour-intensive. The labour-intensive investment will absorb much labour, which in turn will reduce unemployment and poverty in Bone Regency.

The problem of poverty is a complex problem, both in terms of its causes and size. This is because poverty is multidimensional, meaning that poverty involves all the various dimensions of human needs. Living in poverty is not only living in a lack of money and low-income levels, but also in many other things, such as health levels, low education, unfair treatment in the law, vulnerability to the threat of crime, powerlessness to face power, and powerlessness in determining the path of life alone. Three factors cause poverty when viewed from an economic point of view. First, poverty arises because of differences in resource ownership patterns which cause inequality in income distribution. The poor have only limited resources of very low quality. Second, poverty arises because of the inequality of the quality of human resources (HR). The low quality of human resources will cause low productivity, which causes low wages. The low quality of human resources is due to low education, disadvantage, discrimination and heredity. Third, the cause of poverty is due to differences in access to capital.

The Central Bureau of Statistics explained that the percentage of poor people in Bone district in 2012 was quite high, namely around 12.25 percent. Next, in 2017, the Social Service of South Sulawesi Province noted that three regions had the poorest people, namely Bone, Gowa and Makassar. Of the three, Bone ranks at the top. Bone Regency occupies the top position with the highest number of poor people in South Sulawesi. This high poverty rate indicates the failure of government policy products. The increase in the poverty rate reflects that the government has failed in implementing the pro-poverty reduction strategy.

2. Materials and Methods

Types of Research

The research is expo facto, where a systematic empirical investigation will be conducted. However, the researcher does not control the independent variables directly because the existence of these variables has occurred, or because these variables basically cannot be manipulated. The conclusion about the relationship between these variables is made based on the differences that accompany the independent variables and the dependent variable, without direct intervention.

In this study, researchers used a quantitative research approach. In this study, researchers used a quantitative research approach. The quantitative research is research that uses data in the form of numbers or statements assessed by statistical analysis (Goertzen, 2017). Judging from its nature,
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this research is an associative study, which is a study that aims to determine the relationship between two or more variables. The data source used by writing is secondary data. Namely data on the number of poor people in the Regency, Human Development Index (HDI) Data for Bone Regency, Unemployment Data in Bone Regency in 2010-2018, Investment Data (PMDN-PMA) in Bone Regency in 2010-2018. These data were obtained from report BPS Bone, Office of Capital Investment and One-Stop Services.

Method

The research method used is 1) Classical Assumption Test. It consist of a) Normality test. Normality can be seen using the Kolmogorov Smirnov Normal test; b) Multicollinearity Test. The criterion of this assessment is that if R2 regresses the main equation> R2 of auxiliary regression, there is no multicollinearity in the model; c) Autocorrelation Test. One of the methods used to detect autocorrelation is the Breusch-Godfrey (BG) test (Seralurin et al., 2020); and d) Heteroscedasticity Test. In this study, researchers used the Park test to detect the presence or absence of heteroscedasticity.

2) Data Analysis. The data analysis used in this research is multiple linear regression. Next, the correlation coefficient or r can be measured and to find out the magnitude of the contribution (effect) of X to Y can be seen from the coefficient of determination or R2. 3) Hypothesis Testing which consists of a) Significance Test of Individual Parameters (t test). Tests were carried out using a significance level of 0.05 (α = 5%). If the significance value t > 0.05, then Ho is accepted and rejects H1 (regression coefficient is not significant). This proves that partially the independent variable does not have a significant effect on the dependent variable. If the significance value t <0.05, then Ho is rejected and H1 is accepted (significant regression coefficient). This means that partially the independent variable has a significant effect on the dependent variable. b) Simultaneous Significance Test (Test F); and c) Determination Coefficient Test (R2 Test). The purpose of this R2 test analysis is to calculate the influence of the independent variables (HDI, Unemployment and Investment) on the dependent variable (poverty).

3. Results and Discussions

Based on the results of the analysis, the probability value of the four variables is above the value of α = 0.05, this indicates that the four variables meet the normal distribution Regression Equations:

\[ Y = 213.121 - 2.150 (X_1) + 1.127 (X_2) - 1.230 (X_3) \]

Based on the regression equation, it can be seen that HDI (X1) has a negative effect on poverty (Y), or there is a negative or inverse relationship between HDI and poverty. When the Human Development Index (HDI) increases, the poverty rate will decrease as well as it will. Based on the equation it can also be seen that the unemployment rate (X2) has a positive effect on the poverty rate (Y). or there is a positive or unidirectional relationship between unemployment and poverty.

However, when the number of unemployed increases, the poverty rate also increases (Saunders, 2002). Likewise, when the number of unemployed has decreased, the poverty rate has also decreased. And based on the equation it can also be seen that investment (X3) has a negative effect on the level of poverty (Y), or there is a negative or inverse relationship between investment and poverty. When investment has increased, the number of poverty has also decreased, and vice versa.

If viewed from the analysis results (0.000 <α= 0.05), it can be concluded that HDI has a significant effect on poverty and the size of the effect is 83.4%. This value is quite large, which
indicates that when the HDI increases by 1 percent, poverty will decrease by 83.4 percent, likewise when the HDI decreases by 1 percent, poverty will increase by 83.4 percent.

When viewed from the analysis ($0.010 < \alpha = 0.05$), it can be concluded that unemployment has a significant effect on poverty and the influence is 54.1% and there is also a positive relationship. This value is quite large, which indicates that when unemployment increases by 1 percent, poverty will also increase by 54.1% percent, and vice versa when unemployment decreases by 1 percent, poverty will also decrease by 54.1 percent. This also happened in the research conducted (Alhudori, 2017), where the results of the research found that when the number of unemployed people increased by 1 percent, the number of poor people would increase by 0.010. The income from work is expected to meet the necessities of life. If the necessities of life are met, it will not be poor. So it is said that with a low unemployment rate, the poverty rate is also low.

One academician, Ali Anas analyzed that poverty is caused not only by income inequality as the main factor, but rather due to the low level of labor absorption. This can be measured by the number of labor force in an area, or in other words poverty in Bone is caused by the large number of unemployed people due to a lack of labor absorption.

The findings of Ravallion, Datt and Kakwani state that output growth in the manufacturing sector has a large positive impact on reducing poverty and it is proven that in East Asia, 1 percent industrial output growth reduces poverty by 1.3 percent. If seen from the analysis results ($0.145 < \alpha = 0.05$), it can be concluded that investment has a significant effect on poverty and the size of the effect is 22.1%, and there is also a negative relationship. This value is relatively small, which indicates that when investment increases by 1 percent, poverty will decrease by 22.1 percent, and vice versa when investment decreases by 1 percent, poverty will increase by 22.1 percent.

Based on the results of an interview with Aldi Hidayat, the small investment value has a small impact on poverty because the investment value only consists of the value of PMDN (Domestic Investment), and in Bone Regency there has never been a PMA (Foreign Investment) that has entered Bone Regency for ten years. research so that it has an impact on the lack of job creation and does not really have an impact on reducing the poverty rate in Bone Regency even though Bone Regency has many potential abundant natural resources. So that is why promotions are needed to introduce the potentials of Bone Regency, so that foreign investors are willing to invest in Bone Regency, so that more jobs are available which will clearly reduce unemployment and poverty in this region. Thus, the influence of the human development index (HDI), unemployment, investment realization (PMDN and PMA) on poverty in Bone Regency, South Sulawesi Province (2008-2018 period) is 83.9%.

4. Conclusion

In 2008-2018, HDI had a significant effect on poverty and the amount of influence was 83.4% and there was a negative relationship. This value is quite large, which indicates that when the HDI increases by one percent, poverty will decrease by 83.4 percent, likewise when the HDI decreases by one percent, poverty will increase by 83.4 percent.

Moreover, unemployment had a significant effect on poverty and the magnitude of the effect was 54.1% and there was also a positive relationship. This value is quite large, which indicates that when unemployment increases by one percent, poverty will also increase by 54.1% percent, and vice versa when unemployment decreases by one percent, poverty will also decrease by 54.1 percent.

Next, investment had a significant effect on poverty and the amount of influence was 22.1% and there is also a negative relationship. This value is relatively small, which indicates that when
investment increases by one percent, poverty will decrease by 22.1 percent, and vice versa when investment decreases by 1 percent, poverty will increase by 22.1 percent.

Simultaneously HDI, Unemployment, and Investment have a significant effect on poverty and the magnitude of the effect is 83.9%. Thus, the influence of the human development index (HDI), unemployment, investment realization on poverty in Bone Regency, South Sulawesi Province, Indonesia is 83.9%.

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