Determinants of Poverty in Central Java Province 2013-2018

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Article Info	Abstract
	This study aimed to assess whether there is influence between HDI, GRDP, Unemployment, Investment and Dummy (mainstay and not mainstay areas) on Poverty in Central Java. Based on data from BPS, poverty in Central Java Province in 2013-2018 are in number 2 after DI Yogyakarta in Java. This research use panel data with a Fixed Effect Model (FEM) approach. Sources of data obtained from the Central Statistics Agency and the Directorate General of Indonesian Financial Balance. The results showed that the variable HDI, GRDP and investment had a negative and significant effect on poverty in Central Java Province. While the Unemployment and Dummy variables (mainstay and non-mainstay areas) have a negative and not significant effect on poverty in Central Java Province. Simultaneously, shows that the overall independent variable can show its effect on poverty. The coefficient of determination R^2 of 0.9899 which means 98.99 percent of poverty can be explained by the independent variable. While the remaining 1.01 percent is explained by variables outside the model.

INTRODUCTION

The Government of Indonesia realizes that national development is one of the efforts to become the goal of a just and prosperous society. In line with this goal, various development activities have been directed towards regional development, especially regions that have relatively increased poverty from year to year. Regional development is carried out in an integrated and sustainable manner according to the priorities and needs of each region with roots and national development targets that have been established through long-term and short-term development. Therefore, one of the main indicators of the success of national development is the rate of decline in the number of poor people.

Poverty is one of the problems that always arises in people's lives. The implications of the problem of poverty can involve all aspects of human life, although their presence is often not realized by the human being concerned (Ridzky, 2018).

Table 1. Percentage of the Poor in Java 2013-2018

Province	Poverty level %						
	2013	2014	2015	2016	2017	2018	Average
DKI Jakarta	3.72	4.09	3.61	3.75	3.78	3.55	3.75
Jawa Barat	9.61	9.18	9.57	8.77	7.83	7.25	8.70
Jawa Tengah	14.44	13.58	13.32	13.19	12.23	11.19	12.99
DIY	12.73	12.28	12.28	11.85	11.20	10.85	11.87
Jawa Timur	15.03	14.55	13.16	13.10	12.36	11.81	13.34
Baten	5.89	5.51	5.75	5.36	5.59	5.25	5.56

Source: BPS

Table 1, the highest poverty rate in Java in 2013-2018 is the Province of Yogyakarta with an average poverty rate of 13.34 percent. The second rank is occupied by Central Java Province with an average of 12.99 percent, then the third rank is occupied by East Java Province with an average of 11.87 percent, the fourth rank is occupied by West Java Province with an average of 8.70 percent, the fifth rank is occupied by Banten Province with an average of 5.56 percent and the last position is occupied by DKI Jakarta Province with an average of 3.75 percent. With an average poverty rate of 12.99 percent, in Central Java Province is still relatively high because it is classified as a *hard core* (> 10 percent) which indicates poverty alleviation policies implemented by the provincial government are still not running optimally. The Government of Central Java Province has not been able to achieve the targets set in the 2013-2018 National Medium Term Development Plan namely decreasing the number of poor people to 8-10 percent and improving income distribution with family based social protection, community empowerment and expanding economic opportunities low-income people and the basic fulfillment of the basic rights of the poor.

Central Java GRDP growth rate in 2016 reached 5.25 percent, slower than in 2015 with a growth rate of 5.47 percent. The decline was due to global economic conditions that have not experienced significant improvement. In analysis by sector, the slowdown occurred in the manufacturing sector, as well as the trade, hotel and restaurant sectors. The highest rate of economic growth was achieved by the information and communication sector. The agriculture, forestry and fisheries sectors are the only sectors experiencing contraction (BPS, 2019).

Table 2. Gross Regional Domestic Product at Constant Prices 2010 and Economic Growth of Central Java Province 2013-2018

Year	GRDP CP 2010 (Milion Rupiah)	Economic Growth Rate (%)
2013	20.761.489	5.11
2014	21.806278	5.27
2015	23.003.072	5.47
2016	24.259.359	5.25
2017	25.526.582	5.26
2018	26.878.850	5.31

Source: BPS

The development paradigm that is currently developing is economic growth measured by

human development. One of the benchmarks used in seeing the quality of human life is the Human Development Index (HDI), which is measured through the quality of education, health and economic levels.

Mike (2017) states that human development in Indonesia is synonymous with poverty reduction. Investment in education and health will be more meaningful for the poor than for the non poor. because the main asset of the poor is their rough labor. The availability of education and health facilities will greatly help to increase productivity. and in turn increase income.

HDI is an indicator used for the development of development in the long term. For the progress of human development. there are two aspects that need attention. namely the speed and status of achievement.

In general. human development in Central Java Province continued to progress during the period 2013-2018. HDI in Central Java Province increased from 68.02 percent. in 2013 to 71.12 percent in 2018. In the period of 2016-2017. the HDI of Central Java Province increased 0.54 points.

The increase in this period was lower compared to the 2013-2014 which of 0.76 points. Even though the period of 2013-2018 the HDI of Central Java Province showed great progress. status of human development of Central Java Province was still stagnant.
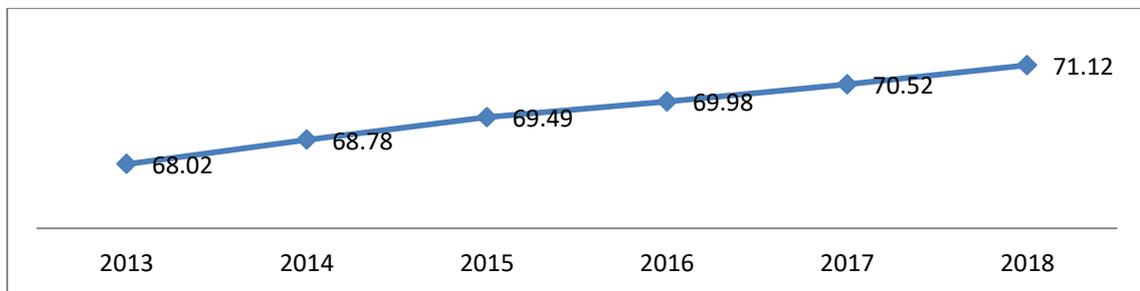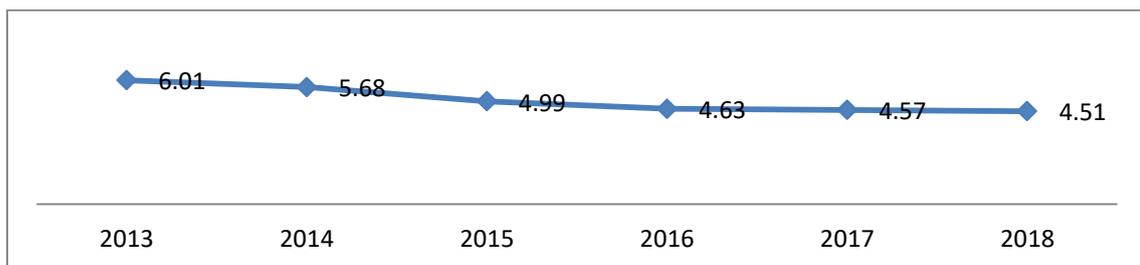

Figure 1. Percentage of HDI of Central Java Province 2013-2018
Source: BPS

In addition to the above factors. there are other indicators used to measure the number of poor people in Central Java Province. namely how much the unemployment rate is in the Central Java Province. Unemployment can be caused by an increase in the new workforce that occurs each year. while the absorption of labor does not increase. The existence of a bankrupt industry that must lay off workers. in addition. skill from human resources itself is the cause of unemployment.

It is seen that the percentage of the unemployment rate in Central Java Province in 2013-2018 has decreased. In 2013 it was seen that the unemployment rate in Central Java Province was 6.01 percent and in 2018 there was a decrease in unemployment in Central Java Province to 4.51 percent. General the unemployment rate has decreased and the number of poor people has also declined. but the decline in the number of poor people is smaller than the decrease in the unemployment rate. this shows that employment has not been able to reduce poverty in Central Java.

Figure 2. Percentage of Unemployment Rate in Central Java Province 2013-2018. Source: BPS

Investment is inseparable from economic activities in order to improve welfare. Investment sourced from foreign and domestic investment. Investments that occur in the area consist of government investment and private investment which can come from government investment and private investment.

Investment from the private sector can come from domestic and foreign. Government investment is carried out to provide public goods. Private investment both from domestic and abroad can create jobs. so that community

incomewill increase and the number of poor people will decrease.

In general. the realization of investments in Central Java Province in 2013-2018 has increased. In 2013 the investment realization of Central Java Province reached 16.982.421 million rupiah. In 2018 the realization of investment in Central Java Province increased significantly to 59.269.113 million rupiah. Although in general the realization of investment in Central Java has increased. but its influence has not been too great in reducing poverty levels in Central Java.
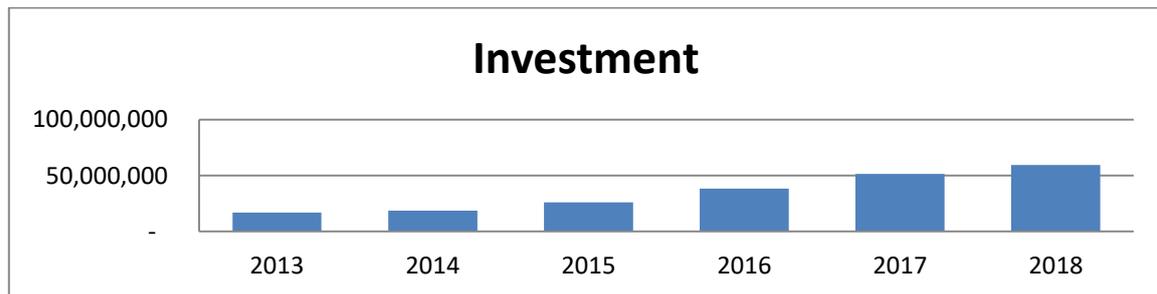

Figure 3. Investment in Central Java Province 2013-2018
Source: BPS

METHODS

The type of data used is secondary data consisting of data on the number of poor people. HDI. GRDP. Unemployment Rate. Investment and Dummy (mainstay and not mainstay areas). this study uses panel data analysis as a data processing tool with the help of Eviews- 10. Gujarati (2012). states that to describe panel data briefly. for example in cross section data. values of one or more variables are collected for several sample units at a time. In the panel data. the same cross section units were surveyed over time.

This study deals with the influence of the Human Development Index (HDI). Gross Regional Domestic Product (GRDP). Unemployment Rate (TP). Investment (INV) and Dummy (mainstay and not mainstay areas). use the Fixed Effect Model (FEM) approach.

The function model used to find out poverty in Central Java Province. namely:
PM = $\beta 0 + \beta 1 IPM + \beta 2 PDRB + \beta 3 PN + \beta 4 INV + \beta 5 D + e$………………………………………..(1)
Information:
PM   : Number of poor people
HDI   : Development Index Human

GRDP : Domestic Products Gross Regional
PN   : Unemployment Rate
INV   : Investment
D   : Dummy (1 if it's a mainstay. 0 if non mainstay)
$\beta 0$: Intercep
$\beta 1. \beta 2. \beta 3. \beta 4. \beta 5$: Regression coefficient independent variable
e : Component eror

RESULTS AND DISCUSSION

Based on the results of the regression Human Development Index (HDI). Gross Domestic Product (GDP). unemployment rate (TP). Investment (INV) and Dummy (mainstay and not mainstay areas) against poverty in Central Java province in 2013-2018. by using the FEM method. a regression coefficient value for each variable in the study is obtained with the following equation :
$PM_{it} = \beta_0 - \beta_1 HDI_{it} - \beta_2 PDRB_{it} - \beta_3 TP_{it} + \beta_4 INV_{it} + \beta_5 D_{it} + \mu_{it}$………………………………...………………(2)

PM_{it} = 531034.3- 5576.608 HDI_{it} - 0.000000000351 $PDRB_{it}$ - 516.41 TP_{it} - 0.000000000356 INV_{it} -785.31 D_{it}+μ_{it}

Based on the results above. it can be seen the constant value of 531034.3. If the independent variable is considered constant. then the value of the poor population is 531034.3. assuming ceteris paribus. While the HDI value of - 5576.608. It shows that if the HDI increased by 1 unit will be able to lower the amount of poor population by 5.576 people assuming ceteris paribus. The value of the GDP amounted to - 0.000000000351 which means that if the GDP increased by 1% then the population of the poor will be decreased by 0.0000000351 % with the assumption of ceteris paribus. The value of the coefficient for the unemployment rate amounted to - 516.41. which means that if the unemployment rate increased by one unit then the population of the poor would be to con for 516 souls with the assumption of ceteris paribus. The value of the coefficient for investment amounting to - 0.000000000356 which means that if investment increased by 1% then the population of the poor will be decreased by 0.0000000356 % with the assumption of ceteris paribus. While the Dummy value of - 785.31. It shows that when Dummy increased by 1 unit will be able to lower the amount of pendud u k poor amounted to 785 assumption of ceteris paribus.

T Not all independent variables have a significant effect in the model. where there is a free variable that having an i value of the probability of a t-statistic greater than the significance level used (α = 0.5%). The significant independent variables are only HDI. GRDP and INV. Whereas TP and Dummy are not significant. Based on the regression results indicate that the adjusted R-square . or the value of R^2 is 0.9899. which means that the population of the poor can be explained by variations in models of IPM. the GDP. TP. INV and Dummy amounted to 98 .99 % and the rest amounted to 1.01 % is explained by variables other on the outside of the model or variables other that does not exist in the research of this .

Based on the estimation results show that the coefficient value on the HDI variable is - 5.576.6. If the HDI increases by one unit. the number of poor people will decrease by 5.576 people. These results are consistent with previous theories and research. which according to Lanjouw in Megawati (2018) states that human development is synonymous with poverty reduction. Investment in education and health will be more meaningful for the poor than for the non-poor. The decrease in poverty when HDI increases is an indication that the high quality of human resources will result in increased work productivity of the population which will cause the community to be able to meet their needs and can reduce poverty.

Research conducted by Megawati (2018) states that HDI has a negative effect on poverty and is statistically significant. This is consistent with the theory that if the HDI rises. poverty will decrease.

GRDP and Poverty

Based on the estimation results the GRDP variable shows negative and significant signs of poverty. PDRB coefficient values indicate -3.51E-10 (0.00000000000351). If the GRDP increases by one percent. the number of poor people will decrease by 0.000000000351 percent.

These results are consistent with previous theory and research. According to Siregar in Ridzky (2018) states that economic growth is a prerequisite for poverty reduction. In addition. the adequacy requirement is that growth is effective in reducing poverty. That is. that growth should spread to each income group. including the poor population.

This study is in accordance with Rusdarti (2013). that the GRDP variable has a negative effect on poverty. Poverty in Indonesia will be even lower if there is economic growth. The higher the GRDP growth. the faster the poverty reduction. A decrease in poverty is almost always followed by an increase in average income per capita or standard of living. and conversely poverty increases if the GRDP decreases. The study also according to research conducted by Alhudori (2017). the research that states the higher the GDP. then poverty will be reduced.

Unemployment Rate and Poverty

Based on the estimation results the Unemployment Rate variable shows negative and insignificant signs of poverty. The Unemployment Rate coefficient value shows -516.4141. If the

Unemployment Rate increases by one unit. the number of poor people will decrease by 516 people. The results of this study are consistent with previous research conducted by Feby (2016). which states that unemployment has a negative effect on poverty. Unemployment has no effect because of the high level of family income that is able to support the cost of living for families who are still unemployed. They will only look for work that is truly in accordance with the desired field and level of income only. and do not want to find work that is not in accordance with the expected field and wage level.

According to Marmujiono (2014). the bad effect of unemployment is reducing people's income which in turn reduces the level of prosperity one has achieved. The decline in people welfare due to unemployment will increase their chances of being trapped in poverty because they have no income. If unemployment in a country is very bad. political and social chaos always prevails and has a devastating effect on the welfare of society and the prospect of long-term economic development.

Investment and Poverty

Based on the estimation results Investment variables show negative and significant signs of poverty. The coefficient value of the Investment variable shows -3.56E-10 (0.00000000000356). If investment increases by one percent then the number of poor people will decrease by 0.0000356 percent. The results of this study are consistent with previous research conducted by Hastina (2017) that the relationship between investment and poverty is negative and not significant. It can be said that if the value of investment has increased. poverty will decrease.

According to Arshanti (2015). investments are made to meet the various needs and desires of the community. namely individuals. groups. and even countries. Thus. investment is needed to meet the needs of the community. in the form of a source of income or income to purchase the goods and services they need. Investment also generates added value. which is a reciprocation of production services. as well as a source of income or community welfare. Based on the results of data analysis. investment variables have a significant effect on poverty levels in Indonesia.

The results of this study are in accordance with the theory. According to Annur (2013). investment activities enable a community to continuously increase economic activities and employment opportunities. increase national income and increase the level of prosperity of the community.

Mainstay / Not Mainstay Area and Poverty

Based on the estimation results of the Dummy variable (mainstay and non-mainstay areas). it shows negative and insignificant signs of poverty. The coefficient value of the Unemployment Rate shows -785.3128. that there is a difference between the mainstay and not the mainstay of poverty. If a Regency / City in Central Java Province becomes a mainstay region. then the amount of poverty decreases but if a Regency / City in Central Java Province becomes a non-reliable region. then the amount of poverty increases and according to the hypothesis and is not statistically significant. so it can be stated that mainstay and non-mainstay areas do not have a significant influence on the number of poor people .

Region mainstay of the region that is defined as driving the economy of the region which has the criteria as a region that is rapidly growing compared to regions other in a province. has a sector seed. and have linkages economy with the area around (Amin, 2009).

Based on the results of the estimated regression that the mainstay and not the mainstay are proven to have an impact on the reduction in the number of poor people. The growth of the mainstay region is expected to provide a positive impact on the economic growth of the surrounding area through the empowerment of leading sectors as a driver of the regional economy and economic linkages between regions. The emphasis on economic growth as a policy direction for determining the mainstay is considering economic growth is one of the economic variables that is a key indicator in development (Amin, 2009).

CONCLUSION

Based on the results of research and discussion. conclusions can be drawn as follows:

The HDI variable has a negative and significant effect on poverty in regency / cities in Central Java Province. This is because the decrease in poverty when the HDI increases is an indication that the increase in HDI is a high quality of human resources which will result in increased work productivity of the population which will increase income. With increased income. it will cause the community to be able to meet their needs and can reduce poverty.

GRDP variable has a negative and significant effect on poverty in regency / cities in Central Java Province. The higher the GRDP growth. the faster the poverty reduction. Poverty reduction is almost always followed by an increase in average income per capita or standard of living. If community income increases. it can be expected that the community will be free from poverty. and conversely poverty increases if the GRDP decreases.

The Unemployment Rate variable has a negative and not significant effect on poverty in regency / cities in Central Java Province. Unemployment has no effect because of the high level of family income that is able to support the cost of living for families who are still unemployed. This they will only look for work that is truly in accordance with the desired field and level of income only. and do not want to find work that is not in accordance with the expected field and wage level.

The investment variable has a negative and significant effect on poverty in regency / cities in Central Java Province. It can be said that if the investment value increases. poverty will decrease. investment activities enable a community to continuously increase economic activities and employment opportunities. increase income and increase the level of prosperity of the community. causing the amount of poverty to decrease.

Dummy Variable (mainstay and non mainstay areas) has a negative and insignificant influence on poverty in regencies / cities in Central Java Province. that there are differences between the mainstay and non-mainstay areas towards poverty. If a Regency / City in Central Java Province becomes the mainstay region. then the amount of poverty decreases but if a Regency / City in Central Java Province becomes a non-reliable region. then the amount of poverty

increases. The growth of the mainstay region is expected to provide a positive impact on the economic growth of the surrounding area through the empowerment of leading sectors as a driver of the regional economy and economic linkages between regions so that the amount of poverty can be reduced.

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