

EFFECT OF VILLAGE FUNDS ON DECREASING PERCENTAGE OF POOR POPULATION IN CENTRAL JAVA PROVINCE 2016 - 2018

Anggraeni Ike Lestari^{1*}, Diah Setyorini Gunawan², Arintoko³

¹ Faculty of Economics and Business, Jenderal Soedirman University

² Faculty of Economics and Business, Jenderal Soedirman University

³ Faculty of Economics and Business, Jenderal Soedirman University

Abstract. Poverty is a fairly complex problem that is faced by the government nationally, so there are many variations of the solution needed. Central Java Province, despite experiencing a decrease in the number of poor people, but still ranks second as a province with a poverty level in Java. This study aims to analyze the Effect of Village Funds on decreasing the percentage of poor people in Central Java Province in 2016-2018. The data used is panel data with time series composition between 2016 - 2018 and cross section in 29 districts in Central Java Province.

Based on the results of research and data analysis using Random Effect Model shows that: (1) Village Funds for the Implementation of Village Development have a negative and significant effect on the reduction in the percentage of poor people in Central Java Province. (2) Village Funds for Community Empowerment have a positive and significant effect on decreasing the percentage of poor people in Central Java Province.

The implication of the above conclusion is to reduce the percentage of poor people, especially in Central Java Province, the government can increase the use of village funds for the field of village development, and the use of village funds for community empowerment should be diverted to other fields, such as transferring development village.

Keywords: Poverty, Village Funds, Village Funds for Implementation of Village Development, Village Funds for Community Empowerment.

1. INTRODUCTION

The problem of poverty in our country is one of the basic problems that is at the center of the government's attention because it proves quite difficult to overcome. Sometimes there are times when poverty must occur because of conditions that compel someone to be poor for example an economic crisis, such as the monetary crisis that occurred in Indonesia in 1997. Even in the whole world, poverty becomes a problem in development.

The problem of poverty conditions continues to hit almost all regions of Indonesia, including in Central Java Province. Based on the data from the Central Java Provincial Statistics Agency the following information on poverty is presented as follows:

* Corresponding Author, Email: loveike_2905@yahoo.com

Table 1

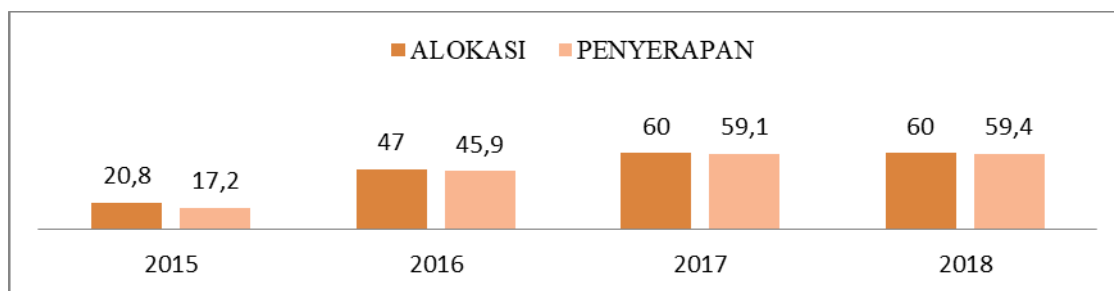
Information on Poverty in Central Java Province		
Description	Maret 2017	Maret 2018
Amount of Poor Population (Thousand)	4.450,72	3.897,20
Percentage of Poor Population (Percent)	13,01	11,32
Poverty Depth Index (P1)	2,214	1,847
Poverty Severity Index (P2)	0,573	0,488
Poverty Line (Rp. / Cap / Month)	333.244	350.875

Source: Central Java Provincial Statistics Agency, 2018

Based on the data in Table 1.1 that the number of poor people in March 2018 was 3,897.20 thousand people or 11.32 percent of the total population. This number decreased compared to the previous year of 4,450.72 thousand people or 13.01 percent. As the percentage of poor people continues to decline, the depth of poverty (P1) which illustrates how far the poor's expenditure on the poverty line also decreases, although not too much. Likewise, the P2 value or severity of poverty which illustrates the disparity among the poor also decreases. The smaller P1 and P2 values indicate that the quality of the poor is getting better. While the poverty line of Central Java Province rose by 5.30 percent, from Rp333,244 per capita per month in March 2017 to Rp350,875 per capita per month in March 2018.

With the high rate of poverty, the government has carried out various policies in overcoming this problem, including the village fund program, where since the administration of President Joko Widodo, the program has been increasing in size and absorption up to now.

The following figure shows increased allocation and absorption of village funds from Year 2015-2018.



Source: Ministry of Finance, 2018

Picture 1

Village Fund Allocation and Absorption in 2015-2018 (Trillion Rupiah)

The data above illustrates that the increase in the amount of village fund allocation from 2015 to 2018 which is from 20.8 Trillion Rupiah in 2015 increased quite a lot to 60 Trillion Rupiah. Likewise, the absorption of village funds also from 2015 to 2016 also continued to increase. From 17.2 Trillion Rupiah increased in 2018 to 59.4 Trillion Rupiah.

The Community, Village, Population and Civil Registry Empowerment Office (Dispermadesdukcapil) of Central Java Province noted that village funds in Central Java in 2018 reached Rp. 6.74 trillion. This allocation experienced an increase compared to the village fund allocation in 2017 which amounted to IDR 6.30 trillion.

Some of the studies conducted by Setianingsih (2017) show that village funds for village development have a significant effect on the positive direction of poverty, while village funds for empowering rural communities have no significant effect on negative direction. Prasetyanto's research (2012) shows that Village Fund Allocation is able to improve fiscal performance and regional economy, is able to reduce the number of poor people and increase regional bruto domestic products in the agricultural sector in Kebumen district.

Research conducted by previous researchers only focused on one district, while in this study was to find out its influence on all districts in Central Java Province. Because the data in this study were all districts in Central Java Province that received village funds from the government so that the number of districts was 28 districts.

2. ANALYSIS METHOD

This study uses a quantitative approach because it is based on data in the form of numbers and processed using statistical methods to test hypotheses. In this study there are 2 types of variables namely independent variables in the form of Village Funds for Implementation of Village Development (X1) and Village Funds for Village Community Empowerment (X2)) and the dependent variable in the form of poverty (Y).

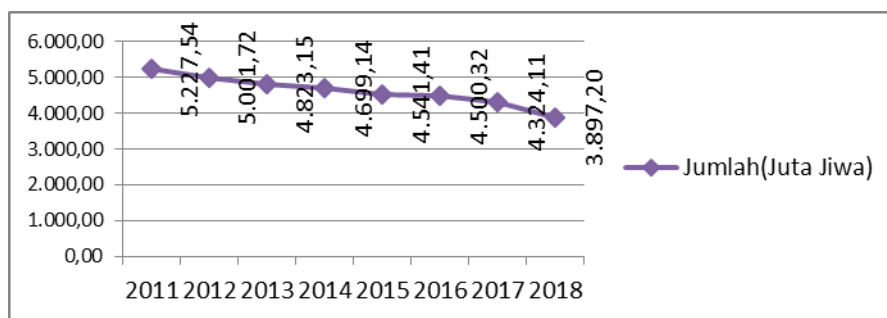
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The data analysis technique is done by panel data regression method. The method used is the panel data regression method namely Pooled Least Square (PLS) / Common Effect, Fixed Effect, and Random Effect. How to choose the best model with the F test to choose between CEM and FEM. Furthermore, if the FEM is selected then tested again compared to the REM results provided that if the T is medium N is small then FEM is chosen and if small T and N are large assuming ECM / REM is fulfilled, REM is selected. In order for the model to be used properly, a classic assumption test is carried out which includes multicollinearity and heteroscedasticity. In addition, statistical tests are also used to measure the ability of the model in explaining the dependent variable in the form of the coefficient of determination of the F test, and the t test.

3. RESULT AND DISCUSSION

3.1. Overview of Poverty Conditions and Use of Village Funds

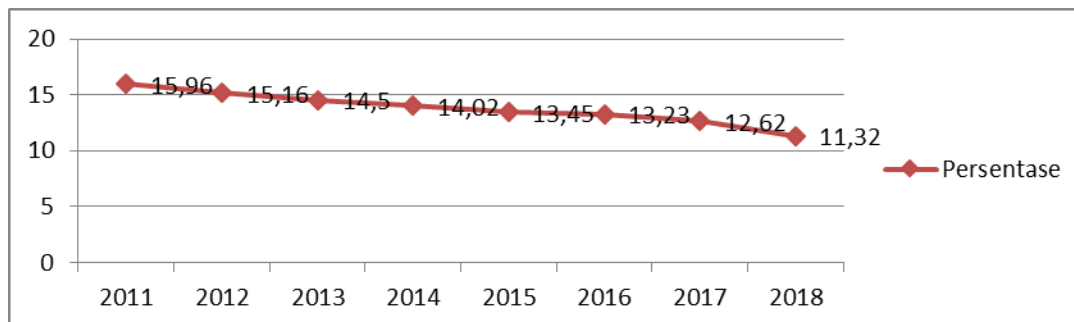
Central Java Province is a province located in the middle of Java. The area is $[32,548 \text{ km}]^2$ or about 28.94% of the total area of Java (BPS, 2018). Administratively, Central Java Province consists of 29 districts and 6 cities. In general, the 2011 - 2018 period of poverty in Central Java has decreased both in terms of quantity and percentage.



Source: Central Java Provincial Statistics Agency, 2018 (Data processed)

Figure 2

Number of Poor Population in Central Java Province in 2011-2018



Source: Central Java Provincial Statistics Agency, 2018 (Data processed)

Figure 3

Percentage of Poor People in Central Java Province
2011-2018

Figures 3.1 and 3.2 show that the poor in Central Java Province from 2011 to 2018 continued to decline starting from the number and percentage, in 2011 the number of poor people was 5,227.54 thousand people or 15.96% until 2018 the poor population becomes 3,897.54 thousand people or 11.32%.

The decline in the level of poverty in Central Java is nationally the province with the highest percentage reduction in the poor population, which is 0.91 percent. However BPS noted that throughout the period March 2013-March 2018, the rate of decline in poverty in rural areas was also slower than in urban areas. Even though the government has disbursed village funds, the value continues to increase throughout the year.s that there is an effect of ability utilization on job performance.

3.2. Estimated Best Model of Panel Data

Which is the best technique of common effect or fixed effect can be seen quickly from the value of coefficient of determination $[R]^2$. The fixed effect method value is higher than the common effect, so the fixed effect model is better than the common effect. However, if viewed from the coefficient of determination, this analysis is very biased.

The test of common effect and fixed effect methods is done by the F test, which is by looking at the value of the sum of squared residuals of the common effect model with a value of 1432,042 while the sum of squared residuals of the fixed effect model is 294,607. Based on the second sum of squared residuals, the calculated F value is:

$$F = \frac{926,848 - 32,405/28}{32,405/86}$$
$$= 2.461,94$$

The critical F statistic values with numerator 28 and denominator 86 at $\alpha = 1\%$ and $\alpha = 5\%$ are 1.951 and 1.607, respectively. $F_{count} > F_{table}$, so rejecting the hypothesis, meaning that the right data panel model to analyze the behavior of the 29 districts is a fixed effect.

According to Gujarati (2004), if large N and T are small, and if the assumptions for ECM are met, then the ECM estimator is more efficient than the FEM estimator. And if large N and T are small (i.e. short panels), the estimates obtained by the two methods can differ significantly. If we believe that individual units or cross-sectional in a non-random sample from a large sample, then FEM is more appropriate. If the cross-sectional units in the sample are random, then the ECM is more appropriate. From the results of the analysis show that the cross-sectional units are random, so in this study the most appropriate model used is ECM.

3.3. Classic assumption test

3.3.1. Multicollinearity Test

Multicollinearity means that there is a linear relationship between the independent variables in the regression model. According to Widarjono (2018), the greater the VIF value, there is multicollinearity between independent variables, that is if the VIF value exceeds 10 then it can be concluded that there is multicollinearity because the value of $[R]_j^2$ exceeds 0.90.

The results of multicollinearity tests show VIF values with a range of 1, the value is less than 10, as well as if tested with a tolerance test shows the number is close to 1 so that it is said that there is no problem with multicollinearity.

3.3.2. Heteroscedasticity Test

The certainty that there is no heteroskedasticity is tested by the Breusch-Pagan Test, when the Y variable is replaced with Abs_res. There is no heteroskedasticity problem if the sig value is > 5%. Based on the heteroskedasticity test using the Breusch-Pagan method obtained a significance value of 0.117

3.3.3. Normality Test

Can be seen in P-P Image plot, P-P points The plot approaches the diagonal line, meaning that data is normally distributed. Can also be tested by looking at a significance value of > 5%. From the test results, the sig value is 0.839 so the data is really normally distributed.

3.4. Statistik Test

By looking at the results of the Random Effect Model test the following statistical tests can be carried out:

3.4.1 Coefficient of Determination (R^2)

The coefficient of determination is used to determine the percentage change in non-free variable (Y) caused by the independent variable (X). If R^2 is greater, the percentage change in non-free variable (Y) caused by variable (X) is higher. If R^2 is smaller, then the percentage change in non-free variable (Y) caused by the independent variable (X) is getting lower.

From the regression results of the influence of PPD Village Funds, Village PM Funds, on the percentage of poverty in 29 Regencies in Central Java Province in 2016 - 2018, the value of $[R]^2$ from the Fixed Effect Model results is 0.991, meaning the percentage of poverty explained by X1 and X2 is 99.1 the remaining percent of 0.9 percent is explained by other variables.

3.4.2. Test F

The F test is used to determine the effect of all the independent variables contained in the model together on the dependent variable. This is done by comparing the value of F count with F table. If the value of F count is greater than F table, the independent variables together have an effect on the dependent variable. If the value of F count is smaller than F table, the independent variables together do not affect the dependent variable.

From the regression results of the influence of the PPD Village Funds and PM Village Funds, the decline in the percentage of poor people in 29 districts in Central Java Province in 2016-2018 can be searched by dividing the Regression Mean Square by 34,379 with Residual Mean Square 0,179. The result is 192,061. The critical F value at $\alpha = 5\%$ with df (33.87) is 1,570. The calculated F value is greater than the critical F value so we reject H_0 . We can also use information on the probability of error or sig where the significance (sig). The probability value (significance) is smaller than $\alpha = 5\%$. In conclusion the model is feasible. This means that simultaneously the independent variable PPD Village Fund, PM Village Fund, jointly influences the reduction in the percentage of poor people.

3.4.3. t Test

The t test is used to show how far the influence of one independent variable individually in explaining the variation of the dependent variable. the influence of PPD Village Funds and PM Village Funds, on the decline in the percentage of poor people in 29 districts in Central Java Province in 2016-2018 by looking for t-count values by dividing regression coefficients (Unstandardized Coefficient in column B) with standard error (Std Error). The values of t count

X1 and X2 are respectively -0,563 and 2,478 (column t). While the value of critical t at $\alpha = 1\%$, $\alpha = 5\%$, $\alpha = 10\%$. At $df = 54$ (87-33) each of 2,390; 1,671 and 1,296. The hypothesis is a one-way relationship that is negative for X1 negative and positive for X2 towards Y so that the test is done using a one-sided test. Significant variable X1 at $\alpha = 10\%$ means that X1 has a negative effect on Y, and X2 is significant at $\alpha = 1\%$ meaning that X2 has a positive effect on Y.

Simultaneously, the independent variable of the Village Fund for the Implementation of Village Development and Village Funds for Community Empowerment, jointly influences the reduction in the percentage of poor people. The results of the statistical tests above show the magnitude of the influence of village funds in the implementation of village development and village empowerment in the field of community empowerment by 99.1 percent against the decline in the percentage of poor people in Central Java Province in 2016-2018, while the remaining 0.9 is explained by other variables. The Village Fund Variable for the Implementation of Village Development has a negative effect on the decrease in the percentage of the poor population by 0.5776 percent while the Village Fund variable for Community Empowerment is 0.1024 for the decline in the percentage of poor people in Central Java Province.

3.5. COVER

3.5.1 Conclusion

Based on the results of the research and analysis that has been done can be concluded as follows:

- a. Of the two variables that are thought to influence the reduction in the percentage of poor people in Central Java Province, variables and villages in the field of implementation of village development have a negative and significant effect; and
- b. Of the two variables that are thought to have an effect on the reduction in the percentage of poor people in Central Java Province, the Village Funds variable in the Community Empowerment Sector has a positive and significant effect.

3.5.2. Implications

- a. Village Funds for the Implementation of Village Development have a negative and significant effect, so the government in reducing the percentage of poor people, especially in Central Java Province, can increase the allocation of the use of village funds for the field of implementation of village development; and
- b. Village Funds for Community Empowerment have a positive and significant effect, so it is better to use village funds for community empowerment to be transferred to other fields.

3.5.3. Research Limitations

The data used are short time series data, namely from 2016-2018 and the variable use of village funds is only limited to two areas of village fund use, namely village funds in the implementation of village development and village funds in the field of community empowerment.

3.6. BIBLIOGRAPHY

- Astuti, Prihartini Budi (2013). Effectiveness and influence of PNPM Mandiri in Rural Areas, Allocation of Village Funds and Population of the Number of Heads of Poor Families in Kebumen District in 2009-2011. *Business Focus*. Volume 12, N.2
- Central Java Provincial Statistics Agency (2018). Information on Poverty in Central Java Province.
- Central Java Provincial Statistics Agency (2018). Number of Poor Population in Central Java Province in 2011-2018.
- Central Java Provincial Statistics Agency (2018). Percentage of Poor Population in Central Java Province in 2011-2018.
- Gujarati and Porter (2009), *Basic Econometry*.
- Ministry of Finance (2018). Village Fund Allocation and Absorption in 2015-2018
- Prasetyanto PP (2012). Impact of Village Fund Allocation in the Era of Fiscal Decentralization on Regional Economies in Indonesia, Dissertation. IPB, Bogor.
- Setianingsih, Irma (2017). Contributions of Village Funds in Reducing Poverty in Melawi District. *Journal of Regional Economics*, Vol. 5 No. 3.