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Determinant of Poverty in Indonesia

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Abstract

This research aims at knowing the relationship between the labor force participation level, the average of expenditure per capita, the literacy level, and the capital investment and the poverty level in Indonesia at 2014. The secondary data in this research were obtained from the Central Bureau of Statistics (BPS) and the National Population and Family Planning Bureau (BKKBN) in 32 provinces in Indonesia (cross section). The method of research used is Ordinary Least Square Method with level of confidence of 95%. The research result shows that the average of expenditure per capita and the capital lending have a significant influence on the poverty level in 2014, while the labor force participation level and the literacy level have no significant influence on the poverty.

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INTRODUCTION

Poverty is one of the most complex problems faced by many countries in the world, either the developing or the developed countries. The more complex the problem is can also be reflected in many organizations that are seriously dealing with the problem of poverty. One of them is the United Nations (UN) that has implemented the Millennium Development Goal (MDG) achievement for all countries in the world. One of the targets of MDG is to eradicate the poverty.

World Bank says that about ten percent of the world's population will face the acute poverty for the first time by the end of 2015 (Widi Agustian, 2015), while, based on the number of poor people, Indonesia is in the ninth rank from all countries in the world. The Central Bureau of Statistics (BPS) noted that the Indonesian population living below the poverty line until September 2015 reached 28.51 million or 11.13 percent of the total population of Indonesia. However, if compared to the period of September 2014, the numbers continue to increase (Lily Rusna Fajriah, 2016).

Based on table 1, poverty in Indonesia decreased but not too significant every year. In 2009, the poverty in Indonesia reached 32.53 million people, while in the first quarter of 2015 it could be reduced to 28.59 people. But these numbers still reflect a lot of numbers, considering Indonesia became the ninth rank of countries with the most population of poor people. So it can be concluded that poverty becomes a very urgent problem to overcome.

Poverty has become one of the main focuses of the elected president of 2014, Joko Widodo. This President of Indonesia has released three magic cards that aim at protecting the rights of the poor people, which in time will reduce the number of poor people in Indonesia. According to Andylala Waluyo (2014), the three cards are: (1) Healthy Indonesia Card (KIS), which is a card given to the poor families who are the recipients of JKN's contribution to alleviate the burden of the poor on health services. (2). Smart Indonesia Card (KIP), which is a card intended for the poor and vulnerable poor families who want to send their children for free. The card also reaches out-of-school children such as street children and school dropouts, orphans, and disabled children. This card also applies to work-training centers in order to reach the children that have no formal education. (3) Prosperous Family Card (KKS), which is a card created to improve the ability of the less fortunate people. This assistance is poured in the form of e-money that according to Khofifah will indirectly prevent the corruption in the implementation.

One of the pre-requirements of the government's success in eradicating the poverty is that the policies should be precisely applied to the conditions needed by the people. Any good mature concept and planning will not succeed in eradicating the poverty if the disease is not treated. In Mudrajad (2006: 120), the cause of poverty will lead to the theory of vicious cycle of poverty. The backwardness, the market imperfection, and the lack of capital lead to the low productivity. The low productivity will cause the low income they receive. The low income will cause the low savings. The low savings will cause the low investment.

Figure 1. Number and Percentage of Poor People in Indonesia in 2009-2015

Some research has been conducted by identifying some variables affecting the poverty such as unemployment, GDP / GRDP, foreign investment, government spending, and others.

In a research conducted by Agung Eddy Suryo and Agung Priyo Utomo (2010), there are eighteen origin variables that represent the five characteristics of poverty of the poor people that can be reduced into three main factors. The three main factors are work factor, educational factor, and housing factor. In this research we try to deeply analyze the variables that affect the poverty level in Indonesia. First is by using the labor force participation rate variable, which is a reflection of the unemployment rate. The labor participation rate will show the number of people working from the labor force. Second is the average of expenditure per capita that is a reflection of the income level of the community.

Based on the existing theory, the higher someone's income is, the higher his level of expenditure will be. But this is contradicted by the concept of the law of diminishing return, in which in certain circumstances people will not raise their expenditure although their income increases. Third is the level of literacy. More people can read and write, more opportunities they will get a job. There is no denying that in finding a job the main thing asked is about reading and writing.

The last variable is investment. Foreign investment plays an important role in the economy, especially in the poverty alleviation. The economic growth will increase with the foreign capital because the source of funds used for the infrastructure improvement has been better, so that the domestic industry is ready to face the industrialization process that is able to bring a cool climate for the investment. The increasing domestic industry will be able to absorb more labors so that unemployment can be suppressed and people's living standards will increase.

According to Sen (1985) in Hajiji (2010), poverty is a failure in the functioning of some basic capabilities, or in other words, someone is said to be poor if he is lack of opportunity to achieve / get this basic capability. Sen stated that poverty should not be considered only as the low income, but it should be considered as the capability handicap. Malthus's theory shows that one day the population growth will exceed the supply of foodstuffs. When this condition occurs, it will result in a limited amount of food. The low-income people who do not get food will be poor.

Lewis presented his theory on employment, which stated that labor overload is an opportunity and not a problem. More than one labor in one sector will contribute to the growth of output and the supply of labors in other sectors. Furthermore, Lewis stated that there are two sectors in the economy of the developing countries those are the modern sector and the traditional sector. The traditional sector is not only an agricultural sector in the rural areas, but it also includes the informal sector in the urban areas (street hawkers, retailers, 'angkringan' traders). The informal sector is able to absorb the excess of labors that are available during the industrialization process, so it is called the labor safety valve. If the informal sector can absorb the excess of labors in the industrial sector (modern sector), one day the wage rates in the rural areas will increase

The increasing wage will reduce the difference of the income levels between the rural and urban areas, so the excess supply of labors will not cause problems to the economic growth. On the contrary, the excess of labors is actually a capital to accumulate the income by assuming that the movement of labors from the traditional sector to the modern sector runs smoothly and the movement never becomes too much. (Todaro, 2004)

Households are the consumers or users of goods and services as well as the owners of labor, land, capital, and entrepreneurial factors of production. The household sells or manages these factors of production to obtain remuneration. Such remuneration or fee is wages, rent, dividend interest, and profits, which are the components of the household's income or revenue. There are two ways of using the income.

First is spending it on the consumption goods. Second is not spending it like saving. Consumption spending is conducted to maintain the standard of living. At the low income level, the consumption spending is generally for the basic needs to meet the physical needs. Food consumption is the most important factor because food is the main item to survive. However, there is a wide range of consumption goods (including clothing, housing, fuel, etc.) that can be regarded as a need to perform a household. The diversity depends on the income level of each household. Different income level will result in different level of consumption.

Literacy Rate according to BPS (Central Bureau of Statistics) is the proportion of people aged fifteen years and more who have the ability to read and write simple sentences in Latin letters, Arabic letters, and other letters (such as Java letters, kanji, etc.) as a measuring tool to find out how many people are literate. Thus, it can be assessed how many people in a region have the basic skills to expand the access to information, to increase the knowledge and skills, to facilitate the communication, and to promote better understanding so that the people can improve the quality of life of themselves, their families, or their countries in many sectors of life. It can be used to evaluate the poverty eradication program, the health development program, and other human development programs.

According to Sukirno (2000), the investment activities conducted by the people will continuously increase the economic activity and the employment opportunities, increase the national income, and raise the level of people's prosperity. This role is derived from three important functions of investment activity as follows: (1) investment is one component of aggregate expenditure, so that the increase in investment will increase the aggregate demand, the national income, and the employment; (2) the increase in capital goods as a result of investment will increase the production capacity; (3) the investment is always followed by the technological developments.

RESEARCH METHOD

The data used is the secondary data in the form of reports obtained from the Central Bureau of Statistics (BPS) and the National Population and Family Planning Bureau (BKKBN) in 2014. The type of data is cross-section data taken from 32 provinces in Indonesia.

The method used in this research is multiple regression analysis model by using Ordinary Least Square (OLS) method. This method uses regression line estimation by minimizing the amount of squares of errors of each observation on the line. OLS produces a BLUE estimator (Best, Linear, Unbiased and Efficient Estimator). A model by using OLS can see the goodness of fit it by looking at the t statistic value, the f statistic value, and the coefficient of determination. Based on research conducted, the right model to perform the data is:

$$Y = \beta_0 + \beta_1 TP + \beta_2 RP + \beta_3 MH + \beta_4 PM + \mu \quad \text{.........................(2)}$$

Description: Y is the poverty level variable, β_0 is the constant / intercept, TP is the Labor Force Participation Rate, RP is the Average of Expenditure per Capita, MH is the Literacy Rate (people aged fifteen years and more), PM is the Investment (PMDN and PMA) and μ is Error Term / Residual.

RESULTS AND DISCUSSION

Before interpreting the model, the first step the researcher should do is to test the classical assumptions of the model. The purpose of this classical assumption test is to ensure that the model does not have a disease that causes the estimated result deviated from its real value. The formation of regression model and other testing in this research uses E-Views 9 analysis tool by using the probability value of 95 percent or the amount of alpha of 0.05 with two ends.

The classic assumption test results obtained is as follows: the normality test conducted shows that the amount of Jarque-Bera obtained is 65.30131. The probability value of this Statistics JB exceeds the alpha value of 0.05, so in the regression model, the disruptive or residual variable has a normal distribution.

Multicollinearity test result shows that all correlations between two independent variables do not exceed 0.8. Thus, it can be concluded that the model is not exposed to multicollinearity, or in other words, there is no perfect (near perfect) linear relationship among some or all of the independent variables.

Table 1. Regression Result of OLS

Variables	Coefficient	t-Statistic	Prob.	Significance
Constanta	-832.6531	-0.195613	0.8464	-
Participation Labor Force	52.99767	1.269872	0.2150	Not Significant
Average of Expenditure	-3.043806	-4.230640	0.0002	Significant
Literacy	-1.677201	-0.057501	0.8464	Not Significant
Investment	0.046912	6.546881	0.0000	Significant

Source: Data processed (e-views 9)

The result of heteroscedasticity test in the research is conducted by using White test, which is based on an input obtained by Chi-Square Probability value of 0.1600. If the value is compared with the alpha of 0.05, the result shows larger or the model that is free from heteroscedasticity. In other words, the error or residual of the observed model has a constant variance from one observation to another (the digits are not too large and not too small).

The result of autocorrelation test from the input data obtained by Probability Chi-Square value is 0.1586. The model is identified as not subject to autocorrelation because the Chi-Square Probability value obtained exceeds the alpha value of 0.05. It means that the observation data appearing sequentially all the time is not related to each other.

Based on the results of classical assumption test conducted, the model is identified not affected by the disease so that it can be used in estimating. From the results of the processing performed, the variables that are significant or affect the poverty level are the investment (PMDN and PMA) and the average of spending per capita each day. However, the variables of literacy rate variable and labor force participation rate are not significant to the poverty in Indonesia in 2014.

The t test conducted essentially is to show how far the influence of one explanatory variable either individually or partially to the dependent variable. The null hypothesis (H0) to be tested is whether a parameter (bi) is equal to zero or H0: bi = 0. It means whether an independent variable is not a significant explanatory of the dependent variable. The alternative hypothesis (H1) is, the parameter of a variable is not equal to zero or H1: bi ≠ 0. It means that the variable is a significant explanatory of the dependent variable. The way to do this t test is by comparing the probability values with alpha or by computing t-statistics and comparing them with t-table values.

Given t-table value with degree of freedom of 5 and n observation of 32 is 2.05553. The t-statistics of the labor force participation rate is 1.2619872 <2.05553, which means accepting H01 (there is no influence between the labor force participation rate and the poverty rate in Indonesia). The average of expenditure of t-statistic is - 4.230640 <- 2.05553, which means rejecting H02 (there is an influence between the average of expenditure per capita and the poverty rate in Indonesia). The t-statistics of the literacy rate is - 0.057501> - 2.05553, which means accepting H03 (there is no influence between the literacy rate and the poverty rate in Indonesia). And the value of t-statistics of investment is 6.546881> 2.05553, which means rejecting H04 (there is an influence between the investment and the poverty level in Indonesia).

The second test conducted in this research is the f test. This f test basically indicates whether all the independent variables included in the regression model have a mutual influence on the dependent variable or not. The null hypothesis (H0) expected is all parameters equal to zero.

H0: b1 = b2 = ... = bk = 0

This means that all independent variables are not a significant explanatory of the dependent variable. The alternative hypothesis (H1) is that not all parameters equal to zero

H1: $b1 \neq b2 \neq .... \neq bk \neq 0$

The way to conduct the f test is by comparing f-tables with f-statistics. From the result of regression formed, the value of f-statistic equals to 12.10940, while the value of f-table obtained equals to $F0.025\ (4.27) = 2.73$. F-statistic is greater than F-table then rejecting H0. It means that all independent variables are a significant explanatory to the dependent variable.

Based on table 1, it can be explained that the average variable of the expenditure per capita per day is significant for the poverty in Indonesia. The coefficient of – 3.043806 means that when the average expenditure per capita per day increases by one percent, the poverty will decrease by 3.043806 units. The expenditure per capita has a positive impact on the poverty reduction, in which the increase in expenditure is a reflection of the increase in the amount of income received. The more people whose consumption increases, the more the number of people whose incomes rise and who are free from the poverty line.

The increase in expenditure also identifies that the fewer the unemployment are present. Arsyad (1997) stated that there is a close relationship to the high level of unemployment and poverty. For most societies, those who have no permanent jobs or only part-time jobs are among the very poor.

Investment in this research has a significant influence on the level of poverty in Indonesia. Coefficient of 0.046912 means that when the amount of investment increases one percent, the poverty in Indonesia will increase by 0.046912 units. The results of this research are inversely proportional to the theories in various journals and sources stating that investment has a negative influence on the poverty. One theory revealed by Sukirno (2000) stated that investment activities conducted by the people will continuously increase the economic activity and the employment, will increase the national income, and will increase the level of people's prosperity.

The jump in investments that are inconsistent with the number of poor people is caused by the investments that do not maximize the labor absorption and also by the increase in the poverty line rate. The investment coming in Indonesia is big, but more in the capital intensive, besides, the investment only focuses on certain sectors such as mining and automotive, which only have minimal labor absorption.

It seems that more investments come in the non-production sectors, such as infrastructure, property, and energy supply. These sectors only absorb very little labors. Ironically, most of the labor force absorbed in the infrastructure and property projects is imported from abroad (foreign labors). This makes the unemployment rate remain high. Besides, these are the short-term projects that cannot accommodate large numbers of labors in a long period of time. Consequently, the Indonesian people remains trapped in poverty.

Labor force participation has no significant effect on poverty in 32 provinces researched in Indonesia in 2014. This result is in contrast to Michael P.Todaro's theory. According to this theory, one of the main mechanisms for reducing the poverty is by handling the problem of unemployment and labors. The theory explained that the high labor force has an influence in the economic growth in which the high participation of the labor force will encourage the economic growth and will reduce the poverty.

It is known that the number of people in Indonesia is increasing every year, so are the number of new labor force graduated from the junior high school, senior high school / vocational high school, and college. Most of them apply for jobs in droves in the company / factories / agencies although with low salaries and wages. The increase in the number of new labor force has led to a high rate of labor force participation. The labor force expects that "it is better to work on a small salary than be unemployed". That is why poverty is still high.

Related to the non-significant of LFPR to poverty, it is because the global economic conditions experienced shocks in 2014.

This is marked by the declining world commodity prices, the slowing growth in the country's economic growth, and the weakening global economic demand. The stability policy pursued by the government and Bank Indonesia also affected the domestic economy by reducing the burden of fuel subsidy through subsidized fuel price increase in November 2014. This increase is a shock-policy that makes the price of goods, especially the basic needs, increase, whereas the poor in Indonesia is dominated by people who have difficulty in meeting their basic needs.

The increase in labor force participation does not affect the number of poor people in Indonesia because the price of goods increases. Therefore, some of the above causes make the people's welfare down although they have jobs. It is because the government regulation that reduces the subsidies does not make an increase in income or welfare.

Literacy rates do not have a significant effect on poverty in Indonesia in 2014. Literacy rates describe the quality of human resources in a region measured in terms of education, because the higher the literacy rate is, the higher the quality of human resources will be. The higher someone's education will increase his productivity so that it will increase the income both individual and national. The increase in the individual income will increase the consumption ability, thus alleviating them from the poverty.

As has been proved in the research of Rasidin K Sitepu and Bonar M Sinaga (2005), educational investment provides great benefits for the poverty reduction. The cause of the literacy rate is not significant in this research because the public awareness of education has increased, which is reflected by the increasing literacy rate of every province that almost reaches 95 percent. Some job vacancies have already standardized the minimum education that must be taken. Thus, literacy no longer affects the acceptance or absence of someone in a job, whereas the status of work undertaken by the people will affect the income level that affects the people's welfare itself.

The test coefficient of determination strengthened by the f test states that all independent variables significantly affect the dependent variable, which obtained value R2 of 0.5890. It means that poverty variable is influenced by the labor force participation rate, the average of monthly expenditure per capita, the literacy rate, and the capital investment of 58.90 percent, and the rest of 41.10 percent is influenced by other variables.

CONCLUSION

Based on the results of research conducted, the average expenditure and capital investment significantly affect the poverty in Indonesia in 2014. When the average of people's expenditure per capita increased one percent, the number of poor people in Indonesia would decrease of 3.043806 units. Meanwhile, when the investment increased one percent, it would increase the number of poor people of 0.046912 units. But at the same outcome, the labor force participation rate and the literacy rate did not significantly affect the poverty in Indonesia in 2014. This is because the political and economic conditions in the country are experiencing adaptation, and coupled with the volatile global economic conditions.

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