



The Effect of Government Expenditure on Poverty in Indonesia

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ABSTRACT

The objective of this research is to determine the effect of education function expenditure, social protection function expenditure and health function expenditure on poverty in Indonesia. The data used in this research are secondary data sourced from the Ministry of Finance and the Central Bureau of Statistics. The analysis method used in this research is panel data regression. Based on the regression results, it is obtained that the fixed effect model as the best model to be used in analysis. Based on the results of the partial test, it was found that social protection function expenditure had a negative effect on poverty in Indonesia, while health function expenditure had a positive effect on poverty in Indonesia, while education function expenditure has no effect on poverty in Indonesia. Furthermore, when viewed simultaneously, education function expenditure, social protection functions expenditure and health function expenditure have a positive effect on poverty in Indonesia with an Adjusted R-squared value of 0.9973 or 99.73 percent. These results show that 0.27 percent are influenced by variables outside the model. As a consideration for the Indonesian government to overcome poverty, it can be done by increasing social protection function expenditure, this is because social protection expenditure is significantly able to reduce poverty levels in Indonesia. While on education function expenditure and health function expenditure, to reduce poverty in Indonesia, expenditure is not only focused on mandatory spending, but the government should be able to allocate budget for programs that are right on target and can increase human resource productivity.

Keywords: *Education Function Expenditure, Social Protection Function Expenditure, Health Function Expenditure*

1. INTRODUCTION

The problem of poverty in Indonesia is still a strategic issue and has always been a priority scale for every regime to solve the problem. Poverty is not only defined as living short of food, shelter and clothing, but also low access to resources and assets needed to meet basic needs (1). Furthermore, poverty has a broad meaning consisting of five integrated dimensions. The five dimensions include proper, powerless, state of emergency, dependency, and isolation both geographically and sociologically [(2). Poverty is not only living in lack of money and low income levels, but can also be in other ways such as low levels of health and education, and powerlessness in determining one's

own life. Poverty alleviation is the government's obligation to create a prosperous society. Currently, the government has many poverty alleviation programs through pro-poor spending. The pro poor expenditure includes spending on social protection functions, spending on health functions and spending on education functions. Despite the fact that the government has issued various programs in poverty alleviation. However, poverty is still relatively high.

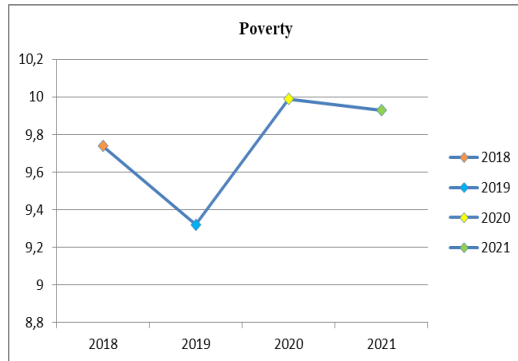


Figure 1. Poverty Rate in Indonesia.

The realization of each region's program to overcome poverty is left to each government, namely through fiscal decentralization policies. So it is hoped that problems in each region can be solved in an effective and efficient way, especially to overcome the problem of poverty. Regional autonomy is the authority of autonomous regions to regulate and take care of the interests of local communities according to their own initiatives based on community aspirations that are adjusted to laws and regulations. Simply put, regional autonomy is the handover of authority from the central government to regional governments to regulate their own households (2). The handover of authority is because local governments have better knowledge and information about the needs of their communities (3). The implementation of regional autonomy and this more or less has an impact on government spending (4).

In the form of governance and providing services to the community. According to Law Number 32 of 2004 concerning local government, one of them has been mandated to improve people's welfare through public services(5). Based on Law Number 25 of 2009 (6), this public service is a service of public goods and public services as well as public administration services regulated in the law. In government expenditure, there is a component of funds that can be used for public services for many people. The part of the public service is education, health, and social security (7). The most vital public services are education and health, especially for the poor (8).

An important factor that causes the rapid growth of the American economy is the relatively increasing financing of education (9). This research investment in education will bring a greater increase in national income than dollars spent on dams, highways, factories or other real capital goods. Therefore, in an effort to solve the poverty problem, the government has tried to issue various kinds of poverty alleviation policies. One of the government's policies is to spend a certain amount of budget both in the fields of health, education and social protection. The highest budget comes from spending on the education function, followed by health spending.

According to Widodo et.al (10), the Government must guarantee the right to public health, through the implementation of health services and health policies that are good, quality, and affordable.

In addition, spending on education and health functions, the Government of Indonesia has also spent on social protection as an effort to overcome poverty. As stated in constitution of Republic Indonesia, 34/1945, it is stated that the poor and abandoned children must be cared for by the state. The Ministry of Finance stated that this social protection spending aims to overcome poverty and social vulnerability. The social protection programs are classified into two groups, namely social assistance, and social insurance (11).

Through pro poor expenditure, it is expected to be able to overcome the problem of poverty in Indonesia. Therefore, it is important to find out the achievements of the budget increase towards alleviating poverty problems in Indonesia. According to Glynn (12), this is intended so that the increase in the budget is not seen in terms of the availability of financial resources alone, but also to ensure whether the benefits of the budget are in accordance with their designation.

2. RESEARCH METHODS

This research is a quantitative research. This quantitative method aims to test the correctness of hypotheses that have been made. This research uses secondary data. The data collected are health functions expenditure, education function expenditure and social protection functions expenditure in all Provinces in Indonesia during the 2018-2021 period. The data is sourced from Directorate General of Financial Balance and BPS (Central Bureau of Statistics).

Furthermore, this research used in panel data regression analysis, as shown in the following equation:

$$POV_{it} = \alpha + \beta_1 EDC_{it} + \beta_2 SPROTEC_{it} + \beta_3 HLTH_{it} + \varepsilon_{it} \quad (1)$$

Note:

POV is the number of poor people

EDC is education function expenditure

SPROTEC is social protection expenditure

HLTH is Health function expenditure

α is a constant $\beta_1, \beta_2, \beta_3$ is the coefficient of education function expenditure, social protection expenditure and health function expenditure,

ε is an error term

There are several models on the panel data, namely the common effect model (CEM), fixed effect model (FEM) and random effect model (REM) (13) and (14). Furthermore, in determining the best model, several

tests will be carried out in this study, namely the chow test, hausman test and lagrange multiplier test

3. RESULT AND DISCUSSION

3.1. Result

In determining the best model between CEM, FEM and REM, several tests were carried out consisting of chow test, hausman test, and lagrange multiplier test.

3.1.1. Chow Test

This chow test is used to select the best model between CEM and FEM. The results of the chow test can be seen based on Table 1.

Table 1. Chow Test Result

Effects Test	Statistic	d.f	Prob.
Cross - Section F	520.125571	(33,99)	0.0000
Cross - Section Chi - square	70.924457	33	0.0000

Source : research results (data processed, 2023)

From the Chow test result, show that the best model is FEM. This is because Cross-Section probability value is smaller than α (0,05). For that, treat further testing, namely the hausman test to choose the best model between FEM and REM.

3.1.2. Hausman Test

After the hausman test, the results are obtained as shown in Table 2.

Table 2. Hausman Test Result

Test Summary	Chi-Square Statistic	Chi-Square d.f	Prob.
Cross - Section Random	215.891513	(3)	0.0000

Source : research results (data processed, 2023)

From the hasuman test, it can be seen that fixed effect model as the best model. This is because the value of random cross-section is smaller than α (0,05).

3.1.3. Best Model Regression Results

Based on the chow test and the hausman test, it was found that the Fixed effect model is the best model to be used in this research. The results of data regression are seen in the following Table 3:

Table 3. Best Model Regression Results

Variable	Coefficient	Std.Error	t.Statistic	Prob.
C	542345.8	27012.67	20.07747	0.0000
EDC	1.14E-08	7.31E-09	1.562315	0.1214
SPROTEC	-9.86E-08	3.06E-08	-3.225630	0.0017
HLTH	2.03E-07	2.46E-08	8.285521	0.0000
R-Squared : 0.998025				
Adjusted R-Squared : 0.997307				
F-Statistic : 1389.618				
Prob (F-Statistic) : 0.000000				

Source : research results (data processed, 2023)

3.1.4. Hypothesis Test

There are several hypothesis tests in this study, including the R2 coefficient of determination test, F test and t tes. From the regression results, value of Adj.R² is 0.9973. This shows that 99.73 percent of poverty variation can be explained by variable variations in education function health function expenditure, social protection function expenditure, and health function expenditure while the remaining 0.27 percent is explained by other variables outside the model. Then, based on the result of F test, value of F-statistic is 1389.618 with prob.of F-statistic is 0.00000000. The probability value of this F-statistic is smaller than α (0,05). It means that simultaneously on education function health function expenditure, social protection function expenditure, and health function expenditure have a positive and significant effect on poverty in Indonesia at $\alpha=5\%$. Furthermore, based on the t test, education function expenditure has a t-statistical value of 1.562315 with a probability value of 0.1214, which means that education function expenditure has no effect on poverty. While health function expenditure has a t-statistic value of 8.285521 with a probability of 0.0000, which means that health function expenditure has a positive effect on poverty in Indonesia at $\alpha=5\%$. Then, social protection function expenditure has a t-statistical value of (-3.225630) with a probability value of 0.0017, which means that social protection function expenditure has a negative influence on poverty.

3.2. Discussion

3.2.1. The Effect of Education Function Expenditure on Poverty in Indonesia

Based on the regression result, t-statistic probability value of of EDC bigger than α (0,05). This result shows that education expenditure has no effect on poverty in Indonesia at α (0,05). This means that the size of education expenditure does not have a significant impact on provincial poverty in Indonesia. This is because the majority of education spending is used for mandatory spending, where most education spending is spent on employee spending. The amount of employee spending does not have an impact on the poor. The large allocation of education function expenditures for employee expenditures causes the budget to be unable to be used for productive things. This causes the problem of poverty to be solved as expected (15). In ANTARA News (16) , there are several things that need to be considered in making allocations for education spending, namely the need for budget allocations to improve school quality, teacher quality, student quality, and education personnel which are still relatively low. This is because, the majority of education budgeting at the provincial and district/city levels still focuses on primary and secondary development.

In addition, although in the education expenditure component there are expenditures on goods and services, capital expenditures and other expenditures that can increase human resource productivity. However, the benefits of this spending cannot be felt immediately in the short term. As found the research, new education spending will be felt in the long run, especially through increasing human resources and increasing labor productivity (17).

Government expenditure in education cannot affect poverty directly. This is because government spending must first interact with the HDI component (10). But in the other research has proven that education function spending significantly affects the components of the Human Development Index (HDI) (18). In addition, HDI not only acts as a moderator, but also acts as an intervening variable. This causes government spending in the education sector will affect poverty if the expenditure is carried out in order to improve the quality of human resources (19).

The results of this research are different from the research found by Putra (20), Wita et al. (21), and Putri (22), which also found that education has a positive effect on poverty. Education negatively affects poverty reduction. This is because, the existence of education allows someone to achieve better performance, and get a higher income (23). So, the higher the education, the productivity of human resources will also increase, so that in the end it will have an impact on increasing people's income and reducing poverty.

3.2.2. The Effect of Social Protection Function Expenditure on Poverty in Indonesia

Based on the results of the t test, the value of t-statistical probability was smaller than α (0,05). This result shows that spending on social protection functions has a negative effect on provincial poverty in Indonesia at α (0,05). That is, when social protection function expenditure increases, it will reduce the number of poor people in Indonesia. This shows that government programs in each province are quite efficient in overcoming poverty. However, it does not mean that every province is able to reduce its poverty rate. This is evident from the results of research conducted by (15), which found that social protection function expenditure in Bengkulu Province has no effect on poverty in Bengkulu Province. This is because, the majority of programs provided by the Bengkulu Provincial government are still short-term mitigation, so that social protection function expenditure is not able to overcome poverty problems in Bengkulu Province.

This social protection expenditure aims to overcome poverty and social vulnerability (Ministry of Finance, 2021). Furthermore, according to the Ministry of Finance of the Republic of Indonesia, social protection programs aim to overcome poverty and social

vulnerability through efforts to increase and improve the capacity of residents to protect themselves from disasters and loss of income. The forms of social protection programs in Indonesia include Smart Indonesia Card, child social welfare program, pre-employment card, school child bidikmisi program, MSME training, family hope program, people's business credit, inadequate housing assistance, social food assistance, assistance and rehabilitation of the elderly, non-cash food assistance, national health insurance and social food assistance.

However, the various types of programs actually consist of short-term mitigation programs and long-term mitigation. Not a few provincial governments are still channeling spending on social protection functions in the form of short-term mitigation programs. This short-term program is considered less effective because it consumes a large budget, but on the other hand does not encourage people to become more economically independent, so that the program has not been able to overcome economic problems, such as poverty. Therefore, to maximize the goal of poverty alleviation, the programs carried out must be preventive as well as promotive for the long term.

This is because social protection includes components of protection, prevention and promotion. Furthermore, what is considered in the distribution of social protection function spending is accuracy in finding targets or recipients of social assistance (24). This is because not a few governments tend to still not be right on target in providing social assistance. According to Sendow (25), social assistance should really be given to people who deserve the assistance. For this reason, participation from the government is needed to supervise it. This aims to minimize unwanted events, so that the objectives of a program can be achieved properly.

The results of this research are in line with several research results conducted by (26), (27), (28), (29), and (30) that partial spending on social protection functions against poverty.

3.2.3. The Effect of Health Function Expenditure on Poverty in Indonesia

Based on the t test result, it was found that the t-statistic probability value was smaller than α (0,05). This result shows that health function expenditure has a positive effect on provincial poverty in Indonesia at α (0,05). It means that when health expenditure increases, poverty will also increase, and vice versa. This is due to the allocation of expenditure in the health sector which is also mandatory spending, such as the amount of budget for employee spending. This expenditure does not have a significant impact on the decline in the number of poor people. The results of this research are different

from the results of research found by (15), (21), (28), (31) and (29), which found that health expenditure negatively affects poverty.

In addition, health expenditure tends to affect poverty reduction in a relatively long period of time (28). Therefore, the current government program cannot necessarily feel the benefits in overcoming the problem of poverty. This is because health expenditure cannot directly affect poverty because it must first interact with the achievement of the Human Development Index (HDI). As research conducted by [10], health expenditure does not affect poverty because it fails to improve the human development index.

Basically, this health expenditure has a significant influence on poverty. It's just that it is necessary to reallocate the budget for health functions that are pro poor expenditure. As stated by the World Bank, that health cannot be separated from poverty. This is because health will have an impact on work productivity and in the end will ultimately have an impact on the income obtained. Poverty and health are interrelated with each other. As the results of research found, that health has a negative effect on poverty [20]. Meanwhile, it found results that increasing poverty will have a negative impact on individual health (32). Thus, deteriorating health will reduce their productive capacity, limit their participation in the labor market, and will force them to pay more for health care and lower investment in the health of their children, thus creating a vicious cycle. Meanwhile, a wealthier person tends to be healthier because increased household spending leads to improved health.

Poverty can make a person trapped in poor health conditions, this is as a result of limited access to health services for the poor. In addition, poor people have a tendency to pay less attention to their health. As a result, the productivity of the poor will decrease, so that income will decrease. Therefore, the government has spent a large amount of budget to overcome these health problems. As stated by [10], health should be the government's priority because health is a prerequisite for increasing human productivity. Because if a program in the field of health and education is implemented productively and efficiently, it will be able to increase employment opportunities, human resource productivity which leads to poverty reduction in Indonesia (33).

In this case, to overcome the problem of poverty, the government can increase investment for human development, both in health and education. With the improvement of public health and education, it will encourage an increase in labor productivity, and in turn will increase the income of the society (10), (15).

4. CONCLUSION

Based on the results of the partial test, it was found that social protection function expenditure had a negative effect on poverty in Indonesia, while health functions expenditure had a positive effect on poverty in Indonesia, while education function expenditure has no effect on poverty in Indonesia. Furthermore, when viewed simultaneously, education function expenditure, social protection function expenditure and health function expenditure have a positive effect on poverty in Indonesia with an Adjusted R-squared value of 0.9973 or 99.73 percent. These results show that 0.27 percent are influenced by variables outside the model. As a consideration for the Indonesian government to overcome poverty, it can be done by increasing social protection function expenditure, this is because social protection expenditure is significantly able to reduce poverty levels in Indonesia. While on education function expenditure and health function expenditure, to reduce poverty in Indonesia, expenditure is not only focused on mandatory spending, but the government should be able to allocate budget for the right programs and can increase human resource productivity.

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