



**THE EFFECT OF INCREASED EDUCATION AND HEALTH BUDGETS
AND ECONOMIC GROWTH ON POVERTY LEVELS DURING
THE 2007-2021 PERIOD IN SOUTH SULAWESI**

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ABSTRACT

The budget allocation made by the government in the education and health sectors as well as economic growth is not enough to reduce poverty. An increase in the budget for education, health, and economic growth will reduce poverty. If the budget allocation is not right on target, it will lead to poverty. This study aims to analyze the effect of increasing the budget for education, health, and economic growth on poverty levels in South Sulawesi. The type of data used in this study is secondary data and uses time series data from 2007 to 2021. This research uses the multiple linear regression model method. The results of this study indicate that the education budget and economic growth do not affect the poverty level of South Sulawesi Province, while the health budget affects the poverty level of South Sulawesi Province. Based on the results of this study, it is hoped that the South Sulawesi provincial government will be able to proportional the education and health budget to improve the welfare of the community, especially the lower middle class.

Keywords: Poverty Rate, Education, Health Budget, Economic Growth

INTRODUCTION

Poverty is one of the problems that often occurs in Indonesia. The problem of poverty is caused by the low income earned. Poverty can be measured by comparing household income with the needs that must be met. Poverty is multidimensional, which means that it can be seen with various human needs. Yacoub (2010) explains that poverty is one of the important problems because poverty involves meeting basic needs in life and poverty is a global problem. After all, it is a problem faced in various countries.

According to the World Bank Institute (2004), the cause of poverty is a decrease in income and assets (lack of income and assets) to complete basic needs such as food, clothing, housing, acceptable levels of health, and education. Poverty is also related to limited employment opportunities and usually, those who are categorized as poor (the poor) do not have a job (unemployment), and their



education and health levels are generally inadequate. According to Hureirah (2005), poverty alleviation needs to be followed up and its implementation perfected, such as the level of education and public health, expansion of employment opportunities, and cultivation of entrepreneurship.

The cause of poverty in the community is due to differences in ownership resources that cause the distribution of income or wages earned by the community. Differences in the quality of human resources are caused by the low educational path taken by the community and access to health that has not been evenly distributed among small communities, causing low community productivity. to ignore their education and health. This of course can weaken competitiveness in the world of work.

The problem of poverty is a common problem and has been found in many sectors such as education, health, and economic growth, therefore reducing the level of poverty to cover various aspects of people's lives as a whole. One of the main goals of national development is to reduce the level of poverty. This problem has existed for a long time and basically, people are included in the poor group which is not caused by a lack of clothing and food but is poor in the context of lack of access to facilities. Another factor that can affect the level of poverty is economic growth, therefore accelerating the reduction of the poverty rate by increasing economic growth.

Local governments through planned programs focus on education and health so that the community can access facilities from government programs that have been designed to reduce poverty levels. According to Bhinadi (2017), the low level of education and access to health facilities is one indicator that affects the poverty level.

Education function expenditures are government expenditures that can describe efforts in providing service facilities to the community in the field of education. Education is one of the important factors that can affect the level of poverty. By getting access to proper education, a country can have quality human resources (human resources). Education has an important role that aims to improve human intelligence and skills Josep (2018). Thus education has a major role in the progress of the nation and the level of poverty.

Health expenditure is government expenditure used as the cost of implementing government programs in the health sector. Government spending on the health sector hurts poverty alleviation. The provision of access to health for the poor needs to be improved and prioritized for the poor (Hossain, 2014). Therefore, local governments need to allocate health funds so that the poor can get proper health facilities.

To achieve economic growth, the government and the community can take initiatives toward regional development. Effectiveness in reducing poverty is a key growth factor for deciding development strategies. Poverty is a fairly serious problem regarding people's welfare which can be influenced by various interrelated factors, such as income levels, health, education, and access to goods and

services. The government's role in spending budgets for poverty alleviation is a stimulus to reduce poverty levels. According to research that has been done by Hasibuan (2005) said that the role of the budget for poverty alleviation. This means that the higher the amount of budget issued by the government can reduce the level of poverty.

In addition, poverty is the root of social problems that have occurred recently. There are social factors which include population problems which include problems of education, health, and economic growth, to the level of poverty that occurs in South Sulawesi Province. According to Badan Pusat Statistik Sulawesi Selatan (2022), South Sulawesi Province has a poverty problem that appears to have fluctuated in the last 5 years (2017-2021), where the total poverty rate in South Sulawesi Province in 2017 was 9.38 % which experienced a significant decrease in the poverty rate from in 2018-2019 as much as 0.37 %. However, it has increased again from 2019 to 2020 by as much as 0.03 %. The total poverty rate in 2021 also increased by 0.06 %.

According to Todaro (2006), the level of poverty can be influenced by the level of regional income. The higher the income level of a region, the greater the potential for allocating a budget to tackle the problem of poverty. However, if the budget allocation is not right on target, it will cause poverty to worsen and will result in social chaos. The budget allocation made by the government in the education, health, and economic growth sectors is not enough to reduce the poverty rate, but if there is an increase in the education, health, and economic growth budget, it can reduce the poverty rate, but the poverty rate increases in Sulawesi Province. South.

In the theory of "the vicious cycle of poverty" put forward by Nurkse, said that this theory is based on poverty, namely income per capita. This theory is based on the idea that individuals with higher incomes can save and invest and can maintain their status, while groups of individuals with lower incomes cannot do all of that to break the ropes of the cycle of poverty. This cycle begins with low nutrition in a community which has an impact on low health levels and makes people's productivity decline which ends with a small income level which can increase poverty rates (Rohima et al., 2013).

The problem of poverty that is often encountered in South Sulawesi Province is a problem that is one of the challenges that must be overcome so that the poverty level can be reduced. One way to reduce the level of poverty that occurs in South Sulawesi Province is by increasing the economic welfare of the community. Of course, by increasing the level of education and public health services as well as economic growth community productivity increases and poverty levels can decrease. Kuznets's theory in Todaro (2011) education is one way to save oneself from poverty. Todaro argues that education is a fundamental development goal. Where education has an important role in the absorption of modern technology and to develop people's abilities to increase their knowledge and skills.

The results of Fithri & Kaluge (2017) suggest that the effect of government spending on the education sector has a negative and insignificant effect on poverty. The health sector has a positive and insignificant effect on poverty. This is because the government is still less effective in reducing the level of poverty, it can be seen from the poverty rate which is increasing from time to time. According to Josep (2018) the more budget that will be issued by the local government in the field of education, the more poor people will be able to get access to education to increase human resources and reduce poverty levels. Thus the programs contained in the field of education have a major role in the progress of the nation, the welfare of society, the economy, and social.

Mills and Gilson's theory in Hakimudin (2010) suggests that health is the application of health economic theories, concepts, and techniques related to the allocation of resources in various health efforts, organizing and financing various health services, as well as the impact on prevention, treatment and health recovery efforts. for society. According to Widodo et al., (2011) found that government spending on the education and health sectors does not affect poverty. Neoclassical growth theory develops Keynes theory and Harrod-Domar theory which examines the problem of growth in terms of demand, this theory focuses on economic growth only applies to aggregate spending through increased investment and increases to a predetermined growth rate.

It is different, according to Prasetyo (2020) who states that the variable economic growth has no significant effect on the poverty level in Kediri Regency. By using field data collection techniques and literature studies and the research method is simple regression analysis. According to Lee (2016), economic growth has a close effect on poverty levels. Where if there is an increase in equitable economic growth, it will realize people's welfare and can reduce the level of poverty. Growth must go hand in hand and be planned to seek equal opportunity and more equitable distribution of development results. With that, poor, underdeveloped, and less productive areas will become productive in the end being able to accelerate their economic growth.

MATERIAL AND METHOD

The research method used is quantitative research with a survey approach. Secondary data is used from 2007-2021 obtained from the Central Statistics Agency and djpk.kemenkeu.go.id. The data collection technique used is a library research technique. The data is used to find out how the effect of increasing the education, health and economic growth budget on the poverty level of South Sulawesi Province which is analyzed using multiple linear regression analysis methods which if written into the linear function formula will be as follows:

$$Y = b_0 - b_1X_1 - b_2X_2 - b_3X_3 + \varepsilon \quad (1)$$

where Y is the poverty level. b_0 is the intercept. b_1, \dots, b_3 is the regression coefficient. X_1 is the education budget. X_2 is the health budget. X_3 is economic growth. ε is the residual value. Furthermore, this study uses the classical assumption of multicollinearity testing with the VIF (variance inflation factor) method (Rahim & Hastuti, 2018) which is formulated:

$$VIF = \frac{1}{1-R_j^2} \quad (2)$$

R_j^2 is obtained from auxiliary regression between the independent variables or the coefficient of determination between the j independent variables and other independent variables. Furthermore, if the VIF value is less than 10 then there is no multicollinearity. In addition, autocorrelation or serial correlation testing is also carried out using the run-test method (Rahim et al., 2020) by looking at the run pattern of the residuals as follows:

$$++++ - - - - + + \quad (3)$$

Run-test testing can be used to see whether the residual data is random or not. If it is not random, it means that there is an autocorrelation problem. If the run test is greater than the level of significance (α), then there is no autocorrelation problem in the data being tested.

RESULT AND DISCUSSION

Multicollinearity testing using the VIF (Variance Inflation Factor) method and autocorrelation using the run-test method (Table 1). The multicollinearity test is part of the classical assumption test in multiple linear analysis. The multicollinearity test aims to determine whether there is an intercorrelation (strong relationship) between the x (independent) variables. Because a good regression model is that there is no relationship between variables. One way to find out whether or not there is an intercorrelation in the multicollinearity test is by using the VIF (Variance Inflation Factor) method. Based on the results of data processing that has been obtained using the VIF method, each variable is smaller than < 10.00 so that in the education budget, health budget, and economic growth variables there are no symptoms of multicollinearity.

Furthermore, the autocorrelation test aims to test whether in the linear regression model there is a correlation between the confounding errors in period t or t_1 (previous). The basis for taking the autocorrelation test is if $d < dl$ or $d > 4-dl$ means that there is autocorrelation, if $du < d < 4-du$ means that there is no autocorrelation, and if $dl < d < du$ or $4-du < d < 4-dl$ it means no conclusion. The results of the autocorrelation test were obtained $d = 1.719$, $dl = 0,814$, $du = 1,750$, $4-dl = 3,189$, and $4-du = 2,250$. So the results of the autocorrelation test using DW are there are no conclusions, then using the run test with the results obtained

there are no symptoms of autocorrelation with the results of 0,578, where $0,578 > 0.05$ means that there are no symptoms of autocorrelation.

Testing the results of the determination of the coefficient of determination model adjusted R^2 , the data obtained is 0,558 meaning that the effect of the independent variables (education budget, health budget, and economic growth) together on the dependent variable (poverty level) is 55,8%. The F test is used to test whether there is a simultaneous effect between the X variables on the Y variables. The basis for making decisions from the F test is that if the calculated F value $>$ F table, it means that there is an influence and vice versa. The result of the calculation of the F test is $6,895 > 3,59$ which means that the X variable, namely the education budget, health budget, and economic growth, simultaneously affects the Y variable, namely the poverty level. After that, the t-test is used to determine whether or not there is a partial (own) effect of the X variable on the Y variable. The basis for decision making from the t-test is if t count $>$ t table, it means that there is a significant influence in the independent variable on the dependent variable. The result of the t table is 1,796. The results of the t-test state that the education budget has a positive but not significant effect on the poverty level, the health budget has a significant negative effect on the poverty level and economic growth has a positive but not significant effect on the poverty level.

Table 1. The Effect of Education Budget, Health Budget, and Economic Growth on Poverty Levels in South Sulawesi Province

Independent variable	E.S.	β_i	t-test	Sig.	VIF
Education budget	-	-0,011 ^{ns}	0,394	0,701	4,260
Health budget	-	0,153 ^{**}	-2,572	0,026	3,929
Economic growth	-	0,002 ^{ns}	0,455	0,658	1,176
Intercept					6,663
Adjusted R^2					0,558
F-test					6,895
DW test					1,719
Run test					0,158
n					15

Note: ** is a significant level of error 5% or 95% confidence level; ns is not significant; E.S. is a sign of hope. If the value of $VIF > 10$ then there is multicollinearity, while $VIF < 10$ then there is no multicollinearity. If the runt-test value is in the form of non-random residual data, then there is an autocorrelation, otherwise, if the residual data looks random then there is no autocorrelation.

Based on the analysis to be used, the following equation can be obtained:

$$Y = 6,663 + 0,011X_1 + 0,153X_2 + 0,022X_3 + \varepsilon \quad (4)$$

The poverty rate in South Sulawesi Province is still fluctuating, namely in 2007 as much as 14.11 %, decreasing until 2012 as much as 9.82 %. It increased again in 2013 by 10,32 % and continued to fluctuate from 2014 to 2020. In 2021

the poverty rate increased by 0.06 % from the previous year (Figure 1). Similar to poverty rate data, economic growth also fluctuates. In 2007 as much as 6,34 percent which increased until the year 2012 as much as 8,87 which means that at that time the province of South Sulawesi experienced good economic growth because it can increase production capacity which is manifested in the form of an increase in income. However, in 2013 as much as 7,62 % decreased until 2020 as much as 0,70 meaning that at that time there was a decline in the wheels of the economy which could be marked by a weakening of gross domestic product (GDP). Where in 2019 to 2020 experienced the Corona Virus Disease 2019 (COVID-19) pandemic which resulted in weak economic growth. In 2021 economic growth will increase again by 7.89 %.

This is not in line with neo-classical growth theory which developed Keynes theory and Harrod-Domar theory which examines the problem of growth in terms of demand, this theory focuses on economic growth and only applies to aggregate spending through increased investment and increases to a predetermined growth rate. However, the results of this study are in line with research from Prasetyo (2020) which explains that economic growth variables have no significant effect on poverty levels in Kediri Regency. Based on this research that if aggregate expenditure in increasing investment can increase national income, then people's income can have an effect if it can spread to every group including the poor. However, some poor people have not benefited from economic growth, so their welfare has not increased so economic growth has not been able to reduce poverty levels.

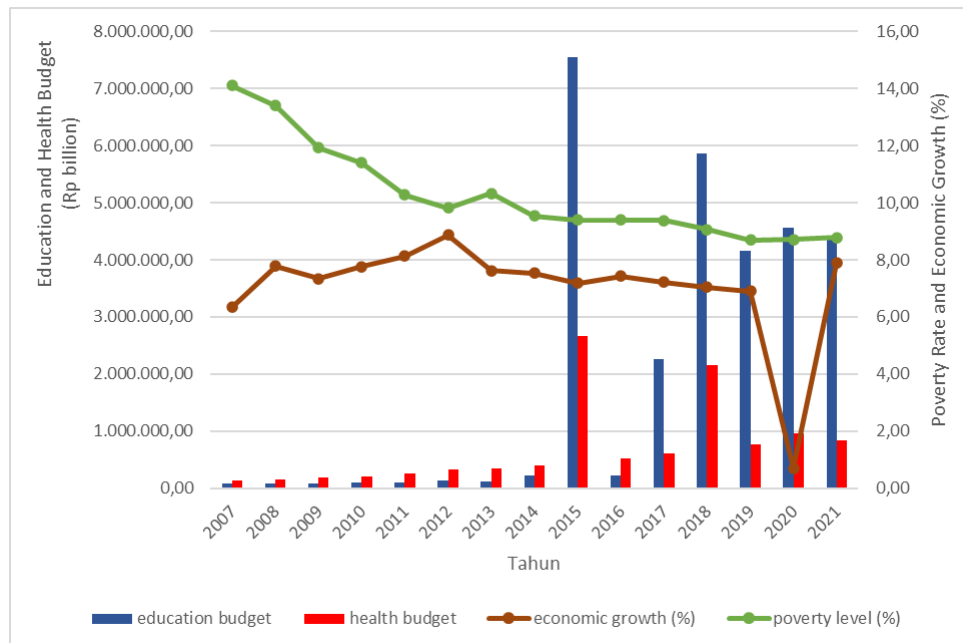


Figure 1. Trends in Budget Development for Education, Health, Economic Growth and Poverty Rates in South Sulawesi Province

One of the factors that affect the level of poverty in a region is economic growth. Where economic growth increases, the poverty rate in an area can decrease, therefore an increase in economic growth is needed to reduce the poverty rate in South Sulawesi Province. Based on the official website of Kementerian Keuangan (2021) the budget allocation for education in 2007 was IDR 76,881 billion until 2015 an increase of IDR 7,554,- trillion From 2016 to 2019 there was a decrease of IDR 4,149,- trillion However, in 2020 the education budget allocation fund has increased by IDR 4,556,- trillion which is in stark contrast to the fluctuating poverty rate. Based on the poverty rate data and the education budget allocation funds in South Sulawesi Province, it does not show any influence on each other.

Although the government spends 20% of the education budget from the APBN and special allocation funds, it is not enough to affect the poverty rate which increases from year to year. Likewise in 2020 where COVID-19 increased so that all teaching and learning activities were carried out at home or worked from home, therefore the government increased the education budget from the previous year but the poverty rate also increased. The results of this study are not in line with Kuznets' theory in Todaro (2011) that education is one way to save oneself from poverty. Todaro argues that education is a fundamental development goal. Where education has an important role in the absorption of modern technology and to develop people's abilities to increase their knowledge and skills. However, the results of this study are in line with previous research, namely by Wardhana & Kharisma (2019) which explains that the role of spending in the education sector on poverty in Indonesia is not significant. Based on this research, the pro-poor budgeting policy or often referred to as a pro-poor policy in improving the welfare of the poor, however, does not have a major influence on the poor because the poverty rate in South Sulawesi Province has also increased.

If the education budget increases but the poverty rate also increases, because the effect of the education budget allocated later is compared to the same year, it has no effect because education is long-term. Where the higher the education level of the community, their knowledge and skills can also increase so that it can encourage an increase in community work productivity. The low productivity of the poor is due to their low access to education. Therefore, the role of the government is to provide equitable education for the poor to increase their productivity. If the allocation of government budget funds in the education sector is appropriate in helping the community in every group, especially the poor, then they can get a proper education. So that people can improve economic conditions and can reduce poverty levels.

Similar to the allocation of funds for the education budget, the allocation for the health budget also increased from 2007 as much as IDR 132,622,- billion until 2015 as much as IDR 2,658,- trillion From 2016 to 2020 there was an increase of IDR 955,760,- billion In 2021 the budget allocation for education decreased by IDR 832,716,- billion. Government spending in the allocation of the health budget as

much as 5% of the APBN and health operational assistance influences the poverty level. Where in 2020 the health budget increased by 1.2% of the predetermined APBN. Where the budget allocation is used for COVID-19 prevention activities, namely tracing (close contact tracing) and testing (testing actions) as well as the procurement of personal protective equipment. This is in line with the theory of Mills and Gilson in Hakimudin (2010) who stated that health is the application of health economic theories, concepts, and techniques related to the allocation of resources in various health efforts, organizing and financing of various health services, as well as the impact on prevention efforts. treatment and restoration of health for the community. The results of this study are in line with previous research, namely Hatta (2018) which explains that the effect of government spending on the health sector has a significant effect on poverty in the Ajatappareng Region.

Based on this research, if health is evenly distributed in each group, especially the poor, it can increase productivity in that community. Therefore, the pro-poor budgeting policy is appropriate enough to support economic development, especially for the welfare of the poor in the health sector. Where if the health budget increases, it can reduce the level of poverty.

CONCLUSIONS

Based on the research that has been done, it can be concluded that the education budget has no significant effect on the poverty level in South Sulawesi Province. Therefore, the pro-poor budgeting policy that has been carried out by the government does not have a big influence on the poverty level of South Sulawesi Province. On the other hand, the health budget has a significant effect on the poverty level in South Sulawesi Province. Therefore, it can be seen that pro-poor budgeting policies in the health sector have a beneficial impact on the welfare of the poor in South Sulawesi Province. Meanwhile, economic growth has no significant effect on the poverty rate in South Sulawesi Province.

Based on the results of the research and the conclusions that have been put forward, it is hoped that the South Sulawesi provincial government will be able to proportionate the education and health budget to improve the welfare of the community, especially the lower middle class. Further researchers, it is expected to add other economic variables to assist the government in determining the right policies to determine the reduction of the poverty rate in South Sulawesi Province.

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