



## The Effect of Government Expenditure on Education on Economic Growth In the province of Central Sulawesi

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### ABSTRAK

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The purpose of this study was to determine the effect of government spending on education on economic growth in Central Sulawesi Province. The data used in this study is data on government spending on education and economic growth in Central Sulawesi in 2010-2020. The data analysis technique used in this research is simple linear regression analysis. The software used to perform the analysis is IBM SPSS Version 22.00. The results of the analysis show that government spending on education has a significant effect on economic growth with a positive relationship direction, meaning that if government spending on education increases, economic growth in Central Sulawesi Province in 2010-2020 also increases.

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## 1. Introduction

IndicatorThe success of the development of a region can be seen from the rate of economic growth. High and sustainable economic growth is the main condition for the continuity of economic development. As the population continues to grow, additional income is needed every year. This can be met through an increase in aggregate output of both goods and services or Gross Domestic Product (GDP) every year. So, according to macroeconomics, the notion of economic growth is an increase in GDP which also means an increase in national income.

Todaro and Smith (2012), although the rate of economic growth does not automatically provide answers to various welfare problems, it is still an important element of any realistic development program that is deliberately designed to alleviate poverty. If viewed from the results of research and statistical data, it will be seen that economic growth has been running rapidly but this rapid growth has brought worrying consequences, namely the occurrence of poor income distribution inequality.

Central Sulawesi asIn one of the provinces in Indonesia, it is also inseparable from the problem of inequality in income distribution like what has been experienced by other regions. Central Sulawesi Province, of course, has various problems that must be resolved, including the problem of economic growth and income distribution gaps. The aspect of income distribution is important to monitor, because equitable distribution of development results is one of the strategies and objectives of national development in Indonesia. The Gross Regional Domestic Product (GRDP) of Central Sulawesi provides an overview of the performance of economic development over time, so that the direction of the regional economy will be clearer.

Productk Gross Regional Domestic Product (GRDP) at constant prices is used to show the overall economic growth rate from year to year. According to Samuelson and Nordhaus (2005), there are 4 factors as a source of economic growth. These factors are: (1) human resources, (2) natural resources, (3) capital formation, and (4) technology.

GrowthThe economy is one of the indicators commonly used in determining the success of development. Economic growth is used as a measure of the economic development or progress of a country or region because it is closely related to the economic activities of the community, especially in





terms of increasing the production of goods and services (Mubararoq, et al., 2013).

ProducerThe government itself is the government's investment tool in the economy which is considered the most effective. So far, the level of effectiveness of spending itself is the government's investment tool in the economy that is considered the most effective. So far, the level of effectiveness of government spending can be measured by how much economic growth is (Sjafii, 2009).

Producern the government contained in the State Budget (APBN) is one of the government's fiscal policy tools. The government uses it to manage the country's economy. The state budget has undergone many structural changes. Government spending on education is basically an investment in economic growth. The effects of development on the education sector cannot have a direct impact but require several periods to feel the impact. There is a time lag when the government issues a development budget or state expenditure for the education sector with the impact of these policies, so a study that uses a fairly long time series is needed (Suparno, 2014).

Todaro (2006), education is very important for a country. Because the development and progress of a nation can be measured through the level and quality of education and the quality of its human resources. Education plays a major role in shaping a country's ability to absorb modern technology and develop the capacity for sustainable growth and development.

EffortTo achieve sustainable economic development, the field of education plays a very strategic role that can support the production process and other economic activities. In this context, education is considered as a tool to achieve sustainable targets, because with education development activities can be achieved, so that opportunities to improve the quality of life in the future will be better (Sutiawan, 2016). According to Sutiawan (2016), the implication of development in education is that human life will be more qualified. In relation to the general (national) economy, the higher the quality of life of a nation, the higher the level of growth and welfare of the nation. The higher the quality of life/investment of high quality human resources will also have implications for the level of national economic growth.

Suggestiona education in Central Sulawesi is available from Kindergarten Education (TK) to Higher Education (TI). The education sector is developing every year, indicated by the increase in the number of students accompanied by the addition of the number of schools, the number of teachers and the number of classes. The addition of the number of schools, teachers and classes is the first effort of the government in the context of equal distribution of educational opportunities for citizens. This is in accordance with the mandate of the 1945 Constitution which is described in the National Education Law. The compulsory education program was adjusted from 9 years to 12 years.

Repairn and the provision of facilities in schools is also carried out so that students can study well. Even the Central Sulawesi provincial government also provides the education budget for the welfare of its teachers by paying attention to the welfare of the teachers so that the teachers can teach well. The government also provides tuition assistance such as scholarships and school operational assistance for students.

## 2. Research Methods

### 2.1 Types of research

JeniThe research is a quantitative descriptive study of the variables used in this study, namely economic growth at constant prices in 2010-2020 in percentage (%), government spending in the education sector in 2010-2020 in percentage (%). The research location was conducted in Central Sulawesi Province.

### 2.2 Data Types and Sources

#### a. Data Type

The data used in this study is secondary data in the form of quantitative data which includes data on government spending in education and GRDP data at constant prices.

#### b. Data source

The data sources used were obtained from the Education and Culture Office of Central Sulawesi Province and the Central Statistics Agency of Central Sulawesi Province, which consisted of data on government spending in the education sector and data on Gross Regional Domestic Product (GRDP) for the 2010-2020 period.

### 2.3 Method of collecting data





Data collection methods used are documentation and internet techniques. This method is carried out by observing, studying and researching activities in government agencies through documents and data used by the Education and Culture Office of Central Sulawesi Province in planning and determining the budget obtained through the APBD and Central Sulawesi Provincial Statistics Agency through GRDP data.

## 2.4 Data analysis technique

In this research, the data analysis technique that will be used is simple linear regression analysis. Simple linear regression analysis aims to see whether there is an effect of spending on education on economic growth in Central Sulawesi Province and to predict the value of the variable government spending on education if the value of the variable economic growth increases or decreases. The data used are usually interval or ratio scale data. To analyze the effect of government spending on education on economic growth in Central Sulawesi Province, the following formula is used:

$$Y = + bX$$

Information:

- Y = Economic Growth
- X = Capital Expenditure
- and b = Constant

To analyze the data into the simple regression, SPSS 25.0 (Statistic Programming for Social Science) was used. Then the results from SPSS will be a tool for tabulating the data. The correlation coefficient is used to determine the strength of the influence of the dependent variable with the independent variable. The greater the value of R, the more precise the regression model used, because the total variation can explain the dependent variable. The coefficient of determination is intended to determine the best level of accuracy in regression analysis where it is indicated by the magnitude of the coefficient of determination ( $R^2$ ) between 0 (zero) and 1 (one). The t-test is to determine whether the regression coefficient of the independent variable has an influence or not on the dependent variable.

## 3. Results and Discussion

### 3.1 Research result

#### a. Simple Linear Regression Analysis Results

According to the results of the Simple Linear Regression analysis using the computer-assisted statistical program SPSS For Wind Release 25.0, a summary of the research results was obtained in connection with the alleged influence of the independent variable (government spending on education) on the dependent variable (economic growth) in Central Sulawesi Province in the period 2010-2020, formulated in Table 1 below:

**Table 1**  
Simple Linear Regression Calculation Results

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.778	.685		.344	.000
	Government Expenditure on Education	.550	.207	.650	4095	.003
<i>multiple R</i>		= 0.670	F-count	= 8,445		
<i>R-Squared (R2)</i>		= 0.528	Sig-F	= 0.000		

a. Dependent Variable: Economic Growth

Source: Secondary data reprocessed 2021.

Based on the results of simple linear regression analysis in Table 1 above, if converted in this study, the following equation can be made:

$$Y = 0.778 + 0.550 X$$

The simple linear regression equation above shows that government spending in the education sector analyzed has a positive and significant effect on economic growth in Central Sulawesi Province, with the following description:





- 1) The constant value in the simple linear regression equation above is 0.778, meaning that the economic growth of Central Sulawesi Province for the 2010-2020 period before this research was carried out was 0.778 percent.
- 2) The regression coefficient value of the government expenditure variable in education (X) is 0.550, meaning that if government spending in education is increased by 1%, it will have a positive influence on increasing economic growth in Central Sulawesi Province for the 2010-2020 period by 0.550 or 55.0 percent.

In the context of this study for the regression coefficient values mentioned above, the author uses the B value in the Unstandardized Coefficients column, with the reason that Unstandardized Coefficients is used in the regression model where its function is to predict the future picture with past data and the B value in the Unstandardized Coefficients column. is a value that reflects the direction of influence of the independent variable (X) on the dependent variable (Y) or the value of B in the Unstandardized Coefficients column is a value that reflects the elasticity of the independent variable (X) to the dependent variable (Y). This refers to the opinion of Basuki and Prawoto (2016: 53) which illustrates that Unstandardized Coefficient B is on the variables of inflation, sales and total profits. The sales variable affects the amount of profit distributed by 0.06,

### **b. Multiple R (Correlation Coefficient)**

Multiple R analysis is used to determine the strength of the relationship simultaneously between the independent variable and the dependent variable. In this study, multiple R was used to find out how much close the relationship (correlation) between the variables of government spending in education (X) and economic growth (Y) in Central Sulawesi Province for the 2010-2020 period.

The results of data processing using SPSS for windows release 22.0 show a correlation (correlation) between the variables of government spending in the education sector (X) to economic growth (Y) in Central Sulawesi Province for the 2010-2020 period shown in the Summary model is 0.670. This value shows the close relationship (correlation) of government expenditure variables in the education sector (X) to economic growth (Y) in Central Sulawesi Province for the 2010-2020 period is 67.0 percent.

If referring to the correlation coefficient interpretation guidelines according to Sugiyono (2012:214) it is concluded that the close relationship of government spending in education (X) to economic growth (Y) in Central Sulawesi Province for the 2010-2020 period is in the category of having a moderate relationship. This means that there is a significant relationship between the variables of government spending in the education sector and the variables of economic growth in Central Sulawesi Province for the 2010-2020 period.

### **c. Coefficient of Determination (R-Square)**

The coefficient of determination is a quantity that shows the effect of the variable government spending on education (X) on economic growth (Y) in Central Sulawesi Province for the 2010-2020 period in percentage units. The results of the analysis of research data indicate the magnitude of the influence of the independent variables (independent) of the study, indicated by the value of the coefficient of multiple determinants (R-Square) of 0.528 or 52.8 percent.

This value shows the effect of the variable government spending in the education sector on the economic growth variable in Central Sulawesi Province for the 2010-2020 period of 52.8 percent, while the rest is the influence of other variables not examined in the context of this study.

In the context of this study, for the reliability value of the research model or the coefficient of determination, the author uses the R-Square value for the reason that the number of independent variables (X) included in the model is only one variable. Many researchers prefer to use the R-Square value when evaluating which simple regression model is the best from the effect of variable X on variable Y.

## **3.2 Research Hypothesis Testing Results**

The t-test is used to find out partially the independent variables have a significant or no effect on the dependent variable (Priyatno, 2012). To partially determine the effect of government spending on education (X) on economic growth (Y) in Central Sulawesi Province in 2010-2020, the test is carried out using the 2-sided method or the significance level  $/2 = 0.05$ .

Through the test results using the t-test, it can be seen that the t-count value for the variable government expenditure in education (X) is 4.095 with the Sig-t value for the variable government expenditure in education (X) of  $0.003 < 0.05$ . This means that there is a positive and significant influence between the variables of government spending in education (X) on economic growth in Central Sulawesi Province in 2010-2020. Thus, the empirically proven research hypothesis is to reject  $H_0$ , meaning





government spending in education positive and significant effect on economic growth in Central Sulawesi Province for the period 2010-2020.

### 3.3 Discussion

#### a. The Effect of Government Expenditure on Education on Economic Growth in Central Sulawesi Province

Based on The results of the study show that government spending in the field of education has a significant effect on the direction of a positive relationship, meaning that if government spending in education increases, economic growth in Central Sulawesi Province in 2010-2020 will also increase.

listen the condition of the education sector shows Central Sulawesi t e r u s trying to improve the quality of education in order to print provincial human resources Central Sulawesi yang can compete at the national and international level. To that end, the Provincial Government Central Sulawesi declare The 12-Year Compulsory Education Program and 20% of it is allocated from the APBD for education. In addition, the government also has a scholarship program intended for the community Central Sulawesi dalam in order to increase development in the region Central Sulawesi.

Producer The government in the education sector can improve education services and facilities in Central Sulawesi Province, such as school buildings, books, laboratory supplies, or scholarships for poor students. Thus, the government's spending policy on education is an investment that ends up improving human quality. Education is a way to progress and achieve social and economic prosperity. In addition, investment in education has significantly succeeded in promoting economic progress and creating social welfare. Government spending on education is a long-term investment that must be supported by adequate and equitable financing.

Variablel Government spending on education significantly affects the economic growth of Central Sulawesi Province, this result shows the suitability of Meier's theory in Winarti (2014) which states that a nation must increase investment in education to achieve development. The results of this study have similarities with the research of Sjafii (2009), where the variable of government expenditure in education has a positive and significant effect on economic growth. This illustrates that there is indeed a relationship between changes in the state budget for education and Indonesia's GRDP, not only a positive relationship where over time the nominal state budget for education and Indonesia's GRDP both have a positive trend.

## 4. Conclusion

Based on From the results of data analysis and discussion, it can be concluded that government spending on education has a significant effect with a positive direction, meaning that if government spending on education increases, economic growth in the province will increase. Central Sulawesi Known 2010-2020 also experienced an increase.

Given the limited available budget, local governments cannot fully depend on investment from APBD funding for the education sector, so local governments must also encourage the creation of private investment so that regions can attract investors to increase private investment in the Province. Central Sulawesi in the field of education, local governments should be able to create regulations that make it easier for investors to invest in this area in the field of education by establishing private educational institutions. This can be done, for example, by drafting clear local regulations on investment, facilitating investment, providing clear and accurate information about investment opportunities, and providing a conducive climate for private investment such as security guarantees.

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