



# The Effect Special Of Allocation Funds And Capital Expenditures On Economic Growth In Regency/City Governments In North Sumatra Province

**Deddy Dharma Putra**

Department of Accounting, University Of North Sumatra, Indonesia

## ARTICLE INFO

### Article history:

Received Mar 10, 2021

Revised Apr 25, 2021

Accepted May 30, 2021

### Keywords:

Special Allocation Fund

Capital Expenditure

Economic Growth

## ABSTRACT

This study aims to identify and examine whether the special allocation funds and capital expenditures effect on economic growth in regencies / cities in North Sumatra Province in 2012-2014. The data used in this research is secondary data obtained from the Ministry of Finance of the Republic of Indonesia, Directorate General of Fiscal Balance [www.djpk.depkeu.go.id](http://www.djpk.depkeu.go.id) through the site, and the Central Bureau of Statistics through [www.bps.go.id/sumut](http://www.bps.go.id/sumut) site. Total population of this study a total of 33 District / City by using purposive sampling obtained 12 regencies / cities as samples. Observation data for 3 years (2012-2014) so that the analysis of observations into 36 data. The analytical method used to test the hypothesis is multiple regression analysis. The results showed that the variable Simultaneously special allocation of funds and capital expenditure had a significant effect on economic growth at the Regency / City in the province of North Sumatra in 2012-2014. Partially variable earmarked grants and capital expenditures positive and significant impact on economic growth at the Regency / City in the province of North Sumatra in 2012-2014.

*This is an open access article under the [CC BY-NC](https://creativecommons.org/licenses/by-nc/4.0/) license.*



### Corresponding Author:

Deddy Dharma Putra,  
Department of Accounting,  
University Of North Sumatra, Indonesia,  
Jl. Dr. Mansur No. 9 Padang Bulan, Kec. Medan Baru, Kota Medan 20222.  
Email: [deddyputra@gmail.com](mailto:deddyputra@gmail.com)

## 1. INTRODUCTION

Special Allocation Funds (DAK) are funds sourced from APBN revenues allocated to certain regions with the aim of helping fund special activities which are regional affairs and in accordance with national priorities. The amount of DAK is determined annually in the APBN. DAK is allocated to certain regions to fund special activities which are regional affairs. Regions receiving DAK are required to provide matching funds of at least 10% (ten percent) of the DAK allocation.

According to Halim (2009) direct expenditures are expenditures that are directly related to programs and activities which include personnel expenditures, goods and services expenditures and capital expenditures. Government Regulation No. 24 of 2005 defines expenditure as follows: "Shopping is all expenditures from the State/Regional General Treasury Account which reduces the equity of current funds in the period of the relevant fiscal year which will not be repaid by the government". Another definition of this expenditure is as explained in the Minister of Home Affairs Regulation No. 13 of 2006 "Shopping is a regional government obligation that is recognized as a deduction from net worth"

Capital expenditures are expenditures whose benefits tend to exceed one fiscal year and will increase the number of assets or wealth of public sector organizations, which in turn will increase the operational budget for maintenance costs (Nordiawan and Hertianti, 2010). According to Yani (2009) capital expenditures are expenditures made in the context of purchasing/procuring fixed assets and other assets that have a useful life of more than 12 months to be used in government activities, such as in the form of land, equipment and machinery, buildings and buildings, networks, library books, and animals.

Economic development is essentially aimed at improving people's welfare. In order to improve the welfare of the community, it is necessary to increase economic growth and a more equitable distribution of income. Therefore, the benchmark for economic development, among others, is the occurrence of economic growth. Economic growth is a change in the level of economic activity that occurs from year to year. Economic growth is also one of the important indicators in analyzing the economic development that occurs in a country.

Arsyad (1999), Indonesia's National Development is more emphasized on economic development, the reason is that development in the economic field encourages and supports achievements and reforms in various people's lives. Meanwhile, what is meant by economic development is a process that causes an increase in the real income per capita of the population of a country in the long term accompanied by improvements in the institutional system.

## 2. RESEARCH METHOD

This type of research is a quantitative research. According to Daulay (2010) quantitative research emphasizes more on testing theories through measuring research variables with numbers and analyzing data with statistical procedures. This study examines the effect of the Special Allocation Fund (DAK) and Capital Expenditure on Economic Growth.

### 2.1 Data analysis method

The analytical method used to test the hypothesis is multiple linear regression analysis, this analysis model is used to see the relationship between the two variables. Modal regression equation to test the hypothesis with the following formulation:

$$Y = a + b_1x_1 + b_2x_2 + e$$

Information :

Y = Growth Economy

a = Constant

b<sub>1</sub>, b<sub>2</sub> = Regression Coefficient

x<sub>1</sub> = Special Allocation Fund

x<sub>2</sub> = Capital Expenditure

e = Error

### 2.2 Classic Assumption Test

Before testing the hypothesis using multiple regression and path analysis, it is necessary to test the classical assumptions which include normality testing, multicollinearity testing, heteroscedasticity testing, autocorrelation testing, Erlina (2011).

### 2.3 Research Hypothesis Testing

Hypothesis testing is done by using the simultaneous test and test Partial:

- a. Simultaneous Test (F Test) This test is used to determine whether the independent variables (X<sub>1</sub>, X<sub>2</sub>, ... X<sub>n</sub>) together have a significant effect on the dependent variable (Y).
- b. Partial Test (t test) This test is used to determine whether in the regression model the independent variables (X<sub>1</sub>, X<sub>2</sub>, ... X<sub>n</sub>) partially have a significant effect on the dependent variable (Y).
- c. Coefficient of Determination (R<sup>2</sup>)

Analysis of determination in multiple linear regression is used to determine the percentage of the contribution of the influence of the independent variables (X<sub>1</sub>, X<sub>2</sub>, ... X<sub>n</sub>) simultaneously on the dependent variable (Y) which can be seen through the value of R Square.

### 3. RESULTS AND DISCUSSIONS

#### 3.1 Classic assumption test

One of the requirements for using the multiple regression model is the fulfillment of all classical assumptions, so that the test results are unbiased and efficient. The classical assumption test in this study was carried out with the help of a statistical program. Classical assumptions that must be met are normal distribution, non-multicollinearity, non-autocorrelation, homoscedasticity. The following is a test to determine whether the four classical assumptions are met or not.

##### a. Normality test

Normality testing with statistical tests was carried out with the Kolmogorov Smirnov (KS) nonparametric statistical test. If the significance value is greater than 0.05 then the data is normally distributed. If the significance value is less than 0.05 then the data distribution is not normal. The results of the Kolmogorov-Smirnov test are as follows:

**Table 1.** Kolmogorov-Smirnov . One-Sample Test

		Unstandardized Residual
N		36
Normal Parameters, b	mean	.0000000
	Std. Deviation	10216722.45258041
Most Extreme Differences	Absolute	.119
	Positive	.107
	negative	-.119
Test Statistics		.119
asympt. Sig. (2-tailed)		.200c,d

The results of statistical tests using the non-parametric Kolmogorov-Smirnov test show that the asymptotic sig (2-tailed) value is 0.200 and above the significant value of 0.05 in other words the residual variable is normally distributed.

##### b. Multicollinearity Test

Multicollinearity test aims to test whether the regression model found a correlation between the independent variables (independent). A good regression model should not have a correlation between the independent variables. To be able to see the presence or absence of multicollinearity by looking at the statistical collinearity number indicated by the Variance Inflation Factor (VIF) value and tolerance value, with the following criteria: if the VIF value is  $< 10$  or the tolerance value is  $> 0.1$ , then there is no multicollinearity. The results of the multicollinearity test are as follows:

**Table 2.** Multicollinearity Test

Model	Collinearity Statistics	
	Tolerance	VIF
1 (Constant)		
DAK	.208	4.797
Capital Expenditure	.208	4.797

Dependent Variable: economic growth

The statistical test results in table 2 show that there is no multicollinearity where the VIF value for the DAK and capital expenditure variables is  $< 10$  while the tolerance value is  $> 0.1$ . This shows that this analysis can be concluded that the multiple linear regression model is free from classical statistical assumptions and can be used in research.

##### c. Autocorrelation Test

The autocorrelation test aims to test whether in the linear regression model there is a correlation between the confounding error in period  $t$  and the confounding error in period  $t-1$  (previous). This is often found in time series. If there is a correlation, it is called an autocorrelation

problem. A good regression model is a regression that is free from autocorrelation. Autocorrelation can be known by looking at the Durbin-Watson (DW) as follows:

- 1) DW numbers below -2, it means that there is a positive autocorrelation.
- 2) DW number between -2 to +2 means there is no autocorrelation.
- 3) DW numbers above +2, it means that there is a negative autocorrelation.

The results of the autocorrelation test are as follows:

**Table 3.** Durbin-Watson Statistical Test

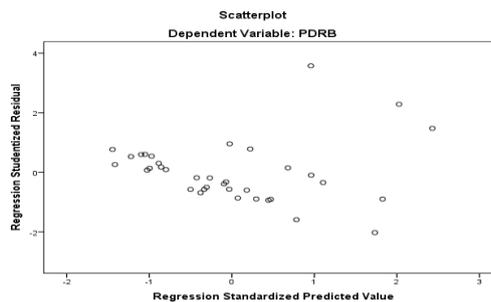
<b>Model Summary<sup>b</sup></b>					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.672a	.451	.418	10521766211	1,459

Predictors: (Constant), Capital Expenditure, DAK  
Dependent Variable: economic growth

Based on table 3, it is known that the Durbin-Watson value is 1.459. This indicates that in this study it is free from autocorrelation because it is still in the range of values of -2 and 2.

#### d. Heteroscedasticity Test

Based on the results of data processing, the results of the scatterplot can be seen in the following figure:



**Figure 1.** Scatterplot Graph

### 3.2 First Hypothesis Testing

After testing the classical assumptions, the first hypothesis is tested as follows:

#### a. Partial Significance Test (t-test)

**Table 4.** Statistical Test t Coefficients<sup>a</sup>

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	5331766,216	3620284.063		1.473	.150
ShoppingCapital	164.869	38,516	1.209	4.281	.000
DAK	-409,774	166,890	-.694	-2.455	.020

Dependent Variable: economic growth

Based on the test in table 4, partially the effect of each independent variable on the dependent variable can be described as follows:

- 1) The special allocation fund (X1) on economic growth shows a significant  $0.020 < 0.05$ , so the conclusion is that DAK has a positive and significant effect on economic growth in North Sumatra Province. This means that the more special allocation funds are added, the economic growth will also increase in the Province of North Sumatra for the period 2012-2014.
- 2) Capital Expenditure (X2) on economic growth shows a significant  $0.000 < 0.05$ , so the

conclusion is that capital expenditure has a positive and significant effect on economic growth in North Sumatra Province. That is, the more capital expenditures increase, the economic growth will also increase in the Province of North Sumatra for the period 2012-2014.

#### b. Simultaneous Significant Test (F-test)

**Table 5.** F Statistical Test ANOVAa

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3000689694434 436,000	2	1500344847217 218.000	13,552	.000b
	Residual	3653349618557 120,000	33	1107075641987 00.610		
	Total	6654039312991 556,000	35			

Dependent Variable: economic growth.

Predictors: (Constant), Capital Expenditure, DAK.

Table 5 above reveals that the significant value (0.000) is less than 0.05, so special allocation funds and capital expenditures together have an effect on economic growth. If you compare the F-count value with the F-table value, it is known that the F-count value is greater than the F-table value ( $13,552 > 3.285$ ). So it can be concluded that the special allocation funds and capital expenditures jointly affect economic growth.

#### c. Coefficient of Determination Test (R<sup>2</sup>)

**Table 6.** Coefficient of Determination Test Model Summaryb

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.672a	.451	.418	10521766211

Predictors: (Constant), Capital Expenditure, DAK

Dependent Variable: economic growth

Based on table 6 above, it is known that  $R^2 = 0.451$  means that the relationship between special allocation funds and capital expenditures on economic growth is 45.1%. while 54.9% is explained by other factors not examined in this study.

In this study, capital expenditure has a value of 0.020. The value is smaller than 0.05. From the description above, it can be concluded that an increase in the provision of DAK from the central government to the Province of North Sumatra will increase economic growth in the province. The Special Allocation Fund for regional needs is spent in the North Sumatra area, with the existence of these funds, the economy will grow in the province of North Sumatra. So that the increase in DAK will increase the economy in the North Sumatra area.

The results of research conducted by Windha Amiga Permatasari (2013) and Elida Murni (2009) concluded that DAK does not have a significant relationship to economic growth. From the results of this study, it was found that there were inconsistencies between the research results. But it has similarities with the results of research conducted by Edy Susanto and Marhamah (2016).

Capital Expenditures are budget expenditures for the acquisition of fixed assets and other assets that have benefits for more than one accounting period. In this study, capital expenditure has a value of 0.000. This value is smaller than 0.05, thus it can be concluded that Capital Expenditure has a significant influence on the Economic Growth of North Sumatra Province.

Based on the results of the discussion, it can be seen that the DAK and Capital Expenditure variables simultaneously have a significant effect on Economic Growth. This effect can be seen from the comparison of the calculated F value with the table F value. It is known that the F-count value of 13,552 is greater than the F-table value of 3.285. So it can be concluded that DAK and Capital Expenditure together have an effect on Economic Growth. This is also supported by the

value of  $R^2 = 0.451$ , which means that the relationship between DAK and Capital Expenditures on Economic Growth is 45.1%. while 54.9% is explained by other factors not examined in this study.

#### 4. CONCLUSION

The sample in this study were 12 districts/cities with three years of observation from 2012 to 2014. Based on the results of data analysis and hypothesis testing that have been described in the previous chapter, the authors conclude about the effect of the Special Allocation Fund and Capital Expenditure on economic growth as follows:

Simultaneously and partially the variables of special allocation funds and capital expenditures have a significant effect on economic growth in districts/cities in North Sumatra Province in the period 2012-2014.

#### REFERENCES

- Arsyad, L; 1999. *Pengantar Perencanaan dan Pembangunan Ekonomi Daerah edisi pertama*. Penerbit BPFE. Yogyakarta.
- Badrudin, R; 2012. *Ekonomika Otonomi Daerah*. Penerbit UUP STIM YKPN. Yogyakarta.
- Daulay, M; 2010. *Metodologi Penelitian Ekonomi*. USU Press. Medan. Erlina. 2011. *Metodologi Penelitian*. USU Press. Medan.
- Ghozali, I; 2006. *Analisis Multivariat dengan SPSS*. Badan Penerbit Universitas Diponegoro. Semarang.
- Halim, A; 2009. *Akuntansi Sektor Publik: Akuntansi Keuangan Daerah*. Edisi 3. Jakarta, Salemba Empat.
- Murni, E; 2009. *Pengaruh Pendapatan Asli Daerah (PAD), Dana Alokasi Umum (DAU) dan Dana Alokasi Khusus (DAK) terhadap Pertumbuhan Ekonomi di Provinsi Sumatra Barat*.
- Nordiawan, D dan Ayuningtyas H; 2010. *Akuntansi Sektor Publik*. Jakarta, Salemba Empat.
- Permatasari, W.A; 2013. *Pengaruh Dana Alokasi Umum(DAU), Dana Alokasi Khusus (Dak), Pendapatan Asli Daerah (PAD), dan Belanja Modal Terhadap Pertumbuhan Ekonomi di Provinsi Jawa Tengah*.
- Peraturan Menteri Keuangan nomor 101/PMK.02/2011 tentang Klasifikasi Anggaran.
- Peraturan Pemerintah Nomor 55 Tahun 2005 tentang Dana Perimbangan. Peraturan Pemerintah Nomor 71 Tahun 2010 Tentang Standar Akuntansi Pemerintah.
- Ruth, D; 2016. *Pengaruh Pendapatan Asli Daerah dan Dana Perimbangan terhadap Pertumbuhan Ekonomi dengan Belanja Modal sebagai variabel moderating pada Kabupaten/Kota di Provinsi Sumatera Utara tahun 2011- 2013*.
- Sugiyono, 2006. *Statistika untuk Penelitian*, cetakan kesembilan, Alfa Beta, Bandung.
- Susanto, E dan Marhamah; 2016. *Pengaruh Pendapatan Asli Daerah (PAD), Dana Alokasi Umum (DAU) dan Dana Alokasi Khusus (DAK) terhadap Pertumbuhan Ekonomi Daerah dengan Belanja Daerah sebagai variable moderating di Provinsi Jawa Timur*.
- Thifah, I; 2015. *Statistika pendidikan dan metode penelitian kuantitatif*. Malang, Madani.
- Undang-undang Nomor.23 Tahun 2014 tentang Pemerintahan Daerah.
- Undang-undang Nomor.33 Tahun 2004 tentang Perimbangan Keuangan antara Pemerintah Pusat dan Pemerintah Daerah.
- Yani, A; 2009. *Hubungan Keuangan antara Pemerintah Pusat dan Daerah di Indonesia*. Jakarta Rajawali Pers.
- [www.bps.go.id/sumut](http://www.bps.go.id/sumut).
- [www.djpk.depkeu.go.id](http://www.djpk.depkeu.go.id)
- [www.primalifejournal.com](http://www.primalifejournal.com).
- [wordpress.com](http://wordpress.com).