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The Effect of Special Allocation Funds and Capital Expenditures on Economic Growth in Regency/City Governments in North Sumatra Province

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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 through the site, and the Central Bureau of Statistics through 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.

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1. INTRODUCTION

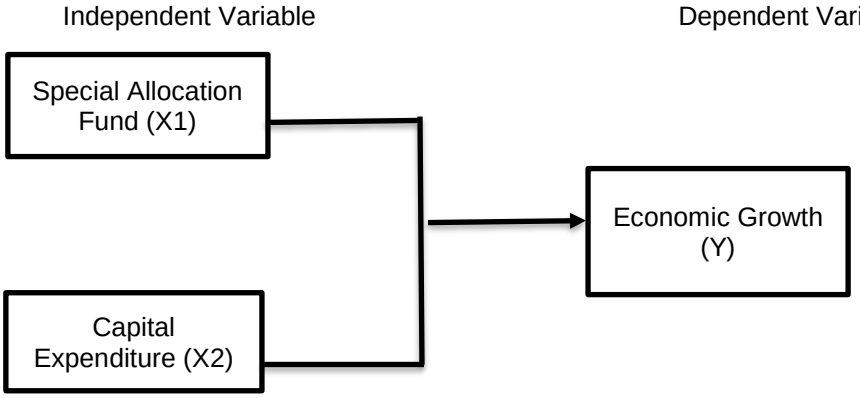
One embodiment of the implementation of regional autonomy is the implementation of decentralization, wherein the regions are delegated the affairs, duties and authority to regulate and manage their own government affairs and the interests of the local community while still being guided by the laws and regulations. Through decentralization, it is hoped that the ability of local governments to manage development will become more agile, accurate, and precise. Government affairs that are handed over or distributed to the regions are accompanied by financial transfers or transfers that are manifested in the financial relationship between the center and the regions. One form of central and

regional financial relations is the Special Allocation Fund (DAK), where funds sourced from APBN revenues,

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. 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. Based on the background and problems that have been stated previously, the purpose of this study is to find out and analyze the effect of the Special Allocation Fund (DAK), Capital Expenditure simultaneously and partially on Economic Growth in the Regency and City of North Sumatra Province.

The conceptual framework shows the relationship between the independent variable and the dependent variable. The dependent variable in this study is Economic Growth (Y) while the independent variable consists of the Special Allocation Fund (DAK) (X1) and Capital Expenditure (X2).



The hypothesis is a temporary answer to a problem formulation that still has to be proven empirically. In sync with the background, problem formulation, research objectives, theoretical review, previous research and conceptual framework, the hypothesis is formulated that the Special Allocation Fund (DAK) and Capital Expenditures have a simultaneous and partial effect on Regional Economic Growth in Regencies and Cities of North Sumatra Province.

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. This research was conducted in districts and cities in the province of North Sumatra. The research data was obtained from the Central Statistics Agency of North Sumatra Province. The time of the study started from determining the title of the study in April 2016 until it was completed and the population in this study was 33

districts/cities in North Sumatra Province with observation data from 2012 to 2014 (3 years) so the number of observations became 99 and all sampled.

The research technique used in this research is purposive sampling method. The criteria determined by the researchers are as follows:

a. Regencies/Cities in North Sumatra which publish reports on the Gross Regional Domestic Product (GRDP) in a row between 2012-2014 on the BPS website of North Sumatra Province.
b. Regencies/cities in North Sumatra which publish reports on Special Allocation Funds and Capital Expenditures for the period 2012-2014 on the website of UNIVERSITY OF NORTH SUMATERA Ministry of Finance of the Republic of Indonesia Directorate General of Fiscal Balance (www.djpk.depkeu.go.id).

2.1 Method of collecting data

This study uses secondary data contained in the report on the Realization of the Regional Revenue and Expenditure Budget (APBD) of North Sumatra Province with a time series from 2012 to 2014 obtained from the Central Statistics Agency of the University of North Sumatra and downloaded from the internet via www.bps.go.id and www.djpk.depkeu.go.id.

2.2 Research Variables and Operational Definitions

So that each variable contained in this study can be clearly identified, and to avoid errors in interpreting the meaning, it is necessary to discuss the meaning of the variables studied, namely:

a. Research variables

1) The independent variable is the variable that causes or influences. The independent variables are the Special Allocation Fund (DAK) (X1) and Capital Expenditure (X2).
2) The dependent variable is the dependent or fulfilled variable. The dependent variable is Economic Growth (Y).

b. Operational Definition

So that each variable contained in this study can be clearly understood, and avoid errors in interpreting the meaning, it is necessary to limit the understanding of the variables studied.

2.3 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:

$$Y = a + b1x1 + b2x2 + e$$

Information:

Y = Economic Growth
A = Constant
b1, b2 = Regression Coefficient
x1 = Special Allocation Fund
x2 = Capital Expenditure
e = Error

2.4 Classic Assumption Test

a. Normality test

One of the easiest ways to see the normality of the residuals is to look at the histogram graph that compares the observed data with a distribution that is close to a normal distribution. The normal distribution will form a straight diagonal line. If the distribution of residual data is normal, then the line that describes the actual data will follow the diagonal line. In addition to looking at the normal P-plot curve, the normality test can also be carried out using the Kolmogorov-Sminov test. In the Kolmogorov-Sminov test the applicable hypotheses are:

H0 = sample comes from normally distributed data/population
Ha = sample comes from data/population that is not normally distributed

In this test, if the value of sig < 0.05, the data is not normally distributed. However, if the value of sig > 0.05 then the data is normally distributed. (Thoifah, 2015:124).

b. Multicollinearity Test

According to Erlina (2011) there are two multicollinearity tests that are often used, namely by looking at the VIF value, the higher the VIF the greater the impact of multicollinearity. If the VIF value is greater than 10 then there is a fairly severe multicollinearity between the independent variables.

The second multicollinearity test is by looking at the simple correlation coefficient between the independent/explanatory variables, if r is high in absolute value then there are two specific correlated explanatory variables and the multicollinearity problem is in the equation.

c. Heteroscedasticity Test

A good regression model is homescedasticity, because this data collects data that represents various sizes, namely small, medium, and large. There are several ways to detect the presence or absence of heteroscedasticity, by looking at the graph plot between the predicted value of the related (dependent) variable, namely ZPRED and the residual SRESID. Detection of the presence or absence of heteroscedasticity can be done by looking at the presence or absence of a certain pattern on the scatter plot graph between SRESID and ZPRED where the Y axis is Y which has been predicted and the X axis is the residual (Y predicted – Y actually) that has been studied. If there is no clear pattern and the points spread above and below the number 0 on the Y axis, then there is no heteroscedasticity. (Thoifah, 2015:128)

d. Autocorrelation Test

The autocorrelation test aims to see whether in a linear regression model there is a correlation between the confounding error in period t and the error in period t-1 or before. The way to detect autocorrelation is the Durbin Watson test. University of North Sumatra This test is only used for first order autocorrelation and requires an intercept (constant) in the regression model.

2.5 Research Hypothesis Testing

Hypothesis testing is done by using simultaneous test and partial test:

a. Simultaneous Test (F Test) This test is used to determine whether the independent variables (X1, X2, … Xn) together have a significant effect on the dependent variable (Y). Calculated statistics and table statistics can also be made based on probability, with the basis for making decisions are:
   1) If F count F table, then Ho is rejected and Ha is accepted.
   2) If F count F table, then Ho is accepted and Ha is rejected.

b. Partial Test (t test) This test is used to determine whether in the regression model the independent variables (X1, X2, … Xn) partially have a significant effect on the dependent variable (Y). The t-table value can be seen by using the t-table. The basis for decision making is:
   1) If T count T table, then Ho is rejected and Ha is accepted.
   2) If T count T table, then Ho is accepted and Ha is rejected.

c. Coefficient of Determination (R2)

Analysis of determination in multiple linear regression is used to determine the percentage of the contribution of the influence of the independent variables (X1, X2, ... Xn) simultaneously on the dependent variable (Y) which can be seen through the value of R Square.

3. RESULTS AND DISCUSSION

3.1 Descriptive Research Sample

The data used in this study are the Realization Report of the Regional Revenue and Expenditure Budget (APBD) and the Regional Government Economic Growth Report of the Regency/City in North Sumatra Province from 2012 to 2014 (3 years) so that the number of samples becomes 36 data. From the annual report, the research object is the Special Allocation Fund (DAK), Capital Expenditure (BM) and Economic Growth (PE) data for the 2012 to 2014 observation years. The data is obtained from the Central Statistics Agency of North Sumatra, namely www.bps.go .id/sumut and the Ministry of Finance of the Republic of Indonesia, namely www.djpk.depkeu.go.id.

3.2 Descriptive statistics

Descriptive statistics for each independent variable analyzed are presented in Table 3.1 The independent variables used in this analysis are 2 (two) independent variables, namely the Special Allocation Fund (X1), Capital Expenditure (X2). The dependent variable is Economic Growth (Y) This can be found in Table 3.1 below:

Table 1
Descriptive Statistics

	N	Minimum	Maximum	mean	Std. Deviation
DAK	36	9799	90869	40299.06	23,340,508
ShoppingCapital	36	1905	352334	135210.33	101.135.506
Growth	36	569860	55870480	11110208.89	13,788,234,439
Valid N (listwise)	36				

3.3 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. Classical assumption testing in this study was carried out with the help of statistical programs. 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 test with statistical test was carried out by 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.

b. Multicollinearity Test

Statistical test results show that there is no multicollinearity where the VIP 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

Autocorrelation test is known that the Dubrin-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

Heteroscedasticity test shows the absence of a certain pattern and the graph plot is spread unevenly. In accordance with the heteroscedasticity test guidelines, in this study there was no heteroscedasticity.

3.4 First Hypothesis Testing

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

a. Partial Significance Test (t-test)

Table 2
Test Statistics t

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig
(Constant)	B	Std. Error	Beta		
ShoppingCapital	5,331,766,216	3,620,284,063		1.473	.150
DAK	164.869	38,516	1.209	4.281	.000
	-409,774	166,890	-.694	-2.455	.020

Based on the test in table 2, 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 3
F Statistic Test

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	3,001E+12		1.5E+12		
	436.00	2	218.000	13,552	
Residual	3.653E+12		1,107E+12		.000[b]
	120,000	33	00.610		
tota	6,654E+12				
	556,000	35			

Table 3 above reveals that the significant value (0.000) is less than 0.05, so the 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 (R2)

Table 4
Coefficient of Determination Test (R2)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.672[a]	451	418	10,521,766,211

Based on table 3.4 above, it is known that R2 = 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.

3.5 Discussion of Research Results

In this study, capital expenditure has a value of 0.020. The value is smaller than 0.05. From the explanation 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 results of the study.

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 R2 = 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 theEconomic gains are simultaneous and partial variables of special allocation funds and capital expenditures that have a significant effect on economic growth in districts/cities in North Sumatra Province in the period 2012-2014.

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