

# The Influence of Regional Original Income (PAD) and Remaining Budget Financing (SiLPA) on Economic Growth with General Allocation Funds (Dau) as Moderating Variables in Regency/City Governments in North Sumatra Province in 2011-2015

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## ABSTRACT

This study aims to identify and analyze whether revenue (PAD) and Surplus Financing Articles (SiLPA) effect on economic growth by the General Allocation Fund (DAU) as moderating variables. The study population was the District / City in the province of North Sumatra. The method of this thesis is a descriptive statistical analysis, classic assumption test, test hypotheses and residual test. Independent variables in this study is revenue (PAD) and Surplus Financing Articles (SiLPA), while the dependent variable is economic growth and moderating variable is the General Allocation Fund (DAU) with Total population of this research are 33 districts / cities using purposive sampling obtained 18 districts / cities as samples from 2013 to 2015. The type of data used is secondary data. The results of this study demonstrate that, in the original income (PAD) and Surplus Financing Articles (SiLPA) have a significant effect on economic growth at the Regency / City in the province of North Sumatra. In partial revenue (PAD) has a significant effect on economic growth, while Budget Financing Surplus (SiLPA) has no effect and no significant effect on economic growth in the Regency / City in the province of North Sumatra. General Allocation Fund (DAU) can moderate revenue (PAD) on economic growth, while the financing Budget Surplus, DAU can not moderate relations to economic growth. while Budget Financing Surplus (SiLPA) has no effect and no significant effect on economic growth in the Regency / City in the province of North Sumatra. General Allocation Fund (DAU) can moderate revenue (PAD) on economic growth, while the financing Budget Surplus, DAU can not moderate relations to economic growth. while Budget Financing Surplus (SiLPA) has no effect and no significant effect on economic growth in the Regency / City in the province of North Sumatra. General Allocation Fund (DAU) can moderate revenue (PAD) on economic growth, while the financing Budget Surplus, DAU can not moderate relations to economic growth.

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## 1. INTRODUCTION

Economic growth is the process of changing the economic conditions of a country on an ongoing basis towards a better state over a certain period. Economic growth can also be interpreted as a process of increasing the production capacity of an economy which is manifested in the form of an increase in national income. The economic growth of a country can be measured by comparing the current year's Gross National Product (GNP) with the previous year. Their economic growth is an indication of the success of economic development. The Indonesian economy as measured by Gross Domestic Product (GDP) at current prices in the first quarter of 2015 reached Rp 2,724.7 trillion and at constant prices in 2010 reached Rp 2,157.5 trillion. The Indonesian economy in the first quarter of 2015 compared to the first quarter of 2014 grew by 4, 71 percent (yoy) slowed down compared to the same period in 2014 of 5.14 percent. In terms of production, the highest growth was achieved by the Information and Communication Business Field of 10.53 percent. In terms of Expenditure by Component of Household Consumption Expenditure which grew 5.01 percent. The Indonesian economy in the first quarter of 2015 compared to the previous quarter decreased by 0.18 percent. From the production side, this growth was marked by seasonal factors in the Agriculture, Forestry and Fisheries Business Fields which grew 14.63 percent. Meanwhile, in terms of expenditure, this was due to the contraction in investment performance (minus 4.72 percent) and exports (minus 5.98 percent). In terms of Expenditure by Component of Household Consumption Expenditure which grew 5.01 percent. The Indonesian economy in the first quarter of 2015 compared to the previous quarter decreased by 0.18 percent. From the production side, this growth was marked by seasonal factors in the Agriculture, Forestry and Fisheries Business Fields which grew 14.63 percent. Meanwhile, in terms of expenditure, this was due to the contraction in investment performance (minus 4.72 percent) and exports (minus 5.98 percent). In terms of Expenditure by Component of Household Consumption Expenditure which grew 5.01 percent. The Indonesian economy in the first quarter of 2015 compared to the previous quarter decreased by 0.18 percent. From the production side, this growth was marked by seasonal factors in the Agriculture, Forestry and Fisheries Business Fields which grew by 14.63 percent. Meanwhile, in terms of expenditure, this was due to the contraction in investment performance (minus 4.72 percent) and exports (minus 5.98 percent).

Regional Original Income (PAD) is one of the determining elements in regional development. This is because PAD is a source of revenue that is managed and obtained through the district and city governments' own efforts by utilizing all the potential that exists in the area. Ideally, all local government expenditures can be met by using PAD so that the regions become truly autonomous. This strong PAD structure is actually the main barometer of the successful implementation of regional autonomy. Apart from PAD to finance its activities, the local government can also take advantage of the Excess Budget Financing (SiLPA) of the previous year. SiLPA is the difference between the realization of budget revenues and expenditures during one budget period. In the 2012 DIPA submission ceremony at the State Palace, President Susilo Bambang Yudhoyono said that infrastructure development in Indonesia was not satisfactory and wanted the remaining budget not to be used for purposes that were not clear but could be used for infrastructure development. From the revenue sector, SiLPA financing is a variable that may affect the size of economic growth in the next fiscal year.

The General Allocation Fund (DAU) is a fund originating from the central government which is allocated for equitable distribution of financial capacity among regions to finance their expenditure needs. The distribution of DAU to all provinces and districts/cities in Indonesia is based on the weight of each region, which is determined based on the needs of the regional autonomy area and regional economic potential. The development of facilities and infrastructure by local governments has a positive effect on economic growth. With the addition of infrastructure and improvement of existing structures by local governments, it is hoped that it will spur regional economic growth. Local governments tend to have a high dependence on central government assistance and budget for increased spending aimed at increasing the capacity of local governments to increase PAD. The purpose of this study was to determine the effect of Regional Original Revenue (PAD) and the Remaining Budget Financing (SiLPA) on economic growth in the districts/cities of North Sumatra in

2011-2015 simultaneously and partially and to determine whether the General Allocation Fund (DAU) can moderate Regional Original Revenue (PAD) and Budget Financing Excess (SILPA) on economic growth in North Sumatra regencies/cities in 2011-2015.

A hypothesis is a provisional assumption or a temporary explanation that cannot be proven so that further research is needed to test whether the assumption is true or false. Based on the problem background, problem formulation, theoretical basis and conceptual framework, the research hypotheses are as follows:

- H1 : Regional Original Income (PAD) and Budget Financing Excess (SILPA) have an effect on economic growth in the districts/cities of North Sumatra in 2011-2015 simultaneously and partially.
- H2 : The General Allocation Fund (DAU) can moderate the Regional Original Revenue (PAD) and the Remaining Budget Financing (SILPA) towards economic growth in the districts/cities of North Sumatra in 2011-2015.

## 2. RESEARCH METHOD

This type of research was conducted based on associative research. Associative research is research that aims to determine the relationship between two or more variables. In this study, researchers want to analyze the effect of PAD and SILPA on Economic Growth with the General Allocation Fund (DAU) as a moderating variable in district/city governments in North Sumatra Province. This research was conducted in district and city governments in the province of West Sumatra. The time of the study started from September 2016 to January 2017. The population in this study was the district/city government in North Sumatra Province, amounting to 33 districts/cities. The sample data was taken using purposive sampling, namely the technique of determining the sample with certain considerations.

- a. Regencies and Cities in North Sumatra Province which publish the State Budget Report on the website of the Director General of Fiscal Balance of the Regional Government for the 2011-2015 Period.
- b. Regencies and Cities in North Sumatra Province that publish their financial reports consistently from 2011 to 2015 and the availability of GRDP data from calculations carried out by the Central Statistics Agency (BPS) of North Sumatra Province.

### 2.1 Types and Sources of Data and Data Collection Methods

The type of data that will be used in this research is secondary data. The source of the data in this study is the district/city government budget report in North Sumatra Province during 2011-2015 which is accessed from the website of the Directorate General of Fiscal Balance [www.djpk.depkeu.go.id](http://www.djpk.depkeu.go.id) and also on the website of the Central Statistics Agency, namely [www.bps.go.id](http://www.bps.go.id). The data collection method used in this study is documentation, where data is taken indirectly through an intermediary media, namely the internet.

### 2.2 Operational Definition and Measurement of Variables

#### a. Operational Definition

The independent variables used in this study are PAD and SILPA. The dependent variable which is the main concern in this study is Economic Growth, while the General Allocation Fund (DAU) is the moderating variable. To avoid confusion of understanding (perceptions) in this study, the operational definitions and limitations are formulated as follows:

- 1) Economic growth
- 2) Regional Original Income (PAD)
- 3) Excess Budget Financing (SILPA)
- 4) General Allocation Fund (DAU)

#### b. Variable Measurement Scale

The measurement of the variables used in this study are as follows:

**Table 1**  
Variable Operation

Variable	Variable Definition	Measurement	Measuring Scale
Economic Growth (Y)	Activities in the economy that cause goods and services produced in society to increase and people's prosperity to increase.	GRDP Constant Price 2011-2015	Ratio
Regional Original Income (X1)	Total realization of regional revenue originating from regional original economic sources	Realization of PAD in 2011-2015	Ratio
More Remaining Budget Calculation (X2)	SiLPA according to Permendagri Number 13 of 2006 is the excess of realized budget receipts and expenditures during one budget period. SiLPA is a form of idle local government funds where these idle funds have not been used in spending or financing expenditures.	The amount of this SiLPA can be seen from the post of financing receipts in the Regency / City APBD Realization Report	Ratio
General Allocation Fund (Z)	Funds originating from the APBN allocated from the central government to regional governments with the aim of equitable distribution of financial capacity among regions to finance expenditure needs.	Realization of General Allocation Fund Receipt	Ratio

### 2.3 Data analysis method

The data analysis method used is a statistical analysis model using SPSS. The researcher first tested the classical assumption before testing multiple linear regression and the residual test as a moderator.

### 2.4 Classic assumption test

Classical assumption tests include normality, multicollinearity, heteroscedasticity and autocorrelation, which are explained as follows:

#### a. Normality test

Good and appropriate data used in research is data that has a normal distribution. There are two ways to detect whether the residuals are normally distributed or not, namely by graphical analysis and statistical tests. The data normality test was carried out using the Kolmogorov Smirnov test, the data distribution was said to be normal if it was significant  $> 0.05$ .

#### b. Multicollinearity Test

The multicollinearity tester used the Variance Inflation Factor (VIF) method. This VIF method explains the relationship of independent variables which explains the other independent variables. Tolerance measures the variability of the selected independent variable which is not explained by other independent variables. So a low tolerance value equals a high VIF value (because  $VIF = 1/Tolerance$ ). The cutoff value commonly used to indicate the presence of multicollinearity is the tolerance value 0.10 or the same as the VIF value 10.

#### c. Heteroscedasticity Test

Several ways to detect the presence or absence of heteroscedasticity are: If there is a certain pattern, such as the dots that form a certain regular pattern (wavy spreads and then narrows), it indicates that heteroscedasticity has occurred and If there is no clear pattern, the points are spread out. above and below the number 0 on the Y axis, there is no heteroscedasticity.

### 2.5 Autocorrelation Test

Autocorrelation arises because successive observations over time are related to each other. This test is carried out using the Durbin Watson test (Durbin - Watson Test), which is to find out and test whether there is a serial correlation or not by calculating the statistical d value. One of the tests carried out to determine the presence of autocorrelation using the Durbin - Watson statistical test (DW Test).

### 2.6 Research Hypothesis Testing

Testing the hypothesis of this study using multiple analysis (Multiple Regression Analysis) because it consists of two independent variables and one dependent variable. The regression modal used is:

$$Y = + 1X_1 + 2X_2 +$$

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Information :

Y = Economic Growth

□ = Constant

1 = Coefficient of PAD

2 = Coefficient of SiLPA

X1 = PAD

X2 = SiLPA

□ = error

## 2.7 Hypothesis Testing with Moderating Variables

Moderated Regression Analysis (MRA) is a special application of linear multiple regression where the regression equation contains elements of interaction (multiplication of two or more independent variables) with the following equation formula:

$$Y = a_1 + b_1X_1 + b_3X_3 + b_5X_1X_3 + e_1$$

$$Y = a_2 + b_2X_2 + b_4X_3 + b_6X_2X_3 + e_2$$

Information:

Y = economic growth

a = Constant

b = Regression coefficient

X1 = PAD

X2 = SiLPA

X3 = DAU

□ = Standard error

## 3. RESULTS AND DISCUSSION

### 3.1 Descriptive Statistical Analysis

**Table 2**

Descriptive Statistics Analysis Descriptive Statistical Analysis Results					
	N	Minimum	Maximum	mean	Std. Deviation
PAD	90	8.53	14.38	10.7287	1.22409
SiLPA	90	5.78	12.73	10.0704	1.16113
ECONOMIC GROWTH					
DAU	90	4.24	9.22	5.6807	.72096
Valid N (listwise)	90	12.20	14.24	13.0692	.46584
	90				

### 3.2 Normality test

Normality test aims to determine whether or not a data distribution is normal. Basically, the normality test is a comparison between the data we have and data with a normal distribution that has the same mean and standard deviation as our data. Normality test is important because one of the requirements for parametric-test testing is that the data must have a normal distribution (normally distributed).

#### a. Graph Analysis

Good data is data that has a normal distribution pattern. The histogram graph pattern, data that follows or approaches a normal distribution is a data distribution with a bell shape. In the PP Plot graph, a data is said to be normally distributed if the data points are not skewed to the left or right, but spread around the diagonal line.

#### b. Statistic analysis

large probability value or Asymp. Sig. (2-tailed) is 0.468. In this study, the significance level used is = 0.05. Because the probability value (0.466) is greater than the significance level (0.05), it can be concluded that the data is normally distributed. This is in line with the results obtained from the graph analysis.

### 3.3 Multicollinearity Test

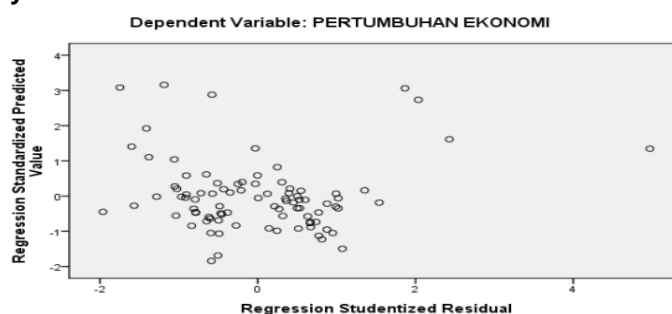
To find out whether there is multicollinearity in the regression model, it can be seen from the tolerance value and Variance Inflation Factor (VIF). Tolerance can measure the chosen independent

variability that is not explained by other independent variables. The tolerance value which indicates the presence of multicollinearity is 0.10 while the VIF value is 10.

**Table 3**  
Multicollinearity Test Results

Model	Unstandardized Coefficients		Standardized Coefficients	Collinearity Statistics	
	B	Std. Error	Beta	Tolerance	VIF
(Constant)	3.061	.826			
PAD	.198	.060	.336	.971	1.030
SILPA	.050	.063	.080	.971	1.030

### 3.4 Heteroscedasticity Test



**Figure 1**  
Scatterplot Graph

From the scatterplot graph in Figure 4 above, it can be seen that the data points spread randomly and are spread above and below the number 0 on the Y axis. This does not occur heteroscedasticity in the regression model in this study.

### 3.5 Autocorrelation Test

The autocorrelation test can be done with the Durbin-Watson test, the Langrage Multiplier (LM) test, the Q statistic test, and the Run Test.

**Table 4**  
Model Autocorrelation Test Results Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin Watson
1	.358a	.128	.108	.68091	1.616

Based on Table 4 it is known that the Durbin-Watson value is 1.161 so it can be said that there is no autocorrelation.

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

### 3.6 Hypothesis Testing Results

In testing the hypothesis, the coefficient of determination ( $R^2$ ) will be tested, simultaneous significance testing (F-test) and partially (t-test) will be carried out.

#### a. Coefficient of Determination Test ( $R^2$ )

It is known that  $(R^2) = 0.373$  means that the relationship between PAD and SiLPA on Economic Growth is 10.8%. Adjusted R Square of 0.108 means that 10.8% of Economic Growth factors can be explained by PAD and SiLPA, while 89.2% is explained by other factors not examined in this study.

#### b. Simultaneous Significance Test (F-Test)

The significant value of 0.003 is less than 0.05, so PAD and SiLPA together have an effect on Economic Growth.

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

From the test results, it will be explained that the effect of the independent variable partially PAD variable has a significant level of  $0.001 < 0.05$  so that PAD has a significant influence on Economic Growth Economic Growth in Regencies/Cities in North Sumatra, while the SiLPA variable has a significant level of  $0.434 > 0.05$  so that SiLPA has no influence and is not significant on Economic Growth in Regencies/Cities in North Sumatra.

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### 3.7 Discussion of Research Results

The discussion of the statistical test results obtained in this study are as follows:

- a. The Effect of Regional Original Income (PAD) and the Remaining Budget Financing (SiLPA) on Simultaneous and Partial Economic Growth

From the results of the study simultaneously Regional Original Revenue (PAD) and Budget Financing Excess (SiLPA) have a joint effect on economic growth, this can be seen from the results of a significant level of  $0.003 < 0.05$  and it is known that the variable Remaining Budget Financing (SiLPA) no significant effect on economic growth. Based on statistical tests the level of significance is 0.434 which is above 0.05. Thus, statistically the Remaining Budget Financing (SiLPA) has no effect on economic growth. This means that the higher the Remaining Budget Financing (SiLPA) obtained by an area will not increase economic growth in that area.

- b. The Effect of General Allocation Funds in Moderating Regional Original Revenue (PAD) and the Remaining Budget Financing (SiLPA) on Economic Growth

The results of the residual test between PAD and economic growth show that the parameter coefficient values of DAU are positive and significant. This means that the DAU can partially strengthen or weaken the influence of PAD on economic growth. Likewise, the results of the SiLPA variable residual test on economic growth show that the parameter coefficient values for economic growth are negative and insignificant. This means that the DAU does not partially strengthen or weaken the influence of SiLPA on economic growth.

## 4. CONCLUSION

The conclusion of this study is that simultaneously Regional Original Revenue (PAD) and the Remaining Budget Financing (SiLPA) have a significant effect on Economic Growth in Regency/City Governments in North Sumatra Province. Partially, the Regional Original Income (PAD) variable has a significant positive effect on Economic Growth in Regency/City Governments in North Sumatra Province. While the variable remaining over budget financing (SiLPA) has no significant and insignificant effect on Economic Growth in Regency/City Governments in North Sumatra Province and the General Allocation Fund variable can moderate the effect of Regional Original Revenue (PAD) on Economic Growth, while the General Allocation Fund does not. can moderate SiLPA on Economic Growth.

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