

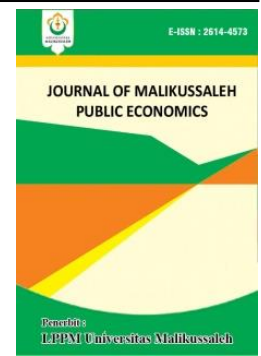
## ANALYSIS OF THE EFFECT OF LOCAL TAX AND POPULATION ON LOCAL ORIGINAL REVENUE IN BIREUEN DISTRICT IN 2007-2016

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### ARTICLE INFORMATION ABSTRACT

#### **Keywords:**

**Regional Taxes, Total Population and Local Revenue**

This study aims to Determine the Effect of Local Taxes and the Number of Population on Local Original Revenue in Bireuenn District in 2007-2016. The Data used in this study are secondary Data sourced from Bireuen District Central Bureau of Statistics (BPS) 2007-2016. The method of data analysis used in this study is the Multiple Linear Regression models. The results Showed that the local tax partially has a significant and negative effect on the Local Original Revenue in Bireuen District and the Population has a positive and significant effect on the Local Original Revenue in Bireuen District. Whereas simultaneously the variables of Local Taxes and Population have a positive and significant effect on Original Local Revenue in Bireuen District in 2007-2016.

## 1. INTRODUCTION

Local Original Revenue (PAD) Bireuen increased 15-fold from 2007 of about 12.7 billion to 180.2 billion in 2017. This drastic increase must certainly have a positive impact for the development of economic activities in the city of Bireuen. PAD is determined by many factors, including local taxes.

The increase in local tax revenue increased drastically from 3.47 billion in 2007 to 16.69 billion in 2017. The increase is certainly encouraging for the tax revenue to add PAD Bireuen City. Increased tax revenue can be attributed to the government's policy to enforce the Tax Amivesty which first volume held from July 2016 to March 2017.

Furthermore, population growth would affect the increase of local original revenues. The population increase will certainly add a workforce which in turn will increase the goods and services. The growth of these goods and services will come

later contributed to the revenue growth. The increase in the number of residents increased 0,025 percent from 2007 to 2008. know the total percentage of the population growth has boomed to 1 percent from 2016 to 2017.

This study aims to look at the effect of local taxes and the number of residents on local original revenue of Bireuen district. Furthermore, the second part of this article is an overview of the theoretical. Methods of study will be presented in section three. On the fourth is the presentation of results and discussion. Finally, conclusions and suggestions on the fifth part of this paper.

## 2. THEORITICAL REVIEW

According to (Rori, Lunt & Niode, 2016) PAD is a local earned income withheld from people with the regulations have been set according applicable law. PAD really needs to be

improved in order to reduce the burden of government to develop the regency over the years.

Tax is a fee charged to the public for the incumbent and can not be avoided.

According to (Razif, 2016) Taxes are obligatory payment paid by the people to the state under the law (which may be coercion)

### Total population

According to Jaya & Widanta, (2011) Population means people or those who are is involving in economic development which driving force and economic performance.

## 3. RESEARCH METHODS

### Data and Data Sources

The data used in this research is secondary data in the past 10 years, which is in 2007-2016, ie data obtained from the Central Bureau of Statistics of Bireuen. The data used Local Tax, Population and Local Original Revenue in Bireuen regency in the year 2007-2016.

### Operational Variables

#### Revenue (Y)

Local original Revenue (PAD) or (Y) is the entire income of PAD Bireuen, measured in rupiah.

#### Local Tax (X1)

Local taxes are all tax of Bireuen City area, measured in rupiah.

#### Population (X2)

The population in this study is the total population of Bireuen City, measured in number of people.

### Data analysis method

To see the effect of Local Taxes and Population of the local original revenue in this study uses multiple linear regression model. As for the multiple linear regression model can be formulated as follows:

Multiple Linear Regression equations:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + e_i$$

The data do not form the same units, the next model is transformed in to natural logarithm as follow:

$$\ln Y_t = \beta_0 + \beta_1 \ln X_{1t} + \beta_2 \ln X_{2t} + e_t$$

Where :

$\ln Y_t$  = Original Revenue

$\beta_0$  = constant

$\beta_1 \beta_2$  = Regression Coefficients

$\ln X_1$  = Local Tax

$\ln X_2$  = Population

$e_t$  = standard error

## 4. RESULTS AND DISCUSSIONS

Table 1

### Local Taxes, Population and Local Original Revenue In Bireuen district Year 2007-2016

Year	Local tax (Rupiah)	Total population (Number of People)	PAD (Rupiah)
2007	3,472,858,209.00	355 989	12,751,627,242.00
2008	6,095,000,000.00	357 218	27,180,059,933.00
2009	3,153,772,672.00	359 032	41,038,152,973.00
2010	8,550,000,000.00	389 288	35,000,000,000.00
2011	9,600,000,000.00	398 201	60,535,000,000.00
2012	10,501,000,000.00	401 083	73,277,000,000.00
2013	9,446,000,000.00	413 817	113,177,000,000.00
2014	9,321,215,457.00	423 397	116,740,000,000.00
2015	12,489,000,000.00	435 300	168,153,200,000.00
2016	16,691,768,137.00	443 627	180,194,040,000.00

Source: BPS Bireuen 2017

Based on Table 1 indicates that the Local Taxes, Population and Local Original Revenue In Bireuen District are fluctuating. In 2008 the Regional Tax increased by Rp. 6.095 billion, in the year 2007. The Regional Tax decreases by Rp. 3.15 billion in 2012 continues to increase of Rp 10.501 billion. Local Taxes in 2013 decreases by Rp 9.446 billion. In 2015 the Regional Tax increases to Rp 12.489 billion. In the year 2016 Local Tax increases up to Rp 16,32 billion.

Population from year to year increased, in 2007 amounted to 355 989 number of people and in 2012 increases to 406 083 number of people. In 2016 reaches 443 627 number of people.

Local Revenue increase in 2008 amounted to Rp 27,18 billion in 2009 amounted to Rp 41,03 billion in the year 2016 reaches Rp. 180 19 billion.

## Multiple Linear Regression Analysis

**Table 2**

### Results of Multiple Linear Regression

Dependent Variable: LOG (Ys)  
Method: Least Squares  
Date: 22/05/18 Time: 11:37  
Sample: 2007 2016  
Included observations: 10

variable	coefficient	Std. Error	t-Statistic	Prob.
C	-213.3780	75.36494	-2.831263	0.0254
LOG (X1)	-1.527811	1.191494	-1.282265	0.2406
LOG (X2)	21.19969	7.703718	2.751877	0.0284
R-squared	0.702529 Mean dependent var		25.08591	
Adjusted R-squared	0.617537 SD dependent var		1.258952	
SE of regression	0.778581 Akaike information criterion		2.580637	
Sum squared resid	4.243317 Schwarz criterion		2.671413	
Log likelihood	-9.903186 Hannan-Quinn criter.		2.481057	
F-statistic	8.265847 Durbin-Watson stat		2.532810	
Prob (F-statistic)	0.014357			

### Sources Research results 2018

Based on the results of Table 2 shows that the constant value is equal to -213.3780, the coefficient correlations of Local Taxes (X1) is -1.527811 and Population (X2) is 21.19969, mathematically be written as follows:

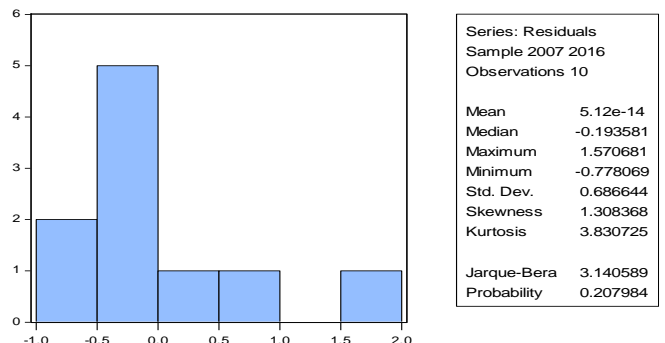
$$Y = -213.3780 - 1.527811X1 + 21.19969X2$$

From the above model formulation constant has a coefficient of -213.3780 means if Local Tax (X1) and Population (X2) is considered constant then the local original revenue will also be constant at -21.33%. Local Tax coefficient (X1) -1.527811 which means that if the Local Tax increases by 1%, the regional revenue will decline by -15.27%. while the coefficient of Population (X2) is 21.19969 which means that if Population increases by 1%, the regional revenue will increase by 21:19%.

## Test Assumptions Klasil

### Normality test

According to (Ghozali, 2012) Normality test aims to test whether the regression model has been distributed is normal or not.



Source: research (2018)

**Figure 1**

### Results of Normality

Probability value of  $0.207984 > 0.05$ , it can be concluded that the data in the model is already terdistribusi normal.

### Autocorrelation Test

Autocorrelation Test aims to test whether the multiple linear regression model is no correlation or existing error in the previous period

**Table 3**

### Autocorrelation Testing Results

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	2.049615	Prob. F (2,5)	0.2238
Obs * R-squared	4.505030	Prob. Chi-Square (2)	0.1051

### Sources Research results 2018

Based on Table 3 shows that Obs \* R-squared of equal to 4.55030 smaller than the value  $X^2$  table which is 5.99. Then it can be concluded the model in this study is not detected or can say is free from problems of autocorrelation.

### Test Multicollinearity

Multicollinearity testing aims to examine the relationship between independent variables. Multicollinearity testing can be seen by looking at the of value variance inflation factors variance value Factor (VIF), with VIF must be under 10.

**Table 4**  
**Testing Results Multicollinearity**

Variance Inflation Factors  
Date: 22/05/18 Time: 11:39  
Sample: 2007 2016  
Included observations: 10

variable	coefficient variance	Uncentered VIF	Centered VIF
C	5679.874	93698.21	NA
LOG (PD)	1.419657	12181.42	5.945438
LOG (JP)	59.34728	162715.2	5.945438

### *Sources of research results (2018)*

Based on Table 4 above it can be seen that the regression model did not exist multicollinearity, proved the VIF is less than 10:00 in the amount of 5.945438

Based on Table 4 above, it does not occur multicollinearity because  $VIF < 10$ .

### **Hypothesis test**

#### **t Test**

Based on results are shown in Table 3 above can be seen that:

Local Tax (X1) has a t count of -1,282,265 with significant value 0.2406. while the t table with (df) = nk (10-3 = 7) at  $\alpha = 0:05$  at  $\alpha = 0.05 / 2 = 0.025$  obtained a value of 2.36462, Then  $t < t$  table, ie-1282265 < 2.36462 with significant value > 0.05. It can be concluded that partially Regional Tax no significant effect on local original revenue in Bireuen district in 2007-2016,

Population (X2) have the value of t count about 2.751877 while the t table with (df) = nk (10-3 = 7) at  $\alpha = 0.05$  with  $t \alpha / 2 = 0.05 / 2 = 0,025$  (7) obtained a value of 2.36462 Then t count > t table, namely 2.751877 > 2.36462 with a significance value < 0.05. It can be concluded that partially Population (X2) has positive and significant effect on local original revenue (Y) in Bireuen district in 2007-2016.

#### **f Test**

Based on the test results in Table 3 above, it can be seen that the value F count about 26.82920. While Ftable at df = (k-1) (nk) = (3-1)

(10-3) = (2) (7) on the degree of confidence of 95% or  $\alpha = 12:05$  is at 4:47 so  $F \text{ count} > F \text{ table}$ , namely  $8.265847 > 4.74$ . It can be concluded that simultaneously local taxes and Population significantly and positive affect on local original revenue in Bireuen district in 2007-2016.

### **The coefficient of determination (R2)**

Effect of Local Taxes and Population of the local regional revenue in Bireuen district can be seen in the value of adjusted R-square  $R^2$  on the results of multiple linear regression Table 2 above. The results showed that the  $R^2$  value of 0.617537, which means the effect of variable Local Tax (X1) and Population (X2) on the Local Original Revenue amounted to 0.617537 (61.7%), while the remaining 0383 (38.3%) are influenced by variables which are not included in this study

## **5. CONCLUSIONS AND SUGGESTION**

### **Conclusions**

The conclusions of the research are as follows:

1. Partially Local tax does not significantly influence local original revenue in Bireuen district in 2007-2016
2. Population significantly and positivs effect the local original revenue in Bireuen district in 2007-2016.

### **Suggestion**

1. This study shows that Population siqnificantly and positively affect the local original revenue the goverment is expected to be actipely in accepting. Local tax. The growing number of local tax there will affect the local original revenue.
2. It is expected that subsequent researchers who want to investigate the local original revenue should include other variables that can affect local original revenue.

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