

# Determining Factors of Billboard Tax Receipt in East Java

(Study on districts and cities in East Java Province 2013-2015)

Devi Farah Azizah\*, Ulva Novita Sari

Faculty of Administrative Sciences  
Brawijaya University Malang  
Malang, Indonesia

\*devi\_farah\_a@ub.ac.id, ulfanovit@gmail.com

**Abstract**—This study aims to determine and explain the effect of Gross Regional Domestic Product, Number of Industries and Number of Population on Advertisement Tax Receipts. The type of research used is quantitative research using explanatory research. This research took object at the East Java Provincial Statistics Agency and the Directorate General of Fiscal Balance of the Ministry of Finance of the Republic of Indonesia. The number of research samples selected with saturated sample techniques was 29 districts and 9 cities. Data Analysis Techniques used are Multiple Linear Regression Analysis with the help of SPSS version 21 software. The results of this study indicate the value of the Determination Coefficient of 60.9% which explains that the independent variable provides almost all information needed to predict the dependent variable. The remainder of this value of 39.1% is explained by other variables not examined in this study. The results of the F test show that the independent variables simultaneously influence the dependent variable. The t-test results show that Gross Regional Domestic Product, Number of Industries and Total Population partially have a significant effect on Advertisement Tax Receipts.

**Keywords**—gross regional domestic product; number of industries; total population and billboard tax receipt

## I. INTRODUCTION

Economy and fiscal policies in Indonesia has improved since 2016. The Fiscal Policy Agency explained that economic growth in Indonesia on 2016 was recorded at 5.0%, it is greater than on 2015 where it was 4.9% [1]. The government can encourage economic growth with one of the fiscal policy, which is the tax instrument. It is one of the support to increase tax revenue [2].

As an effort to support the optimization of state revenues, the government carried out a broader and more complete tax reform. These reforms are in the fields of policy and administration. Policy reforms include revisions to the regulation on General Provisions and Tax Procedures, regulation of value-added Tax, regulation of the Income Tax and regulation of revenue stamp. Administrative reforms include improving the effectiveness of law enforcement, the quality of tax information technology systems, tax database

management and improving the capacity and capability of human resources [1].

The local government also implements reformation at the provincial / district / city level, one of the implementation reform toward the local government is regional autonomy system. When carry out their duties in the government, the government employees in Indonesia adheres to the regional autonomy system [3]. The implementation of regional autonomy forced each region to prepare good human resources, then sufficient financial resources and adequate facilities and infrastructure. The main aspect of implementing regional autonomy is finance, because regional autonomy requires the Regional Government to pay their expenses independently. Local governments must be active in exploring their regional financing sources [3].

In Regulation Number 33 of 2004 concerning Financial Balance Between the Central Government and the Regional Government, it is explained that one of the sources of regional financing is derived from Regional Original Income (PAD). The revenue needs to be increased in order to contribute part of the costs needed to carry out government and development activities that gradually increasing. Original Regional Income derived from Regional Taxes, Regional Levies, separated regional management results and other legitimate Regional Revenues [3].

Based on data that released by the Directorate General of Regional Finance of the Ministry of Home Affairs, there are four Provinces with the Highest Regional Revenue in 2015. These regions are DKI Jakarta 40.4 Trillion, West Java 15.9 Trillion, East Java 14.8 Trillion and Central Java 11.7 Trillion [4]. East Java becomes an attraction since it is the third highest area in Indonesia. East Java is the center of industrial and trade growth. East Java has a strategic location in the industrial sector because it is located between two major provinces such as Central Java and Bali [5].

Components of locally-generated revenue which have a significant contribution in East Java, namely Regional Taxes. Regional Taxes include taxes that are used to support regional revenue. Regional Tax Revenues can be increased through the

process of Intensification and Extensification [6]. The following table is Regional Tax revenue of East Java Province:

TABLE I. REGIONAL TAX REVENUE OF EAST JAVA PROVINCE

Year	Regional Tax Revenue (in Million)	Development phase	
		Number	Percentage
2012	7.816.590,83	-	-
2013	9.404.933,62	1.588.342,79	16,89%
2014	11.517.694,93	2.112.761,31	18,34%
2015	12.497.148,70	979.453,77	7,84%
2016	12.772.255,19	275.106,49	2,15%

Source: Regional Planning and Development Agency East Java Provincial Government, 2018

Table 1 indicates that the Regional Tax revenues in 2012 up to 2016 is always rises, although the number of growth rates is up and than down. This can be implemented with the support of regional tax collection from each district / city throughout East Java.

Billboard Tax is one of the potential sources of regional income and can be collected efficiently, effectively and economically so that it has a greater role in efforts to increase Regional Original Income [7]. There are a number of factors that influence Billboard Tax revenue, from these factors three factors are considered to influence Admission Tax revenue, they are Gross Regional Domestic Product (GRDP), Number of Industries and Total Population [8].

In a research that written by Ulfiyah she explains that Gross Regional Domestic Product means the amount of added value produced by all businesses in a region [7]. Increasing Gross Regional Domestic Products also increases the regional economy. Gross Regional Domestic Products have an influence on Regional Taxes. This explains that when one component of the Gross Regional Domestic Product increases, the amount of Regional Taxes revenue will increase as well, including the Regional Tax, like Billboard Taxes. The large number of industries is a factor that influences Billboard Tax revenue because companies or industries use billboard services in marketing their products to the public. This increase demand for billboards affects advertisement tax revenues [9].

The large number of residents will increase the demand for goods and services, so this amount of consumption from the population will cause aggregate demand. Over time the increase in aggregate consumption causes productive businesses to develop, and increases the object of advertising taxes [8]. Total Population has an effect on Advertising Tax revenue because the population is considered as a driver of development. Changes in Population led to an increase in the number of workers, so it moved industrial owners interested in establishing new industries, so an increase in the Number of Industries would also increase Advertising Tax revenues [7].

## II. LITERATURE REVIEW

### A. Tax

Regulation Number 28 of 2007 Article 1 Paragraph 1 in describes tax as a compulsory contribution to the state owed by an individual or entity that is compulsory based on the law, by

not receiving direct compensation and being used for the needs of the state for the greatest prosperity of the people [10].

### B. Local Tax

Regulation Number 28 of 2009 about Regional Taxes and Regional Levies Article 1 in Halim states that Local Taxes, hereinafter referred as Taxes, are compulsory contributions to regions that are owed by coercive individuals or entities under the law, by not getting compensation directly and used for regional needs for the greatest prosperity of the people [11].

### C. Billboard Tax

In a book written by Priantara, it is explained that billboard tax is a tax on the implementation of billboards [12]. Billboards are objects, tools, deeds or media that are according to the shape and pattern of variety for commercial purposes, and are used to introduce, advocate, or praise an item, service or person, or to attract public attention to an item, service or person placed or can be seen, read or heard from somewhere by the public except those carried out by the government.

### D. The Effect of Gross Regional Domestic Product on Billboard Tax Receipts

In a research that written by Ulfiyah, it was explained that the Gross Regional Domestic Product per capita at the regional scale could be used as a measure of better economic growth because it more accurately reflected the welfare of the population of a region than the Gross Regional Domestic Product [7]. Gross Regional Domestic Product as one of the factors that influence Regional Tax revenues, where Billboard Tax is one of the locally-generated Revenues.

### E. The Influence of Industries Number on Billboard Tax Receipts

In a research that written by Ulfiyah, it was explained that the number of industries that use billboard installation services is also very influential with the tax revenue itself, this is because an industry that wants to market its products can install billboards to be known by the public [7]. The addition of the number of industries that installed billboards caused the tax object to expand, causing regional revenues to increase, as well as advertisement taxes which included regional revenues.

### F. The Influence of Total Population with Billboard Tax Receipts

In the study that written by Ulfiyah, it was explained that the increasing number of people would increase the number of available workers [7]. This gives interest to industrial owners to add industries or create new industries. This increase in the number of industries will increase the advertising tax revenue to provide information to the population, therefore the number of population is one of the factors that influence billboard tax revenue.

### G. Hypothesis

- H1: Gross Regional Domestic Product, Number of Industries and Total Population simultaneously influence the Billboard Tax Receipt.

- H2: Gross Regional Domestic Product has a partial effect on Billboard Tax Receipts.
- H3: The number of industries has a partial effect on Billboard tax receipts.
- H4: Total Population has a partial effect on Billboard Tax Receipts.

Provincial Statistics Agency and the Directorate General of Fiscal Balance Ministry of Finance Republic of Indonesia. The number of research samples selected with saturated sample techniques was 29 districts and 9 cities. Data Analysis Techniques used are Multiple Linear Regression Analysis with the help of SPSS version 21.

III. RESEARCH FINDING AND DISCUSSION

H. Research Method

The type of research used is quantitative research with explanatory research. The research object located in East Java.

A. The Result of Multiple Linear Regression Analysis

TABLE II. THE RESULT OF MULTIPLE LINEAR REGRESSION ANALYSIS

Model		Coefficients <sup>a</sup>			t	Sig.
		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta		
1	(Constant)	-9,180	5,045		-1,820	,072
	PDRB	,768	,225	,438	3,405	,001
	JI	,351	,151	,225	2,330	,022
	JP	,382	,182	,198	2,102	,038

Dependent Variable: PPR

Source: Result of SPSS, 2018

B. Classical Assumption Test Result

1) Normality test

TABLE III. NORMALITY TEST RESULT

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		114
Normal Parameters <sup>a, b</sup>	Mean	,0000000
	Std. Deviation	1,05152739
Most Extreme Differences	Absolute	,058
	Positive	,058
	Negative	-,056
Kolmogorov-Smirnov Z		,616
Asymp. Sig. (2-tailed)		,843

<sup>a</sup>. Test distribution is Normal

<sup>b</sup>. Calculated from data.

Source: Result of SPSS, 2018

Based on the results of the Normality Test using the One Kolmogorov-Smirnov method in table 3, it shows a residual of 0.843 or significance > 0.05, then the residual is normally distributed.

2) Multicolinierity test

TABLE IV. MULTICOLINIERITY TEST RESULT

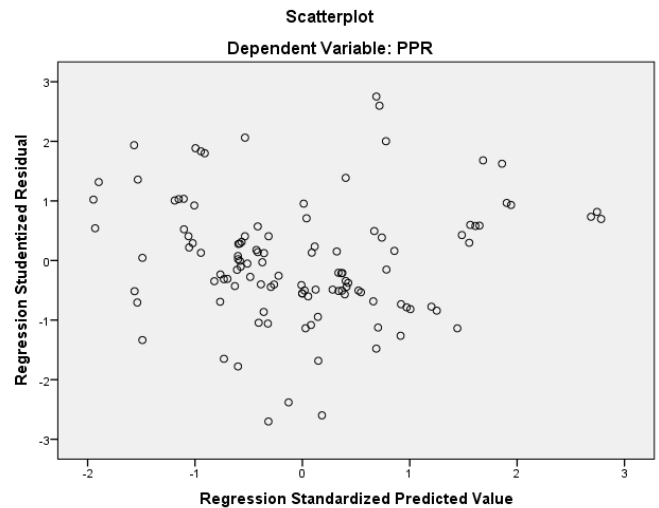
Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	PDRB	,209	4,775
	JI	,371	2,698
	JP	,389	2,569

a. Dependent Variable: PPR

Source: Result of SPSS, 2018

Based on the results of Multicollinearity Test in table 4 all variables indicate that the Tolerance value > 0.1 and VIF < 10. From these results it can be concluded that there is no multicollinearity between independent variables, so that the Multicollinearity Test has been fulfilled.

3) Heteroscedasticity test



Source: Result of SPSS, 2018

Fig. 1. Heteroscedasticity test result.

Based on figure 2 shows that there is no clear pattern and the points spread randomly above and below the number 0 on the Y axis, so it can be concluded that there is no Heteroscedasticity.

4) Autocorrelation test

TABLE V. AUTOCORRELATION TEST RESULT

Model Summary <sup>b</sup>		
Model	Std. Error of the Estimate	Durbin-Watson
1	1,06577	1,794

a. Predictors: (Constant), JP, JI, PDRB  
 b. Dependent Variable: PPR  
 Source: Result of SPSS, 2018

Based on table 5, it shows a DW value of 1.794. From the Durbin-Watson distribution table, it is known that the values of dL and dU are 1.6410 and 1.7488, then the 4-dU value is 4 - 1.7488 = 2.2512. It means that 1.7488 < 1.794 < 2.2512 or dU < DW < 4-dU, then H0 is accepted and there is no autocorrelation.

C. Hypothesis Test Results

1) Coefficient determination test

TABLE VI. COEFFICIENT DETERMINATION TEST RESULT

Model Summary <sup>b</sup>			
Model	R	R Square	Adjusted R Square
1	,787 <sup>a</sup>	,619	,609

a. Predictors: (Constant), JP, JI, PDRB  
 b. Dependent Variable: PPR  
 Source: Result of SPSS, 2018

Based on table 6, it shows the value of Adjusted R Square of 0.609 or 60.9%, which means the variable Gross Regional Domestic Product (X1), Number of Industries (X2) and Total Population (X3) are able to explain the Tax Receipts (Y) variable. The remainder of this value is 0.391 or 39.1% explained by other variables outside the regression equation or not examined in this study.

2) Statistic test F

TABLE VII. STATISTIC TEST F TEST RESULT

ANOVA <sup>a</sup>						
Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	202,962	3	67,654	59,562	,000 <sup>b</sup>
	Residual	124,945	110	1,136		
	Total	327,908	113			

a. Dependent Variable: PPR  
 b. Predictors: (Constant), JP, JI, PDRB  
 Source: Result of SPSS, 2018

Based on table 7, it shows the value of F calculate the value of F count > F table or 59.562 > 2.69 and the significance of 0,000 < α = 0.05 then H0 is rejected. This shows that the variable Gross Regional Domestic Product (X1), Amount of Industry (X2) and Population Amount (X3) simultaneously affects the Tax Receipts (Y) variable.

3) t-Statistic Test

TABLE VIII. T-STATISTIC TEST RESULT

Model	Coefficients <sup>a</sup>			T	Sig.
	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta		
(Constant)	-9,180	5,045		-1,820	,072
PDRB	,768	,225	,438	3,405	,001
JI	,351	,151	,225	2,330	,022
JP	,382	,182	,198	2,102	,038

a. Dependent Variable: PPR  
 Source: Result of SPSS, 2018

Based on table 8 the following results are obtained:

- Test results for statistics t for variable X1 explain that the value of tcount > t table or 3.405 > 1.98118 and the significance value is smaller than α or 0.001 < 0.05, then H0 is rejected. This shows that the Gross Regional Domestic Product (X1) variable partially has a significant effect on the Advertising Tax Receipt (Y) variable.
- Test results for statistics t for variable X2 explain that the value of tcount > t table or 2,330 > 1,98118 and significance value smaller than α or 0,022 < 0,05, then H0 is rejected. This shows that the Total Industry variable (X2) partially has a significant effect on the Admission Tax (Y) variable.
- Test results for statistics t for X3 variables explain that the value of tcount > t table or 2.102 > 1.98118 and the significance value is smaller than α or 0.038 < 0.05, then H0 is rejected. This shows that the Total Population variable (X3) partially has a significant effect on the Advertising Tax Receipt (Y) variable.

D. The Effect of simultaneous Gross Regional Domestic Product, Industrial Number and Total Population on the Billboard Tax Receipt variable

From the results of the Statistic F Test, it is known that it fulfills the Fcount > Ftable or 59.562 > 2.69, as well as the significance value of 0,000 < 0.05. These results show the simultaneous effect of the Gross Regional Domestic Product variable (X1), Industry Amount (X2) and Total Population (X3) on the Billboard Tax Receipt variable (Y). Based on the results of the Determination Coefficient Test, it can be seen that the Adjusted R Square value obtained is 0.609 or 60.9%, which means that the Gross Regional Domestic Product (X1), Industrial Number (X2) and Population (X3) are able to explain the Advertising Tax Receipt variable (Y) of 60.9%. The remainder of this value is 0.391 or 39.1% explained by other factors not explained in this study.

E. The Effect of partial Gross Domestic Product on the Billboard Tax Receipt variable

From the results of the t-statistic test it is known that the Gross Regional Domestic Product variable (X1) shows a tcount greater than ttable or 3.405 > 1.98118 and a significance value smaller than α or 0.001 < 0.05. These results indicate that the

Gross Regional Domestic Product (X1) variable partially has a significant effect on the Advertising Tax Receipt (Y) variable.

These results are consistent with the research conducted by Ulfiyah where Gross Regional Domestic Products at constant prices have an effect because one indicator is to measure people's welfare in a particular region. In the event that a person's income is higher, the higher a person's ability to pay various levies that have been determined by the Government, including paying Billboard Taxes [7]. Increasing the Gross Regional Domestic Product will have a positive influence on the increase in regional revenues. Billboard Tax is one of the components of Regional Tax, so that if the Gross Regional Domestic Product gets higher, then the Regional Tax Revenue in general and Billboard Tax in particular will also be higher.

#### *F. The Effect of Partial Number of Industrial Influence on the Advertising Tax Receipt variable*

From the results of the t-statistic test, it is known that the Total Industry variable (X2) shows tcount greater than ttable or  $2.330 > 1.98118$  and a significance value smaller than  $\alpha$  or  $0.022 < 0.05$ . These results indicate that the Total Industry variable (X2) partially has a significant effect on the Admission Tax (Y) variable.

These results are in accordance with the research conducted by Ulfiyah that the number of industries has an effect because more and more industries are emerging, the demand for billboards for goods promotion activities will also increase [7]. This caused the demand for billboard installations to increase, so that the Billboard Tax Receipts will become larger.

#### *G. Partial Influence of Total Population to the Billboard Tax Receipt Variable*

From the results of the t-Statistic Test it explain that the Population Amount variable (X3) shows that the tcount is smaller than t table or  $2.102 > 1.98118$  and the significance value is smaller than  $\alpha$  or  $0.038 < 0.05$ . These results indicate that the Population Amount variable (X3) partially has a significant effect on the Admission Tax (Y) variable.

These results are consistent with the research conducted by Ulfiyah that the number of population has an effect because the number of population has increased from year to year [7]. This was in line with the increase in the number of workers and caused industrial owners to be interested in establishing new industries. The more industries, the demand for billboard installations will increase. This causes the Billboard Tax Receipt to be greater.

### IV. CONCLUSION AND SUGGESTION

#### *A. Conclusion*

Based on the results of Multiple Linear Regression Analysis the conclusions are as follows:

- The F-statistic test results show the value of  $F_{count} > F_{table}$  or  $59.562 > 2.69$  and a significant value smaller than  $\alpha$  or  $0,000 < 0.05$ . Based on the Adjusted R Square value of 0.609 or 60.9, it can be seen the variable ability of the Gross Regional Domestic Product (X1), Total

Industry (X2) and Total Population (X3) to explain the Admission Tax (Y) variable is 60.9%. The remainder of this value is 0.391 or 39.1% explained by other variables outside the regression equation or not examined in this study.

- The t-statistic test results for the Gross Regional Domestic Product variable (X1) on the Advertising Tax Receipt variable (Y) shows the value of  $t_{count} > t_{table}$  or  $3.405 > 1.98118$  and the significance value is smaller than  $\alpha$  or  $0.001 < 0.05$ . These results can be concluded that the Gross Regional Domestic Product (X1) variable has a significant effect on the Admission Tax (Y) variable.
- The t-statistic test results for the Total Industry variable (X2) on the Tax Admission Receipt variable (Y) shows the value of  $t_{count} > t_{table}$  or  $2.330 > 1.98118$  and the significance value is smaller than  $\alpha$  or  $0.022 < 0.05$ . These results can be concluded that the Total Industry variable (X2) partially has a significant effect on the Admission Tax (Y) variable.
- The t-statistic test results for the Total Population variable (X3) on the Tax Admission Receipt variable (Y) shows the value of  $t_{count} > t_{table}$  or  $2.102 > 1.98118$  and the significance value is smaller than  $\alpha$  or  $0.038 < 0.05$ . These results can be concluded that the Population Amount variable (X3) partially has a significant effect on the Admission Tax (Y) variable.

#### *B. Suggestions*

Based on the conclusions above, there are several suggestions that researcher provide to be useful for the next researcher. Suggestions given for further research are:

- Gross Regional Domestic Product, Number of Industries and Total Population are able to explain Billboard Tax Revenue by 60.9%, while the remaining 39.1% is explained by other factors. Further research is better for developing other bound free variables and variables such as per capita income, inflation and regional tax revenues.
- Further research is expected to expand the location of the study, not only limited to regencies and cities in East Java, for example, it can expand to all districts and cities in East and Central Java or West Java.
- Looking at the variables of Gross Regional Domestic Product, Amount of Industry and Population Number that influence the Billboard Tax Receipt can be used as material for consideration by the East Java Provincial Government in making policies related to Advertisement Tax Receipt.

### REFERENCES

- [1] Direktorat Jendral Pajak Kementerian Keuangan Republik Indonesia, Peran Pajak Untuk Mencapai Target Pertumbuhan Ekonomi 2017. [Online]. Retrieved from: <http://www.pajak.go.id/content/article/peran-pajak-untuk-mencapai-target-pertumbuhan-ekonomi-2017>

- [2] Kementerian Keuangan Republik Indonesia, *Perekonomian Indonesia dan APBN 2017* [Online]. Retrieved from: <https://www.kemenkeu.go.id/apbn2017>
- [3] Sulistiyoningsih, "Kontribusi Pajak Reklame Dalam Meningkatkan Pendapatan Asli Daerah (PAD) Kota Surabaya," *Jurnal Ilmu & Riset Akuntansi*, vol. 3, no. 8, pp. 1-20, 2014.
- [4] Direktorat Jenderal Bina Keuangan Daerah Kementerian Dalam Negeri, 2016 [Online]. Retrieved from: <https://databoks.katadata.co.id/datapublish/2016/08/05/4-provinsi-dengan-pendapatan-asli-daerah-tertinggi-2015>
- [5] Pemerintah Provinsi Jawa Timur, *Sekilas Jawa Timur*, [online] Retrieved from: <http://jatimprov.go.id/read/sekilas-jawa-timur/sekilas-jawa-timur>
- [6] R.I. Madina, "Faktor-Faktor Yang Mempengaruhi Implementasi Regulasi Daerah Terkait Penerimaan Pajak Reklame," *Jurnal Perpajakan*, vol. 6, no. 2, pp. 1-10, 2015.
- [7] Ulfiyah, *Faktor-Faktor Yang Mempengaruhi Penerimaan Pajak Reklame Kota Surabaya*. *Jurnal Ilmu & Riset Akuntansi*, vol. 4, no. 11, pp. 1-19, 2015.
- [8] Y. Ramadan, "Faktor-Faktor Yang Mempengaruhi Penerimaan Pajak Reklame dan Transparansi Pengelola Keuangan Daerah," *Akademika*, vol. 15, no. 1, pp. 48-55, 2017.
- [9] A.A. Fatah, "Pengaruh Jumlah Penduduk dan Jumlah Industri Terhadap Penerimaan Pajak Reklame dan Efeknya Pada Penerimaan Pajak Daerah," *Jurnal Administrasi Bisnis-Perpajakan (JAB)*, vol. 5, no. 1, pp. 1-9, 2015.
- [10] P. Fitriandi, T. Birowo, and Y. Aryanto, *Kompilasi Undang-Undang Perpajakan Terlengkap*. Jakarta: Salemba Empat, 2014.
- [11] A. Halim, A. Dara, and I.R. Bawono, *Perpajakan: Konsep, Aplikasi, Contoh, dan Studi Kasus*. Edisi 2. Jakarta: Salemba Empat, 2016.
- [12] D. Priantara, *Perpajakan Indonesia*. Edisi 3. Jakarta: Mitra Wacana Media, 2016.