Analysis of the Effect of Regional Financial Performance on Regional Economic Growth in Indonesia Year 2012-2016

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Abstract: Economic growth of a region can be seen from the financial capacity of the region in financing its own activities, the better the financial capacity of the region will further encourage regional economic growth. The purpose of this study is to test and obtain empirical evidence of the influence of financial performance on economic growth in cities and districts in East Java Region and to know how the difference between economic growth and financial performance between the city and district of East Java Region 2012-2016. The sample in this research are 6 districts, and 3 cities located in east java area with research object that is financial performance in the form of independence ratio, dependency ratio, effectiveness ratio, and economic growth. Determination of the sample is done by using purposive sampling method and the method used in this research is done by multiple linear regression analysis and T-test. Based on the results of this study, financial performance in the form of independence ratio and effectiveness ratio showed a significant positive impact on economic growth, while the dependency ratio has no significant effect on economic growth. Further economic growth between city and district has significant difference, financial performance in the form of independence and dependency ratios have significant differences between city and district, while the financial performance of the ratio of effectiveness has no significant difference between the city and district in East Java Region in 2012- 2016.

1 INTRODUCTION

Economic growth of a region can be seen from the financial capacity of the region in financing its own activities, the better the financial capacity of the region will further encourage regional economic growth. Local financial capacity can be assessed or measured by local financial performance (Ardi, 2008; Aristovnik, 2012; Bose et al., 2007).

East Java has 38 Cities and Districts, and is the province that has the most districts and cities in Indonesia. However the number of districts and cities does not guarantee that economic growth in the province has not decreased (Arsa and Setiawina, 2015; Wuku, 2015). Lately, the percentage of economic growth in East Java has been fluctuated. Here is the data of East Java economic growth last 5 years starting from 2012-2016.

Table 1: East Java Economic Growth Period 2012-2016 (BPS, 2013).

Economic Growth of East Java period 2012-2016 in Billion Rupiah		
Year	**PDRB AHDK**	**Economic Growth**
2012	1124464.64	6.64%
2013	1192789.8	6.08%
2014	1262684.5	5.86%
2015	1331394.99	5.44%
2016	1405236.11	5.55%

From the table 1 shows that the percentage of economic growth in East Java in 2013 has decreased until 2015, and in 2016 the percentage of economic growth increased although not significant. The phenomenon of economic growth instability in East Java along with the declining quality of financial performance in Cities and Districts located in the province of East Java.

Financial performance in East Java province still needs to be improved. Based on the report of the

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audit result of the 2016 regional government's finance by BPK Jatim, there are still many cities and districts in eastern Java whose financial performance has decreased and cannot be said good and needs to be improved again, such as Madiun, Tulungagung, Probolinggo, Sampang, Sumenep, Nganjuk district, and others because they get the WDP predicate (fair with exceptions) (BPKP, 2012). This is in line with the economic growth of East Java which recently also experienced instability.

Based on the phenomenon that occurred in East Java Province above and previous research is diverse then researchers want or are interested in doing a study on "Analysis of the Effect of Financial Performance on Regional Economic Growth in Regency and City Region East Java Period 2012 - 2016"

The formulation of problem in this research are: (1) How is the effect of financial performance to economic growth in East Java (2) How is the effect of financial performance in the form of independence ratio to economic growth in East Java (3) How is the effect of financial performance in the form of dependency ratio to economic growth in East Java (4) How is the influence of financial performance in the form of ratio of effectiveness to economic growth in East Java (5) How is the difference of economic growth between city and district in east java (6) How is the difference of financial performance between city and regency in East Java.

The purpose of this study is to determine: (1) the effect of financial performance on economic growth in East Java and how much influence. (2) the effect of financial performance in the form of independence ratio to economic growth in East Java and how big the effect is. (3) the influence of financial performance in the form of dependency ratio to economic growth in East Java and how big the effect is. (4) the effect of financial performance in the form of ratio of effectiveness to economic growth in East Java and how big the effect is. (5) the difference of economic growth in city and district in East Java. (6) the difference of financial performance between city and district in East Java.

Based on the theory and the results of previous research, it can be formulated hypothesis as follows:

- H1: Financial performance simultaneously affects regional economic growth;
- H2: Ratio of regional autonomy positively affects regional economic growth;
- H3: Regional financial dependency ratio negatively affects regional economic growth;
- H4: PAD Effectiveness Ratio positively affects regional economic growth.

2 METHOD

This study used secondary data sources with data collection techniques documentation that is data collection techniques in the form of local financial statements of 2013-2016 obtained from the website BPKAD city districts respectively www.bpkad.go.id. While the report of economic growth district city area East Java can be seen at www.bps.jatim.go.id.

The samples used are 9 districts / cities, 6 of them are districts and 3 cities. The sample is chosen based on sampling criteria with probability sampling method with purposive sampling technique from the population of 38 districts / cities, so the data are examined for five periods for about 45 data.

This study used multiple linear regression analysis to determine the effect of financial performance in the form of independence ratio, dependency, and effectiveness on regional economic growth. Meanwhile, to know the difference of economic growth and financial performance between city and district, technique of T-test analysis with Mann-Whitney and Kruskall-Wallis type were used. Operational definitions of variables used are variable (X) of financial performance consisting of several ratios:

2.1 Ratio of Regional Financial Independence (X1)

$$\text{Rasio Kemandirian} = \frac{\text{Pendapatan Asli daerah}}{\text{Batuan pusat / Provinsi Dan pinjaman}} \times 100\% \quad (1)$$

2.2 Regional Financial Dependency Ratio (X2)

$$\text{Ketergantungan Keuangan} = \frac{\text{Pendapatan Transfer}}{\text{Total Pendapatan Daerah}} \times 100\% \quad (2)$$

2.3 Ratio of Local Original Income Effectiveness (X3)

$$\text{Rasio Efektifitas} = \frac{\text{Realisasi Penerimaan PAD}}{\text{Target Penerimaan PAD}} \times 100\% \quad (3)$$

Variable (Y) regional economic growth can be calculated by the formula:

$$Grow = \frac{PDRB\ t0 - PDRB\ t1}{PDRB\ t1} \times 100\% \quad (4)$$

3 RESULTS AND DISCUSSION

3.1 Classic Assumption Test

This test was conducted in several analyzes namely normality test, multicollinierity test, heteroscedasticity test, and autocorrelation test.

3.2 Multicollinearity Test

Table 2: Multicollinearity Test Results.

Coefficients[a]			
Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	X1	.975	1.025
	X2	.973	1.028
	X3	.996	1.004
a. Dependent Variable: Y			

Source: SPSS 22 output (researchers processed data, 2018).

The multicollinearity test shows that all variables have VIF values less than 10, hence it shows that no relationship between independent variables in the regression model used or research data does not contain symptoms of multicollinearity.

3.3 Autocorrelation Test

Table 3: Autocorrelation Test Results.

Model Summary[b]					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.730[a]	.532	.498	.01962	1.950
a. Predictors: (Constant), X3, X1, X2					
b. Dependent Variable: Y					

Source: SPSS 22 output (researchers processed data, 2018).

The autocorrelation test showed from all three regressions that the Durbin-Watson value lies between 1.55 and 2.46. That is, in the regression model used there is no correlation between the tester errors of t period (current) with errors of period t-1 (previous).

3.4 Normality Test

Table 4: Normality Test Results.

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		45
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	.01894052
Most Extreme Differences	Absolute	.082
	Positive	.082
	Negative	-.073
Test Statistic		.082
Asymp. Sig. (2-tailed)		.200[c,d]
a. Test distribution is Normal.		

Source: SPSS 22 output (researchers processed data, 2018).

The normality test of all three regressions shows that the Asymp.Sig value is greater than 0.05. That is, in the regression used, the confounding or residual variable has a normal distribution.

3.5 Heteroscedasticity Test

Heteroscedasticity test with Glejser approach shows that each independent variable has a significance value greater than 0.05, meaning that the regression model used does not occur heteroscedasticity.

Table 5: Heteroscedasticity Test Results.

Coefficients		
Model		Sig.
1	(Constant)	.000
	X1	.362
	X2	.508
	X3	.064
a. Dependent Variable: RES_2		

Source: SPSS 22 output (researchers processed data, 2018).

Based on the results of Glejser test above each variable has a sig value greater than 0.05, then in this study did not occur heteroscedasticity.

3.6 Regression Analysis

Regression analysis used in this study is multiple linear regression, this analysis is used to obtain a comprehensive picture of the influence of independent variables to the dependent variable. Here are the results of multiple regression analysis.

Table 6: Results of Multiple Linear Regression Analysis.

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.166	.020		8.462	.000
	X1	.024	.008	.317	2.927	.006
	X2	-.018	.010	-.202	-1.865	.069
	X3	.111	.019	.612	5.716	.000
a. Dependent Variable: Y						

Source: SPSS 22 output (researchers processed data, 2018).

$$Y= 0,166+0,024X_1-0,018X_2+0,111X_3+e \quad (5)$$

- Constant value of 0.166 means that if other variables are constant, then economic growth will increase by 0.166%;
- The value of regression coefficient of Independence Ratio (X1) is positive of 0,024 means that the Ratio of Independence increases by 1% assuming other variables are constant, then economic growth will increase by 0,024%;
- The value of regression coefficient of Financial Dependency Ratio (X2) is negative of -0.018 has meaning if the Financial Dependency Ratio increased by 1% assuming other variables are constant, the regional economic growth will decrease by 0.018%;
- The value of regression coefficient of PAD Effectiveness Ratio (X3) is positive of 0.111 has meaning if PAD Effectiveness Ratio increased by 1% with assumption other variables are constant, hence economic growth area will increase about 0,111%.

3.7 F Test (simultaneous)

Table 7: Result of simultaneous significance.

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.018	3	.006	15.556	.000[b]
	Residual	.016	41	.000		
	Total	.034	44			
a. Dependent Variable: Y						
b. Predictors: (Constant), X3, X1, X2						

Source: SPSS 22 output (researchers processed data, 2018).

The results of the simultaneous significance test show that the significance f is smaller than the significiance level, which is 0,000 <0.05 or alpha 5%. This means that simultaneously variable independence ratio (X1), financial dependency ratio (X2), and PAD Effectiveness ratio (X3) have significant effect on regional economic growth. Then Ha.1 is accepted (supported by data).

3.8 T Test (partial)

3.8.1 H_2 : The Effect of Financial Performance in the form of Ratio of Independence on Economic Growth

The significance value of t test on the independence ratio variable (X1) that is equal to 0.006 is smaller than alpha 0.05 (5%). This means that the variable (X1) or independence ratio has a significant effect on regional economic growth. Beta for X1 = 0.317 indicates the level of sensitivity of the regional independence ratio on regional economic growth, where the effect is positive (in line). Then Ha.2 is accepted (supported by data).

3.8.2 H_3 : The Effect of Financial Performance in the Form of Ratio of Dependency on Economic Growth

The significance value of t test on dependency ratio variable (X2) is 0,069 smaller than alpha 0,05 (5%). This means that the variable (X2) or partial dependency ratio has no significant effect on regional economic growth. Beta for X2 = -0.202, indicating the degree of sensitivity of regional dependency ratio to regional economic growth, where the influence is negative (counterclockwise). Hence Ha.3 states that the ratio of financial dependence negatively influenced is rejected (not supported by data).

3.8.3 H_4 : The Influence of Financial Performance as a Ratio of Effectiveness on Economic Growth

The significance value of t test on the effectiveness ratio variable (X3) is 0.000 greater than alpha 0.05 (5%). This means that the variable (X3) or partial effectiveness ratio significantly affects regional economic growth. Beta for X3 = 0.612 indicates the level of sensitivity ratio of regional effectiveness to regional economic growth, where the influence is positive (in line). Hence, Ha.4 states that the effectiveness ratio is positively accepted (supported by data).

3.9 Determination Coefficient Test (adjusted R^2)

Table 8: Coefficient Determination Test Results.

Model Summary[b]				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.730[a]	.532	.498	.01962
a. Predictors: (Constant), X3, X1, X2				
b. Dependent Variable: Y				

Source: SPSS 22 output (researchers processed data, 2018).

The result of determination coefficient test shows that the value of Adjusted R2 is 0,498 or 49,8%. In this case can be interpreted that ability of independent variable that is independence ratio, dependency ratio, and effectiveness ratio, explaining regional economic growth value equal to 49,8%, and the rest equal to 50,2% explained by variable which is not examined in this research.

3.10 T Tests of Economic Growth Between City And District

3.10.1 Normality Test

Table 9: Normality Test.

Tests of Normality				
GROUP		Shapiro-Wilk		
		Statistic	df	Sig.
PDRB	1	.569	30	.000
	2	.871	15	.035
a. Lilliefors Significance Correction				

Source: SPSS 22 output (researchers processed data, 2018).
Note: Group 1 = District, Group 2 = City.

Based on normality test results note that significant value can be seen in the sig column. That is in the districts of 0.000 and the city of 0.000 and both are smaller than <0.05. That means that data between cities and districts is not normally distributed. Thus the parametric test cannot be done, because the data is not normally distributed and in this study using non-parametric test with Mann-Whitney test.

3.10.2 Mann-Whiteney Test

Table 10: Mann-Whitney Test.

Test Statistics[a]	
	Economy Growth
Mann-Whitney U	147.000
Wilcoxon W	612.000
Z	-1.878
Asymp. Sig. (2-tailed)	.046
a. Grouping Variable: KELOMPOK	

Source: SPSS 22 output (researchers processed data, 2018).

Based on the result of Mann-Whitney statistic output, Asymp. value Sig. (2-tailed) of 0.046, and smaller than the probability value of 0.05. Then the decision that can be taken is that if the value of significance or sig. (2-tailed) is less than <0.05 then there is a difference. So it can be concluded that economic growth between city and district is different.

3.11 T Test of Financial Performance between City and Regency

3.11.1 Normality Test

Table 11: Normality Test with Shapiro-Wilk.

Test of Normally					
	Group	Shapiro-Wilk			Explanation
		Statistic	df	Sig.	
Independence	1	0.886	30	0.004	abnormal
	2	0.783	15	0.002	abnormal
Dependency	1	0.75	30	0	abnormal
	2	0.873	15	0.37	abnormal
Effectiveness	1	0.783	30	0	abnormal
	2	0.926	15	0.241	normal
a. Liliefors Significance Correction					

Source: SPSS 22 output (researchers processed data, 2018).

Based on the normality test the three variables do not have normal data, while the effectiveness ratio data on the city has a significant value of 0.241 which means greater than 0.05, the effectiveness ratio data on the city is normally distributed. Even so data between city and district cannot be tested by parametric method because one of the data is not normally distributed.

3.11.2 Kruskall Waliss Test

Table 12: Result of Kruskal Waliss Test

Test Statistics[a,b]			
	Independence	Dependency	Effectiveness
Chi-Square	26.301	4.388	1.568
df	1	1	1
Asymp. Sig.	0.000	0.036	0.211
Explanation	Different	Different	No Different
a. Kruskal Wallis Test			
b. Grouping Variable: Group			

Source: SPSS 22 output (researchers processed data, 2018).

Based on the output results, it can be seen that the ratio of independence in district and city has significant difference. The dependency ratio on the city and district has significant difference. While the ratio of effectiveness in city and district is almost equal or does not have a significant difference.

4 CONCLUSION

Based on the results of this study, financial performance in the form of independence ratio and effectiveness ratio showed a significant positive impact on economic growth, while the dependency ratio has no significant effect on economic growth. Further economic growth between city and district has significant difference, financial performance in the form of independence and dependency ratios have significant differences between city and district, while the financial performance of the ratio of effectiveness has no significant difference between the city and district in East Java Region in 2012- 2016.

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