Economic Growth Determinants Model Semarang City Year 2005 – 2017

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The purpose of this research was to analyze the effect of Contribution of Regional Revenue (PAD) and General Allocation Grant (DAU) to Economic Growth (PDRB) of Semarang City through Capital Expenditure (BM). The data used in this research secondary data. The variables of this research consisted of Contribution of Regional Revenue (PAD), General Allocation Grant (DAU) as independent variables. Economic Growth (PDRB) as dependent variable and the Capital Expenditure (BM) as an intervening variable.

The test results and analysis of the data it can be concluded that the Contribution of Regional Revenue (PAD) and General Allocation Grant (DAU) directly effect on Economic Growth (PDRB) and Capital Expenditure (BM), and Capital Expenditure (BM) directly effect on Economic Growth (PDRB).

Keywords: Revenue, Capital, Economic

A. INTRODUCTION

The vision and mission in the implementation of regional government are needed as a direction for the preparation of programs and activities for five years. As stated in the RPJMD for 2016-2021, the vision of Semarang City is: "THE SEMARANG OF THE GREAT CITY OF TRADE AND SERVICES TOWARDS COMMUNITIES AS THE PROSPERITY" This vision implies that Semarang as an environmentally sound metropolitan city will become a reliable and advanced city in trade and services. With adequate infrastructure support and remain a conducive area to improve the welfare of its citizens with the support of political, security, social, economic and cultural development. To realize this vision a new spirit is needed in the implementation of development based on the basic values of the Indonesian people and the Semarang community in particular, namely mutual cooperation. The new spirit was stated in the slogan "Moving Together to Build Semarang".

Financial accountability is an accountability regarding financial integrity, disclosure, and compliance with laws and regulations. The objectives of this accountability are the financial statements and applicable laws and regulations covering the receipt, storage and expenditure of money by government agencies while transparency is built on the basis of the freedom to obtain information needed by the public. That is, information relating to public interests can be directly obtained by those who need it.

Factors that influence Economic Growth (PDRB) include Contribution of Regional Revenue (PAD) and General Allocation Grant (DAU). Contribution of
Regional Revenue (PAD) is revenue received by the region from sources within its own territory which are collected based on Regional Regulations in accordance with the applicable laws and regulations. Economic Growth (PDRB) is defined as an increase in GDP at the national level and an increase in GDP in the regional scope that is used as a measure of the development of a country or region does not affect Economic Growth (PDRB).

In Indonesia research on factors that influence Economic Growth (PDRB) has been carried out. Mawarni (2013); Putri (2015): Ulfi and Endrawati (2010), and Fuad, at.al, (2017) examine the factors that influence Economic Growth (EG), the results of which include research that there is an influence between Contribution of Regional Revenue (PAD) and Economic Growth (PDRB). Meanwhile other researchers oppose the results of this study and state that there is no influence between Contribution of Regional Revenue (PAD) on Economic Growth (PDRB) (Ulfi and Endrawati (2010).

Another factor that affects economic growth is the Contribution of Regional Revenue (PAD). The General Allocation Grant (DAU) does not have a significant effect on Economic Growth (PDRB) (Fuad, et.al., 2017 and Santosa, 2013). Similarly, the results of Putri’s research (2015) stated that the General Allocation Grant (DAU) had no significant effect on Economic Growth (PDRB) in the Regency or city of Central Java Province. The results of this study contradict the results of Adi (2006) who examined the Factors Affecting Capital Expenditure in Districts / Cities in North Sumatra Province with Remaining More Budget, the results of which stated that the General Allocation Grant (DAU) has a significant influence on Economic Growth (PDRB).

Based on the inconsistency of the results of the research that occurred in the previous studies above, especially related to results that have no effect between one variable and another (PAD and DAU on PDRB), it is assumed that there are other variables as intervening variables such as Capital Expenditure (BM). Positioning Capital Expenditure (BM) as an intervening variable, because what researchers have known as far as it has never been studied by previous researchers. Yudhoyono (2011) found that the management of regional budgets in various regions was still not effective. This is indicated, among others, by the increasing expenditure allocation of employees, whereas the share of capital expenditure for regional development actually decreases. From this, this is a research gap, so it is important to do this research. The research objective is to analyze and empirically examine the effect of Contribution of Regional Revenue (PAD), General Allocation Grant (DAU) on Economic Growth (PDRB) with Capital Expenditure (BM) as a mediating variable. Based on the inconsistencies that occurred in previous studies, it encourages researchers interested in conducting further research on “Economic Growth Determinants Model Semarang City Year 2005 – 2017”.

JBEP Journal of Business and Political Economy, Vol 2 (1), 2020
B. THEORETICAL FRAMEWORK AND HYPOTHESIS DEVELOPMENT

Economic Growth

The change in centralization to decentralization has caused the pattern of financial management between the central and regional governments to be transformed into autonomous regions so that regions need more funding which has implications for the need for transfer of funds in the form of General Allocation Grant (DAU), which are directed alongside Contribution of Regional Revenue (PAD) for economic development activities. The economy is expected to grow along with the increase in balancing funds as the central government’s expenditure component (“G”). Measuring the progress of an economy requires the right measuring instrument, in the form of a measure of Economic Growth, namely Gross Regional Domestic Product (PDRB), which is the amount of goods or services produced by an economy within one year and expressed in market prices (Supartoyo and Tatuh, 2013). According to Boediono (1985), Economic Growth (PDRB) is the process of increasing per capita output proxied by per capita Gross Regional Domestic Product (PDRB).

Contribution of Regional Revenue (Pendapatan Asli Daerah / PAD)

Regional autonomy encourages regional governments to be able to manage and explore their own sources of regional income, both those originating from Regional Revenue, Balancing Funds, and receiving donations and other assistance. Regional government financially must be independent of the central government by as much as possible exploring the sources of Contribution of Regional Revenue (PAD) such as taxes, restitution and so on. Contribution of Regional Revenue (PAD) is revenue received by the region from sources within its own territory which are collected based on Regional Regulations in accordance with the applicable laws and regulations. The CRR (PAD) contribution greatly influences dependency on central assistance, where local governments must minimize this dependency so that CRR (PAD) becomes the largest part of financial resources, supported by central and regional financial balance policies.

Research on the factors that influence Economic Growth (PDRB) has been carried out. Mawarni (2013); Putri (2015); Ulfi and Endrawati (2010); Sudarwadi (2015) and Hendriwiyanto (2013) whose research results show that there is a positive and significant influence between Contribution of Regional Revenue (PAD) to Economic Growth (PDRB).

Thus, based on the thoughts and explanations above can be drawn the following hypothesis:

\[ H_1 : \text{Contribution of Regional Revenue (PAD) effect on Economic Growth (PDRB)} \]

On the other hand, the Regional Expenditure Budget (specifically capital expenditure) is also used for the purposes of carrying out the tasks of regional government. Regional financing is each receipt that needs to be paid back and / or expenditure that will be received again, both in the relevant fiscal year and the following fiscal years. Arwati and
Hadiati (2013); Oktriniatmaja (2011) concluded that Contribution of Regional Revenue (PAD) had an effect on Capital Expenditures (BM).

Thus, based on the thoughts and explanations above can be drawn the following hypothesis:

\[ H_2 : \text{Contribution of Regional Revenue (PAD) effect on Capital Expenditures (BM)} \]

**General Allocation Grant (Dana Alokasi Umum /DAU)**

In regional development, the community needs to be involved in the planning process so that their needs can be elaborated in policies that will be determined based on regional priorities and capabilities. Development expenditure consists of Expenditures for goods & services and Capital Expenditures. Law 33/2004 states that General Allocation Grant (DAU) is a means of overcoming fiscal inequality between regions, as well as providing regional funding sources. The proportion of General Allocation Grant (DAU) distribution for provinces and districts / cities is determined in accordance with the balance of authority between provinces and districts / cities. General Allocation Grant (DAU) is a "block grant", which means that its use is handed over to the regions in accordance with regional priorities and needs, to improve services to the community in the context of regional autonomy. Tuasikal (2008) and Muis (2011) concluded that General Allocation Grant (DAU) had an effect on Capital Expenditures (BM).

Thus, based on the thoughts and explanations above can be drawn the following hypothesis:

\[ H_3 : \text{General Allocation Grant (DAU) effect on Capital Expenditure (BM)} \]

On the other hand, the effects of the General Allocation Grant (DAU) on Economic Growth (PDRB) have also been carried out. General Allocation Grant (DAU) have a significant influence on Economic Growth (PDRB) (Fuad, et.al., 2017 and Santosa, 2013). Similarly, the results of Putri’s research (2015) stated that the General Allocation Grant (DAU) had a significant effect on Economic Growth (PDRB) in the Regency or city of Central Java Province.

Thus, based on the thoughts and explanations above can be drawn the following hypothesis:

\[ H_4 : \text{General Allocation Grant (DAU) effect on Economic Growth (PDRB)} \]

**Capital Expenditures (Belanja Modal / BM)**

Capital Expenditures (BM) according to PP 71/2010 are budget expenditures used to obtain fixed assets and other assets. Capital Expenditures (BM) include Capital Expenditures (BM) to acquire Land, Buildings and Buildings, Intangible Equipment and Assets. Capital expenditure can be classified into 2 (two) groups, namely Public Expenditures and Apparatus Expenditures. Public Expenditure is shopping whose benefits are felt directly by the community, while Apparatus Expenditures are the result of government spending that can be directly felt by
government officials. In order to obtain fixed assets of the regional government (equipment, buildings, infrastructure and other fixed assets) through Capital Expenditures (BM), Halim (2004) revealed that there were 3 (three) ways to obtain these fixed assets, namely by: 1) building own; 2) exchange with other fixed assets, and; 3) buy. Capital Expenditure (BM) have a significant influence on Economic Growth (PDRB) (Suah, 2016).

Thus, based on the thoughts and explanations above can be drawn the following hypothesis:

\[ H_5 : \text{Capital Expenditure (BM) effect on Economic Growth (PDRB)} \]

**Research Model**

The influence of each of these variables on Capital Expenditure (BM) and Economic Growth (PDRB) can be described in the model as shown in the following figure:

![Research Model Diagram](image)

**C. RESEARCH METHOD**

In this study using secondary data obtained from BPS and the Mayor of Semarang Responsibility Statement (LKPJ) 2005-2017, in the form of: Economic Growth (PDRB) data based on constant prices; Contribution of Regional Revenue (PAD), General Allocation Grant (DAU) and Capital Expenditures (BM) for 2005-2017 and from various other sources that can support this research. Data analysis uses quantitative analysis with path analysis (using SPSS'23). The variables of this study consisted of Contribution of Regional Revenue (PAD), General Allocation Grant (DAU) flow as independent variables. Economic Growth (PDRB) as dependent variable and the Capital Expenditure (BM) as an intervening variable.

**D. RESULT**

This study is researching on the influence of Contribution of Regional Revenue (PAD) and General Allocation Grant (DAU) to Economic Growth (PDRB) through the Capital Expenditure (BM). The variables of this study consisted of Contribution of Regional Revenue (PAD), General Allocation Grant (DAU) flow as independent variables. Economic Growth (PDRB) as dependent variable and the Capital Expenditure (BM) as an intervening variable. Descriptive statistics of the variables during the period 2005 to 2017 are presented in the table below:
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Table 1.
Statistic Deskriptif

<table>
<thead>
<tr>
<th></th>
<th>N Statistic</th>
<th>Minimum Statistic</th>
<th>Maximum Statistic</th>
<th>Mean Statistic</th>
<th>Std. Deviation Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRR (PAD)</td>
<td>13</td>
<td>15</td>
<td>37</td>
<td>21.01</td>
<td>4.601</td>
</tr>
<tr>
<td>GAG (DAU)</td>
<td>13</td>
<td>13</td>
<td>37</td>
<td>21.90</td>
<td>4.691</td>
</tr>
<tr>
<td>CE (BM)</td>
<td>13</td>
<td>8</td>
<td>23</td>
<td>8.49</td>
<td>1.752</td>
</tr>
<tr>
<td>EG (PDRB)</td>
<td>13</td>
<td>-52</td>
<td>449</td>
<td>31.43</td>
<td>59.262</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>13</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The table can be explained as follows: Contribution of Regional Revenue (PAD) are total sample results obtained minimum 13 15 37 of the maximum value of the average value of 21.01 and a standard deviation of 4.601; General Allocation Grant (DAU) are a total sample of results obtained minimum 13 13 37 value of the maximum value of an average of 21.90 and a standard deviation of 4.691; Capital Expenditure (PDRB) are the total sample of the results obtained minimum 13 8 23 value of the maximum average value of 8.49 and a standard deviation of 1.752; Economic Growth (PDRB) are a total sample of results obtained minimum 13 -52 449 value of the maximum value by an average of 31.43 and a standard deviation of 59.262.

CLASSIC ASSUMPTION TEST

1. Normality Test

The use of regression models for prediction will produce an error (residue) which is the difference between the actual data with the results of forecasting.

Table 2.
Normality Test

One-Sample Kolmogorov-Smirnov Test

<table>
<thead>
<tr>
<th>N</th>
<th>CRR (PAD)</th>
<th>GAG (DAU)</th>
<th>CE (BM)</th>
<th>EG (PDRB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
<td>21.01</td>
<td>20.90</td>
<td>8.49</td>
<td>31.43</td>
</tr>
<tr>
<td></td>
<td>4.601</td>
<td>4.691</td>
<td>1.752</td>
<td>59.262</td>
</tr>
<tr>
<td>Kolmogorov-Smirnov Z</td>
<td>1.682</td>
<td>1.692</td>
<td>1.538</td>
<td>1.947</td>
</tr>
</tbody>
</table>

a. Test distribution is Normal.
The results show that the data are normally distributed because it shows the Kolmogorov-Smirnov CRR (PAD) = 1.682; GAG (DAU) = 1.692; CE (BM) = 1.538 and EG (PDRB) = 1.947 greater than 0.05.

2. Multicollinearity Test

The results it can be seen that all the VIF on the results of the first regression variables CRR (PAD) = 40.015; GAG (DAU) = 41.026; and the value of the variable Tolerance CRR (PAD) = 0.959; GAG (DAU) = 1.157 while the VIF on the results of the second regression variables CRR (PAD) = 47.094; GAG (DAU) = 45.038; CE (BM) = 41.326 and the value of the variable Tolerance CRR = 0.641; GAG = 0.761; CE = 0.759 it can be concluded that the regression model did not happen multicolinearity.

<table>
<thead>
<tr>
<th>Model</th>
<th>Collinearity Statistics</th>
<th>Tolerance</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(Constant)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CRR (PAD)</td>
<td>2.104</td>
<td>40.015</td>
</tr>
<tr>
<td></td>
<td>GAG (DAU)</td>
<td>1.157</td>
<td>41.026</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Model</th>
<th>Collinearity Statistics</th>
<th>Tolerance</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(Constant)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CRR (PAD)</td>
<td>.641</td>
<td>47.094</td>
</tr>
<tr>
<td></td>
<td>GAG (DAU)</td>
<td>.761</td>
<td>45.038</td>
</tr>
<tr>
<td></td>
<td>CE (BM)</td>
<td>.759</td>
<td>41.326</td>
</tr>
</tbody>
</table>

3. Heteroscedasticity Test Results

How to predict the presence or absence heteroscedasticity on a model can use test scatterplot. Results of regression test 1 shows that the influence of Contribution of Regional Revenue (PAD), General Allocation Grant (DAU) to capital expenditure (BM) heterokedastisity problem does not occur. This is evidenced by dots spread randomly and high spread above or below the number 0 on the Y axis is irregular and does not form a specific pattern, so it was concluded that this test does not happen heterokedastisity problem.
Regression test 2 shows that the influence of Contribution of Regional Revenue (PAD), General Allocation Grant (DAU) to Economic Growth (PDRB) heteroscedasticity problem does not occur. This is evidenced by dots spread randomly and high spread above or below the number 0 on the Y axis is irregular and does not form a specific pattern, so it was concluded that this test does not happen heteroscedasticity problem.

**Regression Analysis**

Regression analysis is needed to determine the regression coefficients and significance so that it can be used to answer the hypothesis, and to find out the direct and indirect effects of the independent variable on the dependent variable. In general the formulation of regression analysis can be written as follows:

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>Statistics Collinearity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>48.786</td>
<td>71.631</td>
</tr>
<tr>
<td></td>
<td>CRR (PAD)</td>
<td>.434</td>
<td>.134</td>
</tr>
<tr>
<td></td>
<td>GAG (AU)</td>
<td>.316</td>
<td>.149</td>
</tr>
</tbody>
</table>

a. Dependent Variable: CE (BM)

Based on table 5 the regression equation I is:

\[
CE (BM) = -48.786 + 0.434 \text{CRR (PAD)} + 0.316 \text{GAG (DAU)}
\]

The explanation of the regression equation is as follows:

a. The constant (a) is -48,786, this value means a decrease in CE (BM) with the CRR (PAD) assumption, GAG (DAU) has a fixed or constant value.

b. b1 CRR (PAD) regression coefficient of 0.434 means that if there is a one percent
increase in CRR (PAD), then CE (BM) will increase by 0.434%.

c. b2 GAG (DAU) regression coefficient of 0.316 means that if there is a one percent increase in GAG (DAU), then CE (BM) will increase by 0.316%.

Based on table 6 the regression equation I is:

\[ EG (PDRB) = -103.922 + 0.016 \text{ CRR (PAD)} + 0.57 \text{ GAG (DAU)} + 0.037 \text{ CE (BM)} \]

The explanation of the regression equation is as follows:

a. Constant (a) of -103.922, this value means a decrease in EG (PDRB) assuming CRR (PAD), GAG (DAU), and CE (BM) of fixed or constant value.

b. b1 CRR (PAD) regression coefficient of 0.016 means that if there is a one percent increase in CRR (PAD), then EG (PDRB) will increase by 0.016%.

c. b2 GAG (DAU) regression coefficient of 0.057 means that if there is an increase of one percent GA (DAU), then EG (PDRB) will increase by 0.057%.

d. b3 CE (BM) regression coefficient of 0.037 means that if there is an increase of one percent CE (BM), then then EG (PDRB) will increase by 0.037%

Hypothesis Test

Effect of CRR (PAD) on CE (BM)

Based on the calculations performed for the CRR (PAD) variable on CE (BM), the value of -0.434 is negative with significance of 0.003 <0.05, H0 is rejected and Ha is accepted, meaning there is a significant effect. With these results it can be interpreted that the test shows a significant negative effect between the variables CRR (PAD) on CE (BM) in Semarang in the period 2005 to 2017. The results of the research hypothesis I as a whole show that Contribution of Regional Revenue (PAD) can effect Capital Expenditure (BM), so Ho rejected. The results of this study support Arwati and Hadiati (2013); Oktriniatmaja (2011) concluded that Contribution of Regional Revenue (PAD) had an effect on Capital Expenditures (BM).

Effect of CRR (PAD) on EG (PDRB)

Based on the calculations performed for the CRR (PAD) variable on CE (BM), the value of -0.434 is negative with significance of 0.003 <0.05, H0 is rejected and Ha is accepted, meaning there is a significant effect. With these results it can be interpreted that the test shows a significant negative effect between the variables CRR (PAD) on CE (BM) in Semarang in the period 2005 to 2017. The results of the research hypothesis I as a whole show that Contribution of Regional Revenue (PAD) can effect Economic Growth (PDRB), so Ho rejected. The results of this study support Mawarni (2013); Putri (2015); Ulfı and Endrawati (2010); Sudarwadi (2015) and Hendriwijanto (2013). explaining that the Contribution of Regional Revenue (PAD) positive significant effect on Economic Growth (PDRB).
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Effect of GAG (DAU) on CE (BM)

Based on the calculations performed for the CRR (PAD) variable on CE (BM), the value of -0.434 is negative with significance of 0.003 < 0.05, H0 is rejected and Ha is accepted, meaning there is a significant effect. With these results it can be interpreted that the test shows a significant negative effect between the variables CRR (PAD) on CE (BM) in Semarang in the period 2005 to 2017. The results of the research hypothesis I as a whole show that Contribution of Regional Allocation Grant (DAU) can affect Capital Expenditure (BM), so Ho rejected. The results of this study support Tuasikal (2008) and Muis (2011), explaining that the Regional Allocation Grant (DAU) positive significant effect on Capital Expenditure (BM).

Effect of GAG (DAU) on EG (PDRB)

Based on the calculations performed for the GAG variable (DAU) against EG (PDRB), the value of 0.434 is positive with significance of 0.003 < 0.05, H0 is rejected and Ha is accepted, meaning that there is a significant effect. With these results it can be interpreted that the test shows a significant positive effect between the GAG variable (DAU) on EG (PDRB) in Semarang in the period 2005 to 2017. The results of the research hypothesis I as a whole show that Contribution of Capital Expenditure (BM) can effect Economic Growth (PDRB), so Ho rejected. The results of this study support Suah (2016), explaining that the Capital Expenditure (BM) positive significant effect on Economic Growth (PDRB).

Effect of CE (BM) on EG (PDRB)

Based on the calculations performed for the variable CE (BM) on EG (PDRB), the value of 0.434 is positive with a significance of 0.003 < 0.05, H0 is rejected and Ha is accepted, meaning there is a significant effect. With these results it can be interpreted that the test shows a significant positive effect between the variable CE (BM) on EG (PDRB) in Semarang in the period 2005 to 2017. The results of the research hypothesis I as a whole show that Contribution of Capital Expenditure (BM) can effect Economic Growth (PDRB), so Ho rejected. The results of this study support Tuasikal (2008) and Muis (2011). Similarly, the results of Putri’s research (2015), explaining that the Regional Allocation Grant (DAU) positive significant effect on Economic Growth (PDRB).

E. CONCLUSION

1. Contribution of Regional Revenue (PAD) directly effect on Economic Growth (PDRB) and Capital Expenditure (BM) showed significant results.
2. The General Allocation Grant (DAU) directly effect on Economic Growth (PDRB) and Capital Expenditure (BM) showed significant results.
3. The Capital Expenditure (BM) directly effect on Economic Growth (PDRB).
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