CAPITAL EXPENDITURE ANALYSIS IN DISTRICT AND CITY PROVINCE OF CENTRAL JAVA

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ABSTRACT
The demands of public accountability and transparency make local governments have to be able to optimize capital expenditures to improve public services and increase economic productivity, so that equitable development can be successful both at the center and the regions. The motivation of the research is to analyze capital expenditure in terms of the level of economic growth, regional revenue allocation, general allocation funds, special allocation funds, value for money (economical, efficient, effective). The type of causality and descriptive approach involves 29 districts and 6 cities in Central Java province for the 2014-2019 period using purposive sampling so that the number of observation data (n) = 210. The analysis technique uses panel data regression. The results of the study found that the level of economic growth had a negative and significant impact on capital expenditures for the allocation of local revenue, general allocation funds, special allocation funds had a positive and significant impact on capital expenditures. Economical has no impact on capital expenditures. Efficient has a negative impact on capital expenditures. Ratio analysis shows economic performance; efficient ratio indicates efficient performance and effective ratio indicates ineffective performance.

Keywords: capital expenditure, economic growth rate, local revenue allocation, value for money

PRELIMINARY
Regional autonomy policies require districts and cities to carry out the mandate in managing resources and balancing finances both at the center and the regions. The autonomy policy is intended to accelerate economic growth, improve services and minimize development disparities between regions. This triggers a new phenomenon with increasing demands for public accountability and transparency in financial management, which are expected to be pursued economically, effectively and efficiently. Thus, measurement is needed in assessing the accountability of an organization in order to create credible public services through capital expenditure analysis. Capital expenditure is one indicator in looking at economic productivity, the problem that occurs is the high need for infrastructure between regions but the government’s State Budget (APBN) is limited, although it has been increased by 25% of the capital expenditure budget from general transfer funds, but it is still lacking. This figure is still relatively small when compared to personnel spending or goods/services. Some regions are still not compliant with mandatory spending related to the infrastructure budget due to minimal fiscal capacity, regions still rely on central funding. Moreover, when COVID-19 occurred, the government relocated and refocused the Regional Revenue and Expenditure Budget (APBD) to overcome COVID-19, this meant reducing the budget for infrastructure, so public services were also not optimal (Ministry of Finance, 2020).

The motivation of this study is to analyze capital expenditures in the districts and cities of Central Java province, in terms of the level of economic growth, local revenue allocation, general allocation funds, special allocation funds, value for money (economical, efficient, effective). The
research contribution is to use panel data regression testing which has never been done before in either national or international journals. In addition, it combines value for money with a causal and descriptive approach that has never been done by previous researchers. The results of previous studies (Yovita and Utomo, 2011); (Salim, 2019) found that the level of economic growth had an impact on capital expenditure while (Puspita, 2019); (Syukri and Hinaya, 2019) found that on the contrary the level of economic growth had no impact on capital expenditures. According to (Salim, 2019); (Syukri and Hinaya, 2019) the allocation of local revenue has an impact on capital expenditure, in contrast to (Ndede et al., 2016); (Eksandy et al., 2015) who found that the allocation of local revenue had no impact on capital expenditures. According to (Hairiyah et al, 2018); (Eksandy et al., 2015) DAU has an impact on capital expenditure, in contrast to (Syukri and Hinaya, 2019); (Samudra and Sugeng, 2020) who found that the DAU had no impact on capital expenditures. According to (Ocean and Sugeng, 2020); (Hairiyah et al, 2018) DAK has an impact on capital expenditure, unlike (Syukri and Hinaya, 2019); (Eksandy et al., 2015) who say otherwise. According to (Perdana et al, 2020); (Indrayani & Khairunnisa, 2018) economic impact on capital expenditure, in contrast to (Enre, 2020); (Indriaswari, 2017) which states otherwise. According to (Ardhini and Handayani, 2011) efficiency has an impact on capital expenditure, in contrast to (Tamawiwy et al., 2016); (Indiyanti and Rahyu, 2018) who found the opposite. According to (Purnawati, 2017); (Ardhini and Handayani, 2011) effectively impact on capital expenditure, in contrast to (Indiyanti and Rahyu, 2018); (Tamawiwy et al., 2016) which states otherwise. Based on the research gap, it became the basis for researchers to conduct this research.

LITERATURE REVIEW

Stewardship Theory (Stewardship Theory)
This theory reflects the delegation of authority and responsibility of the party providing the mandate (principal) to the recipient (steward) to carry out activities in accordance with the principal's recommendations in order to achieve organizational goals on the basis of trust (Khasanah & Rahardjo, 2014).

Regional Financial Accounting
This accounting records events from economic transactions in an entity within the local government environment (Erlina et al., 2018). In local governments, there is a APBD which includes a plan for spending and income which is presented in the working year. APBD has a role as authorization, planning, supervision, allocation, distribution and stabilization (Minister of Home Affairs, 2006). Regional financial performance is reviewed from financial reports which will later be used as decision making (Mahmudi, 2019). Indicators of financial performance include: input, process, output, outcome as well as benefits and impact.

Capital Expenditure (Capital Expenditure)
Capital expenditure is part of the expenditure used to acquire fixed assets and other assets that can provide benefits for more than 1 accounting period. The types are land, equipment, machinery, buildings, buildings, roads, irrigation, roads, other fixed assets and on-going construction (Ministry of Finance DJ Fiscal Balance, 2020).

Economic Growth Rate
Economic growth is a series of processes starting from sustainable economic conditions leading to better conditions within a certain period of time. Economic growth provides a description of the factors that correlate with one another so that growth appears (Ministry of Finance Learning Center, 2018). The level of economic growth is represented by the Gross Regional Domestic Product (GRDP) which is used in assessing the total goods/services in a region. According to (Paul A. Samuelson, 2011) there are four things that are used as a source of economic growth, such as: human resources, natural resources, capital and technology.

**Allocation of Regional Original Revenue (PAD)**
Regional original income is revenue taken/collected in accordance with regional regulations and laws obtained from certain regions. PAD is intended so that regional governments can finance regional autonomy with all regional potentials for the realization of decentralization. The types of PAD are regional taxes, regional levies, the results of the management of separated regional assets, other legitimate regional original income (Ministry of Finance DJ Balancing, 2021).

**General Allocation Fund (DAU)**
DAU is a transfer fund originating from APBN revenues for regional equity in terms of finance to support decentralization. DAU is also regulated in Law No. 23 of 2014. DAU plays an important role in achieving public service standards. Types of DAU include: provincial DAU, district/city DAU. The function of the DAU is to overcome the vertical and horizontal fiscal imbalances of decentralization (Ministry of Finance DJ Fiscal Balance, 2021b).

**Special Allocation Fund (DAK)**
DAK is funding originating from APBN revenues distributed to regions to finance special activities based on national urgency (Ministry of Finance DJ Fiscal Balance, 2021a). The DAK distribution mechanism consists of several criteria, such as: general, specific and technical criteria (Wikipedia, 2021).

**Value For Money (VFM)**
VFM is a three-element concept (economy, efficiency and effectiveness) used to assess the management of a public sector organization. VFM is a form of appreciation for money, which means that every rupiah must be properly appreciated and used properly (Mardiasmo, 2018b:5). According to (Putro & Wirawati, 2015) VFM is a forum for achieving good governance for local governments that is transparent, economical, efficient, effective and accountable, so that VFM is needed as a support for regional fund management. Economical is an effort to reduce costs by maintaining quality. Efficiency is the correlation of output and input. Effectiveness is how much the goal is achieved with the output obtained (Mardiasmo, 2018b:5).
RESEARCH METHODS

This research is a quantitative study with a combination of causality and descriptive approaches, using secondary data. The population is all districts and cities of Central Java province for the 2014-2019 period. Using purposive sampling, 35 samples were obtained with a total of 210 observational data. The data collection technique was obtained from the annual report of LHP LKPD (Report on the Results of Examination of Regional Government Financial Statements) in Central Java Province for the 2014-2019 period which we obtained via https://e-ppid.bpk.go.id/ in which there is a Realization Report of the Regional Revenue and Expenditure Budget consisting of Capital Expenditures, Regional Original Revenues, General Allocation Funds, Special Allocation Funds and data related to Value For Money. In addition, other secondary data is the GRDP (Gross Regional Domestic Product) of Central Java Province Districts and Cities for the 2014-2019 period which we downloaded through the Central Statistics Agency (BPS) on the https://www.bps.go.id/publication page. html. The data analysis technique starts from descriptive statistics, using panel data regression through the selection of regression model estimates (Chow test, Hausman test and LM test), followed by classical assumption testing (normality test, multicollinearity test, autocorrelation test and heteroscedasticity test), model feasibility testing (coefficient of determination and F test), hypothesis testing (t test).

Operational definition

1. Capital Expenditure
   Capital Expenditure = Land Expenditure+Shopping for Equipment and Machinery+Shopping for Buildings and Buildings+Shopping for Irrigation Roads and Networks+Shopping for Other Assets (Ministry of Finance, 2011)
2. Economic Growth Rate
TPE = \( \frac{(GRDP_t - GRDP - 1)}{(GDP_{rt} - 1)} \times 100\% \) (Central Bureau of Statistics, 2021)
Information:
TPE = Economic Growth Rate
GRDP_t = Gross Regional Domestic Product for the Year
GRDP - 1 = Previous Year’s Gross Regional Domestic Product

3. Allocation of Local Owned Revenue
APAD = \( \frac{(Total \ Realized \ Regional \ Original \ Revenue)}{(Total \ Realized \ Regional \ Revenue)} \times 100\% \) (Kurniasari, 2019)

4. General Allocation Fund
DAU = Base Allocation + Fiscal Gap (Wikipedia, 2021)
Information:
AD = Projected Regional Civil Servant Salaries (PNSD) in the next year
CF = Fiscal Need (KbF) - Fiscal Capacity (KpF)
KbF = Total Regional Expenditure (TBD) x ((% Total Population) + (% Area) + (% Inverse Human Development Index (IPM)) + (% Construction Cost Index (IKK)) + (% Gross Regional Domestic Revenue)
KpF = (% Local Revenue) + (% Revenue Sharing Fund)

5. Special Allocation Fund
KU = (PAD+DAU+DBH-DBH DR) - Regional PNSD Salary Expenditures with KU below the national average KU are the priority areas to get DAK (Wikipedia, 2021)
Information:
KU = General criteria
PAD = Regional Original Income
DAU = General Allocation Fund
DBH = Profit Sharing Fund
DBH DR = Reforestation Fund Profit Sharing

6. Economical
Economic ratio = \( \frac{(Input)}{(Input \ Value)} \times 100\% \) (Halim & Kusufi, 2016:129)
Information:
Input = Spending Realization
Input Value = Budget
Assessment criteria: Economical (X < 100%), Economical Balanced (X = 100%), Not economical (X > 100%)

7. Efficient
Efficient ratio = \( \frac{(Output)}{(Input)} \times 100\% \) (Halim & Kusufi, 2016:129)
Information:
Output = Budget Revenue
Input = Actual Shopping
Assessment criteria: Efficient (X > 100%), Efficient Balanced (X = 100%), Inefficient (X < 100%)
8. Effective
Effective ratio = (Outcome / Output) x 100% (Hamid et al., 2019)
Information:
Outcome: Realized Revenue
Output: Revenue Budget
Assessment criteria: Effective (X > 100%), Effective balanced (X = 100%), Not Effective 100% (X < 100%)

RESULTS AND DISCUSSION
Research result
Descriptive statistics
Table 1. Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>BEM</th>
<th>TPE</th>
<th>APD</th>
<th>DAU</th>
<th>DAK</th>
<th>EKO</th>
<th>EFI</th>
<th>EFE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>26.51449</td>
<td>8.925310</td>
<td>17.02711</td>
<td>27.52740</td>
<td>25.82762</td>
<td>88.76981</td>
<td>111.2766</td>
<td>100.1879</td>
</tr>
<tr>
<td>Maximum</td>
<td>27.87425</td>
<td>22.25700</td>
<td>45.26100</td>
<td>27.99360</td>
<td>26.90497</td>
<td>114.8720</td>
<td>141.6160</td>
<td>177.3780</td>
</tr>
<tr>
<td>Minimum</td>
<td>24.67414</td>
<td>0.159000</td>
<td>8.753000</td>
<td>26.69129</td>
<td>22.04505</td>
<td>66.92100</td>
<td>66.90700</td>
<td>75.58900</td>
</tr>
<tr>
<td>Std. Dev.</td>
<td>0.468328</td>
<td>1.956934</td>
<td>6.050149</td>
<td>0.305194</td>
<td>0.833719</td>
<td>5.897142</td>
<td>11.82056</td>
<td>6.998886</td>
</tr>
</tbody>
</table>

This deviation means that the distance between the data for each variable is small (not varied). The lowest value of capital expenditure was 24.67 in Rembang regency in 2015 period, the highest value was 27.87 Semarang city in 2017. The lowest value of economic growth rate was 0.15 in Cilacap district in 2016 period, while the highest value was 22.25 Blora district in 2015. Allocation of local revenue the lowest score was 8.75 klaten district for the 2015 period, while the highest value was 45.26 for the semarang city for the 2019 period. The lowest value general allocation fund was 26.69 Tegal city for the 2014 period, the highest value was 27.99 banyumas district for the 2019 period. The lowest value was the special allocation fund 22 .04 Surakarta city in 2015 period, while the highest value was 26.90 Cilacap district in 2016. Economically, the lowest value was 88.76 Salatiga city in 2015 period, while the highest value was 114.87 Tegal district in 2019. Efficient lowest value was 66.90 Semarang district in 2019 period , the highest value is 141.61 klaten district for the 2019 period. Effectively the lowest value is 75.58 semarang city period 2014, the highest value is 177.37 semarang district 2019 period.

Table 2. Description of Value For Money (VFM)

<table>
<thead>
<tr>
<th>Economical</th>
<th>Efficient</th>
<th>Effective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economical : 98.1 %</td>
<td>Efficient : 83.3 %</td>
<td>Effective : 47.1 %</td>
</tr>
<tr>
<td>Balanced Economy : 0 %</td>
<td>Balanced Efficient: 0 %</td>
<td>Balanced Effective : 0.5 %</td>
</tr>
<tr>
<td>Not Economical : 1.9 %</td>
<td>Not Efficient : 16.7 %</td>
<td>Not Effective: 52.4 %</td>
</tr>
</tbody>
</table>

In table 2, the districts/cities of Central Java Province show economic and efficient performance but are not effective.
Regression Model Selection Test Results

Chow test
Table 3. Chow Test Results

<table>
<thead>
<tr>
<th>Test Type</th>
<th>Result</th>
<th>Cross-section F</th>
<th>Cross-section Chi-square</th>
<th>Analysis</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chow Test</td>
<td>0.000</td>
<td>0.000</td>
<td>&lt; 0.05</td>
<td></td>
<td>Fixed Effect Model</td>
</tr>
</tbody>
</table>

Hausman test

Table 4. Hausman Test Results

<table>
<thead>
<tr>
<th>Test Type</th>
<th>Result</th>
<th>Analysis</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hausman Test</td>
<td>0.3821</td>
<td>&gt; 0.05</td>
<td>Random Effect Model</td>
</tr>
</tbody>
</table>

Lagrange Multiplier (LM) Test

Table 5. LM Test Results

<table>
<thead>
<tr>
<th>Test Type</th>
<th>Result</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>LM Test</td>
<td>See the results of the Chow Test and Hausman Test</td>
<td>Random Effect Model</td>
</tr>
</tbody>
</table>

Based on tables 3 and 4, it is concluded that the model follows the REM (Random Effect Model). This REM will be used in the panel data regression model.

Classic Assumption Test Results

Normality Test, Multicollinearity Test

Table 6. Normality and Multicollinearity Test Results

<table>
<thead>
<tr>
<th>Normality test</th>
<th>Multicollinearity Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jarque-Bera 1.977</td>
<td>TPE Centered VIF : 1.524619</td>
</tr>
<tr>
<td>Probability 0.372</td>
<td>APD Centered VIF : 1.219739</td>
</tr>
<tr>
<td>LOGDAU Centered VIF : 1.545884</td>
<td></td>
</tr>
<tr>
<td>LOGDAK Centered VIF : 2.235536</td>
<td></td>
</tr>
<tr>
<td>Probability &gt; 0.05 then residual data is normally distributed</td>
<td></td>
</tr>
<tr>
<td>EKO Centered VIF : 1.263978</td>
<td></td>
</tr>
<tr>
<td>EFI Centered VIF : 1.640194</td>
<td></td>
</tr>
<tr>
<td>EFE Centered VIF : 1.221857</td>
<td></td>
</tr>
<tr>
<td>(Centered VIF &lt; 10, Then there is no multicollinearity)</td>
<td></td>
</tr>
</tbody>
</table>

Table 6 shows that the results of the normality test are normal (0.372 > 0.05) meaning that the residual data has a normal distribution, while the results of the multicollinearity test found that there was no multicollinearity (all variables had centered VIF < 10).
Autocorrelation Test and Heteroscedasticity Test

Table 7. Autocorrelation and Heteroscedasticity Test Results

<table>
<thead>
<tr>
<th>Autocorrelation Test</th>
<th>Heteroscedasticity Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Durbin Watson stat : 2.0152, K=7, du = 1.83057, dl =1.70713</td>
<td>TPE Prob : 0.0646</td>
</tr>
<tr>
<td>N = 210 becomes 208 (outlier)</td>
<td>APD Prob : 0.6355</td>
</tr>
<tr>
<td></td>
<td>LOGDAU Prob : 0.5511</td>
</tr>
<tr>
<td></td>
<td>LOGDAK Prob : 0.3410</td>
</tr>
<tr>
<td></td>
<td>EKO Prob : 0.5118</td>
</tr>
<tr>
<td></td>
<td>EFI Prob : 0.7611</td>
</tr>
<tr>
<td></td>
<td>EFE Prob : 0.2284</td>
</tr>
</tbody>
</table>

Table 7 shows the results of the autocorrelation test du < DW < 4 - du, namely: 1.83057 > 2.0152 < 2.1694), this means that there is no autocorrelation, so the regression model is feasible to use. On the results of the heteroscedasticity test the value of prob. > 0.05 this means that there is no heteroscedasticity in all independent variables.

Model Feasibility Results and Hypothesis Test Results

Coefficient of Determination Test Results, F Test Results, t Test Results

Table 8. Determination Coefficient Test Results, F Test Results and Hypothesis Testing

<table>
<thead>
<tr>
<th>Coefficient Determination Test Results</th>
<th>F Test Results</th>
<th>Hypothesis Test Results (t Test)</th>
<th>t-statistic</th>
<th>Prob value.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adjusted R-squared : 0.749721</td>
<td>Prob (F-statistic) : 0.000000</td>
<td>TPE -2.086139</td>
<td>0.0382</td>
<td></td>
</tr>
<tr>
<td></td>
<td>F-statistic : 69.897</td>
<td>APD 4.187426</td>
<td>0.0000</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>LOGDAU 11.48198</td>
<td>0.0000</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>LOGDAK 4.947073</td>
<td>0.0000</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>EKO 1.219025</td>
<td>0.2243</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>EFI -3.975624</td>
<td>0.0001</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>EFE -2.226148</td>
<td>0.0271</td>
<td></td>
</tr>
</tbody>
</table>

Table 8 shows the Adjusted R-Squared 0.7497, this means that 74.97% of the independent variables can predict capital expenditures. Meanwhile, the remaining 25.03% is explained by other factors that the researcher did not observe. The results of the F test of 0.00 <0.05 means that there is a joint influence between the independent variable and the dependent variable, so that the research model is said to be fit (feasible), this also answers the 1st hypothesis. The results of the t-test explain that the level of economic growth, efficiency and effectiveness has a negative and significant impact on capital expenditures, while the allocation of local revenue, general allocation funds, special allocation funds has a positive and significant impact on capital expenditures. Economical has no impact on capital expenditures.

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