

The Determinant Factors of Capital Expenditure

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ABSTRACT

This study examines the determinant factors of capital expenditure government, through local own-source revenue, revenue-sharing fund, general allocation fund, and special allocation fund. The data was collected from 23 provincial governments in Indonesia. The method used is multiple regression in provincial government in 2010-2019. The regression results support all hypotheses, but not the fourth hypothesis. This study shows that the provincial government cannot be autonomous and need funding from the central government. This study offers a robust link between local own-source revenue and balance funds by examining how their interaction produces a variation in the level of capital expenditure.

Keywords: local own-source revenue, revenue-sharing fund, general allocation fund, special allocation fund, capital expenditure

INTRODUCTION

Since the reform system was initiated in 1998, there has been a change in the government system from centralization to decentralization in Indonesia. Understanding the spatial variation of public funds allocation is essential because it speaks to the question of whether public funds are being used to strengthen neighborhoods and reduce inequities, or supports a development infrastructure (Talen & Anselin, 2021). Government public spending depends on individuals' propensity for income and wealth redistribution through the democratic process (Bellani & Scervini, 2020). The principle of regional autonomy is implemented by the Indonesian Government after the reformation in this country. The activities that have been done by the government have changed from centralization to decentralization so that the local government does not depend on the state government and the local government can take their rights and obligations independently and autonomously (Pemerintah Indonesia, 2014). Mentayani & Rusmanto (2013) explained that regional autonomy is implemented in the authority of local government to manage and develop their region. The grant of autonomy to the local government is aimed to accelerate the realization of community welfare by improving service, empowerment, and public participation (Rifai, 2017). The regional autonomy makes reformation of various government fields, including capital expenditures (Sholikhah & Wahyudin, 2014).

Rizal & Erpita (2019) explained that the regional government allocating the fund in the form of a local government budget to increase the fixed assets. This capital expenditure allocation is based on the regional needs of facilities and infrastructure, either for the implementation of government duties and for public facilities. The scale and structure of public expenditure for productive investments by local governments will probably have a strong effect on economic

growth as well as other advantages (Gao, 2019). According to Priambudi (2017), capital expenditure is related to long-term financial planning, particularly in funding the maintenance of fixed assets generated from each of the public's money by managing all regional cash to be used for public services in the regions. To develop the regional potential, the local government needs to increase the capital expenditure budget, the source of funds to fund the capital expenditure, which consists of local own-source revenue, revenue-sharing fund, general allocation fund, and special allocation fund (Wandira, 2013).

Despite its importance, little research on capital expenditure has been published: recent studies have focused on local own-source revenue (Mentayani & Rusmanto, 2013; Pelealu, 2013; Suryani & Pariani, 2018; Wertianti & Dwirandra, 2013), revenue sharing fund (Rifai, 2017; Sholikhah & Wahyudin, 2014; Susanti & Fahlevi, 2016; Wandira, 2013), general allocation fund (Priambudi, 2017); Wandira, 2013; Juniawan & Suryantini, 2018; Mentayani & Rusmanto, 2013), and special allocation fund (Juniawan & Suryantini, 2018; Nuarisa, 2013; Syukri & Hinaya, 2019).

Driven by these research gaps, this study explores capital expenditure through four important determinants, namely local own-source revenue, revenue-sharing fund, general allocation fund, and special allocation fund. Especially, this study is intended to assess the direct effect on capital expenditure. This study conducted by provincial governments in Indonesia has a capital expenditure ratio under average as national.

This study is written in several sections. In the next section, this study provides relevant literature reviews to further develop the research hypotheses. In the third section, this study discloses the methodology that is appropriate to meet the research objectives herein. Results of data analysis are shown in the third section and discussion part. In the last section, a conclusion is provided with managerial implications, limitations, and potential topics for future research studies.

According to Suryani & Pariani (2018), fiscal decentralization grants great authority to the region to explore their potential as the source of local revenue to fund local expenditure in the context of public services. Local own-source revenue is a routine revenue obtained by utilizing the potencies of regional financial sources to fund their duty and responsibility to provide flexibility to the local government to fund the implementation of regional autonomy based on the regional potential (Wertianti & Dwirandra, 2013).

The enhancement in the investment of the capital expenditure is expected to be able to improve the public quality and in turn be able to increase the level of public participation in development, which is reflected in an increase of the local own-source revenue so that the development of public sector facilities will be affected on increasing the local own-source revenue (Pelealu, 2013; Mentayani & Rusmanto, 2013). Thus, in the context of local own-source revenue towards capital expenditure, the following hypothesis is formulated:

H₁: Local own-source revenue affects capital expenditure.

The transferred revenue sharing fund by the state government to local government consists of some types, such as revenue sharing fund of tax, revenue sharing fund of land and building tax, revenue sharing fund of tobacco product excise, revenue sharing fund of oil and gas, revenue sharing fund of natural resources, and revenue sharing fund of income tax (Susanti & Fahlevi, 2016). Revenue sharing fund is the potential sources of local income and one of the basic assets of the Local Government in obtaining the development fund and fulfilling the local expenditure that does not come from the local own-source revenue, except general allocation fund and special allocation fund (Sholikhah & Wahyudin, 2014).

The local government will be able to determine the larger capital expenditure if the revenue sharing budget is larger as well, likewise, the smaller capital expenditure will be determined if the revenue sharing budget is getting smaller (Wandira, 2013). Based on this discussion, the relationship among revenue sharing fund and capital expenditure are hypothesized as follows:

H₂: Revenue sharing fund affects capital expenditure.

According to Priambudi (2017) that one of the balance fund forms is the general allocation fund which allocation emphasizes the equality aspect and justice that are under the administration of government affairs, and it is expected that with a transfer from the state government, the local government will be able to allocate the local own-source revenue which they get to fund the capital expenditure. General Allocation Fund is a fund that comes from the allocated state budget with the aim of financial equality between regions to fund the expenditure needs in the context of decentralization implementation (Wandira, 2013; Juniawan & Suryantini, 2018).

Mentayani & Rusmanto (2013) explained that the role of general allocation fund is for horizontal equalization by covering the fiscal gap between financial needs and the local economic potential. Accordingly, the following hypothesis is formulated as follow:

H₃: General allocation fund affects capital expenditure.

Juniawan & Suryantini (2018) stated that a special allocation fund is a fund sourced from the state budget for certain regions to fund the specific needs that comprise the regional needs and under the national program. This funding is prioritized for certain regions that meet the criteria for obtaining additional funds from the state government through the special allocation fund. Special Allocation Fund, which is a part of the balanced fund, is a fund that comes from the allocated state budget for the region to fund regional needs in the context of development implementation (Syukri & Hinaya, 2019).

With the allocation of the special allocation fund, it is expected that it can affect capital expenditure because the special allocation fund tends to increase the fixed assets owned by the government to improve public services (Nuarisa, 2013). Thus, the following hypothesis special allocation fund and capital expenditure is proposed:

H₄: Special allocation fund affects capital expenditure.

The capital expenditure ratio is used to measure the share of capital expenditure spent on total local expenditure in providing the services to the public. Capital expenditure is a type of expenditures used for procurement of tangible fixed assets that have the benefit of more than 12 months to be used in government activities, for example, land purchases, building construction, and road improvements. Rifai (2017) explains that by transferring funds from the state government, it is expected that the local government can allocate more of the local own-source revenue they get to fund the capital expenditure in their regions.

Several studies have tried to measure capital expenditure. The past studies (Juniawan & Suryantini, 2018; Mentayani & Rusmanto, 2013; Sholikhah & Wahyudin, 2014; Nuarisa, 2013), the local own-source revenue has an effect on the capital expenditure. Then, the studies (Sholikhah & Wahyudin, 2014; Susanti & Fahlevi, 2016; Wandira, 2013) explained that revenue sharing fund affects capital expenditure.

The other studies explained that general allocation fund affects capital expenditure (Priambudi, 2017; Suryani & Pariani, 2018; Wandira, 2013). Lastly, the study on a factor that affected capital expenditure is special allocation fund, and the result is special allocation fund affects capital expenditure (Nuarisa, 2013; Wandira, 2013). This discussion suggests that the link

between local own-source revenue, revenue-sharing fund, general allocation fund, and special allocation fund to capital expenditure.

H₅: The relationships between the constructs tested are significantly on capital expenditure.

METHODS

The population of this research is the provincial government in Indonesia. The sampling technique used in this research is nonprobability sampling by using non-probability sampling and the sample capital expenditure ratio below the national average. In 2017, there was 14 provincial government that had ratios below the average value. Meanwhile, in 2018, there was 16 provincial government that had ratios below the average value so sampling this study 23 provincial government.

The research period is 9 years by using panel data analysis, thus the amount of observation is 230 by taking the data from the website of the Directorate General of Fiscal Balance Ministry of Finance of the Republic of Indonesia. In collecting the data classified the type and technique of data collection. The type of data chosen in this research is secondary data and the data collection technique chosen is documentation technique. As seen from the period of data collecting, it is time-series data, which is the data that had been collected for years starting from 2010 to 2019.

Data normality has become the main requirement in this research. It is tested with the Kolmogorov-Smirnov test. If the data generated is not normal, this means that the requirement has not been met, so the next step is adjusting the data by changing it in the Z-Score (O'Neill & Stern, 2012; Tasdan & Yeniay, 2014). The multiple regression equation models as follows:

$$\text{Capital Expenditure} = \alpha + \beta_1 \text{ Local Own-Source Revenue} + \beta_2 \text{ Revenue Sharing Fund} + \beta_3 \text{ General Allocation Fund} + \beta_4 \text{ Special Allocation Fund} + \epsilon$$

The classic assumption test started with testing the model normality to analyze whether the regression model will be normally distributed or close to normal. Then, the existence of heteroscedasticity in the data can be tested with the Glejser test (Gujarati, 2004; Priyatno, 2014). Besides, we used the multicollinearity test to identify whether the independent variables have a mutual correlation or not. If the tolerance value more than 0.10 and the VIF does not reach 10, so there is no multicollinearity between independent variables. The autocorrelation test is a measure for determining the existence of autocorrelation problem using Durbin-Watson (DW) if $4 - DW < DW < 4 - dL$, so the autocorrelation on the regression model is not available (Ghozali, 2016; Priyatno, 2014).

The structural equation or also called structural model is if each of dependent variable (Y) circumstances uniquely are determined by a set of an independent variable (X). Hypothesis testing can use the F-test and the T-test. F-test is used for testing the influence of independent variables on dependent variables simultaneously. Gujarati (2004) states that the T-test is used for determining whether the independent variables partially affecting the dependent variable or not.

To determine how much the proportion of the variance value in the independent X variable defines the variance value in the Y variable, it can be known through the coefficient of determination (R^2). As stated by Gujarati (2004) that R^2 can be used for finding out the proportion of donations from independent variable towards dependent variable. The coefficient of determination aims to measure the simultaneous influence of the X variable on the Y variable. The coefficient of determination is between 0 and 1. If the R^2 approaches 1, this means the independent X variable increasingly influential in defining the dependent Y variable. Otherwise, if the R^2 approaches 0, this means the independent X variable's influence on the independent Y variable.

In testing the relevance of the capital expenditure determinant, it is using a statistical test (Ghozali, 2016; Gujarati, 2004; Sekaran & Bougie, 2016). The test used is the one-tailed test. The criteria of testing are if $p\text{-value} < 0.05$, this means the capital expenditure of the provincial government is not relevant with local own-source revenue, revenue-sharing fund, general allocation fund, and special allocation fund. Otherwise, if $p\text{-value} > 0.05$ this means the capital expenditure of the provincial government is relevant with local own-source revenue, revenue-sharing fund, general allocation fund, and special allocation fund.

RESULTS AND DISCUSSION

Normality testing is useful for examining whether the data is normally distributed or outside of it. The test was performed with a confidence level of 5%. Table 1 describes the test result in detail. The test result of the examination in Table 1 shows that Asymp.Sig value is 0.139. The result of the equation model normality test shows that it is higher than the confidence degree $\alpha=0.05$. Thus, the theoretical approach to capital expenditure can be stated as normally distributed.

Table 1. One Sample Kolmogorov-Smirnov Test

Asymp Sig (2 tailed)	Sig
0.139	0.05

Next, the ordinary least square is performed to recognize the equation models by using the best linear unbiased estimator. This result can be reviewed in Table 2. In Table 2, besides the normality model fulfilled, there is also no heteroscedasticity in the capital expenditure equation. This result is indicated by all the variables coefficients have a significance level of more than 0.05. In the analysis of the multicollinearity test, it is stated that each of the independent variables in the regression equation has a tolerance level of more than 0.10 and VIF value < 10 , thus it shows that it is independent of multicollinearity in all regression equations. In the model, there is also no autocorrelation, as indicated by $DU < DW < 4\text{-dL}$, where the model is 1.671 (between 1.592 and 1.758).

Table 2. Ordinary Least Square

	Tolerance	VIF	Durbin Watson
Constant			1.671
PAD	0.417	2.391	
DBH	0.807	1.240	
DAU	0.410	2.441	
DAK	0.318	3.143	

The results of this study confirm the significant importance of local own-source revenue, revenue-sharing fund, general allocation fund, and special allocation fund simultaneously to capital expenditure in provincial government (H_5). First, the results point out that local own-source revenue positively affects capital expenditure. This result is coherent with past studies, which underline the impact of local own-source revenue on capital expenditure (Juniawan & Suryantini, 2018; Sholikhah & Wahyudin, 2014; Nuarisa, 2013; Priambudi, 2017; Wertianti & Dwirandra, 2013). This indicates that the benefits from local own-source revenue provide authority to the provincial government to fund the implementation of regional autonomy under the regional potential as a manifestation of decentralization. Thus, there is support for hypothesis H_1 .

Second, this study suggests that a revenue-sharing fund makes a significant contribution to capital expenditure. Therefore, hypothesis H_2 is partially supported. This study corroborates with

past studies on the positive effect of revenue sharing funds on capital expenditure (Sholikhah & Wahyudin, 2014; Susanti & Fahlevi, 2016; Wandira, 2013). This result indicates that the behaviour of capital expenditures is greatly affected by the source of revenue sharing funds. A revenue-sharing fund is a component of a balanced fund that becomes one of the supporting factors for capital expenditures that comes from tax and regional natural resources (Sholikhah & Wahyudin, 2014). Local revenue, which is a revenue-sharing fund from the central government, demands the local government to develop and prosper their people by managing the regional wealth proportionally and professionally, and building sustainable infrastructure, one of them is allocating the budget to the capital expenditure sector (Rifai, 2017).

Third, the next findings show general allocation fund has a positive and significant on capital expenditure. The previous studies also support this research finding that confirms H₃ that general allocation fund an effect on capital expenditure (Juniawan & Suryantini, 2018; Nuarisa, 2013; Priambudi, 2017; Suryani & Pariani, 2018). The relation of regional infrastructure development is because the general allocation fund sent from the central government and used by local government is intended to fund local government activities or program through local expenditure, especially on capital expenditures (Juniawan & Suryantini, 2018). Therefore, the general allocation fund encourages the local government to obtain more of this fund so that it will have an impact on capital expenditure activities implemented by the local government.

Lastly, this study discloses that the consequence of special allocation funds on capital expenditure is insignificant. Besides, the last study also confirms the H₄, which lend support with past studies (Syukri & Hinaya, 2019) reporting not impact of special allocation fund on capital expenditure. It means that special allocation fund is not one of the determining factors of the formulation of the expenditure budget on Local Government. The special allocation fund is large so that it will do not have an impact on the capital expenditure budget management of a local government.

Special allocation fund not an effect on capital expenditure indicating that special allocation fund is more used to fund the personnel expenditure. In realizing the budget for operational activities, especially personnel expenditure, is still very high and dominating when compared to the amount of realization for capital expenditure. The balancing fund transferred by the central government to local government is mostly used to cover the operational expenditure compared to capital expenditure (Sholikhah & Wahyudin, 2014).

CONCLUSION

From a government perspective, this study demonstrates the important impact of local own-source revenue, revenue-sharing fund, and general allocation fund on capital expenditure. The findings of this study suggest that it is important for the provincial government to focus on increasing local own-source revenue as this is the key success. Thus, the decentralization era began in 1999, the provincial government is need by the central government. This study implies that balanced funds such as revenue sharing funds and general allocation funds from the central government affect expenditure allocation for the provincial government.

While this study provides some important findings, this study has carried some limitations which can be addressed in future researches. First, this study focuses on the provincial government in Indonesia, limiting the generalization of the findings. Thus, the sample of this study is not fully typical of local government. This issue can be solved by replicating this study in different provincial

and regency governments. Second, this study used a relatively small sample size which not allowing the authors to run a more powerful statistical analysis, such as Structural Equation Modeling (SEM). It is encouraged for future researchers to enlarge the sample size for more statistical results. Last, besides local own-source revenue, revenue-sharing fund, and general allocation fund that were found to directly impact on capital expenditure, it is also to identify other constructs beyond variables used in this study such as local taxation, local retribution, local own source assets, and other lawful local revenue factors which have a potential effect on capital expenditure.

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