
Effect of Government Investment and Capital Participation on Local Own-Source Revenue: The Case of Indonesia

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Abstract:

This research aims to investigate the implications of regional asset growth, intangible assets and capital participation to the local revenue as a moderating variable. This study offers a new insight on examining the role of government income sources in improving the local government revenue, and by combining with quantitative method to examine the regional financial performance of West Java Provincial Government between 2012 and 2016.

The study examines whether the capital participation of local government on the local state-owned enterprises influences the government income. This is considered interesting to examine, regarding the fact that there is a common perception that the duties of local government are only to exercise public service and run the central government policy.

The sample used in this study includes the entire districts and municipalities that present information consistently during the research period. The data analysis was conducted using the Moderated Regression Analysis, which focus on the absolute difference test.

The results of this research show that the growth of fixed assets has a significant positive effect on regional revenue, while the growth of fixed assets moderated by the inclusion of capital has an insignificant effect on the regional revenue.

Keywords: *Growth of Asset, Intangible Investment, Capital Participation, Balancing Funds, Local Revenue.*

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1. Introduction

The improvement of the regional asset and financial management system, which has been quite successfully implemented in Indonesia through a system of regional autonomy and fiscal and financial decentralization, has raised serious concerns about the need to be a more professional management. This, that also refers to a modern financial management reform, is expected to give more priority to good governance which is expected to increase public trust in the management of state and regional assets. There are many empirical evidences that the modern management of government assets has profound impact on the success of public services in many countries.

Conducted on Italian local governments, Anessi-Pessina and Steccolini (2007) stated there is a significant influence of budget management on accrual accounting. Broadbent and Guthrie (2008) discuss the relationship between public service and public accounting with a result of positive correlation. Bergmann (2012) in his research in Switzerland demonstrated the effects of government accounting on reporting systems used in public decision making. Likewise, Dan Fölster and Henrekson (2001) examine the growth of regional spending and local taxes that can increase government wealth. Loizides and Vamvoukas (2005) found that government spending was positively associated with economic growth, while Landau (1983) also addressed the same issues as cross-country approaches. Accordingly, in some developing countries, such as regional governments in Indonesia need to examine the seriousness of local government in managing the budget and regional income as done in some developed countries.

In addition to improving fixed assets to obtain maximum revenue, in order to obtain maximum benefits and benefits for the management of regional state-owned enterprises, it is very necessary good entrepreneurship spirit among local governments, especially regional executives as a major shareholder of regional enterprises. Such problems like this happen in many regions because it always spins on inefficiency issues, and weak implementation of good corporate governance.

Furthermore, the problems are also faced by state-owned enterprises. Since local state-owned enterprises in Indonesia still faces many complicated issues, it is recognizable the importance of local property acquisition for the purpose of utilizing the assets of the West Java Provincial Government, which is included in the cycle of management of regional goods as mandated in the Minister of Home Affairs Regulation No. 17 of 2007 on the technical guidelines for the management of regional property, stating that an assessment of the utilization of the lease on the assets producing the income is absolutely necessary. The problem is in terms of governance, institutions are still treated the same with government institutions. With various constraints faced by both central and local government, this paper intends to conduct research with the quantitative approach in examining the role of regional

asset growth, capital participation and transfer funds from central government on the improvement of regional revenue.

2. Theoretical Review and Hypothesis Development

Previous studies have revealed the conceptual relationship of the local revenue growth with the local government own-source revenue. Hertanto and Sriyana (2014) stated that the number of industries, residents, and GRDP has a significant effect on the local revenue in the districts and cities in West Java. Thus, it can be stated that the asset value growth has a significant effect on the regional income. Based on the above study, the following hypothesis can be developed.

H1: Growth of regional income has a significant effect on own-source revenue.

The growth of regional asset is defined as an increase in the value of an asset from a so-called regional / organizational wealth. If this increase occurs, it will have an effect on the region's rising incomes. Lin and Liu (2000) stated that asset investment has a positive effect on local revenue. In addition to efforts to increase local assets, local governments are also focused on increasing local revenues by investing their assets / capital in local owned enterprises. Thus, the inclusion of local state-owned enterprises through capital inclusion from local government is able to increase local income moderated by capital participation. Based on the above study, the following alternative moderation hypothesis can be developed.

H1m: Regional asset growth moderated by equity participation has a significant effect on own-source revenue.

Balancing funds in Indonesian context are funds sourced from state budget revenues allocated to an autonomous region to fund regional needs in the context of decentralization system implementation. Shelton (2007) in his research stated that size along with composition as measured by total assets is part of government spending. Therefore, the greater the composition of assets invested in regional-owned enterprises, the higher the increase of local revenues derived from central government transfers. Based on the above study, the second hypothesis can be developed.

H2: Regional asset growth has a significant effect on balancing funds.

In the context of the relationship of regional asset growth that is moderated by equity participation with balancing funds, the growth of a capital asset moderated by equity participation reflects the effectiveness of regional revenue expansion as projected as a balance fund or transfer fund from the central government through the activities of a regional-owned enterprise. Furthermore, Reinikka and Svensson (2004) state that local governance supported by central government transfers can improve a country's economy (Shekhovtsov and Shchemlev, 2017). This means that if central government transfers are transferred to equity participation, it can reduce the supply of direct funding to the local government. Thus, the balance funds received from the central government is decreasing. In other words, the local government has been

able to finance its own regional needs by reducing the balance funds from the central government. Based on the above study, the second hypothesis is developed.

H2m: The regional asset growth moderated by equity participation has a significant effect on the balancing funds.

Moreover, there are also some of other revenues generated by local government outside which above-mentioned. These that refer to other legally valid revenues are revenues that are not included in local taxes, regional retributions, service revenues. Other legitimate regional businesses have an opening character for local governments to undertake income-generating activities for the regions. Tuasikal (2008) in his research stated that local government capital expenditure has an effect on districts' and cities' budget in Indonesia. Similarly, Vela and Fuertes (2000) found that in Europe, accounting for local government is a comparison on issues related to regional income that are not from local taxes or regional charges. Based on the above study, the following third hypothesis can be developed.

H3: The regional asset growth has a significant effect on other legitimate regional income.

Equity participation can strengthen or weaken the relationship between asset growth and other legitimate incomes. Sellers and Lidström (2007) state that in the decentralization system, the central government provides freedom of broad autonomy to the regions, so that regions can determine the various policies in their equity participation. Thus, the higher the growth of regional asset reinforced by equity participation in state-owned enterprises / regions, the higher the relationship with other regional incomes. Based on the above study, it can be developed the following third moderation hypothesis.

H3m: The growth of regional assets moderated by equity participation has a significant effect on other legitimate regional revenues.

Furthermore, in this rapid information technology era, local governments are more optimizing the intangible assets, so the tangible assets become more and more declining. Kraemer and King (2006) demonstrate the importance of information technology capable of accelerating regional economic growth. Based on the above study, the fourth hypothesis can be developed.

H4: The investment of intangible asset has a significant effect on own-source revenue.

Intangible investment, especially investment in information technology program is currently growing rapidly, in line with the development of science and technology in regional and international sphere. The regions with high capital resources capable of moderating information technology can further increase local revenue, particularly in the services and transportation sectors. McKendrick (2007) in the study of modernizing the public accounting system, state that the intangible assets investment is able to improve high performance for the government, especially in Western Europe. Doh and Kim (2014) strengthens the finding, stating that regional income by

empowering intangible assets, especially in North Sumatra is capable of increasing government performance.

H4m: Intangible investments moderated by equity participation have a significant effect on own-source revenue.

Investment in the region is done in order to increase regional income. Thus, the occurrence of investment in the region is deemed to increase the regional income so that it can reduce the acceptance of balance funds from the central government if it is able to increase revenue optimally. Based on the above study, the following fifth hypothesis can be developed.

H5: intangible investment growth has significant effect on balancing funds.

Furthermore, the occurrence of regional investment supported by the presence of capital participation is expected to increase regional revenues so that regions are able to optimize the capital participation and can reduce the revenue balance funds. Based on the above study, the following fifth moderation hypothesis can be developed.

H5m: Intangible investment growth moderated by equity participation has a significant effect on balancing funds.

Moreover, in terms of the relationship of intangible investment growth with other legal revenues, the intangible investment is made to increase local revenues through other legitimate regional revenues, as the government can extract this revenue maximally. Suratno, Fitriawati, and Djadang (2017) stated that determination on business entities with financial difficulties can be recovered through the entity's equity participation. Therefore, an income can be extracted from various sources of income that are potential economic resources (Suryanto *et al.*, 2017. Some of other legitimate sources of income includes grants and soft loans. Based on the above study, the following sixth hypothesis is developed.

H6: Intangible investment growth has a significant effect on other regional legal revenues.

Lastly, in terms of the relationship of intangible investment growth moderated by equity participation to other legal revenues, the regional investment is made to increase regional income through other legitimate regional incomes by utilizing capital participation in local state-owned enterprises as a part of long-term regional investments. In this matter, the accumulative amount is presented in the balance sheet on the asset side. In its budgeting, capital or investment is not recognized as expenditure, but is included as financing expenditure. Based on the above study, the following sixth moderation hypotheses can be developed.

H6m: Intangible investments moderated by equity participation have a significant effect on other regional legal revenues.

3. Research Method

3.1 Sampling

The population in this study is eleven districts and cities in the Province of West Java during the period 2012-2016, consistently presenting the financial statements in the Ministry of Finance of the Republic of Indonesia. This study is an empirical study using a sample of districts and cities located in West Java Province using the realization report of local budget and annual report during the period 2012-2016. Sampling in this study was selected using non-probability sampling technique by purposive sampling, meaning that every element of the population does not have the same possibilities to be sampled, since the sample is taken with a specific purpose. Accordingly, the consideration determined by the author in the sampling is eleven districts and cities in West Java during the period of 2012-2016.

3.2 Operational Definition of Variables

Regional asset growth (X1) is operationally defined as a quantitative measure that describes the change in asset value increase in the regionals of West Java from year to year. Non-asset or intangible asset investment (X2) is a quantitative measure that describes the increase of non-asset investment in West Java area from year to year. Equity participation (Xm) is a moderating variable to describe a changing investment climate in West Java. The circumstances in question are investment climate change, changes in layout, regional investment atmosphere. Regional revenue (Y) is defined as revenue earned by local government that can be reviewed from the level of asset increase or debt reduction that can be used by the government in developing the region within the period of the budget in a year concerned. In this study the dependent variable is divided into three, each is the component of the regional revenue. First is own-source revenue (Y1), is revenue derived by the regional levied according to the local regulations in accordance with the laws and regulations. Second is balancing funds (Y2) as funds sourced from central state budget allocated to an autonomous region to fund regional needs in the context of decentralization implementation. The amount of balancing funds shall be set for each fiscal year in the state budget. Lastly, other legitimate revenues (Y3) are revenues that not included in local taxes, regional retributions, and revenues from public service.

3.3 Equation Model

This study uses Moderated Regression Analysis (MRA), that is specifically derived into two equations:

Model 1:

$$Y1 = \alpha + \beta_1 X1 + \beta_2 X2 + \beta_1 X1 X_m + \beta_2 X2 X_m$$

Model 2:

$$Y2 = \alpha + \beta_1 X1 + \beta_2 X2 + \beta_1 X1 X_m + \beta_2 X2 X_m$$

in which, Y1 = own-source revenues; Y2 = balancing funds; Y = other legitimate regional revenues; α = constants (intercept); β_1X_1 = growth of regional assets; β_2X_2 = Non-asset regional investment; $\beta_1X_1X_M$ = regionals asset growth moderated by equity participation; $\beta_2X_2X_M$ = Non-asset investment influenced by equity participation; ε = rate of error (error term).

4. Results and Discussion

Hypothesis 1 states that the regional asset growth significantly influences the local government revenue. Based on statistical parameter, it can be shown that the value of t arithmetic is greater than t table ($4.797 > 2.00004$) at a significance level of 5%, meaning that the growth of the regional asset significantly affects the local revenue. Thus, the hypothesis is accepted. Moreover, based on the analysis of Moderated Regression Analysis (MRA), the moderation testing which is the interaction between the growth of fixed assets with equity participation has the value of t arithmetic smaller than t table ($-1.235 < 2.00404$, $p = 0.05$), meaning that moderating variable is not significant. Therefore, regional asset growth that moderated by equity participation has no effect to own-source revenue.

Table 1. *Effect of Regional Asset Growth on the Local Government Revenue*

Model		t	Sig.
1	(Constant)	1.822	.074
	Asset (X1)	4.797	.000
	Intangible Assets (X1)	2.001	.051
	X1.Xm	-1.235	.222
	X2.Xm	-.809	.422

Dependent Variable: Revenue; Moderating Variable: Xm= Equity Participation

Hypothesis 2 states that the growth of non-asset investment has a significant effect on own-source revenue. Statistical parameter shows that t arithmetic is smaller than t table ($2.001 < 2.00404$, $p = 5\%$), meaning that the fixed asset property has no significant effect on own-source revenue. Thus, the hypothesis is rejected. Furthermore, based on result of analysis of Moderated Regression Analysis (MRA), the moderation examination testing interaction between growth non-asset investment moderated by equity participation has t-arithmetic value smaller than t table ($-0.809 < 2.00404$, $p = 5\%$), meaning that moderating variable is not significant. Thus, the hypothesis is rejected or the non-asset investment moderated by equity participation has no significant effect on local revenue.

Table 2. *Hypothesis Testing Result of Regional Asset Growth on Balancing Fund*

Model		t	Sig.
1	(Constant)	8.681	.000
	Asset (X1)	3.720	.001
	Intangible Assets (X2)	1.082	.285

	X1.Xm	-2.984	.004
	X2.Xm	-1.877	.066
Dependent Variable: Balancing Fund; Moderating Variable: Xm= Equity Participation			

Hypothesis 3 stating that the regional asset growth has a significant effect on the balancing fund is supported by t value which is greater than t table ($3.720 > 2.004$, $p = 0.001$). This means that the growth of regional assets has a significant effect on the balancing fund, or the hypothesis is accepted. In addition, hypothesis demonstrating the moderating effect of equity participation in the interaction between the regional asset growth and balanced funds shows the value of t arithmetic of -2.984 , bigger than t table of 2.004 , meaning that the equity participation has significant effect in strengthening the relationship. Thus, the hypothesis is accepted.

Hypothesis 4 states that the growth of non-asset investment has significant effect on balancing fund. Based on statistical parameter t value is smaller than t table ($1.082 < 2.00404$), meaning that the growth of non-asset investment has no significant effect on the balancing fund, or rejecting the hypothesis. Additionally, the examination of moderating effect of equity participation, show that it has a smaller value of t value than t table ($-2.984 < 2.00404$), meaning that moderating variable is significant in strengthening the influence of the growth of regional asset to balancing fund. Therefore, the hypothesis is supported.

Table 3. Effect of Asset Growth on Other Legally Valid Revenues

Model	t	Sig.
1 (Constant)	2.748	.008
Asset (X1)	3.584	.001
Intangible Assets (X2)	2.177	.034
X1.Xm	-1.094	.279
X2.Xm	-1.480	.145
Dependent Variable: Balancing Fund; Moderating Variable: Xm= Equity Participation		

Hypothesis 5 states that the non-asset investment growth has a significant effect on other legitimate revenues. This is supported by t value of $3.584 > 2.00404$ meaning that growth of the regional asset has a significant effect on other legal revenues. Furthermore, the moderating effect of equity participation in the interaction between the fixed assets growth and other legitimate revenues by using Moderated Regression Analysis (MRA) shows t value $-1.094 < 2.00404$, meaning that the hypothesis is rejected, or the capital participation is not able to strengthen the relationship. Hypothesis 5 stating that intangible investment growth has a significant effect on other legitimate revenue is supported by the value of $t 2.177 > 2.00404$ meaning that the hypothesis is accepted. Moreover, the Moderated Regression Analysis (MRA) shows t value of moderating variable of equity participation is -1.480 , smaller than the t table of 2.00404 . This means that equity participation is not

significant in strengthening the interaction between intangible investment growth and other legitimate revenues.

5. Conclusions

The results show that the local government's asset growth has a significant effect to the regional own-source income, meaning that the increasing of productive regional asset will increase the own-source revenues. Provincial productive assets include the development of markets, irrigation and facilities and infrastructure capable of increasing levies and local taxes. In addition, the results show that the asset growth moderated by regional investments of capital participation has no significant effect on local revenue, due to the increase in capital participation means increasing the burden for the region in the distribution of business results and interest expense to be paid. Further results show that the asset value of the regional assets has a significant effect on the balance funds, because the balance funds derived from the revenue-sharing funds can increase local revenue.

However, the increase of other equity participation will burden the higher regional expenditure so that if not controlled according to its allocation will become burden for the regional assets. This is supported by the result that equity participation has a significant negative effect on the regional income. The increasing participation of other capital will increasingly burden the local spending, this is consistent with the empirical result showing that there is a negative relationship between capital participation as a moderator variable growth of regional assets to regional income.

As a theoretical implication, in general, the results of this study support the theory of investment defining investment as the use of money for the purpose of obtaining income. This can be proved by the amount of funds spent by regional governments for capital expenditures to raise local fixed assets and regional capital investments made to obtain optimal revenue in the future. Regional autonomy provides regional authority to undertake capital participation in accordance with the capability of the region itself, and thus, the region should be able to increase their local own-source revenue through various potentials to increase local revenue and realize regional financial independence in development. As a managerial implication, the regional government as the supreme authority holder of regional autonomy must have complete and accurate data to see the potential of each region.

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