The evaluation of the implementation of regional autonomy in Indonesia

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Abstract

The implementation of regional autonomy has been running nearly 15 years. In fact, the purpose of regional autonomy for improving the welfare has not been fully achieved. This study aims to evaluate the implementation of regional autonomy in improving the welfare by using capital expenditure and growth as an intervening variable. We use the data of 461 counties and cities, the period of 2006-2013, Partial Least Square for testing hypotheses. Empirical evidence shows that decentralization significantly effect on capital, growth, and welfare. Capital has a significant effect on growth but does not has a significant effect on welfare. Growth has a significant effect on welfare.

Introduction

Regional autonomy in Indonesia, which has been running for nearly 15 years since January 1, 2001, has not succeeded in achieving its goal of accelerating the welfare of society. The purpose of regional autonomy has not been successful in improving the welfare of society due to various factors such as the inability of local governments in managing finances and the budget fraud. The unsuccessful implementation of regional autonomy, particularly ineffectiveness in local government budget allocations, related to the opportunistic behavior of politicians and local government officials. On the expenditure side, the effectiveness of the budget used for public interest is still low. The public spending which not optimal lead to economic activities that add value to the welfare of society does not function properly. In addition, capital expenditure is only capable of creating an exclusive and low quality economic development.

The importance of this research is to assess the extent to which the welfare of society increases due to the implementation of regional autonomy. In this study we analyze the relationship between the various variables such as regional autonomy, capital expenditures, and economic growth with...
the welfare of society. A decade is enough to slightly improve the welfare of society through local autonomy. Increased the welfare of society is an appropriate indicator to assess the success or failure of the implementation of regional autonomy. The failure of regional autonomy shown by the unchanged or even lowered the welfare of society. On the other hand, the success of regional autonomy should be seen from the growing prosperity of society.

On Law No. 33/2004 regulate that there are three types of intergovernmental transfer: Dana Bagi Hasil (DBH), Dana Alokasi Umum (DAU), and Dana Alokasi Khusus (DAK). DBH is the central government funds allocated to local governments derived from natural resource revenues and personal income tax. Natural resource revenues which are shared between central and local governments include revenues from oil and gas, mining, forestry, and fishery. In the law is set percentage for each type of revenue sharing. Revenue sharing aims to reduce the fiscal gap vertically between central and local governments.

DAU or General Allocation Fund can be classify as a general purpose grant that gives full discretion to local governments to spend the funds according to their priorities. DAU value depends on the gap between the capabilities and needs of local government fiscal. Factors taken into consideration for determining the financial capacity of local government are local revenue and revenue sharing. While the factors taken into consideration for determining local needs including population, land area, water area, and the level of expensiveness. DAU aims to reduce the fiscal gap among regional governments.

DAK or Spesific Allocation Fund is a conditional grant that aims to help gund important needs which cannot be incorporated in the DAU formula and to provide funding for activities which related to national priorities. Determining the amount of DAK is influenced by three factors, namely (i) the general criteria, (ii) technical criteria, and (iii) specific criteria. General criteria determined by the fiscal gap, the technical criteria refers to the type of development, and specific criteria determined by the relevant technical ministries.

The model used in this study is built on the theory of welfare society. We use the theory of the welfare of society by incorporating external variables that are identified from previous studies as well as linking with other theories or models such as regional autonomy, capital expenditures, and economic growth. Decentralization is a process of distribution of the budget from the higher levels of government to lower governmental authority in line with the increasing number of government and public services delegated (money should follow function) and government activities which require financing (the law of ever increasing state activities). One of the activities that require financing is capital expenditure activity.

Economic growth is the increase in national income or Gross Domestic Product (GDP) or Gross National Product (GNP) regardless of whether the change in the economic structure occurs or not. While the economic development is a process that led to the increase in real income per capita of the population of a country in the long term that is accompanied by changes in the institutional system. Thus, economic growth is a necessary condition but not sufficient for economic development process. Measuring development results only from economic growth alone will negate the uneven ability of people to enjoy the fruits of development. The society life can be measured by the human development index (HDI). Human development index is calculated based on the combination of three dimensions, namely life expectancy, well-educated man, and an adequate standard of living.

Galasso (2005) showed that fiscal decentralization no sign that the center took account of village attributes conducive to
reaching the poor. Research of Matsui (2005) showed that that strength of national political parties not significantly affect governmental internal controls. Big government, high local revenues, and significant capital expenditure impact on the weak internal control of local government finance. The research results of Vazquez and Rider (2006) showed that the implementation of fiscal decentralization which is done simply and gradually better than those performed complicated.

Research conducted by Enikolopov (2007) showed that strength of national political parties significantly improves outcomes of fiscal decentralization such as economic growth, quality of government, and public goods provision. Based on a new explanation for Wagner's Law, research conducted by Shelton (2007) showed that widespread evidence that preference heterogeneity leads to decentralization rather than outright decreases in expenditures and income inequality affect. Mourao (2007) showed that fiscal decentralization has beneficial to the improvement of people's welfare. This is due not to the gap between the government planning to the needs of society in local governance.

Research from Cassette (2010) showed that fiscal decentralization lead to increased economic growth and democratic governance but also affects the institutional weakness and inefficiency of local government. Cassette (2010) states that not all the local government really prepared to deal with fiscal decentralization.

Badrudin (2011) showed that there is a need to evaluate the implementation of the fiscal decentralization in counties and cities in Central Java province. In studies that have been described above also indicates that the evaluation of the implementation of fiscal decentralization needs to be done to determine the extent of decentralization impact on the welfare of society. Fiorino (2012) showed that strong evidence of a negative correlation between corruption and growth. The corruption undermines the positive impact that public expenditures have on economic growth. Yandri (2012) showed that public expenditure has a positive effect on Human Development Index (HDI).

Independent autonomous society is a society, which can freely determine their own choices based on the needs required and perceived, such as choosing the head region and formulate a regional development policy. The process of regional development will not be maximized if there is no participation of all components of the area, especially the people. In addition, the need for good communication and coordination with various stakeholders in the regions so that the development can be more focused and organized. Local governments must draw up development programs as a systematic attempt to improve the quality of the welfare of society. Great authority in the hands of local leaders. This authority should be used to achieve the objectives of regional autonomy. Regional autonomy is for the welfare of society. The final goal of regional autonomy is the growing prosperity of society.

The spirit of regional autonomy that has been voiced is for efficiency, effectiveness, and accountability of government and public services in the area. For that reason, then comes the demands of the regions to organize their own territory in order to improve the welfare of society. The concept of regional autonomy based on the assumption that the regions are better understand their needs and able to make the necessary programs to promote their regions.

The decentralized system is expected to make society more prosperous. The welfare of society is expected to increase and more evenly. However, it seems it is still far from expectations. It can be seen from economic inequality in Indonesia increased. In almost 15 years, there were no good economic disparity. Gini Index in Indonesia increased from 0.33 became 0.42
in 2014 in 10 years and this figure is the highest in the history of Indonesia. In 2013, the islands of Java and Sumatra still the largest contributor to national GDP which is 81.8%. Meanwhile, other areas such as Kalimantan, Sulawesi, Nusa Tenggara, Maluku, and Papua only contributed for 18.2%. If seen from the changes in contribution, in 2000 as the initial phase of the start of decentralization in Indonesia, Java and Sumatra contribution of DGP was 79.68%, whereas in 2013 stood at 81.8%. This shows the decentralized system that was originally intended to flatten the economy that is not only concentrated in Java and Sumatra do not produce maximum results. Need empirical evidence to assess the extent of regional autonomy goes well. This study aims to determine whether the regional economy running as expected after nearly 15 years had passed.

The elements that exist within the framework of the study are regional autonomy, capital expenditures, growth, and welfare society. The relationships between these elements are built in the form of hypotheses. There are several hypotheses of this study. Those hypotheses are:

- H1: Regional autonomy has positive effect on capital expenditure
- H2: Regional autonomy has positive effect on economic growth
- H3: Regional autonomy has positive effect on welfare society
- H4: Capital expenditure has positive effect on economic growth
- H5: Capital expenditure has positive effect on welfare society
- H6: Economic growth has positive effect on welfare society

**Methods**

The scope of this study is all counties and cities in Indonesia for the period 2006 to 2013. Selection of the county and the city as a unit of analysis is based on the reason that the counties and cities are spearheading the implementation of regional autonomy. The success of local autonomy can be seen from the success of counties and cities in improving the welfare of society. Data of the district and the city obtained from the Central Bureau of Statistics. The research data include local revenue, tax revenue sharing, non-tax revenue sharing, capital expenditure, local expenditure, Gross Regional Domestic Product, as well as the Human Development Index.

Exogenous variable in this study is regional autonomy. Regional autonomy is the delegation of authority by the central government to autonomous regions to set up and administer governmental affairs in the system of the Republic of Indonesia. Regional autonomy variable measured by the ratio between local revenue plus tax and non-tax revenue sharing with total local expenditure. This measurement is expressed in terms of percent.

Intervening variables in this study include capital expenditure and economic growth. Capital expenditure is the expenditure made in the context of procurement of tangible fixed assets that have a value of more than 1 year such as land, equipment and machinery, buildings, roads and irrigation, as well as other fixed assets. Capital expenditure is measured by the natural logarithm of the rupiah for capital expenditure. As mentioned above, other intervening variable is economic growth. Economic growth is the change in Gross Regional Domestic Product per year at current prices expressed. This measurement is also expressed in terms of percent.

Endogenous variable in this study is the welfare of society. The welfare of society is a condition that shows the state of people's lives. The circumstances of people's lives can be seen from the standards of a society that is expressed in units of the index. The welfare of society variable is a latent variable. The variable is measured by the Human Development Index. Research variables and their measurements are presented on the Table 1.
This research model, Figure 2, illustrating the effect of regional autonomy (REGOTO) for the welfare of society (PUBWEL) by capital spending (CAPEXP) and economic growth (ECOGRO) as mediating variables. Variables local autonomy shown by fiscal decentralization. This variable is measured by the sum of local revenues and revenue-sharing between the central and local governments divided by the total expenditure. The economic growth shown by the regional gross domestic product. While indicators to measure the well-being of society is the human development index. The data of this study include the decentralization of fiscal, capital expenditure, gross domestic regional product, and the human development index of counties and cities in Indonesia for the period 2006 through 2013. Model analysis Partial Least Square (PLS) were used in this study follows the pattern of structural equation modeling (SEM). This model can be tested simultaneously both measurement model and structural model. Measurement model used to test the validity and reliability; while the structural model used for testing hypotheses.

Results
Data were acquired and processed in this study include local revenue, tax revenue sharing, non-tax revenue sharing, capital expenditure, local expenditure, Gross Regional Domestic Product, as well as the Human Development Index. Researchers obtain such data for as many as 461 counties and cities in Indonesia in the period 2006 to 2013. Figure 3 below describes the characteristics of variables such minimum, maximum, mean, and standard deviation.

<table>
<thead>
<tr>
<th>Research Variables</th>
<th>Measurements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regional Autonomy</td>
<td>(Local Revenue + Revenue Sharing) / Local Expenditure</td>
</tr>
<tr>
<td>Capital Expenditure</td>
<td>Ln Capital Expenditure</td>
</tr>
<tr>
<td>Economic Growth</td>
<td>The Change of Gross Domestic Regional Product</td>
</tr>
<tr>
<td>Welfare Society</td>
<td>Human Development Index</td>
</tr>
</tbody>
</table>

Figure remarks:
REGOTO (regional autonomy)
CAPEXP (capital expenditure)
ECOGRO (economic growth)
PUBWEL (welfare society)
Tabel 2: Variable Description

<table>
<thead>
<tr>
<th>Variables</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regional Autonomy</td>
<td>0.0029</td>
<td>0.8953</td>
<td>0.1962</td>
<td>0.1582</td>
</tr>
<tr>
<td>Capital Expenditure</td>
<td>22.57</td>
<td>28.86</td>
<td>25.68</td>
<td>0.62</td>
</tr>
<tr>
<td>Economic Growth</td>
<td>-39.33%</td>
<td>84.09%</td>
<td>6.27%</td>
<td>4.08%</td>
</tr>
<tr>
<td>Welfare Society</td>
<td>6.58</td>
<td>80.51</td>
<td>70.63</td>
<td>5.06</td>
</tr>
</tbody>
</table>

Tabel 2 shows that the autonomy variable has an average of 0.1962 with a standard deviation of 0.1582. The minimum and maximum values of local autonomy variable are respectively 0.0029 and 0.8953. This shows that the average degree of autonomy for as many as 461 counties or cities in Indonesia is relatively low because it only amounted to 0.1962. Thus, to meet the expenditure budget, counties and cities in Indonesia rely too much on transfers from the central government budget. On average dependence of local budgets on the central budget amounted to 0.8038. The standard deviation of the autonomy variable of 0.1582 indicates the magnitude of the fiscal imbalance between local autonomy and municipal counties in Indonesia. With an average degree of autonomy is relatively low (0.1962).

Capital expenditure variable is expressed in natural logarithm capital expenditure. The average value and standard deviation of the capital expenditure are respectively 25.68 and 0.62. Because this variable is measured by the natural logarithm, it is necessary to describe the original value of this variable.

The mean of capital expenditure is Rp178,204,725,944 and the standard deviation is Rp164,959,310,508. The low average value of capital expenditure shows that the capital expenditure of counties and cities in Indonesia is relatively small.

There is a local government that has capital expenditure of only Rp 6,335,173,000. While there is local government that have very high capital expenditure which is Rp 3,416,042,298,000. Small capital expenditure means that development activities are also low. In the end is that economic activity those the region is also difficult to increase with lower capital expenditures. The low average of capital expenditure is compounded by the high standard deviation. Deviation of capital expenditure is high among regions The low average of capital means high capital expenditure inequality. A high standard deviation shows how much capital spending differences among regions in Indonesia.

In Figure 3 is also seen the average value and standard deviation of economic growth. The average economic growth is 6.27% with a standard deviation of 4.08%. The minimum and maximum values of economic growth are respectively -39.33% and 84.09%. The relatively high average value shows that economy in those regions is running well. However, the value of this economic growth is not the value of inclusive growth. In the calculation of inclusive growth should consider the level of poverty, unemployment, and inequality of income distribution. The amount of standard deviation, 4.08%, shows the magnitude of the imbalance in economic growth among regions in Indonesia. Economic growth imbalance is caused by imbalance in the degree of regional autonomy and capital expenditure inequality.

Indicator of the welfare of society is the human development index. What this means is that the level of the welfare of society in line with the level of human development index. Human development index has an average of 70.63 and a standard deviation of 5.06. The minimum and maximum values of Human Development Index are respectively 6.58 and 80.51. The average number of 70.63 is a number with a moderate category. Further investigation shows
that the economic growth rate is higher in rural areas (counties) than in urban areas (cities). The implementation of regional autonomy has not been able to improve the welfare of society in urban areas. In addition, a high standard deviation indicates high inequality the welfare of society.

The results of model testing is presented in Figure 2 and the summary of the relationship between variables is presented in Tabel 3. Based on the information in Figure 2, regional autonomy has no significant effect on capital spending. However, capital spending significant effect both on economic growth and the welfare of society as well. Capital expenditure does not have a significant impact on economic growth and the welfare of society. However, there is a significant impact between economic growth and the welfare of society. What is the meaning of these findings in the assessment of the implementation of regional autonomy? In the following paragraphs is presented explanation of the relationship between those variables above.

As shown in Tabel 3, decentralization has a positive influence on capital expenditure. It is seen from the path coefficient of 0.395 and p-value of 0.001. P-value is far below the alpha of 5%. This mean the variation in regional autonomy variable affect the variation in the capital expenditure. The positive influence of regional autonomy on capital expenditure is as predicted by the researchers.

![Empirical Model](image)

**Figure 3: Empirical Model**

<table>
<thead>
<tr>
<th>No</th>
<th>Variable Relations</th>
<th>Path Coefficient</th>
<th>P-Value</th>
<th>Predictions</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regional Autonomy → Capital Expenditure</td>
<td>0.395</td>
<td>0.001</td>
<td>+</td>
<td>As Predicted</td>
</tr>
<tr>
<td>2</td>
<td>Regional Autonomy → Economic Growth</td>
<td>-0.064</td>
<td>0.002</td>
<td>+</td>
<td>Not As Predicted</td>
</tr>
<tr>
<td>3</td>
<td>Regional Autonomy → Welfare Society</td>
<td>0.230</td>
<td>0.001</td>
<td>+</td>
<td>As Predicted</td>
</tr>
<tr>
<td>4</td>
<td>Capital Expenditure → Economic Growth</td>
<td>0.075</td>
<td>0.001</td>
<td>+</td>
<td>As Predicted</td>
</tr>
<tr>
<td>5</td>
<td>Capital Expenditure → Welfare Society</td>
<td>-0.026</td>
<td>0.237</td>
<td>+</td>
<td>Not As Predicted</td>
</tr>
<tr>
<td>6</td>
<td>Economic Growth → Welfare Society</td>
<td>-0.170</td>
<td>0.001</td>
<td>+</td>
<td>Not As Predicted</td>
</tr>
</tbody>
</table>

Source: Obtained from data processing
One thing that is not desirable is the high distance between the lowest capital expenditure to the value of the highest capital expenditure. The lowest capital expenditure is around Rp 6.3 billion and the highest capital expenditure is around Rp3.4 trillion. This demonstrates the ability of the region to carry out the regional development is not the same and has not been evenly distributed. The average development expenditure is around Rp178 billion. As many as 70% of the counties and cities have capital expenditure below the average value.

Although the variation in capital expenditure is high enough, empirical evidence suggests that regional autonomy has a positive effect on capital expenditure. There are five categories of capital expenditure, namely land acquisition, equipment and machinery, buildings, roads, irrigation, and networks, as well as the acquisition of other fixed assets. As previously mentioned that regional autonomy is measured by the proportion of local revenues and revenue-sharing to total expenditure. The local government has been able to generate local revenue and revenue sharing to cover part of capital expenditure. This finding means that the local government allocates local revenues and revenue-sharing funds for those capital expenditure and not solely rely on other funding sources such as general allocation funds and special allocation funds. This research finding is in line with the findings of Enikolopov (2007). However, different finding from this research can be found on Cassette (2010) and Badrudin (2011).

The influence of regional autonomy to capital spending is different than the effect of decentralization on economic growth. The value of the path coefficient between decentralization and economic growth is -0.064 with a p-value of 0.002. P-value is below 5% alpha. Negative path coefficient value indicates that the higher the degree of autonomy the more reduced economic growth. Statistically seen that decentralization has an impact on economic growth. But the effect is not as expected by theory. Researchers expect that the regional autonomy impact on better economic growth. However, empirical evidence shows a negative and significant relationship between regional autonomy and economic growth.

The negative relationship between regional autonomy and economic growth is not surprising. Concept of regional autonomy in Indonesia is based on the expenditure side. Granting regional autonomy led to increased local government discretion to spend funds. It is no secret that the counties and the cities have too many employees and therefore salaries are too high. Besides the capital expenditure is also not as productive as expected. High employee expenses and capital expenditures that are not productive are the causes of the adverse effects of local autonomy for economic growth. This finding is not too surprising because other research such as Matsui (2005), Cassette (2010), Badrudin (2011), and Fiorino (2012) also found the same thing.

Regional autonomy significantly effect on the welfare of society. The coefficient of the path is 0.225 with a p-value of 0.001. The influence of regional autonomy for the welfare of society is significant at alpha 5%. The positive value of path coefficient shows that the higher the degree of autonomy the more prosperous society. This means that the efficiency aspect is “raison d’être” to local autonomy. Individual preferences differ from one person to another in choosing the public good. A person can choose to live in a certain area according to their individual preferences in order to maximize their welfare of society.

Regional autonomy has given local governments the authority and right to make policies more autonomous and to organize their budgets independently. Counties and cities have full autonomy to take decisions according to the needs and specific conditions of the region. Of course the ultimate goal of regional autonomy is to
improve the welfare of society. Local governments have greater flexibility in finding ways to make people more prosperous. The public continues to question the relevance of decentralization and local democracy for the welfare of society. Local governments are the main actors responsible for fulfilling the welfare of society. The local government, as a representation of the state, it can launch a public service reform and policy to achieve the welfare of society. The empirical evidence in this study supports the argument above that regional autonomy should have a positive impact on the welfare of society. This research finding is in line with the findings Mourao (2007). But this finding differ from Shelton (2007) and Badrudin (2011).

In Figure 5 appears that the capital expenditure affects the economic growth. The value of the path coefficient is 0.075 with a p-value of 0.001. P-value is lower than the value of alpha 5%. Economic growth is measured by the growth of Gross Regional Domestic Product. Data on changes in Gross Regional Domestic Product is not encouraging. There is a region with negative economic growth, which is -39.33%. While there is a region with very high economic growth and, which is 84.09%. The average economic growth is 6.27%. As many as 62% of the counties and cities have economic growth below the average. Even 1.2% of the counties and cities have a negative economic growth. These figures show that economic growth is not encouraging because of uneven between regions.

Empirical evidence suggests that capital spending had a positive impact on economic growth. The positive influence of capital expenditure to economic growth is as predicted by the researchers. Infrastructure development spending affect economic growth positively. As explained earlier that the capital expenditure varies greatly between regions. Likewise, economic growth varies greatly between regions. However, capital spending can improve the economy in the region. The significant effect of capital expenditure to economic growth means that the proportion of capital expenditure is enough to increase the economy. This finding is not in line with the research of Badrudin (2001). In addition to capital spending, private spending also may contribute to economic growth. However, this needs to be studied further.

Capital expenditure does not significantly influence the welfare of society. The value of the path coefficient is -0.026 with a p-value of 0.237. P-value is greater than the value of alpha 5%. In the autonomy era, the capital expenditure can not afford the welfare of society. Great discretion to the expenditure allegedly not always be used for public purposes but for personal gain. This can be seen from the number of cases of abuse of the local government budget. In addition, also alleged that capital spending is not productive and the results can only be enjoyed in a long time. This finding is in line with Shelton (2007) and Badrudin (2011) but not in line with Yandri (2012).

Finally, in Figure 5 it appears that the impact of economic growth on the welfare of society. Path coefficient value is -0.170 and p-value of 0.001. P-value is lower than 5% alpha. Negative coefficient value is not as expected. Our prediction is economic growth had a positive impact on the welfare of society. However, the finding shows that the higher the economic growth is the less prosperous society.

Possible explanation for this finding is related to the gap between what the government planned to what is expected by society. The main target set by the government is of high economic growth. However, economic growth is not followed by a steeper reduction of unemployment, poverty, and income inequality. Gini Index remains high though the economy is growing. This finding is in line with Shelton (2007) and Badrudin (2011).
Conclusion

Based on the analysis and discussion of the results described in the previous section, some conclusions can be drawn. First, regional autonomy has a significant effect on capital expenditure. Second, regional autonomy has a significant effect on economic growth. But this influence is negative and not as expected. Third, regional autonomy has a significant impact on the welfare of society. Fourth, capital expenditure has a significant effect on economic growth. Fifth, capital expenditure has no significant effect on the welfare of society. Sixth, economic growth significantly influences the welfare of society.

Based on these research findings, we suggest, first, that the local government fully follow the principles of money should follow function in the implementation of fiscal decentralization. With so many functions are handed over, the local government is required to carry out government functions effectively and with integrity. Regional autonomy in Indonesia is the concept of fiscal decentralization based on the expenditure side. These expenditures are funded primarily from central government transfers funds, especially general allocation fund. Our second suggestion is that the local government is able to carry out the budget expenditure effectively, efficiently, transparently, and accountable. Those financial management principles should be reflected in all stages of the budgeting processes ranging from drafting, ratification, implementation, and up to accountability of the budget before the legislature. As said above that local governments still rely on the transfer of funds from the central government for financing regional spending as local revenue levels are still low. Our third suggestion is that local governments do not overlook the possibility of investments by setting various taxes and levies excessively. Taxes and levies should be levied according to the local taxation framework set out in the legislation. Excessive taxes and levies will increase the burden on investors and ultimately undermine investment, economic growth, and ultimately lowers the welfare of society.

References


