The effect of local own-source revenue and balancing funds on regional expenditures: A study of East Kalimantan regional expansion

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Abstract
This study aims to examine the effect of local own-source revenue and balancing funds on regional expenditures and to find out the differences before and after the province expansion. This study uses the performance report of regional/municipal government agencies in North Kalimantan from 2008 to 2017 as the data. The data were analyzed using the SmartPLS 3.0 program. From the test results, it is shown that: 1) Local own-source revenue has a positive and significant effect on regional expenditures, 2) Balancing funds have a positive and significant effect on regional expenditures, 3) There are differences in the effect of local own-source revenue on regional expenditures before and after the regional expansion, and 4) There is no difference in the influence of balancing funds on regional expenditures before and after regional expansion.

Keywords: Local own-resource revenue, Balancing funds, Regional expenditures

JEL Classification: O18, R11, R58

INTRODUCTION
The Province of East Kalimantan has an area of ± 204,534.34 km² (makes it one of the largest provinces in Indonesia) consisting of 10 regencies and 4 cities, with a population of ± 3,908,737 people in 2011. With this vast region, there are still many undeveloped areas especially in the northern, border, and inland areas. This is one of the reasons underlying the expansion of East Kalimantan into a new province that is North Kalimantan.

The establishment of North Kalimantan Province must go through a long process and discussion since 2000. North Kalimantan Province was officially formed since the signing of the Law Number 20 of 2012 concerning the Establishment of North Kalimantan Province on November 16, 2012, by the former Indonesian President, Susilo Bambang Yudhoyono. With the issuance of Law Number 20 of 2012, North Kalimantan was officially declared as the 34th province of Indonesia.

On the other hand, it turns out that after the establishment, North Kalimantan Province must face some problems in terms of financing the provincial government. In order to improve public services and to accelerate the realization of community welfare, North Kalimantan needs financial assistance to support the administration of government activities.
While joining the East Kalimantan Province, Regency/Cities in North Kalimantan have a very large balancing funds because East Kalimantan is one of the largest oil and gas producers in Indonesia. It cannot be denied that balancing funds have dominated regional income compared to local own-resource revenue.

After the regional expansion, the balancing funds especially the revenue sharing funds were decreased significantly. In comparison, the revenue sharing funds in 2014 were up to 4.3 trillion rupiahs while it fell to 1.4 trillion rupiahs in 2015. The allocation of revenue sharing funds for oil and gas in 2015 has been adjusted to the North Kalimantan Mining Work Area (WKP) causing an average decrease of oil and gas revenue sharing funds by 600 billion rupiahs in every northern regency/city.

Consequently, it also affected the local own-resource revenue of North Kalimantan Province, wherein 2015, the local own-resource revenue was decreased up to 70 billion rupiahs. This was considered a big degradation compared to the decline in the previous years. Haji et al., (2015) found that before the expansion, the regencies/cities in North Kalimantan tend to deposit the Government Budget Surplus (SiLPA) from the previous year to increase the local own-resource revenues so that after the expansion, the deposits were used to cover the deficit of Regional Budget (APBD). The decline in regional income is certainly influenced the regional government expenditures.

Based on the condition and background of the issues as stated above, the research questions can be formulated as follows: (1) Does the local own-resource revenue affect the regional expenditures of North Kalimantan Province? (2) Do the balancing funds affect the regional expenditures of North Kalimantan Province? (3) Are there any differences in between local own-resource revenue and regional expenditures before and after the regional expansion of North Kalimantan? (4) Are there any differences between balancing funds and regional expenditures before and after the regional expansion of North Kalimantan?

THEORETICAL FRAMEWORK AND HYPOTHESIS DEVELOPMENT

Regional expenditures

Regional expenditures are all expenditures issued from the general account reducing the balance of the budget in the fiscal year which cannot be recovered by the local government (Tanjung, 2012). In the Budget Realization Report (LRA), the classification used for the expenditures is economic classifications. Based on the Government Accounting Standards (SAP) in Government Regulation Number 71 of 2010, the economic classifications include (1) Operational expenditures; (2) Capital expenditures; (3) Unexpected expenditure; and (4) Transfers.

Local own-source revenue

The Law Number 33 of 2004 defines local own-resource revenue as the income obtained by regions collected under regional regulations in accordance with the laws and regulations. The sources of local own-resource revenue as stipulated in the Minister of Home Affairs Regulation Number 13 of 2006 are (1) Regional taxes; (2) Regional retribution; (3) Results of the segregated regional assets management; (4) Other legitimate local own-resource revenues.

Balancing funds

According to Kaho (2012: 260), balancing fund is a transfer or allocation from the central government to the region. In general, balancing funds constitute the largest part in
financing regional government activities. In the Government Regulation Number 55 of 2005, it is stated that balancing funds are funds originating from the State Budget allocated to regions to support regional needs in the context of implementing decentralization.

Based on the Article 2 of Government Regulation Number 55 of 2005, balancing funds consist of: (1) Revenue sharing funds; (2) General allocation funds; (3) Special allocation funds.

**Development of hypothesis**

Local own-resource revenue is one source of regional revenue that is used to fulfill the region’s expenditure. According to the Regulation of North Kalimantan Governor Number 15 of 2013, in preparing the regional budget and expenditures, it must be supported by the availability of sufficient regional revenue. This indicates that the amount of regional expenditure budgeted by regional government is influenced by a large amount of budgeted regional revenues.

More local own-resource revenues will allow the area to meet its own expenditure needs without having to depend on the central government. This will determine whether the Regional Government able to be independent or vice versa (Rahmawati, 2010).

Apriliawati (2016) revealed that local own-resource revenue has a positive and significant effect on regional expenditures. This means that higher local revenue will generate higher regional expenditures incurred by the regional/municipal government. In other words, local own-resource revenue has a positive effect on regional expenditures.

Based on the description above, the first hypothesis proposed in this study is:

**H1. Local own-resource revenue has a positive and significant effect on regional expenditures**

In the Regulation of North Kalimantan Governor Number 15 of 2013, one of the sources of regional revenue is Balancing Fund. Similar to local own-resource revenue, Balancing Fund is also one of the sources of regional revenue which is very important for the regional government in terms of fulfilling its expenditure.

Ridho Argi (2011) and Hadi Sasana (2011) proposed that Balancing Funds have a positive and significant influence on regional expenditures. This is in line with the research conducted by Sari and Indrajaya (2014) where balancing funds have a significant effect on regional expenditure allocations. It can be concluded that balancing funds positively influence regional expenditures. Therefore, the second hypothesis in this study is:

**H2. Balancing funds have a positive and significant effect on regional expenditures**

National Development Planning Agency and United Nations Development Programs (2008) specifically studied the problems related to the development of new autonomous regions and showed that in the aspect of regional finance, there had been an increase in local own-resource revenue even though the assistance to General Allocation Fund was still high. In addition, there was also an increase in the proportion of development expenditure even though the proportion of routine expenditure was still small.

On the other hand, Haji et al., (2015) stated that prior to the expansion, regencies/cities in North Kalimantan tended to deposit the Government Budget Surplus from the previous year to increase the local own-resource revenue. Therefore, after the expansion, the deposits were used to cover the Regional Budget deficit. This causes the
local own-resource revenue to decrease because basically the interest generated by these deposits is used by the regional government to increase local own-resource revenue.

Generally saying, the opportunity for the regencies/cities in North Kalimantan to increase its local own-resource revenue is quite large because each region has abundant natural resources. The revenues from the sector of levies and taxes also have big potential to be developed such as parking fees, vehicle tax, and advertisement tax which can be applied in all regions. Besides that, the tourism sector can also increase the regional revenue of the Regency/city. It can be seen from Tarakan City wherein 2014, there were 10 new hotels which indirectly increase the local own-resource revenue in the form of hotel taxes. This, of course, is inseparable from the geographical point of Tarakan as a city for transit in North Kalimantan Province. The changes that occurred in the local own-resource revenue before and after the regional expansion allegedly affected the regional expenditures. By that, the third hypothesis of this study can be proposed as follows:

**H3. There is a difference in the effect of local own-resource revenue on regional expenditures before and after the regional expansion.**

Juanda and Tuerah (2007) believed that the State Budget and Provincial Regional Budget have a negative and direct impact on regional expansion thus it can be said that the regional income in Regional Budget can decrease with the existence of regional expansion; making the regional expenditures to be decreased. Syafarudin (2008) in Haji et al., (2015) also mentioned that there are financial difficulties in the post-expansion development. This can be interpreted that regional expenditures have decreased due to the decline in regional revenues.

The Communication and Information Agency of East Kalimantan Province (2013) said that after the expansion, the structure of East Kalimantan State Budget in 2014 experienced a decline compared to the previous year which was set at 29,36 trillion rupiahs. The amount has decreased by around 9 trillion rupiahs compared to the previous East Kalimantan State Budget in 2013 that was set at 38,7 trillion rupiahs. This is actually a logical consequence due to the expansion of North Kalimantan. The allocation of East Kalimantan Regional Budget is divided for 10 regencies/cities in East Kalimantan as well as for 5 regions in North Kalimantan.

Politically, the formation of North Kalimantan Province is very necessary. However, in the aspects of regional finance, the current expansion of North Kalimantan Province has caused the oil and gas revenue sharing funds to be increasingly decreased. This happens because most of the oil and gas mining work areas are in East Kalimantan Province which is the parent of North Kalimantan Province (Haji et al., 2015). Due to the adjustment of North Kalimantan mining areas, the revenue sharing funds for oil and gas were decreased averagely by 800 billion rupiahs in every northern regency/city. Revenue sharing fund itself is the largest component of balancing funds. Therefore, it can be concluded that there was a decrease in the balancing funds caused by a decrease in the revenue sharing funds.

Based on the description above, the researchers assume that there are differences in the effect of balancing funds on regional expenditures before and after the expansion. By that, the proposed fourth hypothesis can be seen in this following section:

**H4. There is a difference in the effect of balancing funds on regional expenditures before and after regional expansion.**
RESEARCH METHODS

Data
The data used in this study are the public accountability report on budget implementation presented by the heads of local government to the Government of North Kalimantan Province. The technique of data collection in this study is saturated sampling. This means that there are 5 regencies/cities used as research samples. From each regency/city, the period of observation was taken for 5 years before and 5 years after the regional expansion took place. This indicates that the period before regional expansion began in 2008 until 2012 while the period after the expansion began in 2013 until 2017.

Methods of data analysis
The data is analyzed by using the multiple regression analysis with SmartPLS software version 3.0, as below:

\[ Y = \beta_1 X_1 + \beta_2 X_2 + \varepsilon_i \]

where:
- \( Y \) = regional expenditures
- \( X_1 \) = local own-resource revenue
- \( X_2 \) = balancing funds
- \( \beta_i \) = regression coefficient
- \( \varepsilon_i \) = error term

It is important to note that by using the multiple regression analysis and observed variables from the SmartPLS software, the researchers do not need to do measurement model so that they can directly do an estimation for the model (Ghozali, 2015).

Operational definition and variable measurement
The dependent variable in this study is regional expenditures. Regional expenditures are all regional obligations recognized as the deductions from net worth in the fiscal year. In this study, the items included in the regional expenditures are (1) Operational expenditures; (2) Capital expenditures; (3) Unexpected expenditures; and (4) Transfer. Regional expenditures are measured by using a nominal scale in Rupiah units based on the Government Accounting Standards in Government Regulation Number 71 of 2010.

Whereas, the independent variable in this study is local own-resource revenue. Local own-source revenue includes all regional incomes originating from its own regional economic sources which are collected and managed by the local government in accordance with the applicable law and regulations. The sources of this revenue come from local taxes, regional retribution, results of the segregated regional assets management, and other legitimate local own-resource revenues. In this study, the local own-resource revenue is measured using a nominal scale in rupiah units based on the Regulation of Minister of Home Affairs Number 13 of 2006.

Furthermore, another independent variable in this study is balancing funds. Balancing funds are originated from the State Budget that is allocated to regions to fund regional needs in the context of implementing decentralization. The balancing funds consist of Tax and Natural Resources Revenue Sharing Funds, General Allocation Funds, and Special Allocation Funds.

Balancing funds are measured by using a nominal scale in rupiah unit based on Government Regulation Number 55 of 2005 which technically, the implementation is also regulated in East Kalimantan Provincial Regulation Number 13 of 2008 and North Kalimantan Governor Regulation Number 15 of 2013.
RESULTS AND DISCUSSION

Hypothesis testing

The Results of multiple regression analysis on the local own-resource revenue and balancing fund to regional expenditures are shown in Table 1.

Table 1. Results of multiple regression analysis

| Description                              | Original Sample (O) | Sample Mean (M) | Standard Deviation (STDEV) | T Statistics (|O/STDEV|) | P Values |
|------------------------------------------|---------------------|-----------------|-----------------------------|-----------------|----------|
| Local own-resource revenue -> Regional expenditures | 0.597               | 0.583           | 0.117                       | 5.121           | 0.000    |
| Balancing funds -> Regional expenditures  | 0.337               | 0.353           | 0.121                       | 2.795           | 0.003    |

R-square = 0.621, R-square Adjusted = 0.593

Source: Smart PLS Output, 2018

From the results of the multiple regression test above, the regression equation can be obtained as follows:

\[ Y = 0.597X_1 + 0.337X_2 + \varepsilon \]

Based on the results of the regression equation, it can be interpreted that: 1) The regression coefficient for the local own-resource revenue variable \((X_1)\) has a positive parameter that is equal to 0.597. This means that when the local own-resource revenue \((X_1)\) increases by 1, the regional expenditures \((Y)\) will also increase by 0.597; 2) The regression coefficient for the balancing funds variable \((X_2)\) has a positive parameter that is equal to 0.337. This means that when the balancing funds \((X_2)\) increases by 1, the regional expenditures \((Y)\) will increase by 0.337.

As it can see from Table 1, there is a parameter coefficient of 0.597 in between local own-resource revenue \((X_1)\) and regional expenditure \((Y)\). This shows that local own-resource revenue \((X_1)\) has a positive influence on regional expenditure \((Y)\). Similarly, it is found that the value of t-statistics is 5.121 > 1.96. This means that the local own-resource revenue \((X_1)\) has a significant effect on regional expenditure \((Y)\). Based on this matter, it can be concluded that Hypothesis 1 is accepted.

Furthermore, the balancing funds \((X_2)\) and regional expenditures \((Y)\) produce a parameter coefficient by 0.337. This indicates that there is a positive influence between balancing funds \((X_2)\) and regional expenditures \((Y)\). Similarly, the value of t-statistics is 2.795 > 1.96 which points out that the balancing funds \((X_2)\) have a significant effect on regional expenditures \((Y)\). Therefore, Hypothesis 2 is accepted.

The multigroup analysis carried out by using Partial Least Square (PLS) is done to answer Hypothesis 3 \((H_3)\) and Hypothesis 4 \((H_4)\). In the multigroup analysis, the sample of the data is divided into 2 types, namely before and after regional expansion.

Table 2. Results of multigroup analysis

<table>
<thead>
<tr>
<th>Description</th>
<th>Local own-resource revenue (\rightarrow) Regional Expenditures</th>
<th>Balancing Funds (\rightarrow) Regional Expenditures</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Before</td>
<td>After</td>
</tr>
<tr>
<td>Path Coefficient</td>
<td>0.520</td>
<td>0.774</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>0.226</td>
<td>0.097</td>
</tr>
<tr>
<td>Standard Error = (SD/\sqrt{n})</td>
<td>0.058</td>
<td>0.025</td>
</tr>
<tr>
<td>R-square</td>
<td>0.271</td>
<td>0.598</td>
</tr>
</tbody>
</table>

Source: Smart PLS Output, 2018
To test whether there is a difference in the local own-resource revenue to regional expenditures before and after the regional expansion, the researchers used the approach proposed by Chin (2000) with Smith-Satterthwaite test as follows:

\[
t = \frac{\text{Path}_{\text{sample,1}} - \text{Path}_{\text{sample,2}}}{\sqrt{\text{S.E.}_{\text{sample1}}^2 + \text{S.E.}_{\text{sample2}}^2}} = \frac{0.520 - 0.774}{\sqrt{0.058^2 + 0.025^2}} = -0.254 \\
\]

Based on the formula above, a t-statistic value by -4.031 is obtained. This value is above the t-table value that is by -1.96 (alpha by 5%) which explains that the two paths before and after the regional expansion differ significantly. In conclusion, Hypothesis 3 is accepted.

Next, to test whether there is a difference in the balancing funds to regional expenditures before and after the regional expansion, the researchers used the approach proposed by Chin (2000) with Smith-Satterthwaite test:

\[
t = \frac{\text{Path}_{\text{sample,1}} - \text{Path}_{\text{sample,2}}}{\sqrt{\text{S.E.}_{\text{sample1}}^2 + \text{S.E.}_{\text{sample2}}^2}} = \frac{0.708 - 0.779}{\sqrt{0.050^2 + 0.038^2}} = -0.071 \\
\]

Looking at the formula above, a t-statistic value by -1.127 can be obtained. This value is below the t-table value that is -1.96 (alpha by 5%). It means that the two paths before and after the regional expansion do not differ significantly. By that, it is concluded that Hypothesis 4 is rejected.

Ghozali (2015: 78) suggested that the value of R-Square reflects the strength of the model. In sequence, 0.75, 0.50, and 0.25 mean that the model is strong, moderate, and weak. From the results presented in Table 2, it can be seen that the R-Square value is 0.621. This describes that the effect of local own-resource revenue (X1) and balancing funds (X2) on regional expenditure (Y) is 62.1% and the other 27.9% is influenced by other variables outside this research model. Therefore, R-Square value is included in the moderate category.

Discussion

The results of this study support Hypothesis 1 (H1) that local own-resource revenue has a positive and significant effect on regional expenditures. This means that the higher the local own-resource revenue, the higher the regional expenditures. The results of this study are in line with the research from Masdjojo and Sukartono (2009), Rahmawati (2010), Argi (2011), and Apriliawati (2016) which stated that local own-resource revenue has a positive and significant effect on regional expenditures.

As stated in Article 20 of the North Kalimantan Governor Regulation Number 15 of 2013, in preparing the regional budget, regional expenditures must be supported by the availability of sufficient revenues. This indicates a special link between local own-resource revenue as regional revenue and regional expenditure as regional spending. In other words, the greater the local revenue obtained by the regional government, the bigger the opportunity to meet the needs of the region in the form of regional expenditures without having to depend on the funds from Central Government. This also determines the level of independence of the area.

It can be seen that the total local own-resource revenue is greater after the regional expansion. There was an increase up to 60 billion rupiahs in 2013 and 2014. This clarifies
that there was an attempt from the regional government to increase the local own-resource revenue after the regional expansion took place. Although in 2015, there was a decline up to 70 billion rupiahs that were caused by a decrease in the funds from Central Government. This caused the regional government unable to optimize the acquisition of its local own-resource revenue in that year.

The results of this study support hypothesis 2 (H2) that balancing funds positively and significantly influence regional expenditures. This means that the higher the balancing funds, the bigger the regional expenditures. This is also in line with the research from Argi (2011), Sasana (2011), Sari and Indrajaya (2014) which found that balancing funds have a positive and significant effect on regional expenditures.

Similar with local own-resource revenue, balancing fund is one of the main sources of regional income originating from the funds provided by Central Government. This is intended to close the fiscal gap and to evenly distribute the fiscal capacity between regions in order to assist the independence of local governments to carry out its functions and duties in serving the community. In the research of Sasana (2014), financial balancing with funds from the central government is an incentive for the regional government to finance regional expenditures.

The high influence of balancing funds on regional expenditures happens due to the regional/municipal government in North Kalimantan that is highly dependent on the funds from the Central Government. As a new province, North Kalimantan clearly needs a substantial flow of funds from the Central Government to support its regional development. If the balancing funds obtained by the regencies/cities experienced a decline, the regional expenditures will also decrease and will interrupt the main goal of North Kalimantan formation which is the development acceleration in the border.

The results of this study support hypothesis 3 (H3) that there are differences in the effect of local own-resource revenue on regional expenditures before and after regional expansion. The value of R-square before and after the regional expansion is 0.271 and 0.598. Therefore, we can see the fundamental differences in the influence of local own-resource revenue on regional expenditures. Prior to the regional expansion, the effect of local own-resource revenue on regional expenditures was still classified as weak (0.271). This means that local own-resource revenue only influences regional expenditures by 27.1%. Whereas, after the regional expansion, the influence of local own-resource revenue on regional expenditures was classified as moderate, amounting to 0.598. This points out that local own-resource revenue affects the regional expenditures by 59.8%.

It can be seen that there is a difference between the total local own-resource revenue of the Regency/city of North Kalimantan before and after the regional expansion. After the expansion, the local own-resource revenue is known to be greater than before. There was an increase of up to 60 billion rupiahs in 2013 and 2014 emphasizing that there was an attempt from the regional government to increase the local own-resource revenue after the regional expansion. This is in line with the study from the National Development Planning Agency and United Nations Development Programs (2008) which specifically examined the problems related to the development of new autonomous regions. They showed that in the aspect of regional finance, there had been an increase in local own-resource revenue although the dependence on the General Allocation Fund was still high.

Whereas, it turns out that the regional expansion has an impact on the decline in regional income. As already mentioned by Haji et al., (2015), before regional expansion,
regencies/cities in North Kalimantan tend to deposit its Government Budget Surplus from the previous year to increase the income from local own-resource revenue. Therefore, after the expansion, the deposits will be used to cover the deficit of the Regional Budget. The decline in local own-resource revenue in 2015 was influenced by the decrease in the balancing funds from the Central Government. This has caused the regencies/cities to cover the regional expenditures with the regional government deposits.

Based on the results of this study, it can be concluded that Hypothesis 4 (H4) which stated that there is a difference in the effect of balancing funds on regional expenditures before and after the regional expansion is rejected. On the other hand, the R-square value before and after the regional expansion show a value that is equal to 0.501 and 0.607 where both models can be classified as moderate. From the results of the analysis, it is seen that there is no fundamental difference between the effect of balancing funds on regional expenditure before and after regional expansion. This is because the balancing funds are the main and the largest regional income compared to the local own-resource revenue, meaning that the fluctuation of balancing funds will be followed by the number of regional expenditures.

It is also reported that there has been a decline in the oil and gas revenue sharing funds which constitute the largest part of the balancing funds after the expansion of North Kalimantan Province. Haji et al. (2015) wrote that in 2015, the allocation of oil and gas revenue sharing funds had been adjusted to North Kalimantan Mining Work Area and caused an average reduction in oil and gas revenue sharing funds for about 800 billion rupiahs in every northern regency/city. In 2015, the regional revenue and expenditures in North Kalimantan regencies/cities were dropped dramatically. This is in line with the research from Juanda and Tuerah (2007) which stated that the state budget and provincial regional budget have a direct and negative impact on regional expansion thus it can be interpreted that the regional budget can experience a decline with regional expansion. If so, the regional expenditures will also decrease.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions
Local own-resource revenue has an effect on regional expenditures. This is because local own-resource revenue is one of the sources of regional income whose value is quite important to fulfill regional expenditures. With the increase in local own-resource revenue, the regional expenditures issued by the Regency/City in North Kalimantan Province will also increase. Nevertheless, balancing funds also have an effect on regional expenditures. This is because balancing funds have the highest contribution to regional income compared to local own-resource revenue. Higher balancing funds from the central government will increase the regional expenditures issued by the regional/municipal government in North Kalimantan Province.

There are differences in the influence of local own-resource revenue on regional expenditures before and after regional expansion. This was marked by an increase in local own-resource revenue after regional expansion. Although in 2015, there was a decrease in local own-resource revenue due to the decline in the balancing funds obtained by the regencies/cities in North Kalimantan Province. This caused the regions unable to increase local own-resource revenue through deposits.
There is no difference in the effect of balancing funds on regional expenditures before and after regional expansion. This is due to a large number of regional expenditures that tends to be fulfilled by the amount of balancing funds. Therefore, the effect of the balancing funds will be more dominant and not much different in each year.

**Recommendations**

For the central government, it is suggested to always conduct a feasibility study on the areas that will conduct regional expansion so that the newly formed administrative areas can increase its independence and reduce the reliance on the funding from Central Government.

For the regional/municipal government in North Kalimantan Province, it is recommended to increase the local own-resource revenue by maximizing the potential of the regional revenue, particularly from local taxes and levies. Therefore, the dependent on the income from the deposit interests to increase local own-resource revenue can be reduced.

**REFERENCES**


