Local Financial Performance and Its Impact on Border Community Welfare

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Abstract. The capability and creativity of financial management conducted by the foremost and outermost local governments should support the orientation of the central government in developing the nation border areas. It needs to be carried out to able to accelerate the development of the areas and to implement regional autonomy policy and fiscal decentralization nowadays. Accordingly, this research aims to discover the local financial performance in Indonesian outermost and foremost areas based on the various calculating indicators. This research also intends to reveal the local financial independence impacts of outermost and foremost areas on their people’s welfare. The analysis results indicate that most of the outermost and foremost local governments in Indonesia possess a very low financial independent ratio. Those areas still prioritize their government expenditure to fulfill the indirect purchase which is not paying attention to develop their areas. Overall, the financial performance of those areas until now does not contribute a real impact on improving the border people’s welfare.

Keywords: national border, local financial performance, regional autonomy

Introduction

Raising Indonesia from the edges by enhancing areas and villages in the frame of unitary state is the third vision in a Medium-Term National Government Development Plan 2014-2019 (Nawacita). This commitment reflects the attention of central government prioritizing the development in the underdeveloped, outermost, and foremost regions. As a manifestation that the state is present and protect its all citizenships, regions becoming the face of Indonesia should be ameliorated and encouraged towards progress (Bappenas, 2016; Ditjen PDT, 2018).

Geographically, sovereignty and juridical territories of Indonesia are bordered with 10 (ten) neighborhood countries both at land and sea, namely Malaysia, Singapore, Thailand, India, Vietnam, Australia, Papua New Guinea, Philippines, Timor Leste, and Palau. At least 13 (thirteen) provinces of Indonesia which are being the national borders and foremost small islands are directly facing to the sovereignty and juridical territories of neighbor states. Some of the provinces are Aceh, North Sumatera, Riau, Kepulauan Riau, West Kalimantan, North Kalimantan, East Kalimantan, North Sulawesi, Maluku, North Maluku, East Nusa Tenggara, Papua, and West Papua (Bappenas, 2010).

The nation border areas have certain characteristic problems, such as cross-culture problems among residents, trafficking, illegal logging, poverty, abandonment, isolated, and other social problems. These problems possess huge impacts on the image of Indonesia in the eyes of the international community. A minimum facility of basic infrastructure bolstering the economic activities and logistics has deteriorated this condition such as roads, ports, and airports. This limitation makes the socio-economic conditions of people in some border areas are still not shifting yet to be better. This situation induces the happening socio-economic gaps of people in the areas highly compared to the same areas of the neighbor countries (Bappenas, 2010). Based on the data released by the Central Bureau of
Statistics in 2017, the majority of Indonesian outermost and foremost areas have the Human Development Index less than the national average index namely 70.81. On the other hand, the poverty rate in some parts of the areas is still higher than the national poverty rate (10.12 percent), especially the areas in eastern Indonesia.

Implementing the regional autonomy policy and fiscal decentralization conducting currently is expected to able to encourage the local creativity in driving the local income resources by putting the strength on the regional itself paying attention to competitive advantage and the existing potential revenue resource (Nuringsih, 2006; Baihaqi, 2012; Junarwati et al., 2013; Harteti et al., 2014; Prihastuti et al., 2015; Haryanto, 2018). Regarding the mentioned matters above, the outermost and foremost areas need to exhibit good performance and accountability in financial management that can boost the accelerating development of those areas (Ratna, 2012; Fidelius, 2013; Pramono, 2014; Suryaningsih et al., 2015; Marlina et al., 2017). For this reason, research regarding the financial performance of the outermost and foremost areas of Indonesia is important to be conducted. Moreover, the research can demonstrate the ability of local financial independence to improve the welfare of border communities.

Based on the explanation above, this research aims to analyze the local financial performances of outermost and foremost areas of Indonesia at regency or municipality level based on five calculating ratios (local financial independence, local financial dependency, fiscal decentralization, effectiveness, and expenditure suitability). Furthermore, this research aims to analyze the local independence impacts of outermost and foremost areas on the welfare of border people, which are indicated by the poverty rate and Human Development Index. The results of this research hopefully can contribute as inputs for central and local government in promoting the financial performance of outermost and foremost areas to accelerate the welfare of people in the border areas.

Research and Methodology

The type of data in this research is secondary data sourcing from various institutions such as the Directorate General of Fiscal Balance Ministry of Finance, the Central Bureau of Statistics, and the National Border Management Authority. The collected data consist of budget and realization of the Regional Government Budget, Human Development Index, poverty, expected years of schooling, and expenditure per capita according to regency/municipality in Indonesia in 2017.

This research commonly applies a quantitative analysis method by calculating financial ratios to carry out the analysis of local financial performance. The calculating financial performances utilize formulations referring to Halim (2001), Fitriani and Dwirandra (2014), Nirwana et al. (2014), Andirfa et al. (2016), Nugrah and Amelia (2017), Pilat and Morasa (2017), and Marayadnya et al. (2018) as follows.

**Local Financial Independence Ratio.**

This indicator shows the capability of local government in self-financing their own government activities, development, and public services.

\[
\text{Local Financial Independence Ratio} = \frac{\text{Local Government Revenue}}{\text{Balancing Funds}} \times 100
\]

Table 1 provides assessment criteria of local financial independence levels.

**Local Financial Dependency Ratio.**

This indicator shows the ability of the local government in optimizing local government revenue to finance their local development activities.

\[
\text{Local Financial Dependency Ratio} = \frac{\text{Local Government Revenue}}{\text{Total Revenue of Local Government} \text{ without Balancing Funds}} \times 100
\]

Table 2 provides assessment criteria of local financial dependency levels.

**Fiscal Decentralization Ratio.**

This indicator is a measurement of local government capability to escalate local government revenue for financing development.

\[
\text{Fiscal Decentralization Ratio} = \frac{\text{Local Government Revenue}}{\text{Total Revenue of Local Government}} \times 100
\]

The criteria to determine the fiscal decentralization can be categorized according to Table 3.

**Effectiveness Ratio.**

This indicator points out the capability of local government in realizing the planned local government
The criteria to specify the effectiveness level is able to be distinguished according to Table 4.

### Table 4
Assessment Criteria of Effectiveness Level

<table>
<thead>
<tr>
<th>Ratio Range</th>
<th>Criteria of Effectiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;75.00%</td>
<td>No Effective</td>
</tr>
<tr>
<td>75.00% - 89.00%</td>
<td>Less Effective</td>
</tr>
<tr>
<td>90.00% - 99.00%</td>
<td>Enough Effective</td>
</tr>
<tr>
<td>100.00%</td>
<td>Effective</td>
</tr>
<tr>
<td>&gt;100.00%</td>
<td>Very Effective</td>
</tr>
</tbody>
</table>


The criteria to specify the effectiveness level is able to be distinguished according to Table 4.

### Expenditure Suitability Ratio

\[
\text{Expenditure Suitability Ratio} = \frac{\text{Effectiveness Ratio}}{\text{Realization of Local Government Revenue}} \times 100
\]

The indicator exhibits the ability of the local government in prioritizing its fund allocation on direct and indirect purchasing optimally. There were two calculations in this ratio that is written in the following formula.

Furthermore, the quantitative analysis used in this research was multiple linear regression. This analysis was taken to analyze...
the local financial independence impacts of outermost and foremost areas on the public welfare in the border areas. The used data in this analysis was cross-section data in 2017 consisting of 41 regencies/municipalities in Indonesia that were determined by the National Border Management Authority as the outermost and foremost areas of Indonesia (Badan Nasional Pengelolaan Perbatasan, 2019). This analysis was conducted by building up a model of local financial independence impact on the poverty rate (Model 1) and a model of local financial independence impact on the Human Development Index (Model 2). This analysis aimed to reveal the local financial independence impacts of outermost and foremost areas on border people’s welfare.

\[
\begin{align*}
\text{Ratio of Total Indirect Purchase to Total Expenditure of Local Government} & = \frac{\text{Total Indirect Purchase}}{\text{Total Expenditure of Local Government}} \times 100 \\
\text{Ratio of Total Direct Purchase to Total Expenditure of Local Government} & = \frac{\text{Total Direct Purchase}}{\text{Total Expenditure of Local Government}} \times 100
\end{align*}
\]

\[\frac{\text{Total Indirect Purchase}}{\text{Total Direct Purchase}} \times 100 \times \frac{\text{Total Expenditure of Local Government}}{\text{Total Expenditure of Local Government}} \times 100 = \frac{\text{Ratio of Total Indirect Purchase to Total Expenditure of Local Government}}{\text{Ratio of Total Direct Purchase to Total Expenditure of Local Government}} \times 100 \]

**Figure 1. The Local Financial Independence Ratio of Indonesian Outermost and Foremost Areas in 2017**

Results and Discussion

Local Financial Independence Ratio

Based on the calculation results, the majority of outermost and foremost areas of Indonesia own the ratio of local financial independence categorizing into low and very low levels (Figure 1). It happens due to a magnitude of the balancing budget allocating by the central government of Indonesia. The allocation budgets can be in the form of Tax Share and Non-Tax Share, General Allocation Funds, and Special Allocation Funds. There are only two areas, Batam Municipality and Karimun Regency, which have the local financial independence ratio which is categorizing into high (101.21 percent) and medium (58.72 percent) in 2017, respectively. According to the assessment criteria of local financial independence levels in Table 1, the relationship pattern that should be taken by the central government on most of the outermost and foremost areas is instructive, and the other small of them is consultative. In other words, the role of central government needs to be more dominant in the most mentioned areas which are not able to implement their regional autonomy. On the other hand, for some outermost and foremost areas that are considered capable of implementing regional autonomy, the central government has started to reduce

Model 1:

\[\text{PovRate} = \alpha_0 + \alpha_1 \text{LFIN} + \alpha_2 \text{logEYS} + \alpha_3 \text{logEPC} + e\]

Model 2:

\[\log\text{HDI} = \beta_0 + \beta_1 \text{LFIN} + \beta_2 D + e\]

Where:

- \(\text{PovRate}\) = Poverty rate
- \(\text{LFIN}\) = Local Financial Independence Ratio
- \(\text{EYS}\) = Expected years of schooling
- \(\text{EPC}\) = Expenditure per capita
- \(\text{HDI}\) = Human Development Index
- \(D\) = Dummy 1 for a regency in western Indonesia, 0 for a regency in eastern Indonesia
- \(\alpha_0, \beta_0 = \text{constant}\)

Source: Ministry of Finance (2019), data processed

**Figure 2. The ratio of Local Financial Dependency for Indonesian Outermost and Foremost Areas in 2017**

Source: Ministry of Finance (2019), data processed
its intervention. These areas such as Bintan Regency, Dumai Municipality, and Berau Regency have a local financial independence ratio of 36.06 percent, 35.13 percent, and 31.74 percent, respectively. These areas are in the western part of Indonesia.

**Local Financial Dependency Ratio**

Based on the data of 2017, this ratio signifies that most of considering areas are in a range of medium to high rate on the Local Government Revenue in financing the local development activities (Figure 2). This calculation is assumed without any allocating the balancing funds. In the other side, there are still areas which have low ratios and even very low ratios of local financial dependency. Areas possessing low ratios of local financial dependency are consisted of Maluku Tenggara Barat Regency (18.39 %), Aceh Besar Regency (15.35 %), Pulau Morotai Regency (14.73 %), Boven Digoel Regency (13.20 %), Kepulauan Talaud Regency (13.17 %), and Raja Ampat Regency (10.49 %). Furthermore, the areas which have the lower ratios of local financial dependency are composed of Mahakam Ulu Regency (6.90 %), Supiori Regency (6.78 %), Keerom Regency (6.17 %), and Pegunungan Bintang Regency (2.71 %).

**Fiscal Decentralization Ratio**

This ratio indicates that most of the considering areas have both low and very low fiscal decentralization levels (Figure 3). Only a few of them are categorized into high, fair, and medium decentralization fiscal levels. These few areas are Batam Municipality (45.15 percent), Karimun Regency (34.22 percent), Bintan Regency (24.25 percent), and Dumai Municipality (22.40 percent). The happening low fiscal decentralization rate of the mentioned areas above is caused by the Local Government Revenue is still smaller than the Total Revenue of Local Government. In return, the budgets of implementing development in those areas still depend on the income resource coming from the Central Government. This finding confirms, the ratio of local financial independency, most of the outermost and foremost areas are not capable yet to optimize authorities to push developing their locals.

**Effectiveness Ratio**

Based on this ratio, it indicates that Berau is regency possessing the highest ratio of the effectiveness of all outermost and foremost areas of Indonesia in actualizing the planned Local Government Revenue at all outermost and foremost areas of Indonesia (Figure 4). The ratio of the effectiveness in 2017 categorizes this regency and two other regencies, Sintang and Sangihe, as very effective regencies that consist of 110.87%, 109.44%, and 108.81%, respectively. In general, the majority of outermost and foremost areas in Indonesia are grouped into criteria of effective enough and very effective. Unfortunately, there are seven regencies/municipalities which are still categorized into criteria of less effective such as Raja Ampat, Batam, Rokan Hilir, Kepulauan Meranti, Sabu...
Raijua, Mahakam Ulu, and Kupang.

**Expenditure Suitability Ratio**

According to this ratio, in 2017, more than half of the outermost and foremost areas of Indonesia prioritize the local government expenditures on indirect purchase needs (Figure 5). Only a few of them allocating their local government expenditure at higher for the direct purchase, such as Mahakam Ulu Regency (71.67%), Batam Municipality (64.33%), Raja Ampat Regency (62.20%), Maluku Barat Daya Regency (62.09%), Kepulauan Aru Regency (61.06%), and Bengkalis Regency (58.38%). Commonly, most of those mentioned areas allocate their indirect purchase for employee expenditures. This indicates one of the reasons why most of those areas are not paying attention yet to developing their areas.

![Figure 5. The Expenditure Suitability Ratio of Indonesian Outermost and Foremost Areas in 2017](image)

**Model 1: Local Financial Independence Impacts on The Poverty Rate**

The results of model estimation in Table 5 signify that all independent variables in that model collectively contribute to a significant explanatory impact on the poverty rate (at a significant level of 99 percent). This can be noticed from the probability value (F-statistic) is equal to 0 (zero) which has a value lower than $\alpha = 1$ percent. Furthermore, based on the adjusted R-squared of 0.4867, denotes that all independent variables together that can explain the variation of poverty rate variable is about 48.67 percent. While the remaining, 51.33 percent can be defined by other factors outside of the model.

![Table 5](image)

### Table 5

**The Model Estimation of Local Financial Independence Impacts on Poverty Rate**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Error Standard</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>245.1637</td>
<td>41.5134</td>
<td>0.0000***</td>
</tr>
<tr>
<td>LFIR</td>
<td>0.0553</td>
<td>0.0753</td>
<td>0.4671</td>
</tr>
<tr>
<td>logEYS</td>
<td>3.3987</td>
<td>12.1630</td>
<td>0.7815</td>
</tr>
<tr>
<td>logEPC</td>
<td>-59.641</td>
<td>11.4149</td>
<td>0.0000***</td>
</tr>
</tbody>
</table>

Dependent Variable = PovRate

Adjusted R-squared = 0.4867, F-statistic = 13.6441, Prob (F-statistic) = 0.0000

***Significant on level 1 percent
**Significant on level 5 percent
*Significant on level 10 percent

Source: results of data processed

The estimation results of this model had been processed successfully from some classical assumption tests becoming statistical requirements that must be accomplished in a multiple linear regression analysis based on the ordinary least square (OLS). This model had passed a multicollinearity test indicating free of multicollinearity problems. It is represented through the correlation matrix value of all variables which are under 0.8. So do the heteroscedasticity and autocorrelation tests point out the model does not any problem of those tests. In the heteroscedasticity test, the generated p-value Obs*R-squared is 0.1770 and higher than $\alpha = 1$ percent. Moreover, the autocorrelation test denotes p-value Obs*R-squared as 0.2272 which is higher than $\alpha = 1$ percent.

Partially, the variable of local financial independence ratio is not significantly affecting a variation of the poverty rate. This result indicates each local financial policy of Indonesian outermost and foremost areas until now is not able to improve their public welfare in the border areas especially in bringing down poverty. The low capability in delving the existing local financial potency as shown through the mentioned results above is presumed to cause limited financing for the poverty alleviation program in those areas. It is also in line with the results of expenditure suitability ratio analysis where the majority of those areas still prioritize their expenditures on employee aspects.
The variable of expected years of schooling does not significantly influence the poverty rate. This is surmised that the high educational levels of people in the border areas do not affect the poverty rate due to available jobs for educated employees are very limited. This takes into account that the conditions of outermost and foremost areas mainly are located in remote areas making expertise and academic capability are not absorbed in the labor market. In return, by perforce those educated people enter jobs with low skills. The earned wages and income are also low which makes the relative poverty rate is still not reduced.

Meanwhile, the growth of expenditure per capita affects significantly the poverty rate and possessing a negative relationship. This bears in meaning for 1 percent decreasing growth of expenditure per capita can scale up the poverty rate as high as 59.64 percent by assuming other independent variables are not changed. It is supposed due to a high price of goods (especially basic needs) which is triggered by difficulties of supplying goods to outermost and foremost areas in Indonesia causing limited accessibility and connectivity to other areas. The limitations can be caused by the dynamics of natural factors such as seawater conditions in the border areas undergoing the high waves in a certain season, and other factors. This condition is made worse by a lack of existing infrastructure such as ports, transportation vehicles, and air trips. The high price of goods induces mainly people in the border areas are difficult to reach basic needs making the poverty rate is not getting yet down.

Model 2: Impacts of Local Financial Independence on The Human Development Index.

Estimating this model results that all independent variables in the model (local financial independence ratio and dummy) makes collectively explanatory impact significantly on the Human Development Index in 99 percent of confidence level (Table 6). This is able to be viewed from the probability value (F-statistic) which is equal to 0 (zero) possessing values lower than α = 1 percent. In another hand, the Adjusted R-squared is 0.4589 implying independent variables together can explain the growth variable variation of Human Development Index as high as 45.89 percent. While the rest namely 54.11 percent is able to be explained by other factors outside the model.

The results of the classic assumption test on the estimating this model also denotes there are not any problems of multicollinearity, heteroscedacity, and autocorrelation. No problems of multicollinearity are represented through matrix correlation value from all variables that are lower than 0.8. So do the heteroscedacity and autocorrelation tests, in where this model does not have any heteroscedacity and autocorrelation. In heteroscedacity, the generated p-value Obs*R-squared is 0.2106 that is higher than α = 1 percent. Further, based on the autocorrelation test, the resulted p-value Obs*R-squared is 0.6820 which is higher than α = 1 percent.

The estimated results from the model above exhibit that partially the local financial independence ratio affect significantly the Human Development Index and possesses a positive relationship. This means an increase of 1 percent of the local financial independence ratio will escalate 0.0826 percent of Human Development Index by recognizing other variables are not changed (ceteris paribus). It indicates the local financial performance of the outermost and foremost areas of Indonesia cannot make any real impacts yet on standards of living for people in the border areas, nevertheless already seen the efforts had been taken.

Moreover, estimating this model delivers a result that there is a significantly different growth of the Human Development Index of outermost and foremost areas between eastern and western Indonesia.

### Table 6

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Coefficient</th>
<th>Error Standard</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>1.779202</td>
<td>0.007661</td>
<td>0.0000***</td>
</tr>
<tr>
<td>LFIR</td>
<td>0.000826</td>
<td>0.000308</td>
<td>0.0108**</td>
</tr>
<tr>
<td>D</td>
<td>0.043015</td>
<td>0.010859</td>
<td>0.0003***</td>
</tr>
</tbody>
</table>

Source: results of data processed
Statistically, the result is able to be implied if the outermost and foremost areas are located in western Indonesia \((D = 1)\), the growth of Human Development Index will be higher as many as 0.0430 with an assumption that other independent variables are constant. This condition indicates that the development of eastern Indonesia’s outermost and foremost areas is still left behind than western Indonesia. This finding strengthens the development orientation of the central government currently in pushing the development in eastern Indonesian areas.

Conclusions

The research demonstrates some findings related to local financial performance and its impact on border community welfare. The participation of the public in paying taxes and local retributions in those areas is very small. The development orientation of the central government currently taken has been already proper by prioritizing more on developing eastern Indonesia. The central government has to establish consultative and instructive relationship patterns in point of financial, especially to all outermost and foremost areas in Indonesia.

Low capability in optimizing the gained local government revenue provides consequences also on a low financial capability in financing development activity. This enforces findings that the development in those areas are still underdeveloped. In a great measure of those areas are not capable yet to optimize their authority in accelerating regional development. Those areas are still prioritizing their government expenditure on indirect purchase needs. This infers most of those areas do not concern yet on developing their own regions.

In general, the local financial performance of Indonesian outermost and foremost areas until currently does not contribute real impacts yet for uplifting public welfare in the border areas. Even though, recognizing the means to increase public welfare in the border areas has been already and kept pushing through paying attention to the development orientation of the central government currently by accelerating development in eastern Indonesia.

The outermost and foremost areas of Indonesia, in general, are still interesting to be investigated individually by cases in the future, like what happens in Batam Municipality with its effectiveness ratio and two other regencies, Mahakam Ulu and Raja Ampat, with their contradicting ratios between the expenditure suitability and effectiveness. Then in figuring out these cases, the techniques of data collections would be taken are observation, interviews, and focus group discussion. The improvement of future research might be focused on problem orientation like uplifting the work quality of apparatuses and human resources of the concerning areas, as well as the formulated strategy which would be resulted.

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References


