A Study of The Linking Local Expenditure Quality to Reducing Poverty Rate in Bengkulu Province

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Abstract. Bengkulu Province is one of the regions in Indonesia that are still dealing with a high poverty rate. Various efforts made by the local government in addressing the problem of poverty have not yet met optimal results, despite the implementation of regional autonomy and fiscal decentralization nowadays. The research aims to analyze the impact of local expenditure quality on poverty reduction of regencies and municipality in Bengkulu Province. The analysis method used is panel data analysis that involves data of 10 regencies and municipality from 2015 to 2018. The result shows that local expenditure quality of regencies and municipality in Bengkulu Province is less influential on the poverty rate. Lacking the alignment of local governments in poverty alleviation programs makes the poverty rate is difficult to reduce. Government spending on employee expenditure still becomes a priority of local governments in conducting government activities and other public services. Synergy and synchronization of policies with integrated various fields or sectors are needed to encourage the increased entrepreneurial capacity and community empowerment.

Keywords: social welfare, panel data analysis, local financial

Introduction

Poverty is related to the inability of households to meet their daily needs and is associated with vulnerability, helplessness, physical weakness, and isolation (Fatony, 2011; Pujiharto et al., 2018; Amira and Marhaeni, 2014; Taufiq, 2017; Fadilla, 2017; Yamin & Dartanto, 2016). The Indonesian Government places poverty reduction as one of the national priorities. In its implementation, poverty alleviation becomes a joint authority and responsibility between the central, provincial, and regencies/municipalities governments, and the community (Irmaiani & Suradi, 2018).

The implementation of regional autonomy and fiscal decentralization requires local governments to have greater regional financial management capabilities. Management of regional expenditure through regional financial that is transparent and more accountable becomes an indication of better financial performance compared to the previous era. Thus, regions have to be able to effectively and efficiently manage their local spending (Soleh, 2015; Arham, 2014; Suartini, 2019; Susianti et al., 2016; Utomo et al., 2017; Hendriyani and Suartini, 2019; Eringa et al., 2016).

The efforts of regional governments in implementing various poverty reduction policies and programs have yet to show optimal results (Harlik et al., 2013; Pella et al., 2013; Rasdi & Kurniawan, 2019). One of the regions in Indonesia that are still dealing with a high poverty rate is Bengkulu Province. The poverty rate of this province is the highest among other provinces in Sumatra, as well as above the national poverty rate. Based on the Badan Pusat Statistik or Central Bureau of Statistic (2020), the poverty rate in this province was 14.91 percent, higher than the national poverty rate of 9.22 percent in 2019. Thus, there is an indication that there
are problems in the management of regional finances in Bengkulu Province, specifically related to the local expenditure quality, so it is necessary to analyze its relationship to poverty reduction in the province.

The research has a purpose to analyze the impact of local expenditure quality on reducing the poverty rate in various regencies and municipalities in Bengkulu Province. Studies of local government expenditure and poverty in Bengkulu Province have been carried out by several researchers. However, studies concerning regional government spending that discussed the local expenditure quality following poverty reduction efforts have not been reported based on the literature exploration. Studies of Soleh (2015) and Zuhr and Soleh (2016) discuss the analysis of regional spending and regional financial performance in general but do not specifically relate it to poverty reduction. Several other studies elaborate on the impact of government spending on economic growth (Anitasari and Soleh, 2015), and the Human Development Index (Zulyanto, 2016). Besides, several previous studies discuss the factors that influence poverty and its relationship with employment (Mintargo et al., 2018; Nugroho, 2018; Nugraha, 2020; Basorudin et al., 2019), behavior of the poor (Pramudyasmono et al., 2011), and poverty data mapping (Harmes et al., 2017).

Research Methodology

The research used a panel dataset of 10 regencies and municipality in Bengkulu Province such as Regency of South Bengkulu, North Bengkulu, Kaur, Rejang Lebong, Central Bengkulu, Seluma, Kepahiang, Mukomuko, Lebong, and Municipality of Bengkulu, which is a 4-year record from 2015 to 2018. The data were acquired from various sources, among others are the Central Bureau of Statistics and the Ministry of Finance. The collection of data include actualization of capital expenditure value, a total of local expenditure, mean years of schooling, adjusted per capita expenditure, and the poverty rate. Data of capital expenditure value and total of local expenditure were needed to find indicators of local expenditure quality through the calculation of the formula as follows:

\[
\frac{\text{Local expenditure quality}}{\text{Capital expenditure}} = \frac{\text{Total of local expenditure}}{\text{Capital expenditure}} \times 100\%
\]

To explore the relationship between the local expenditure quality and the rate of poverty in regency and municipality in Bengkulu Province, the research employed panel data analysis approach. It specified the log linear model as the following:

\[
TK_{it} = \beta_0 + \beta_1 KBD_{it} + \beta_2 \ln PPK_{it} + \beta_3 \ln RLS_{it} + e_{it}
\]

where,

\[i = 1, 2, \ldots, N\] is the number of regency/municipality,
\[t = 1, 2, \ldots, T\] is the period of research, 
"TK" is the rate of poverty, "KBD" is the quality of local expenditure, "PPK" is the per capita expenditure, "RLS" is the mean years of schooling, \(\beta_0\) is a constant, \(\beta_1, \beta_2, \beta_3\) are the coefficient of regression, while \(e\) is the term for error.

The construction of the model above base on the concepts and theories which convey by several previous studies that are relevant to the factors that influence poverty. Government expenditure is one of the instruments used by the government to improve people’s welfare, one of which measured through poverty alleviation achievements. The local expenditure quality, among others, can be discovered through the portion of local expenditure allocated for investment in the form of capital expenditure in the relevant fiscal year. Capital expenditure will provide benefits in the medium and long term towards poverty alleviation in the form of spending on education, economic, and social protection functions (Syamsuri and Bandiyono, 2018; Soleh, 2015).

The concept and definition of poverty measured in the research used the concept of economic poverty in the form of monetary poverty, which follows the Central Bureau of Statistics. The institution states that poverty is a condition of life that is completely lacking experienced by a person based on expenditure per capita for a month, so it is not enough to meet the minimum standard of living needs. The minimum standard of living needs is represented by the poverty line, which is the minimum per capita expenditure per month to meet the minimum food and non-food needs (Taufiq, 2017).

The human capital theory states education and training that humans obtained will raise their abilities and skills so that productivity will also increase. Meanwhile, according to the vicious circle of poverty theory, low productivity produces low income
received. This has implications for low savings and investment so that they hardly move out of underdevelopment and poverty (Zulyanto, 2016; Prasetyo, 2008).

Results and Discussion

The analysis stages of the research began by constructing a panel regression estimation model to predict the slope parameters and different intercepts in each municipality and regency and period. Estimation of the model needs choice of panel data regression model that submitted to get the best model from the three alternative models. These models were pooled least square, fixed effect dan random effect.

The first stage of the test was carried out to choose between the pooled least square model and fixed effects through the use of the Chow test. The statistical calculation results in this model showed the Chi-square cross-section probability of 0.00, or less than the significance level of 5 percent. It indicated reject H0, which means the fixed-effect model was the best model of the two models above.

Furthermore, the testing of panel data regression model selected the best model between the fixed effect and random effect using the Hausman test. The results of statistical calculations showed the probability of a random cross-section of 0.00 or less than the significance level of 5 percent. It indicated the reject H0 so that the best model of the two models was the fixed effect model (see table 1).

The estimation results of this model had passed several classical assumption tests in the form of statistical requirements to be fulfilled in the analysis of fixed-effect regression. The required classic assumption tests for the analysis of regression are heteroscedasticity and multicollinearity test. According to the results of multicollinearity test, the model estimation did not experience problems of multicollinearity since the values of the correlation coefficient for whole variables did not exceed 0.8. Moreover, the results of heteroscedasticity test showed the model did not have a heteroscedasticity problem. The test results using the Park test indicated that the probability value of each independent variable in the residual squared regression was more than 0.05. The regression equation from the fixed-effect model was shown as follows:

$$TK_i = 222.2862 + 0.0167KBD_e - 19.6689lnPPK_g - 12.5350lnBLS_i$$

*Prob. (0.0000) (0.5507) (0.0008) (0.1804)*

$$Adj. R^2 = 98.1855 \text{ percent, } Prob (F-statistic) = 0.0000 \text{ percent}$$

The model estimation results showed that all the independent variables simultaneously apply a significant explanatory impact on the rate of poverty at a 99 percent confidence level. It was indicated through the probability value (F-statistic) of 0.00 percent, less than α of 1 percent. Thus, the value of Adj. R^2 showed that the variation in the poverty rate was explained collectively by the local expenditure quality, per capita expenditure, and mean years school of 98.19 percent. The rest 1.81 percent was explained by other variables outside the model.

The model estimation statistically showed that the regional spending quality did not significantly affect the rate of poverty in regencies and municipality in Bengkulu Province, ceteris paribus. Besides, the result had a positive influence that was not relevant to the theory. It was shown by the probability value of the regression coefficient of 0.55, more than α of 0.05. That condition indicated that local financial management policies in the province had not been able to reduce poverty to date. In general, the local expenditure quality in various regencies and

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Source: results of the author’s processing
municipalities showed a declining trend in the last four years (figure 1). Mukomuko Regency was a regency that had the best local expenditure quality among the regencies and municipality in Bengkulu Province, with a ratio of capital expenditure to the total of local expenditure in the range of 23 to 27 percent. Along with the Lebong Regency, these two regencies had a ratio of more than 20 to 35 percent in the period 2015 to 2018. The rest regencies and municipality in Bengkulu Province only had a ratio of less than or equal to 18 percent.

![Figure 1. Ratio of Local Capital Expenditure to the Total of Local Expenditure of Regencies and Municipality in Bengkulu Province during the 2015-2018 Period (in Percent)](image)

Source: Ministry of Finance, data processed

The low of local expenditure quality of regencies and municipality in Bengkulu Province indicated a lack of alignments in development programs and activities, including poverty alleviation programs, hence the poverty rate was difficult to reduce. We supposed that the municipal district government in the province still prioritized employee expenditure for carrying out government activities and other public services. According to the Ministry of Finance data in 2018, the ratio of personnel expenditure to the total local expenditure of all regencies and municipality in Bengkulu Province was minimal of one-third of total local expenditure. Mukomuko Regency was the regency that had the lowest ratio among other regencies and municipality in the Bengkulu province of approximately 33 percent. Meanwhile, the Bengkulu Municipality was the region that had the highest ratio of about 56 percent.

The success of fiscal decentralization to realize community welfare, among others, depends on the ability of local governments to allocating their spending to activities that focus on community needs by emphasizing quality spending. In other words, the success of government spending is not only influenced by the amount of expenditure allocation but the quality or program of the expenditure itself. The budgeting process through the delegation of authority can involve many participants, which we expected to create effectiveness (Utomo et al., 2017; Syamsuri and Bandiyono, 2018).

Variable of per capita expenditure had a negative effect and significant on the poverty rate in various regencies and municipality of Bengkulu Province, ceteris paribus. That was shown based on the probability value of the regression coefficient of 0.00, less than α of 0.05. The result indicated that a 1 percent increase in the per capita expenditure could reduce the poverty rate by 9.45 percent, assuming other independent variables had not changed.
The result was relevant to the theory that poverty (at least economically) is caused by low income earned by a person or household, so that the low purchasing power makes them insufficient to meet their minimum standard of living needs. The low income of the community was probably and partly due to the high proportion of the labor force in Bengkulu Province working in the agricultural sector. As it is known, employment in the agricultural sector, among others, has characteristics of low productivity and wages. Based on Bank Indonesia data in 2019, the portion of the labor force working in the agricultural sector reached 45.99 percent or almost half of the total labor force in the province.
Seluma Regency was the district that had the lowest per capita expenditure compared to other municipal districts in Bengkulu Province, approximately between 7.1 and 7.8 million rupiahs per person per year during the 2015 to 2018 period (figure 2). While the poverty rate in the region in 2018 was 19.6 percent, far above the provincial and national poverty levels (figure 3). Bengkulu Municipality was the region that had the highest expenditure per capita among other regencies and municipalities in the province, approximately between 12.3 and 13.6 million rupiahs per person per year during the same period. However, the poverty rate of the municipality was not much different from Seluma Regency by 18.82 percent in 2018. It possibly related to the wide income gap that was common in urban areas.

Variable of mean years of schooling had a negative effect on the poverty rate in various regencies and municipality of Bengkulu Province, ceteris paribus. However, the independent variable was not statistically significant in influencing the poverty rate. It was shown through the probability value of the regression coefficient of 0.18, more than α of 0.05. This result strengthened Nugraha (2020) findings that the main problem of poverty in Bengkulu was the lack of employment field (specifically employment requiring skilled labor). Based on Bank Indonesia data in 2019, the labor force had a better education (high school and above) of 61.13 percent, whereas the majority of available employment was in the agricultural sector around 46 percent. Hence the labor force, especially those who have better education, was not absorbed by the labor market. The high number of unemployed people had impacted on lower productivity so that the poverty rate was difficult to suppress. Besides Bengkulu City, mean years of schooling of regencies in Bengkulu Province had ranged from 7 to 9 years from 2015 to 2018 (figure 4).

![Figure 4. Mean Years of Schooling of Regencies and Municipality in Bengkulu Province During the 2015-2018 Period (in years)](image)

Source: The Central Bureau of Statistics

**Conclusions**

The local expenditure quality of regencies and municipality in Bengkulu Province was less influential on the poverty rate. The reason can be seen from the tendency of the local expenditure quality of regencies and municipality to decline in recent years. It indicated a lack of alignment from local governments in development programs and activities, including poverty alleviation programs, so that the poverty rate was difficult to reduce. The local government still prioritized government spending on employee expenditure in
carrying out government activities and other public services. To address budget limitations for poverty alleviation programs requires synergy and synchronization of policies with integrated various fields or sectors, including licensing and investment, industry, trade, agriculture, employment, etc. Poverty alleviation cannot be carried out by only one or two fields or sectors, such as social and education. Policy collaboration with the field of licensing and investment is hoping to encourage the improvement of investors’ ease of direct investment, particularly domestic investment, as well as the use of local resources and labor-intensive technology. In addition to the trade sector, policy collaboration with the industrial and agricultural sectors must continue to be encouraged, especially in increasing the activities of small and medium industries, one of which is through increasing the downstream of agricultural products to rise added value. Besides, policies are also needed to be carried out by sectors (employment, cooperatives, empowerment of rural communities, and so on) as well as other stakeholders (universities and others), which can encourage increased entrepreneurial capacity and community empowerment. Integration of these fields or sectors can encourage the creation of increased employment, especially the labor force that has higher education. Thus, there is a rise in productivity, and an impact on increasing income, hence the poverty rate can be reduced.

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