Poverty Reduction through Local Financial Performance: Case Study in East Nusa Tenggara Province, Indonesia

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ABSTRACT

The high level of poverty in East Nusa Tenggara Province, Indonesia, requires effort to be alleviated. For instance, there is a need to enhance the financial management performance of the locals. Therefore this study analyzes the contribution of local financial performance to the poverty rate. It uses panel data regression analysis involving 22 regencies and municipalities from 2015 to 2018. The results of the study showed that the local financial independency ratio in various regencies and municipalities has fewer contributions to the poverty rate. Local governments need to increase regional fiscal capacity integrated with efforts to improve regional macroeconomic performance. Moreover, they should increase alignments toward poverty alleviation programs as well as the capacity of regional apparatus.

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1. Introduction

East Nusa Tenggara is one of the provinces in eastern Indonesia with high poverty levels (Bappenas, 2017). Based on BPS (2020a), the poverty rate in the region reached 20.62 percent in 2019. This was more than double the national level, which was specifically 9.22 percent in the same year. This necessitates the need to reduce poverty by the government (Hanifah et al., 2017; Alfrojems, 2019; Wibowo & Khoirudin, 2019). The implementation of government programs to reduce poverty is determined by local financial management at the regency and municipality levels (Febiandani & Suseno, 2016; Kumpangpune et al., 2019; Mahpudin et al., 2017). Therefore, there is a need to study the contribution of financial performance in supporting poverty reduction programs since the economic condition in East Nusa Tenggara is very low (Suartini, 2019).

Previous studies discussed local finances and poverty by Amelia (2012), Renggo (2017), Nalle and Kiha (2018), and Siburian (2009). They focused on the factors influencing poverty, as well as the socio-economic conditions of the people. Lestari (2009) discussed the application of health insurance programs for the poor, while Fanggidae et al. (2009) and Toda (2016) focused on the public financial management issues in the regional autonomy, as well local government strategies in poverty reduction.

The purpose of this study is to analyze the contribution of local financial performance to poverty rate.

2. Literature Review

Poverty

In essence, poverty always has implications for various aspects of community life, not only for the poor but also for groups of people who are not poor. Hence, poverty alleviation has always been an important agenda in economic development in every country. Political commitment alone is not enough to reduce poverty can be implemented effectively (Harmadi, 2013).

Poverty is an integrated concept that has five dimensions, namely proper, powerless, state of emergency, dependence, and isolation (both geographically and sociologically). There are many explanations about the causes of poverty, one of which is the economic arrearage in a region. Residents of a region are poor because they depend on subsistence agriculture, traditional production methods, and apathy towards the environment. In a narrow definition, poverty is understood as a state of lack of money and goods to ensure survival (Nugroho & Rhamadhani, 2016).

The challenges faced by Indonesia in poverty alleviation related to the state of emergency is the success of reducing poverty quickly that often destroyed due to the economic crisis (such as the experience in the 1997-1998 economic crisis). So poverty reduction is not only focused on the development of the number of poor people but also can prevent poverty due to sudden external shock. Other external shock pressures such as the increase of world oil prices cause an increase in prices of goods and services, hence impact increasing the number of poor people. Regarding the issue of isolation, the policy of expanding the fulfillment of the basic rights of the poor has not been able to reach those who live isolated in underdeveloped and remote areas, as well as in some border areas. It is due to the high cost of logistics that can reach the border areas, given the limited infrastructure (Dartanto, 2012; Harmadi, 2013).

Local Financial Performance

The ability to manage local government finance reflects the ability to finance the implementation of local government activities and their development using all their potential (Fitriani & Dwirandra, 2014). Local financial performance is the achievement rate of regional financial work results using financial indicators established through a policy or statutory provisions for one budget period (Junarwati et al., 2013). Measurement of local government financial performance can use
several ratios, namely local financial independence ratio, effectiveness ratio, efficiency ratio, and revenue growth ratio. Local financial independence ratio is the ability of local governments to finance government activities, development, and services to the community who have paid taxes and retributions. If the Local Own-source Revenue obtained by the local government is high, then the percentage of Local Own-source Revenue in financing development services is also high, and vice versa. Effectiveness ratio is the ability of the local government to realize the planned Local Own-source Revenue compares to targets set based on the real potential of the region. The efficiency ratio is the ratio that compares the realization of expenditure with the realization of local revenue. The income growth ratio serves to measure the extent of the ability of local government to maintain and increase their success from year to year (Ani & Dwirandra, 2014).

3. Research Method

Data types and sources
This study uses secondary data through a series of panel data, covering 22 regencies/municipalities in East Nusa Tenggara Province. It is based on observations made between 2015 and 2018. Data were sourced from various institutions, including the Ministry of Finance and the Central Bureau of Statistics. The data collected included the realization of the local government budget, mean years school, per capita expenditure, and the poverty rate.

Econometrics model specifications
To determine the contribution of local financial performance to poverty rate, the local financial performance indicators were calculated. This study uses the local financial independency ratio as an indicator of local financial performance based on Febiandi and Suseno (2016). The calculation uses the realization of local government budget based on the formulation of Pilat and Morasa (2017), as follow:

\[
\text{Local financial independency ratio} = \frac{\text{local government revenue}}{\text{balancing funds}} \times 100\%
\]

This study uses the econometrics method based on the panel data regression analysis model developed by Suartini (2019), as follow:

\[
P_R_{it} = \beta_0 + \beta_1 LFIR_{it} + \beta_2 lnMY_{S_{it}} + \beta_3 lnSP_{D_{it}} + e_{it}
\]

where,

\( i = 1, 2, \ldots, N \) is the number of regencies/municipalities, \( t = 1, 2, \ldots, T \) is the research period, “\( PR \)” is the poverty rate, “\( LFIR \)” is the ratio of local financial independency, “\( MYS \)” is the mean years school, "\( SPD \)” is the per capita expenditure, \( \beta_0 \) is a constant, \( \beta_1, \beta_2, \beta_3 \) are the regression coefficient, and \( e \) is the error term.

The poverty rate is a percentage of the population unable to fulfill the minimum basic needs for a decent living, both food and non-food, as measured in terms of expenditure (BPS, 2020b). The ratio of local financial independency is a measure of the financial capacity of local governments in self-financing activities, development, and services to the community (Suartini, 2019). The mean years school is the number of years used by residents in formal education. Per capita expenditures are costs incurred for the consumption by all households for a month divided by their number (BPS, 2020b).
4. Results and Discussion

Description of local social and financial conditions

**Poverty rate.** Poverty is highly influenced by the developments of the strategic environment. A person might become poor in case changes in the strategic environment occur quickly, affecting the purchasing power negatively (Harmadi, 2013). This condition leads to differences in poverty rates between regions. For instance, Central Sumba has the highest poverty rate among regencies and municipalities, as shown in Figure 1. The poverty rate in this regency was 34.85 percent in 2018, which was a decrease compared to 2015 and 2016 with 36.22 and 36.55 percent, respectively. The other regencies with high poverty rates were Sabu Raijua and East Sumba with 30.83 and 30.13 percent respectively in 2018. These values decreased significantly compared to previous years, such as 33.17 and 31.74 percent in 2015. Kupang municipality had the lowest poverty rate, specifically 9.61 percent in 2018, which is much lower compared to other regencies. This was a significant decrease compared to 2015, where the rate was 10.21 percent.

![Figure 1. Poverty Rate of Regencies and Municipalities in the East Nusa Tenggara Province Area 2015 to 2018 (in percent)](image)

Source: BPS Prov. NTT (2020a)

In terms of poverty reduction, South Central Timor has been the most successful regency in recent years. The regency reduced the poverty rate by 3.06 percent, which is an outstanding performance. In 2018, the rate was still high, specifically 28.06 percent. However, this was a significant decrease compared to 2015 with 31.12 percent. Other regencies with significant decreases include North Central Timor and Rote Ndao by 2.89 and 2.41 percent, respectively. The poverty rates of these regencies in 2018 were 22.31 and 28.08 percent, but decreased significantly in 2015 to 25.20 and 30.49 percent, respectively. The regency with the highest increase in poverty rate was East Flores with 1.39 percent. Its rate in 2018 was 11.05 percent, a higher value compared to 2015 with 9.66 percent.

**Per capita expenditure.** Sabu Raijua Regency has the lowest per capita expenditure as shown in Figure 2. It only had a per capita expenditure of Rp. 5,245 million per person per year in 2018, which represented an increase of almost 10 percent compared to 2015, where it had Rp. 4.781 million per person per year. Other regencies with the lowest per capita expenditure include East Manggarai and Malaka. With Rp. 5,809 million and Rp. 5,894 million per person per year in 2018, respectively.
This figure increased by 10.73 and 5.94 percent compared to 2015, where it was Rp 5,246 million and 5,563 million per person per year.

Kupang Municipality has the highest per capita expenditure in the province. The municipality had a per capita expenditure of Rp 13,199 million per person per year in 2018, which was much higher compared to other regencies. This figure increased slightly by 2.67 percent compared to 2015, where it had Rp 12,856 million per person per year.

Mean years school. The population of Central Sumba Regency has the lowest mean years school. It is the only region that had a mean years school under 6 years in 2018, specifically 5.76
years. On average, the population of the regency aged 25 years and above had studied for 5.76 years or almost completed grade VI of elementary school. In contrast, Kupang Municipality residents had the highest mean years school in 2018, specifically 11.46 years. This was the only municipality with a mean years school of more than 9 years or almost completed grade XII of senior high school. This shows there is a wide gap in the development of the education sector between regencies and municipalities in the province.

**Level of local financial independency.** The representative indicators of local financial performance were classified as very low based on Mahulae (2018). The ratio of local financial independency in the whole province was under 25 percent, as shown in Figure 4. This means that regional revenues in various regencies and municipalities are still dependent on the equalization fund from the central government to finance activities and development. Since the implementation of regional autonomy, the level of local fiscal dependence in the province is relatively high.

Kupang Municipality had the highest local financial independency ratio in 2018, specifically 19.03 percent. In contrast, Rote Ndaro Regency had the lowest ratio of 4.47 percent in the same year. Nagekeo and Manggarai Timur Regencies also had the lowest ratios, specifically 5.51 and 5.76 percent, respectively.

![Figure 4. Local Financial Independency Ratio of Regencies and Municipalities in the East Nusa Tenggara Province Area 2015 to 2018 (in percent)](image)

**Inferential analysis**

This analysis is carried out to build the estimation of panel data regression models. It involves predicting different intercept and slope parameters in each regency and municipality. The panel data regression model chosen is the common effect. It is based on the estimation that produce regression coefficients with a relationship relevant to the theory. The estimation results of this model have exceeded a series of classic assumption tests, which are statistical requirements to be fulfilled in a common effect regression analysis. The classic assumption test on the regression analysis include the multicollinearity and heteroscedasticity. In the multicollinearity, the estimation of the model did not experience problems because the correlation coefficient values for all variables were less than 0.8. Similarly, heteroscedasticity test shows this model did not have problems. The R-squared (weighted) 0.56 was more than an un-weighted value of 0.37. Also, the weighted sum squared of 2623.17 was less than the unweighted, which was 3077.40.
The estimation in Table 1 shows that all independent variables in the model, which include local financial independency ratio, mean years school, and per capita expenditure, collectively have a significant effect on poverty rate at a 99 percent confidence level. This is also shown by the F-count value of 16.67 which has a value of more than the F-table of 4.02. Furthermore, based on the R-squared value of 0.37, all the independent variables simultaneously explain the variation in the poverty rate by 37 percent. The remaining 63 percent is explained by other factors outside the model.

### Table 1. The Estimation Result of the Common Effect Model

| No. | Independent variable                  | Coefficient | t-count | F-count |
|-----|---------------------------------------|-------------|---------|---------|
| 1.  | Local financial independency ratio    | 0.0854      | 0.4477  | 16.6645 |
| 2.  | Mean years school                     | (3.6594)    | (3.4724)|         |
| 3.  | Per capita expenditure                | (0.0004)    | (0.5240)|         |

Dependent variable: Poverty rate

t-table: 1.9886
F-table: 4.0237
R-squared: 0.3731

Source: The result of data processing

**Economic interpretation**

The model estimation shows the local financial independency ratio in various regencies and municipalities does not significantly affect the poverty rate in case all other factors are held constant. This is because the t-value of 0.45 is less than the t-table of 1.99 at a 95 percent confidence level. This indicates that local financial policies cannot reduce poverty rates. East Nusa Tenggara has a small economy and limited natural resources, reducing the capacity of local governments to increase their sources of revenue. This is due to the limited number of small businesses, low tax revenue from the entertainment sector, and weak service provision (Fanggidae et al., 2009; Hendriyani & Suartini, 2019).

The capital expenditure component in government spending is intended to finance development programs and poverty alleviation programs to benefit the community. Therefore, greater capital expenditure provides huge benefits to the community. The analysis shows that the proportion of employee expenditure to total regional expenditure in the majority of regencies and municipalities is greater than the proportion of capital expenditure (Figure 5). This is because poverty alleviation programs are not a priority, hence difficult to suppress. Based on data from the Ministry of Finance in 2018, the proportion of personnel to total regional expenditure in the majority of regencies and municipalities were in the range of 30 to 49 percent. This was approximately one-third of the total regional expenditure. Meanwhile, the proportion of capital expenditure to total regional expenditure in 8 regencies out of 22 existing regencies and municipalities (36.36 percent) only allocates below 20 percent. A total of 12 other regencies and municipalities have a proportion of capital to total regional expenditure between 20 and 25 percent.

The mean years school has a significant negative influence on the poverty rate in regencies and municipalities. This is indicated by the t-value of 3.47 more than t-table of 1.99 at a 95 percent confidence level. Therefore, there is a significant effect of an increase in the mean years school by 1 percent on reducing poverty rates by 3.66 percent, assuming other variables are constant. The low education quality of the majority population in East Nusa Tenggara led to low productivity. This condition is reflected in the number of the population working in the agricultural sector in 2018, precisely 54.73 percent (BPS Prov. NTT, 2020b). In general, this proportion is still very dependent on the traditional agricultural sector (Fanggidae et al., 2009; Seran, 2016; Kiha & Mitang, 2019). The low productivity of the population has an impact on lessens the income or wages they receive. This is one of the reasons for the high poverty level in the province.
The level of per capita population expenditure in various regencies and municipalities does not significantly affect the poverty rate. This is because the t-value of 0.52 is less than the t-table of 1.99 at a 95 percent confidence level. However, there are allegations that non-economic factors encourage this condition. This is attributed to the socio-cultural aspect of the community, which is generally traditional and lives a simple life. This socio-cultural condition also occurs in the Yogyakarta Province (Samputra & Munandar, 2019). Since it is not seen in quantitative data, this factor does not appear in the regression model.

Figure 5. The proportion of Personnel and Capital Expenditure to Total Regional Expenditure of Regencies and Municipalities in the East Nusa Tenggara Province Area in 2018 (in percent)
Source: Ministry of Finance, data processed

5. Conclusion
Local financial performance in various regencies and municipalities in East Nusa Tenggara province does not contribute to poverty rate. This is due to the limited capacity of local governments to increase their sources of revenue. Consequently, they have a high financial dependence on the central government. The low capacity of local governments is also evident from the limited allocation of capital expenditure compared to the personnel allocation in the regional structure in the regencies and municipalities within the province. This means poverty alleviation programs are not prioritized by local stakeholders.

The efforts to increase the revenue capacity by the local government needs to be in line with measures to improve the community's economic performance. This involve providing regulations that encourage the development of tax resources and the regional economy. This can be achieved by enhancing Local Government Revenue, sources of regional retributions and taxes from local economic activities.

Local government and legislative alignments on poverty alleviation programs needs to be improved, especially in terms of budget alignments. Budget reallocation is needed to support poverty alleviation programs. This necessitates effective planning and budgeting processes to guarantee the suitability between proper goals, priorities, and budget allocations. The local governments should encourage capacity building for the planning apparatus.
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