

The Effect of Government Expenditure in The Education, Health and Capital Expenditure Sectors on Poverty

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Abstract

This study aims to analyze the effect of government spending in the education and health sectors, the labor force participation rate (TPAK), and Gross Regional Domestic Product (GRDP) on poverty in Indonesia during the period 2010–2014. Poverty is a complex socioeconomic problem arising from individuals' inability to meet basic needs, which in turn limits access to essential services such as education and health. In this study, poverty is treated as the dependent variable, while government expenditure on education and health, TPAK, and GRDP serve as the independent variables. The contribution of this study lies in providing empirical evidence on the relative importance of social sector spending and economic factors in reducing poverty at the regional level in Indonesia. The findings are expected to enrich the existing literature on poverty alleviation and serve as a reference for policymakers in designing more effective and targeted poverty reduction strategies

Keywords: Poverty, Government Expenditure, TPAK and GRDP.

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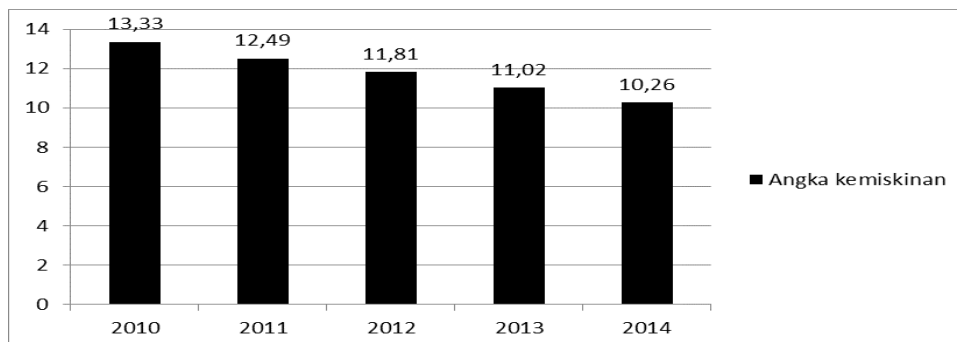
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INTRODUCTION

The Poverty is a fundamental issue that has become a major focus for the Indonesian government. The government has implemented various policies to alleviate poverty, but these have not been optimal. The government has launched several poverty alleviation efforts over the years. Poverty figures in Indonesia fluctuated between 2010 and 2014, but tended to decline. The following is the poverty figures for Indonesia for the 2010-2014 period.

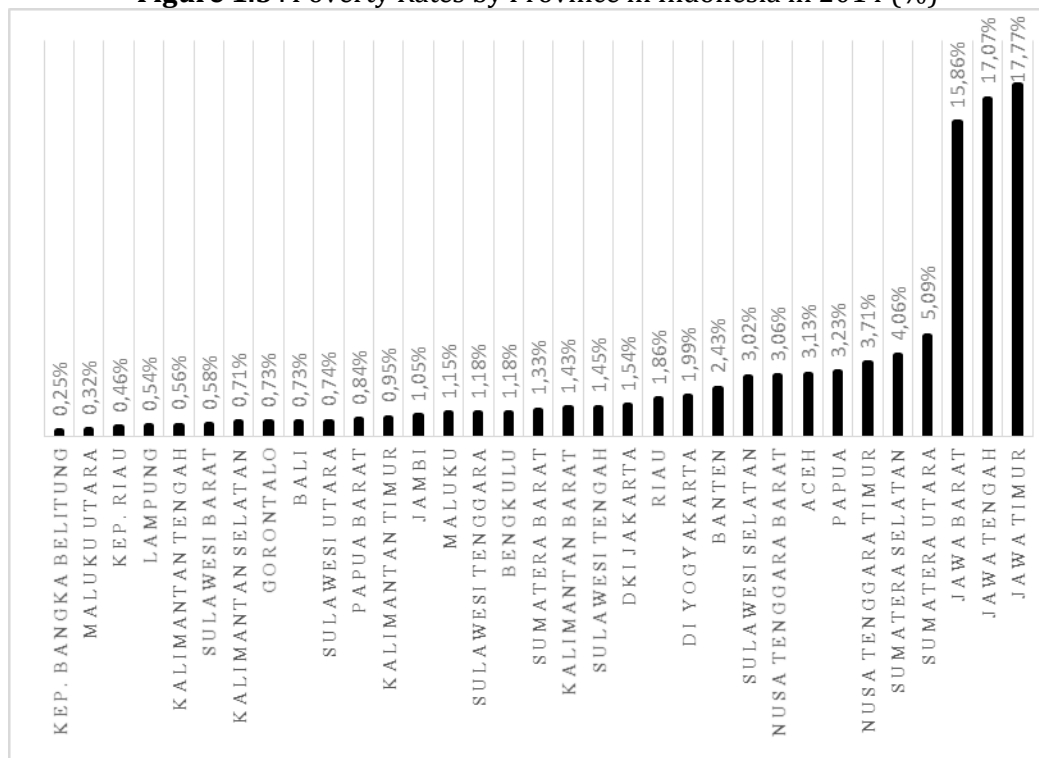
Figure 1.4 Poverty Rate in Indonesia 2010-2014



Source: Central Bureau of Statistics of Indonesia. Processed from data from the National Socio-Economic Survey (Susenas) (2014)

Although the 2010-2014 national poverty data shows a decline, if we look at the provincial poverty figures, there are striking differences in poverty figures between regions as shown in Figure 1.5.

Figure 1.5 . Poverty Rates by Province in Indonesia in 2014 (%)



Source: Central Statistics Agency (2014)

Figure 1.5 shows the variation in poverty levels across Indonesia's 34 provinces in 2014. The poverty rate in West Java, Central Java, and East Java is very high. The government needs to understand the causes of these differences so it can develop appropriate policies to reduce poverty.

One form of policy is the preparation of a budget because policy requires funding. Boediono (1999) stated that in macroeconomic theory, government expenditure consists of three main items which can be classified as follows:

1. Government spending on the purchase of goods and services;
2. Government spending on employee salaries. Changes in employee salaries have an influence on macroeconomic processes, where changes in employee salaries will affect the level of demand indirectly;
3. Government spending on transfer payments. *Transfer payments* are not purchases of goods or services by the government in the goods market but rather record direct payments or gifts to its citizens, including, for example, subsidies or direct assistance to various groups in society, pension payments, and interest payments on government loans to the public. Economically, *transfer payments* have the same status and influence as employee salaries, although administratively they are different.

METHOD

This type of research is associative. Associative research aims to analyze the relationship between one variable and another or how one variable influences another (Kuncoro, 2011).

The type of data used in this study is secondary data in the form of a *cross-section* of 33 provinces in the period 2010-2014. Data sources were obtained from the Central

Statistics Agency (BPS), the National Development Planning Agency (Bappenas), and from various literature and articles published in the mass media, both print and electronic, relevant to the research topic. The variables used in this study consist of government spending in the education and health sectors, measured by the realization of the State Budget in the education and health sectors, in units of millions of rupiah. The poverty rate is measured by the percentage of the regional poor population. The study period is 2010-2014.

A. Classical Assumption Testing

1. Poverty

a. Normality Test

Summary of the results of the normality test using *the Jarque Bera test*, JB count 2.279347 and Prob. 0.319923. Based on these calculations, it can be seen that the probability value of the calculated JB equation is smaller than 0.05, which means that the residual ut is normally distributed. In this study, it remains BLUE (*Best Linear Unbiased Estimator*).

b. Autocorrelation Test

The autocorrelation test aims to test whether or not there is an error. The autocorrelation test aims to test whether or not there is a confounding error. In the regression analysis, the DW value is 1.803643 and the DL value is 1.6960 and DU is 1.7953. $DL < DU < DW$, namely 1.6960 DL, 1.7953 DU, 1.822518 DW. So it can be concluded that there are no symptoms of autocorrelation.

c. Heteroscedasticity Test

To test for heteroscedasticity symptoms in this study, the Park Test was used. The Park Test is a two-stage procedure. In the first stage, we perform OLS regression by ignoring heteroscedasticity, then obtain the residual value. In the second stage, regression is carried out by transforming the residual value into a logarithm, using the test criteria, If $\beta \leq 0.05$, then heteroscedasticity occurs in the data and if $\beta \geq 0.05$, then heteroscedasticity does not occur in the data.

Heteroscedasticity Test

Significant Variable	Prob.
Government Expenditure on Health Sector Log X ₁	0.6928 ≥ 0.05
Government Expenditure on Education Sector Log X ₂	0.9422 ≥ 0.05
TPAK X ₃	0.3438 ≥ 0.05
GRDP Log X ₄	0.6556 ≥ 0.05

The results of the heteroscedasticity test using the Park test. From the table, it can be seen that the probability value of government expenditure in the education sector is 0.6928, government expenditure in the health sector is 0.9422, TPAK is 0.3438 and GRDP is 0.6556 with the overall value considered greater than the significance value of 0.05, so it can be concluded that there is no heteroscedasticity problem in the data.

a. Multicollinearity Test

Multicollinearity Test using VIF (Variance Inflation Factors):

Multicollinearity Test

Variable	Coefficient Variance	Centered VIF
Government Expenditure on Education Sector Log X ₁	0.001548	1,529573
Government Expenditure on Health Sector Log X ₂	0.002022	1,620115
TPAK X ₃	0.176510	1.035851
GRDP Log X ₄	0.005292	1.049900

The results of the multicollinearity test can be seen in the centered VIF table column. The VIF values for government expenditure in the education sector, government expenditure in the health sector, TPAK, and GRDP are none greater than 10 or 5, indicating that there is no multicollinearity in these independent variables.

Based on the classical assumptions of linear regression with OLS, a good linear regression model is one that is free from multicollinearity. Therefore, the model is free from multicollinearity.

RESULT AND DISCUSSION

Poverty is a social problem that remains a major challenge for many countries, including Indonesia. Although national economic growth has shown a positive trend in recent decades, social inequality and unequal income distribution mean that some people still live in conditions of deprivation. Poverty is not only related to low incomes but also encompasses limited access to education, healthcare, employment, and adequate housing. In general, poverty can be understood as the inability of individuals or households to meet their basic needs. The factors causing poverty are complex and interconnected, ranging from low levels of education, limited employment opportunities, economic inequality, to development policies that do not fully support the poor. Furthermore, structural factors such as inequality in asset and resource ownership also exacerbate poverty in various regions.

The government has implemented various poverty alleviation programs, such as social assistance, community empowerment, and increased access to education and healthcare. However, the effectiveness of these programs often faces challenges in terms of implementation, targeting, and sustainability. Therefore, a more comprehensive, sustainable strategy based on community empowerment is needed to significantly reduce poverty. By understanding the root causes of poverty and the factors that influence it, it is hoped that more targeted solutions can be formulated to improve community welfare and encourage inclusive economic growth.

One form of policy is budgeting, as policies require funding. Boediono (1999) explains that, in macroeconomic theory, government spending consists of three main items, which can be classified as follows:

4. Government spending on the purchase of goods and services;
5. Government spending on employee salaries. Changes in employee salaries have an influence on macroeconomic processes, where changes in employee salaries will affect the level of demand indirectly;
6. Government spending on transfer payments. *Transfer payments* are not purchases of goods or services by the government in the goods market but rather record direct payments or gifts to its citizens, including, for example, subsidies or direct assistance to various groups in society, pension payments, and interest payments on government loans to the public. Economically, *transfer payments* have the same status and influence as employee salaries, although administratively they are different.

The problems currently faced by Indonesian society related to poverty rates are becoming a crucial problem.

CONCLUSION

Government spending on education, health, and GRDP have a significant negative effect on poverty. Meanwhile, the TPAK has no effect on poverty. . The conclusion of this study indicates that government spending on education and health, along with higher labor force participation and regional economic growth, plays an important role in alleviating poverty. Therefore, strengthening public investment in human capital

development and promoting inclusive economic growth are essential policy measures for reducing poverty in Indonesia.

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