



## Regional Government Expenditures and Business Capital Credits And Impacts Of Poverty Level: Comparative Study Of South Sulawesi Province And West Sulawesi Province

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**ABSTRACT:** Most economist argue that collaboration of fiscal and monetary policies is quite effective in reducing poverty. This study aims to look at the comparison of the effectiveness of poverty reduction using a fiscal and monetary policy approach in South Sulawesi Province and West Sulawesi Province. Data collection was carried out through documentation studies, namely in the form of data panels (pooled data) which combined cross-section data and time series data. Data were analyzed quantitatively using the structural model method. The results showed that education spending had a positive effect on poverty through the average length of school and GRDP in the provinces of South Sulawesi and West Sulawesi. Health spending has a negative effect on poverty levels through infant mortality and GRDP in the provinces of South Sulawesi and West Sulawesi. Business capital loans have a negative effect on the level of poverty in South Sulawesi Province, while in West Sulawesi Province business capital loans have a positive effect on poverty levels. Fiscal and monetary policies are more effective in reducing poverty in South Sulawesi Province compared to West Sulawesi.

**KEYWORDS:** Education Expenditures, Health Expenditures, Business Capital Loans, and Poverty Rate

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### I. INTRODUCTION

The problem of poverty is a complex and multidimensional problem because poverty does not only concern economic issues, but now becomes a social problem such as an increase in security and social disturbances and an increase in crime in the community. Therefore, efforts to address poverty are important to be studied by first conducting an accurate analysis and pouring into a policy strategy based on the effectiveness of reducing poverty.

According to Todaro and Smith (2003), various poverty reduction programs that can be carried out such as providing at least basic education and health services as a strong basis for long-term progress. In addition, the provision of various types of public consumption goods and services (public consumption) that are financed by taxes for the poorest population groups, is another instrument that has the potential to alleviate poverty. Another strategy worth considering to eradicate poverty is to help the poor develop their micro businesses. It is known that funding (credit loan) is one of the obstacles to the development of these small businesses. By increasing working capital, productivity and income will increase substantially.

The large flow of handling poverty includes those practiced in Indonesia, such as reducing or reducing the expenditure burden on the poor on the one hand and increasing the productivity of the poor on the other. This scheme appears in the form of social assistance, such as free education and health costs. This kind of program can in addition reduce the expenditure burden on the poor in the short term, can also improve the capacity and capability of human resources in the long run. Accompanying these efforts, programs that are directed to encourage increased productivity of the poor must also be pursued and intensified and expanded, for example through the provision of microcredit, (Agussalim, 2012).

Other researchers reveal that public spending on education and health has a positive and significant influence on education and health outcomes. Explicitly shows a negative relationship between government

health spending and infant mortality, and a positive relationship between government health spending and life expectancy at birth. The results show that higher government spending on medical goods and services can provide better overall health outcomes for individuals, (Kim and Lane, 2013; Obi et al, 2016). Other research results also show that there is a strong relationship between education, health, and business capital credit to increase productivity and community income will in turn have an impact on poverty reduction, (Bloom and Canning, 2003; Palmer, 2006; Sennoga and Matovu, 2010; Awe, 2013; Musiba, 2013).

The total government expenditure on education and health, as well as the increase in realization of business capital loans in the provinces of West Sulawesi and South Sulawesi Province during 2010-2016 experienced a significant increase, while on the other hand, the level of poverty in the Provinces of West Sulawesi and South Sulawesi Province tended to decrease. This gives an indication that the role of fiscal and monetary policy seems to have contributed to the decline in poverty. If further scrutiny, education expenditure, health expenditure and realization of business capital loans in South Sulawesi Province are relatively higher compared to West Sulawesi Province. Although education expenditure, health expenditure, and realization of business capital loans in the Province of West Sulawesi were relatively low compared to the Province of South Sulawesi. However, the decline in poverty in West Sulawesi Province seems to be faster than in South Sulawesi Province, this is indicated by a decrease in the level of poverty in the Province of West Sulawesi is higher than the Province of South Sulawesi. In addition, the level of poverty in the province of West Sulawesi shows a consistent tendency to decline every year, while in South Sulawesi Province the decline in poverty levels still fluctuates. This condition provides an illustration, it seems that the role of fiscal and monetary policy in the Province of West Sulawesi is more effective in reducing poverty compared to the Province of South Sulawesi.

This study tries to look at the comparison of the effectiveness of poverty reduction using a fiscal and monetary policy approach in South Sulawesi Province and West Sulawesi Province. The role of fiscal policy through government spending on education and health is believed to have an impact on the development of educational outcomes, namely the average number of years of schooling and health outcomes, namely a decrease in infant mortality and an impact on increasing productivity and income of the people, which has an impact on the increase in gross regional domestic products, so that in turn it will have an impact on poverty reduction. While the role of monetary policy through the provision of business capital for the poor, is believed to have an impact on increasing the productivity and income of the people, namely the economic growth, which in turn will have an impact on poverty reduction.

## II. RESEARCH METHODS

### 2.1 Location and Type of Research

This research was conducted in two provinces in Sulawesi, namely West Sulawesi Province and South Sulawesi Province. This type of research is quantitative research that measures and analyzes the effect of education and health expenditure on average length school and infant mortality, the influence of average length school and infant mortality on economic growth, the effect of economic growth on poverty, the influence of education and health expenditure on economic growth through average length school and infant mortality, influence average length school and infant mortality on poverty levels through economic growth.

### 2.1 Types of Data and Analysis Methods

The type of data to be analyzed in this research is secondary data in the form of data panels (pooled data) with the characteristics of cross section and time series simultaneously. The cross section data in this study is data consisting of data from districts/cities in the provinces of West Sulawesi and South Sulawesi. Whereas for time series data, it is entity data with time/period dimensions in this study using the period 2010-2016. Furthermore, the analysis data used in this research is the Structural Model analysis method. The equation of the Structural Model analysis model can be written into the following equation:

$$Y1_{it} = \ln\alpha_0 + \alpha_1 \ln X1_{it} + e1_{it}$$

$$Y2_{it} = \ln\beta_0 + \beta_1 \ln X2_{it} + e2_{it}$$

$$\begin{aligned} \ln Y3_{it} &= \ln\delta_0 + \delta_1 \ln X3_{it} + \delta_2 (\ln\alpha_0 + \alpha_1 \ln X1_{it} + e1_{it}) + \delta_3 (\ln\beta_0 + \beta_1 \ln X2_{it} + e2_{it}) + e3_{it} \\ &= \ln\delta_0 + \delta_1 \ln X3_{it} + \ln\alpha_0 \delta_2 + \alpha_1 \delta_2 \ln X1_{it} + \delta_2 e1_{it} + \ln\beta_0 \delta_3 + \beta_1 \delta_3 \ln X2_{it} + \delta_3 e2_{it} + e3_{it} \\ &= (\ln\delta_0 + \ln\alpha_0 \delta_2 + \ln\beta_0 \delta_3) + (\delta_1) \ln X3_{it} + (\alpha_1 \delta_2) \ln X1_{it} + (\beta_1 \delta_3) \ln X2_{it} + e4_{it} \end{aligned}$$

$$\begin{aligned} Y4_{it} &= \ln\epsilon_0 + \epsilon_1 (\ln\delta_0 + \ln\alpha_0 \delta_2 + \ln\beta_0 \delta_3 + \delta_1 \ln X3_{it} + \alpha_1 \delta_2 \ln X1_{it} + \beta_1 \delta_3 \ln X2_{it} + e4_{it}) + e5_{it} \\ &= \ln\epsilon_0 + \ln\delta_0 \epsilon_1 + \ln\alpha_0 \delta_2 \epsilon_1 + \ln\beta_0 \delta_3 \epsilon_1 + \delta_1 \epsilon_1 \ln X3_{it} + \alpha_1 \delta_2 \epsilon_1 \ln X1_{it} + \beta_1 \delta_3 \epsilon_1 \ln X2_{it} + e6_{it} \\ &= (\ln\epsilon_0 + \ln\delta_0 \epsilon_1 + \ln\alpha_0 \delta_2 \epsilon_1 + \ln\beta_0 \delta_3 \epsilon_1) + (\delta_1 \epsilon_1) \ln X3_{it} + (\alpha_1 \delta_2 \epsilon_1) \ln X1_{it} + (\beta_1 \delta_3 \epsilon_1) \ln X2_{it} + e6_{it} \end{aligned}$$

Note:

Y1= Average Length School

Y2= Infant Mortality

Y3= GRDP

Y4= Level of Poverty

X1= Education Expenditure

X2= Health Expenditure

X3= Business Capital Credit

$\alpha_0, \beta_0, \delta_0, \epsilon_0$  = Constants

$\alpha_1, \beta_1, \delta_1, \delta_2, \epsilon_1$  = Regressions Coefficients for Exogenous and Intervening Variables

$e_1, e_2, e_3, e_4, e_5, e_6$  = Error Term

ln= Natural Logarithms

i= District/City in West Sulawesi and South Sulawesi Province

t= Year

### **III. RESEARCH RESULTS**

Education spending has an indirect positive effect on the poverty level of 0.129 in West Sulawesi Province, this means that education spending has an effect on increasing poverty by 0.129 percent. Education spending has an indirect positive effect on the poverty level of 0.002 in South Sulawesi Province, this means that education spending has an effect on increasing poverty by 0.002 percent.

Health expenditure has a negative effect indirectly on the poverty level of -0.007 in West Sulawesi Province, this means that health expenditure has an effect on poverty reduction by 0.007 percent. Health expenditure has a negative effect indirectly on the poverty level of -0.027 in South Sulawesi Province, this means that health expenditures have an effect on poverty reduction by 0.027 percent.

Business capital loans have an indirect positive effect on the poverty rate of 0.395 in West Sulawesi Province, this means that business capital loans have an effect on the increase in poverty by 0.395 percent. Business capital loans have a negative effect indirectly on the poverty level of -0.122 in South Sulawesi Province, this means that business capital loans have an effect on poverty reduction by 0.122 percent.

### **IV. DISCUSSION**

Education spending in West Sulawesi and South Sulawesi Provinces has a positive effect indirectly on poverty levels. Education in West Sulawesi Province has an indirect effect on the poverty level of 0.129 and education spending in South Sulawesi Province has an indirect effect on the poverty level of 0.002. These results have been in line with the findings of research conducted by Birowo (2011) who investigated the relationship of government spending and poverty levels in Indonesia. The results of the study show that government spending does not have a negative and significant relationship to the level of poverty. Education spending to finance a number of quality improvement programs and education services is believed to have contributed to the improvement of people's knowledge and skills. However, policies related to poverty reduction through increasing economic growth in most areas in West Sulawesi Province as well as in South Sulawesi Province have not been fully directed towards the development of sectors that absorb labor, especially the poor. This condition then causes education spending to have a positive effect on the level of poverty. These results have been in line with the findings of research conducted by Birowo (2011) who investigated the relationship of government spending and poverty levels in Indonesia. The results of the study show that government spending does not have a negative and significant relationship to the level of poverty.

Statistical results show that health expenditure in West Sulawesi and South Sulawesi Provinces has a negative effect indirectly on poverty levels. Health expenditure in West Sulawesi Province has an effect on the poverty level of -0.007 and health expenditure in South Sulawesi Province has an effect on the poverty level of -0.027. These results have shown consistency with the findings of the research conducted by Kim and Lane (2013) which analyzed the relationship between public health expenditure and national health outcomes in developed countries. Two indicators of public health outcomes, infant mortality and life expectancy at birth, were used as the dependent variable. The findings indicate a negative relationship between government health spending and infant mortality rates, and a positive relationship between government health expenditure and life expectancy at birth. The results show that higher government spending on medical goods and services can provide better overall health outcomes for individuals and in turn have an impact on high productivity and income and reduce poverty in society.

The indirect effect of business capital credit on poverty levels shows different results in West Sulawesi Province and South Sulawesi Province. Business capital loans in West Sulawesi Province have a positive effect (0.395) indirectly on poverty levels. While business capital loans in South Sulawesi Province have a negative effect (-0.122) indirectly on poverty levels. Business capital loans have a positive effect on poverty in West Sulawesi Province, in line with the findings of research conducted by Agbaeze and Onwuka (2014) empirically testing the effect of microcredit on poverty alleviation in Nigeria. The results of the study show that the poverty rate is still high among the rural population. In other words, access to microcredit has not had a significant impact on poverty alleviation among the rural population, because the majority of them do not have greater access to microcredit.

Research conducted by Tu et al (2015) on credit access and its effect on living standards in Vietnam. The results of the study indicate that access to credit in the short term does not affect the standard of living. In other words, getting access to credit or providing loans is not enough for poverty alleviation. Poor households need to be provided not only access to the Bank but also professional associations to consult in capital management.

While in South Sulawesi Province business capital credit has a negative effect on poverty in line with the general theory put forward by (Todaro and Smith, 2003). By increasing working capital and other assets in their micro-enterprises, the poor can substantially increase their productivity and income.

## V. CONCLUSIONS

Based on the data processed and analyzed, it can be concluded: Education spending in West Sulawesi Province has an effect on the poverty level of 0.129 percent and education spending in South Sulawesi Province has an effect on the poverty level of 0.002 percent. Health expenditure in West Sulawesi Province has an effect on the poverty level of -0.007 percent and health expenditure in South Sulawesi Province has an effect on the poverty rate of -0.027 percent. Business capital loans in West Sulawesi Province have an effect on the poverty rate of 0.395 percent, while business capital loans in South Sulawesi Province have an effect on the poverty level of -0.122 percent. Fiscal and monetary policies are more effective in reducing poverty in South Sulawesi Province compared to West Sulawesi Province.

Education and health expenditures in West Sulawesi and South Sulawesi Provinces will be more influential if the realization of education and health expenditures in West Sulawesi and South Sulawesi Provinces is increased every year. In addition, an increase in education and health spending needs to be accompanied by an efficient and effective allocation pattern so that the budget actually works to improve education and health indicators and in turn is able to contribute positively to the increase in school years and a decrease in infant mortality and in turn will have an impact on increasing productivity and income and will reduce poverty in the community. It is expected that the regional government in promoting growth will be directed to the development priority of the sector which has a high level of employment, so that sector productivity and community income will increase and in turn reduce poverty.

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ATTACHMENT

**Table 1. Government Expenditure, Average School Length, Infant Mortality Rate, Business Capital Credit, GRDP, and Poverty Rate in West Sulawesi 2010-2016**

Year	Education Expenditures (Rp Million)	Health Expenditures (Rp Million)	Average School Length (Year)	Infant Mortality Rate (People)	Business Capital Credit (Rp Million)	GRDP (Rp Million)	Poverty Rate (Percent)
2010	600.566	228.866	6,63	15	1.108.840	15.897.453	13,58
2011	793.519	220.552	6,65	12	1.281.949	17.614.523	13,64
2012	753.274	194.56	6,76	15	1.547.986	19.277.001	13,01
2013	1.015.494	282.215	6,87	11	1.819.765	22.307.976	12,23
2014	1.067.741	330.736	6,88	13	2.130.427	24.341.768	12,05
2015	504.109	195.189	6,94	13	2.504.078	26.143.564	11,9
2016	1.137.890	714.667	7,14	8	3.029.381	27.819.389	11,19

Source: BPS, DJPK

**Table 2. Government Expenditure, Average School Length, Infant Mortality Rate, Business Capital Credit, GRDP, and Poverty Rate in South Sulawesi 2010-2016**

Year	Education Expenditures (Rp Million)	Health Expenditures (Rp Million)	Average School Length (Year)	Infant Mortality Rate (People)	Business Capital Credit (Rp Million)	GDRP (Rp Million)	Poverty Rate (Percent)
2010	2.547.758	859.144	7,29	6	9.265.278	152.042.214	11,4
2011	3.983.426	1.023.245	7,33	6	13.173.423	164.686.170	10,27
2012	4.879.414	1.325.379	7,37	6	14.273.189	179.098.398	9,82
2013	6.585.728	1.957.794	7,45	4	16.392.321	193.582.962	10,32
2014	6.801.644	2.159.962	7,49	2	17.895.120	208.767.908	9,54
2015	6.514.538	2.342.645	7,64	2	18.918.301	224.324.488	10,12
2016	5.760.673	3.479.466	7,75	2	22.073.043	241.338.121	9,24

Source: BPS, DJPK

**Table 3. Comparison of Indirect Influences of West Sulawesi Province and South Sulawesi Province**

Indirect Influences of West Sulawesi Province	Estimate
Poverty Rate <--- Education Expenditure	0.129
Poverty Rate <--- Health Expenditure	-0.007
Poverty Rate <--- Business Capital Credit	0.395
Indirect Influences of South Sulawesi Province	Estimate
Poverty Rate <--- Education Expenditure	0.002
Poverty Rate <--- Health Expenditure	-0.027
Poverty Rate <--- Business Capital Credit	-0.122

Source: SPSS