

## ANALYSIS OF ECONOMIC EXPENDITURE TO POVERTY THROUGH HUMAN DEVELOPMENT, ECONOMIC GROWTH AND REGIONAL DISPARITY IN SOUTH SULAWESI PROVINCE

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### ABSTRACT

This study aimed to analyze and test the effect of direct expenditure allocation of education, direct expenditure allocation of health and direct expenditure allocation of infrastructure on local budget to human development, economic growth of regional disparity and poverty in the province of South Sulawesi.

Based on the approach, type and level, this research was designed as a verification research and it was an explanatory survey and experimental research. The object was 23 regions/municipalities in South Sulawesi covered 20 regions and 3 municipalities during the period of 2004-2013. This study used pooled data by combining cross-section data of 23 regions/municipalities and time-series data of 10 years. The data analysis used Structural Equation Modeling (SEM).

Results of the analysis showed that (1) the effect of direct expenditure allocation of education and health to human development was positive and significant; (2) the effect of direct expenditure allocation of infrastructure to economic growth was positive and not significant; (3) the effect of human development to economic growth was positive and significant; (4) the effect of direct expenditure allocation of infrastructure to regional disparity was not significant; (5) The effect of economic growth to regional disparity was positive and significant; (6) the effect of direct expenditure allocation of education to poverty was positive and significant; (7) the effect of direct expenditure allocation of infrastructure to poverty was negative and no significant; (8) direct expenditure allocation of to poverty level was not significant; (9) the effect of human development and economic growth to poverty was negative and significant.

**Key Words:** direct expenditure allocation of education, direct expenditure allocation of health, direct expenditure allocation of infrastructure, human development, Economic growth, regional disparity and poverty

### INTRODUCTION

In general, during the period of 2008 - 2012 Indonesian economic development performance can be said to be very proud of, where in 2008 the economic growth of 5.72 percent increased to 6.30 percent in 2012. Similarly, human development observed through the Human Development Index (HDI) has increased, in which the HDI of Indonesia in 2008 amounted to 71.17 IPM Indonesia increased to 73.29 in 2012.

The economic growth and human development are indicating increase. However, there seems still a problem of relatively high poverty, although the figure shows a lower percentage. In the period of 2008 -2012 the percentage of poor people in Indonesia was still relatively high, though there was a declining from 15.42 percent in 2008 to 11.66 percent in 2012.

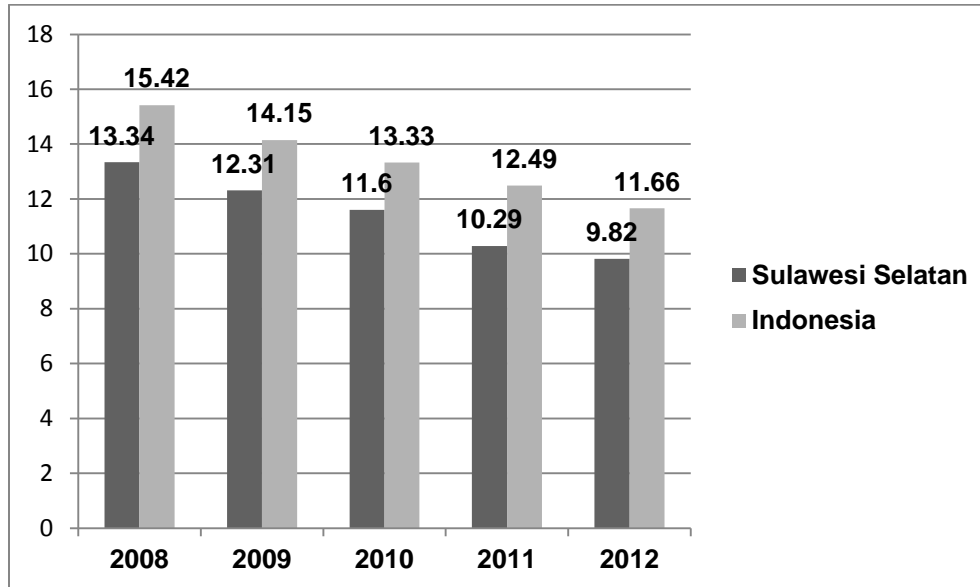
Along with the declining of national poverty rate, South Sulawesi province also denoted that the poverty rate had decreased since 2008 – 2012: that was 13.34 percent in 2008 decreased to 9.82 percent in 2012.

Figure 1.1. Shows the development of poverty rate decreased, both in the level of national and South Sulawesi Province. To compare the level of development in poverty during 2008 - 2012, the percentage of poverty in South Sulawesi was below the percentage of national poverty, but the percentage reduction in national poverty rate during 2008 - 2012 was faster than the percentage reduction in poverty rate in South Sulawesi: a reduction of poverty rate in South Sulawesi amounted to 3.52 percent (average 0.88%) per year during 2008 – 2012 and 3.76 percent (average 0.94%) per year in national poverty rate

The factual development of poverty rate in both national and South Sulawesi province can be

seen in Figure 1 as follows:

Figure 1. Poverty Rate Development in both National and South Sulawesi Province in 2008-2012.



Source: BPS 2009, 2010, 2011, 2012, and 2013

Reduction in poverty rate over the last five years cannot be separated from the role of government to develop human resources and spur economic growth through public expenditure. Through the economic growth, the economic activity is expected to grow as well, both in the rural sector and the urban-characterized economy. Since the enactment of Fiscal Decentralization, the implementation of regional autonomy policy based on the consideration that it is the region recognizing well what is needed and what is the public service standard in the area so that granting regional autonomy is expected to reduce poverty through human resource development and economic growth

Human resource development can be performed by improving the quality of human capital. Human capital referring to education and health is a fundamental development goal in the region that education is essential to achieve a decent life and health is the heart of welfare. To improve the quality of human capital depends on the availability of infrastructure to support investments in human resources, such as housing and transport as public goods provided by government in order to meet the needs of community (Mankiw, 2008).

Development is essentially human development that expenditure allocation should be given priority in budgeting (Priyo Hari Adi, 2009). Human development can be seen from the size of Human Development Index (HDI), where HDI is one way to measure the level of physical and non-physical quality of population. Physical quality is reflected in life expectancy, whereas non-physical quality (intellect) from the average length of population schooling and literacy rates, and considering society economic ability as reflected by the value of Purchasing Power Parity Index.

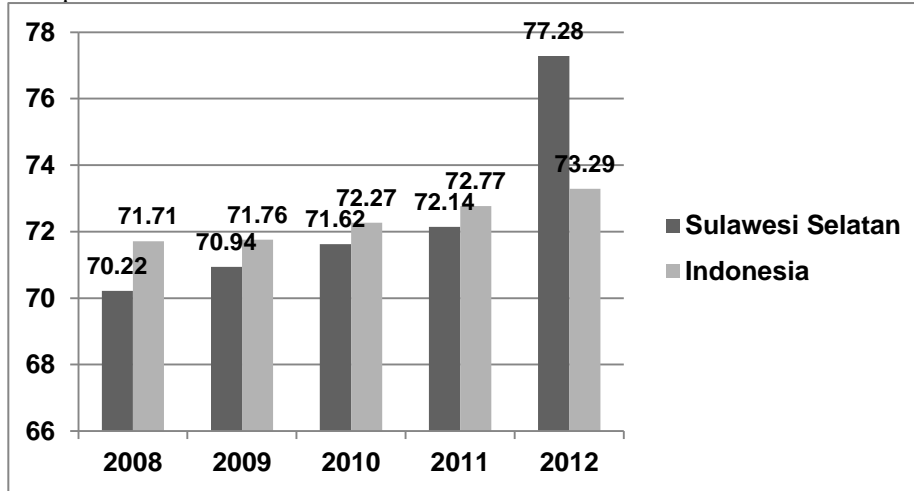
Looking at the HDI in Indonesia and South Sulawesi, the data of Statistical Center Board (SCB) show both nationally and South Sulawesi provinces, an increase in the last five years (2008-2012). The national HDI in 2008 amounted to 71.71 points increased to 73.29 points in 2012. While the HDI in South Sulawesi in 2008 amounted to 70.22 points increased to 77.28 points in 2012.

Human Development Index (HDI) in South Sulawesi experienced an increase over a period of five years and had reached the category "medium human development", particularly in 2012 HDI in South Sulawesi has surpassed the national HDI, although in 2008-2011 it was still below the national

HDI. It gives an indication that, in terms of achieving national HDI, South Sulawesi Province had demonstrated its role as a factor to reduce the level of poverty.

Human Development Index (HDI) in Indonesia and South Sulawesi province can be seen in Figure 2 as follows:

Figure 2 The Average figures of HDI in Indonesia and South Sulawesi province in 2008-2012



Source: Statistical Center Board and Ministry of Corporate and Society Welfare, UNDP

Human Development Index (HDI) in South Sulawesi shows an increase and also national position improvement, but still far from the target of RPJMD. In 2006, South Sulawesi was set in the 23<sup>th</sup> position of the 33 provinces in Indonesia, and then rose to the rank of 19<sup>th</sup> in 2010. This position is still relatively far away from the target of RPJMD that it was included in a 10 group provinces in terms of satisfying the basic rights of people with HDI as one of the indicators. If HDI is assumed to increase by the same trend, then the highest rank South Sulawesi could achieve is the 17<sup>th</sup> of 33 provinces in Indonesia at the end period of RPJMD (2013).

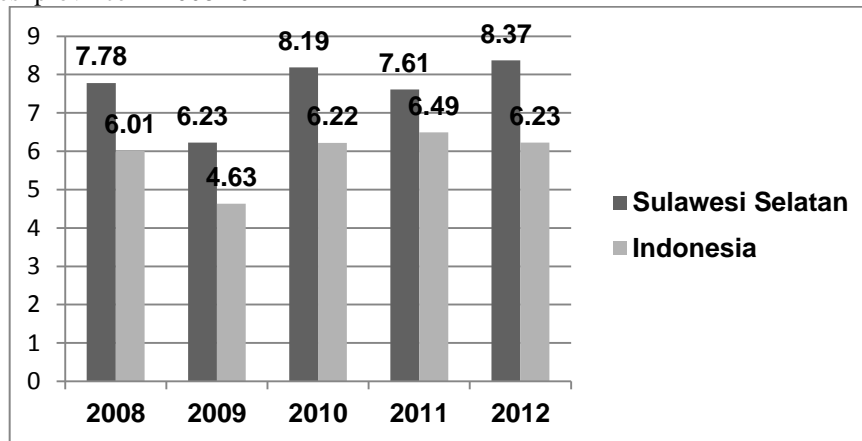
The increase of HDI in South Sulawesi is expected to spur the economic growth, since the economic growth is seen as one way to overcome poverty. Economic growth and poverty reduction cannot be separated from development purposes as shown in RPJMN 2004 - 2009 and 2010 - 2014 being the government's main priorities. Four Track Strategy ( pro-growth , pro-job, pro-poor and pro-environment) is a great strategy the government

adopted in national development which is intended to boost the economic growth with justice through the expansion of employment opportunities, poverty reduction, and preserve sustainable growth with emphasis on environmental sustainability. Similarly, in the RPJMD of South Sulawesi province in 2008-2013 which shows the economic growth and poverty reduction becomes the mission of local government in South Sulawesi.

In general, the economic growth in the last five years (2008-2012), both the national and South Sulawesi provincial levels had increased. In 2008, in Indonesia the economic growth, 6.01 percent, increased to 6.23 percent in 2012. Meanwhile, in South Sulawesi the economic growth of 7.78 percent in 2008 increased to 8.37 percent in 2012.

The rate of economic growth in Indonesia and South Sulawesi province during the years 2008 - 2012 can be seen in Figure 3 as follows:

Figure 3. Economic growth in Indonesia and South Sulawesi province in 2008-2012

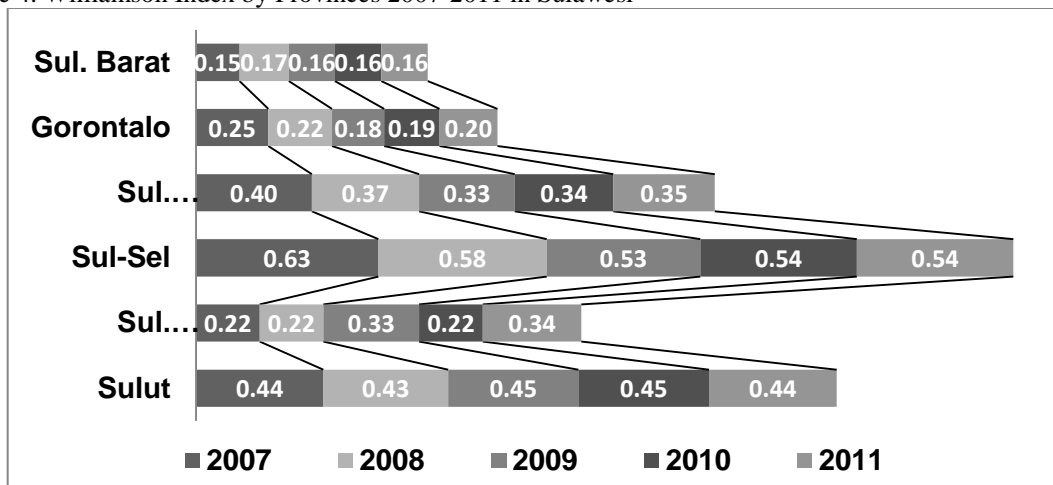


Source: Statistical Center Board South Sulawesi in 2013

Figure 3 shows that economic growth in South Sulawesi and that in Indonesia show fluctuations over the last five years (2008-2012), where the economic growth in both national and provincial levels reduced in 2009, but it increased significantly in 2010. In South Sulawesi, it show a slight decline in 2011 and increased again in 2012. While the national economic growth increased in 2011, but decreased in 2012. However, looking at fluctuations in economic growth, both the national and provincial levels in the last five years the economic growth had grown significantly, i.e. from 2008 to 2012, in national level it show an average growth of 5.92 percent per year, whereas in Provincial level it denoted an average growth of 7.64 percent per year.

Looking at the rate of economic growth in South Sulawesi that transcend national economic growth over the last five years, it is expected that economic activity will grow well both in the sectors of rural and urban-characterized economies. But in reality, the average economic growth in South Sulawesi during last five years that exceeded the national economic growth had not been able to meet the expectations of redacting the rate of poverty when compared with the national poverty reduction. This illustrates that economic growth in South Sulawesi has not been able to mobilize economic activity, particularly in rural sector. On the other hand the high economic growth in South Sulawesi is not balanced by equitable distribution of income and development among regions. Factually, provinces in Sulawesi Island can be seen in figure 4. As follows:

Figure 4. Williamson Index by Provinces 2007-2011 in Sulawesi



Source: Book of Discrepancy Analysis of Interregional, National Control Board 2013.

Figure 4 shows disparity figures by Province in Sulawesi region during the period of 2007-2011. Of the six provinces in Sulawesi, South Sulawesi Province show the highest disparity figures during the period 2007-2011, although it seems to decline, but still show figures above the average of 0.50, i.e. in 2007 amounted to 0.63 decreased to 0.54 in 2011. The other provinces show relatively low value disparity that shows disparity figure below the average of 0.50.

In 2011 the provinces that show the lowest figure in Sulawesi were respectively West Sulawesi 0.16, Gorontalo 0.20, Center Sulawesi 0.34, Southeast Sulawesi 0.35 and North Sulawesi 0.44, as well as South Sulawesi 0.54 which was in high disparity category. Meanwhile, West Sulawesi and Gorontalo were at lower disparity category that shows a figure close to zero.

The model of the Structural Transformation of Lewis in Todaro and Smith (2006) explains that the process of labor transfer and output growth and increased employment in the modern sector are made possible by the expansion of modern sector. Economic growth driven by regional expenditure in local budget will mobilize economic activity in each region/city, so as to encourage the growth of employment opportunities in the regions concerned, which would have an impact on the equitable distribution of income that in turn will have an impact on poverty reduction (Lewis in Todaro and Smith, 2006).

A general description of economic growth which tends to fluctuate and the trend of HDI denoting an increase in last five years in South Sulawesi Province show a trend in line with the fluctuations of the average allocation of regional expenditure, particularly the regional expenditure policy that directly has in touch to the interests and basic needs of community through the expenditure allocation of education and health for public services and basic infrastructure development of society.

Human resource development can be done by improving of the quality of human capital. Human capital can refer to education, but also can be used to describe other types of human investment, i.e. investment that drives toward a healthy population (health). If the quality of human resources is low as

reflected in level of education and health it will then be reflected also in low (HDI Mankiw, 2008 ).

Allocation of government expenditure as reflected in local budget will have a positive impact on human development and economic growth, particularly on education and health expenditures as well as infrastructure expenditure. Human development can be developed through budget allocation on education and health which would have impact on improving the quality of human resources, as measured by productivity. Meanwhile the infrastructure expenditure is government expense such as construction of facilities and infrastructure to support economic growth.

Increase in HDI, economic growth in fluctuation, and poverty rate in reduction show a trend in line with government policy in allocating the local budget in South Sulawesi, particularly the local budget policy that directly meet the interests and basic needs of society through the expenditure allocation in education and health for public services and basic infrastructure development of society. In general, total expenditure of region/city in South Sulawesi during 2008-2012 increased by 42.06%, i.e. 12.246 trillion in 2008 increase to 17.397 trillion in 2012.

Medium term Development Plan of Region (RPJMD) South Sulawesi Province in 2008-2013 placed the education sector together with the health sector as the first agenda of the seven regional development agenda. Factually, the total direct expenditure in education in regions/cities in South Sulawesi during a five-year period increased to 87.27% or an increase of approximately 21.82% per year in average, whereas the total educational expenditure allocation of Rp 868.68 billion in 2008 increased to Rp 1.63 trillion in 2012.

Furthermore, health sector as one of the first agenda in addition to the education sector in RPJMD 2008-2013 also increased despite in fluctuating. In 2008 the total direct health expenditure allocated amounted to Rp 645.27 billion increased to Rp 947.81 billion in 2011, but dropped to 843.87 billion in 2012. Since 2008, the government of South Sulawesi had launched a free health program with the expectation that the program at least had had an impact on the reduction of public expenditure for the sake of the health payments that had been extremely

burdensome to society, especially the economically disadvantaged society.

In addition, to realize the two main agenda of regional development in South Sulawesi contained in RPJMD 2008-2013, it is required the infrastructure development. The agenda is the embodiment of local advantages to spur the rate of economic growth. Factually the total direct expenditure allocation of infrastructure region/city in South Sulawesi during the period 2008-2012 had decreased, but denoted to a trend of fluctuation. In 2008, the allocation of direct expenditure amounted to 2.03 trillion in infrastructure increased to 2.26 trillion in 2011, but in 2012 dropped to 1.5 trillion. The infrastructure development in South Sulawesi relied on the development and maintenance of regional infrastructure (air, sea and land transportations), improvement on the quality of facilities and infrastructure (water, electricity, and telecommunications) and the development of rural infrastructure (irrigation).

#### RESEARCH METHOD

This research was designed as a verification act research that would examine the answers to the problems. The research is a form of explanatory survey and research experimental. The research design in verification and explanatory survey were selected. It aimed to measure the relationship, influence or differences of variables appropriate to the problem and research objectives, namely the causality relationship between exogenous variables (predictors), direct expenditure allocation of education, health, infrastructure, in regional budget and the endogenous-dependent variable on poverty through the endogenous-intervening variable of Human Development Index (HDI), economic growth, and regional imbalances. The phenomenon of the relationship between variables in this research will be measured by quantitative method using path analysis, which was further described based on theoretical reference and empirical studies that were relevant to the topic of this research. The research object was 23 regions/cities in South Sulawesi consisting of 20 regions and 3 cities during the period of 2004 to 2013. Procedurally the secondary data were collected through library research from various sources available and well accessible. The data consisting of basic data, processing data, and data of analysis, were processed in two ways: manual processing and data processing by SPSS software and AMOS. The data used in this research were secondary data of pooled data combination of time series data of ten years with a cross section data of 23 regions/cities in South

Sulawesi province that pooled data of 230 observations were acquired as required in the model of analysis used in this research. This research analyzed used the stages of simultaneous models (Structural Equation Model, SEM) with SPSS software and AMOS.

#### RESEARCH RESULT

##### Direct Effect of Direct Expenditure Allocation of Education (X1) on Human Development (Y1).

Coefficient of the effect of variable of direct expenditure allocation of education (X1) on human development variable (Y1) was 0.165 with t-value 2.923 and Error Standard (ES) amounted to 0.056 at a significance rate 0.003. The coefficient indicates that the variable of direct expenditure allocation of education (X1) has positive effect on human development variables (Y1). This means that an increase in direct expenditure allocation of education (X1) will be followed by an increase in human development (Y1) by assumption that other factors affecting the size of human development (Y1) is considered constant. T-statistical value of the effect of variable of direct expenditure allocation of education (X1) on human development variable (Y1) was 2.923 with a significance rate 0.003 or below 0.05. This means that direct expenditure allocation of education (X1) has positive and significant effect on human development (Y1).

##### Direct Effect of Direct Expenditure Allocation of Education (X1) on Poverty Rate (Y4).

Coefficient of the effect of variable of direct expenditure allocation of education (X1) on poverty rate variable (Y4) was 0.151 with t-value 2.523 and Error Standard (ES) amounted to 0.060 at a significance rate 0.012. The coefficient indicates that the variable of direct expenditure allocation of education (X1) has positive effect on poverty rate variable (Y4). This means that an increase in direct expenditure allocation of education (X1) will be followed by an increase in poverty rate (Y4) by assumption that other factors affecting the size of poverty rate (Y4) is considered constant. T-statistical value of the effect of variable of direct expenditure allocation of education (X1) on poverty rate variable (Y4) was 2.523 with a significance rate 0.012 or below 0.05. This means that direct expenditure allocation of education (X1) has positive and significant effect on poverty rate (Y4).

**Direct Effect of Direct Expenditure Allocation of Health (X2) on Human Development (Y1).**

Coefficient of the effect of variable of direct expenditure allocation of health (X2) on human development variable (Y1) was 0.302 with t-value 3.584 and Error Standard (ES) amounted to 0.084 at a significance rate 0.000. The coefficient indicates that the variable of direct expenditure allocation of health (X2) has positive effect on human development variable (Y1). This means that an increase in direct expenditure allocation of health (X2) will be followed by an increase on human development (Y1) by assumption that other factors affecting the size of human development (Y1) is considered constant. T-statistical value of the effect of variable of direct expenditure allocation of health (X2) on human development variable (Y1) was 3.584 with a significance rate 0.000 or below 0.05. This means that direct expenditure allocation of health (X2) has positive and significant effect on human development (Y1).

**Direct Effect of Direct Expenditure Allocation of Health (X2) on Poverty rate (Y4)**

Coefficient of the effect of variable of direct expenditure allocation of health (X2) on poverty rate variable (Y4) was -1.078 with t-value -11.923 and Error Standard (ES) amounted to 0.090 at a significance rate 0.000. The coefficient indicates that the variable of direct expenditure allocation of health (X2) has negative effect on poverty rate variable (Y4). This means that an increase in direct expenditure allocation of health (X2) will be followed by a reduction on poverty rate variable (Y4) by assumption that other factors affecting the size of poverty rate variable (Y4) is considered constant. T-statistical value of the effect of variable of direct expenditure allocation of health (X2) on poverty rate variable (Y4) was -11.923 with a significance rate 0.000 or below 0.05. This means that direct expenditure allocation of health (X2) has negative and significant effect on poverty rate (Y4).

**Direct Effect of Direct Expenditure Allocation of Infrastructure (X3) on Economic Growth (Y2).**

Coefficient of the effect of variable of direct expenditure allocation of infrastructure (X3) on economic growth (Y2) was 0.001 with t-value 0.074 and Error Standard (ES) amounted to 0.071 at a significance rate 0.941. The significance rate was 0.941 or above 0.05. This means that direct

expenditure allocation of infrastructure (X3) has no significant effect on economic growth (Y2).

**Direct Effect of Direct Expenditure Allocation of Infrastructure (X3) on Regional Disparities (Y3).**

Coefficient of the effect of variable of direct expenditure allocation of infrastructure (X3) on regional disparities (Y3) was 0.000 with t-value 0.145 and Error Standard (ES) amounted to 0.001 at a significance rate 0.885. The significance rate was 0.885 or above 0.05. This means that direct expenditure allocation of infrastructure (X3) has no significant effect on regional disparities (Y3).

**Direct Effect of Direct Expenditure Allocation of Infrastructure (X3) on Poverty Rate (Y4)**

Coefficient of the effect of variable of direct expenditure allocation of infrastructure (X3) on poverty rate (Y4) was -0.022 with t-value -0.597 and Error Standard (ES) amounted to 0.037 at a significance rate 0.551. The significance rate was 0.551 or above 0.05. This means that direct expenditure allocation of infrastructure (X3) has no significant effect on poverty rate (Y4).

**Direct Effect of Human Development (Y1) on Economic Growth (Y2)**

Coefficient of the effect of Human Development variable (Y1) on poverty rate variable (Y4) was -1.078 with t-value -11.923 and Error Standard (ES) amounted to 0.090 at a significance rate 0.000. The coefficient indicates that Human Development variable (Y1) has positive effect on economic growth variable (Y2). This means that an increase on Human Development (Y1) will be followed by an increase on poverty economic growth (Y2) by assumption that other factors affecting the size of economic growth (Y2) is considered constant. T-statistical value of the effect of human development variable (Y1) on economic growth (Y2) was 8.888 with a significance rate 0.000 or below 0.05. This means that human development (Y1) has positive and significant effect on economic growth (Y2).

**Direct Effect of Human Development (Y1) on Poverty Rate (Y4)**

Coefficient of the effect of human development variable (Y1) on poverty rate variable (Y4) was -0.351 with t-value -4.431 and Error Standard (ES) amounted to 0.079 at a significance rate 0.000. The coefficient indicates that human development variable (Y1) has negative effect on

poverty rate variable (Y4). This means that an increase on human development (Y1) will be followed by a reduction on poverty rate variable (Y4) by assumption that other factors affecting the size of poverty rate (Y4) is considered constant. T-statistical value of the effect of human development variable (Y1) on poverty rate variable (Y4) was -4.431 with a significance rate 0.000 or below 0.05. This means that human development (Y1) has negative effect on poverty rate (Y4).

#### **Direct Effect of Economic Growth (Y2) on Regional Disparity (Y3)**

Coefficient of the effect of economic growth variable (Y2) on regional disparity variable (Y3) was 0.011 with t-value 3.225 and Error Standard (ES) amounted to 0.003 at a significance rate 0.001. The coefficient indicates that economic growth variable (Y2) has positive effect on regional disparity variable (Y3). This means that an increase uneconomic growth (Y2) will be followed by an increase on regional disparity variable (Y3) by assumption that other factors affecting the size of regional disparity (Y3) is considered constant. T-statistical value of the effect of economic growth variable (Y2) on regional disparity variable (Y3) was 3.225 with a significance rate 0.001 or below 0.05. This means that economic growth (Y2) has positive effect on regional disparity (Y3).

#### **Direct Effect of Economic Growth (Y2) on Poverty Rate (Y4)**

Coefficient of the effect of economic growth variable (Y2) on poverty rate (Y4) was -0.295 with t-value -1.994 and Error Standard (ES) 0.148 at a significance rate 0.046. The coefficient indicates that economic growth variable (Y2) has negative effect on poverty rate variable (Y4). This means that an increase on economic growth (Y2) will be followed by a reduction on poverty rate variable (Y4) by assumption that other factors affecting the size of poverty rate (Y4) is considered constant. T-statistical value of the effect of economic growth variable (Y2) on poverty rate variable (Y4) was -1.994 with a significance rate 0.046 or below 0.05. This means that economic growth (Y2) has negative effect and significant on poverty rate (Y4).

#### **Direct Effect of Regional Disparity (Y3) on Poverty Rate (Y4)**

Coefficient of the effect of regional disparity variable (Y3) on poverty rate (Y4) was -9.919 with t-value -4.180 and Error Standard (ES) 0.148 at a significance rate 2.373. The coefficient indicates

that regional disparity variable (Y3) has negative effect on poverty rate variable (Y4). This means that a reduction on regional disparity variable (Y3) will be followed by a reduction on poverty rate (Y4) by assumption that other factors affecting the size of poverty rate (Y4) is considered constant. T-statistical value of the effect of regional disparity variable (Y3) on poverty rate variable (Y4) was -4.180 with a significance rate 0.000 or below 0.05. This means that regional disparity (Y3) has negative effect and significant on poverty rate (Y4).

## **DISCUSSION**

### **Effect of the Variable of Direct Expenditure Allocation of Education on Human Development**

Effect of the variable of direct expenditure allocation of education on human development is positive and significant, so that an increase in government expenditure realization in education will necessarily be followed by improvement of human development index by assuming that other factors affecting the size of direct expenditure allocation on education is considered constant. Seeing the development of direct expenditure realization on educational appeared to increase since 2009 and so did on human development index showing an increase every year.

Expenditure allocation of education is divided into:

1. Direct expenditure for educational function activities (salary/wages, goods and service, and capital expenditure) at Department of Education, excluding expenditures for service education.
2. Indirect Expenditures consist of: (1) salary for education personnel (teachers, civil learning, facilitator, school supervisors and subject supervisor and other designations according to specialization), 2) salaries of civil servants in the Department of Education, 3) financial aid to region/city for educational function, 4) Grants for educational function, 5) Social aid (scholarship for society), 6) special autonomy for educational function.

The result of this research support the research conducted by Brita (2005) regarding with the effect of local government expenditure especially in education and health on the Human Development Index (HDI) in regional context (inter-provincial) in Indonesia. This research shows that government expenditure in education and health affects positively human development. The larger the allocation of expenditure in education and health the better the HDI being achieved. Mardiasmo (2002) stated that in the era of autonomy, local governments must increasingly closer to the wide range of basic public



services. Therefore, the programs and activities of government are directed to increase public welfare in their regions.

#### **Effect of Direct Expenditure Allocation of Health in Regional Budgets on Human Development**

Effect of the variable of direct expenditure allocation of health on human development variable is positive and significant. This means that an increase in direct expenditure allocation of health will be followed by improvement of human development index by assumption that other factors affecting the size of direct expenditure allocation of health is considered constant.

Mankiw (2008) stated that human resource development can be done by improvement in the quality of human capital. Human capital can refer to education, but can also be used to describe other types of human investment, namely investment that drives toward a healthy population, the health. If the quality of human resources is low as reflected in the low level of education and health, it will be also reflected in low HDI. The result showed that the direct expenditure allocation of health has significant effect on human development. The result supports the research by Brata (2005) on the effect of local government expenditure, particularly in education and health on Human Development Index (HDI) in regional context (inter-provincial) in Indonesia, that shows government expenditure in education and health has positive effect on human development. The larger the expenditure allocation in education and health the better the HDI achieved.

#### **Effect of Direct Expenditure Allocation of Infrastructure on Economic Growth**

Variables influence the allocation of direct infrastructure spending to economic growth variable is positive and not significant. This means that the increase of direct expenditure allocation realization of infrastructure does not necessarily boost economic growth but through a long process. Improvements in infrastructure will facilitate movement of goods and service flow but in implementation the process of switching the flow of goods and services is still in a long process, particularly in new areas with new opened main road access.

In contrast to these research results, Harrod-Domar said that a wide variety of government expenditures will have a positive effect on economic growth. The main aspects of this theory are developed on the role of investment having positive effect through multiplier effect on aggregate demand and aggregate supply through the effect in production

capacity. According to Deni Friawan (2008) there are three main reasons why infrastructure is important in an economic integration. The first, the availability of new infrastructure is the main engine of economic development. Secondly, to achieve the full benefits of integration, the availability of infrastructure network is crucial in expediting trade and investment. The third, attention to infrastructure improvement is also important to address the economic development gap between nations. Infrastructure consists of several sub-sectors, the infrastructure in the form of housing and transportation is important enough to support people's lives. While studies conducted by H. Binswanger, Khandker S., and M. Rosenzweig (in Grimard, 2000) found the fact that better infrastructure will be able to increase the investment decisions on agricultural sector and outputs of farmers in India.

#### **Effect of Human Development on Economic Growth**

The effect of human development variable on economic growth variable is positive and significant. This means that an increase in human development will boost economic growth by assuming other factors that affect the size of the human development is considered constant.

The relationship between human capital and economic growth, as well as between economic growth and human capital, as stated by Soubbotina (2004), shows a circulation that has a correlation between economic growth and human capital, and vice versa, where it is stated that economic growth as a means and human development as goal. The result of research indicates that human development significantly affects economic growth. The result supports the research by Denni (2012) that show the economic growth has positive and significant effect on human development (HDI). In addition, the results of research Ramirez et al (1998) with the data cross-country (1970-1992), found a strong positive relationship between human development and economic growth. In addition, government expenditure on education and social sectors has evidently an important role as a link determining the strength of relationship between economic growth and human development.

#### **Effect of Direct Expenditure Allocation of Infrastructure on Regional Disparity**

The effect of the variable of direct expenditure allocation of infrastructure on regional disparity variable is not significantly positive. This means that the realization of direct expenditure

allocation of infrastructure does not directly affect the regional disparity. It is caused by the priority given to urban areas in development realization of infrastructure so that the size of infrastructure expenditure realization has no direct effect on regional disparity.

This result is in line with the adherents of Neo- Classical Model in Sjafrizal (2008) who assumed that production factor mobility, both capital and labor, at the beginning of development process is less expedite. As a result, at that time the capital and skilled manpower is concentrated in more developed areas, the regional development gaps tend to be widened (divergence). However, if the development process continues to regions followed by improvement in infrastructure and communication facilities, the mobility of capital and labor will be more smoothly. Thus, whenever the country concerned has advanced, the regional development divergence will be reduced (convergence)

#### **Effect of Regional Economic Growth on Disparity**

Effect of economic growth variable on regional disparity is positive and significant. This means that the economic growth in this research will be followed by an increase in regional disparity assuming other factors that affect the size of the economic growth were constant.

Development is a process of transformation marked by structural changes, namely the change in economic activity foundation and the framework of society economic configuration. In general, development is always accompanied by growth, but growth is not necessarily accompanied by development. At the beginning, economic development is accompanied by growth and vice versa (Irawan and Suparmoko, 1988). When economic development is intended for equitable distribution of income, economic growth will require a relatively long time to achieve a high growth rate. Similarly, on the contrary if development is more focused to achieve a high growth rate, the greater the likelihood of disparity in income distribution. (Kuncoro, 2006).

#### **Effect of Direct Expenditure Allocation of Education on Poverty Level**

The effect of the variable of direct expenditure allocation of education on poverty rate is positive and significant. This means that an increase in direct expenditures allocation of education is not necessarily able to reduce poverty by assuming other factors that affect the size direct expenditures allocation of education is considered constant, due to

expenditure allocation of education is still prioritized in educational facilities and needs improvement and it is unable to directly lowering poverty rate.

Government investment on education will improve productivity which in turn increasing revenues where sufficient revenues will be able to raise a person's life from poverty (Boex, et al., 2006). Meanwhile, education in many countries is a way to save from poverty, because education, in addition to helping increase earning potential, will also empower communities and allows everyone to take part in government (Simmons in Todaro, 1994). Education has a higher effect on poverty than other development variables such as population, GDP, and inflation rates (Hermanto and DWI, 2006).

#### **Effect of Direct Expenditure Allocation of Health in Regional Budgets on Poverty Rate**

The effect of the variable of direct expeditor allocation of health on poverty rate variable is negative and significant. This means that the realization of direct expenditure allocations of health will be followed by a decrease in poverty rate, assuming other factors affecting the size of direct expenditure allocation is considered constant

This result supports the research by Usman, Bonar Sinaga, and Herman Siregar (2006) who concluded that budget for expenditure that is closely related to poverty or becoming the determining factor of poverty reduction solution is agriculture, education, family health, family welfare, and infrastructure. Health is at the heart of welfare. According to Todaro (2006), health and education are fundamental development goals to form broader human capabilities that are at the core meaning of development. Moreover, for the poor people who generally do not have the resources except the health of human capital becomes the most essential needs? Poor and unhealthy labor will not be able to work optimally so that the productivity will be low, and the revenues are also low. Similarly, poor health conditions, especially for mother and child will create low quality of human resources. Children who are less healthy will experience a disruption in educational process, so the quality of education will decline. Expenditure for service improvement in health is indispensable because it helps in reducing poverty in light of the two-way relationship between economic growth and health status. Better health level will increase revenue through increased productivity, while economic growth will strengthen human capital formation and improving health status.

**Effect of Direct Expenditure Allocation of Infrastructure in Regional Budgets on Poverty Rate**

Effect of the variables of direct expenditure allocation of infrastructure on poverty rate variable is not significant. It means that direct expenditure allocation of infrastructure affects the poverty rate. So, the increase of direct expenditure realization of infrastructure will not necessary is reducing poverty.

The research result is in contrary with Usman, Sinaga, and Siregar (2007) on poverty determinant before and after fiscal decentralization who concluded that the infrastructure is one of the determinants of poverty reduction. In contrast to this study which states that the effect of the variable of direct expenditure allocation of infrastructure on poverty rate variable is not significant. A study of Lokshin and Yemtsov (2003) using panel data analyzed the relationship between roads and schools in Georgia. The results show both the school and the road infrastructure has affect on the welfare the poor. School rehabilitation projects have the most effect on the welfare of the poor.

**Effect of Human Development on Poverty Rate**

The effect of the variable of human development on poverty rate is negative and significant. It means that an increase in human development will be followed by a decrease in poverty rate by assumption that other factors that affect the size of human development is considered constant.

Human Development Index (HDI) consists of three components that relate to the level of society productivity. With healthy and educated people, the society productivity will increase and will also rise the spending on consumption anyway. Todaro (2003) said that human development is the development goal in itself in which human development plays a key role of a country being able to absorb modern technology and to develop its capacity to create growth and sustainable development. According Napitupulu (2007) human development index contains three important dimensions in development: related to the aspect of fulfilling the need to live a long life (Longevity) and a healthy lifestyle (healthy life), to gain knowledge and to have access to resources capable to meet living standards. It means that the three key dimensions of human development are very influential on poverty. These results indicate that human development has negative and significant effect on poverty rate. It supports the research of

Denni (2012) that poverty has negative and significant effect on the HDI.

**Effect of Economic Growth on Poverty Rate**

The effect of economic growth variable on poverty rate is negative and significant. Therefore, when the economic growth increases the poverty rate will follow by assumption that other factors that affect the size of economic growth are constant.

The research results indicate that economic growth has negative and significant effect on poverty rate. It supports the research by Prastyo (2010) that economic growth negatively affected poverty rate. Economic growth is an indicator to see the success of development and is a prerequisite for poverty reduction. The condition is the result of economic growth spreading in every class of society, including the poor population groups (Herman Siregar and Dwi Wahyuniartiin Achmad Khabhibi, 2010). Research conducted by Wongdesmiwati in Adit Agus Prastyo (2009) found that there was a negative relationship between economic growth and poverty rate. The increase on economic growth will reduce poverty rate. This relationship demonstrates the importance of speeding up economic growth to reduce poverty rate.

**Effect of Regional Discrepancy on Poverty Rate**

The effect of regional discrepancy variable on poverty rate is negative and significant. This means that an increase of regional discrepancy will affect poverty rate reduction with assumption that other factors affecting the size of regional discrepancy is considered constant. Sharp, et.al (1996) in Mudrajad Kuncoro (1997) tried to identify the causes of poverty by taking into account the economic standpoint. First, by micro viewpoint the poverty arises because of the disparity of resource ownership patterns which lead to an unequal distribution of income. Second, poverty arises from the differences in the quality of human resources. Third, poverty arises due to differences in access to capital.

**CONCLUSION**

Based on the results of data analysis and discussion, the conclusion can be drawn as follows:

1. The effect of direct expenditure allocation of education on human development is positive and significant, so that an increase on government expenditure realization will necessarily be followed by improvement of human development index (HDI).

2. The effect of direct expenditure allocation of health on human development is positive and significant, so that the realization of direct expenditure allocations of health will be followed by improvement of human development index (HDI).
3. The effect of direct expenditure allocations of infrastructure on economic growth is positive and insignificant. It means that the realization of direct expenditure allocation of infrastructure does not necessarily boost the economic growth but through a long process).
4. The effect of human development on economic growth is positive and significant. This means that an increase on human development will boost economic growth by assuming that other factors affecting the size of the human development are considered constant).
5. The effect of direct expenditure allocation of infrastructure on regional discrepancy is not significant. This means that the increase on the direct expenditure allocation of infrastructure does not necessarily affect the regional discrepancy.
6. The effect of economic growth on regional disparity is positive and significant, meaning that the economic growth will be followed by an increase in regional disparity, due to be unaccompanied by development so that it is unable to reduce the regional disparity.
7. The effect of direct expenditure allocation of education on poverty is positive and significant. It means that an increase in the allocation of direct expenditure of education is not able to reduce the poverty rate, due to the allocation of education expenditure is prioritized in education infrastructure many improvement that it is unable to directly lower the poverty rate.
8. The effect of direct expenditure allocation of health on poverty rate is negative and significant. It means that the realization of direct expenditure allocation of health will be followed by a decrease in the poverty rate.
9. The effect of direct expenditure allocation of infrastructure on poverty rate is not significant. This means that the direct expenditure allocation of infrastructure has no effect on poverty rate. So although the realization of direct expenditure of infrastructure increases, the poverty will not be necessarily reduced
10. The effect of human development on poverty rate is negative and significant. This means that an increase on human development will be followed by a reduction on poverty rate.
11. The effect of economic growth on poverty rates negative and significant. Therefore, if economic growth increases the poverty rate will be reduced.

#### SUGGESTION

It is suggested (1) to reduce the poverty rate by allocating more on health and education sectors because of the direct effects on poverty, (2) For further researches be observing fund variable from national budget.

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Figure correlation between variables in scheme form

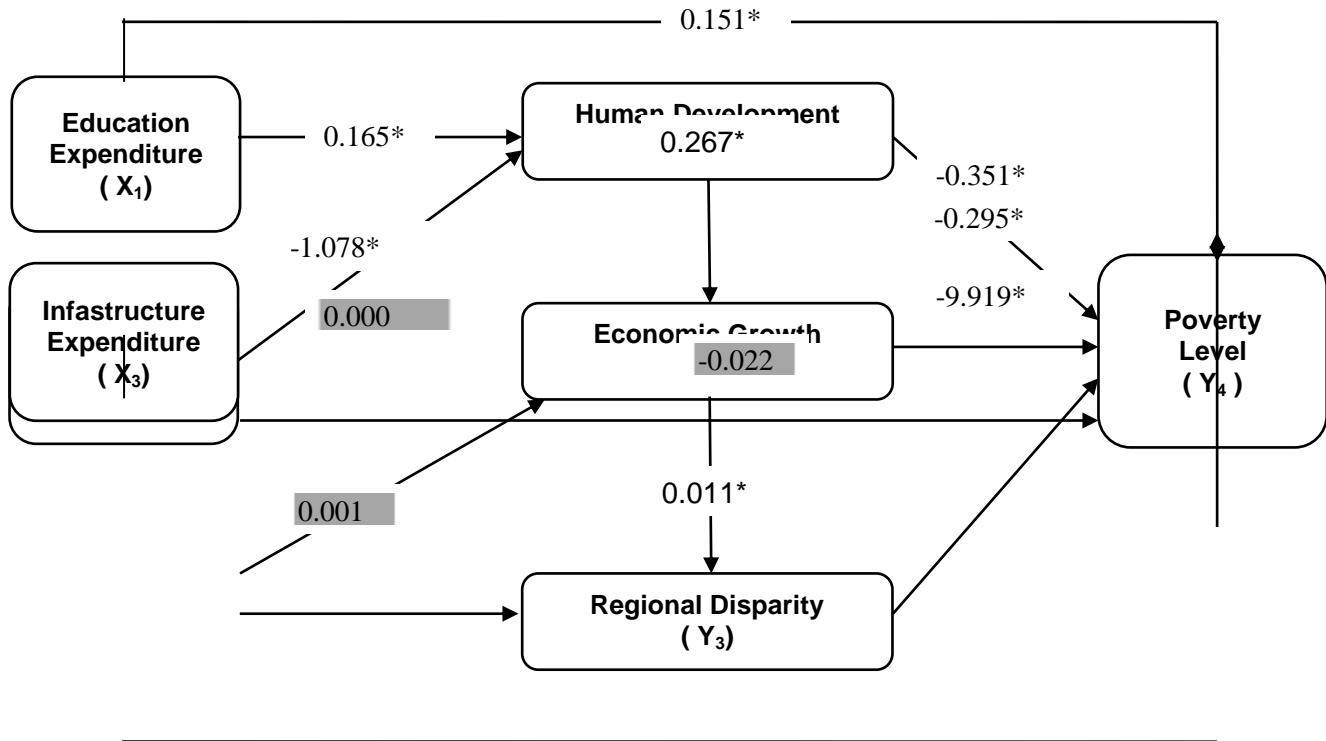


Table of Functional Relationships between Variables

Influencing Variables	Related Variables	Estimate	S.E	T. Value	Prob	Description
Direct expenditure allocation of education (X <sub>1</sub> )	1 Human Development (Y <sub>1</sub> )	0,165	0,056	2,923	0,003	significant
	2 Poverty Level (Y <sub>4</sub> )	0,151	0,060	2,523	0,012	significant
Direct expenditure allocation of health (X <sub>2</sub> )	1 Human Development (Y <sub>1</sub> )	0,302	0,084	3,584	0,000	significant
	2 Poverty Level (Y <sub>4</sub> )	-1,078	0,090	-11,92	0,000	significant
Direct expenditure allocation of infrastructure (X <sub>3</sub> )	1 Economic Growth (Y <sub>2</sub> )	0,001	0,017	0,074	0,941	insignificant
	2 Regional disparity (Y <sub>3</sub> )	0,000	0,001	0,145	0,885	insignificant
	3 Poverty Level (Y <sub>4</sub> )	-0,022	0,037	-0,597	0,551	insignificant
Human Development (Y <sub>1</sub> )	1 Economic Growth (Y <sub>2</sub> )	0,267	0,030	8,888	0,000	significant
	2 Poverty Level (Y <sub>4</sub> )	-0,351	0,079	-4,431	0,000	significant
Economic Growth (Y <sub>2</sub> )	1 Regional disparity (Y <sub>3</sub> )	0,011	0,003	3,325	0,001	significant
	2 Poverty Level (Y <sub>4</sub> )	-0,295	0,148	-1,994	0,046	significant
Regional disparity (Y <sub>3</sub> )	1 Poverty Level (Y <sub>4</sub> )	-9,919	2,373	-4,180	0,000	significant