



The Effect of Regional Government Expenditures on Regional Development Inequality in Eastern Indonesia, 2015-2020

Viqra Ramadanti¹, Agussalim², Sultan Suhab³

¹Master in Development Economics and Planning, Faculty of Economics and Business, Hasanuddin University, Indonesia

²Development Economics and Planning, Faculty of Economics and Business, Hasanuddin University, Indonesia

³Development Economics and Planning, Faculty of Economics and Business, Hasanuddin University, Indonesia

Email: Viqrarmdhnt0401@gmail.com

Abstract: The existence of differences in resources and processes in the implementation of development in a region causes the ability of each region to encourage the development process also to be different, which causes problems of development inequality between regions. Therefore, an analysis of regional development disparities needs to be carried out. This study aims to analyze the effect of local government spending, the Human Development Index (HDI), and economic growth on regional development inequality in Eastern Indonesia in 2015-2020. This research approach uses a quantitative approach. The data type used is panel data, 12 Provinces in Eastern Indonesia for six years (2015-2020). The analysis tool uses panel data regression with a Fixed Effect Model approach. The results indicate that the variables of government spending on education, health, infrastructure, and human development index directly affect regional development inequality. Meanwhile, the economic growth variable does not affect regional development inequality.

Keywords: Regional Government Expenditures; Regional Development Inequality; Eastern Indonesia

Article History:

Received on 8 Nov 2022

Revised on 29 Nov 2022

Accepted on 3 Dec 2022

Doi: 10.37479

Indexing:

Google Scholar; Portal Garuda; Crossref; SINTA 5 (Science And Technology Index)

The journal allows the authors to hold the copyright without restrictions and allow the authors to retain publishing rights without restrictions. international license.

Copyright © 2022 Author | This open access article is distributed under a Creative Commons Attribution (CC-BY) 4.0 International License

INTRODUCTION

National development is an effort carried out to improve all aspects of the community, nation and state life, which is also a process of developing the entire system of state administration to realize the nation's welfare as a national goal. However, in the development process, each region or region generally has a problem: inequality in economic development. Development inequality between regions and the centre and between one region and another. This is natural because of differences in resources and processes in implementing regional development (Sjafrizal, 2012).

Eastern Indonesia (KTI) is a maritime-based economic area. Based on Presidential Decree Number 2 of 2015 concerning the National Medium-Term Development Plan (RPJMN) 2015-2019 and the Eastern Indonesia Knowledge Exchange (BaKTI), which is included in the Eastern Region of Indonesia, there are 12 provinces, namely South Sulawesi, Central Sulawesi, Southeast Sulawesi, North Sulawesi, West Sulawesi, Gorontalo, Maluku, North Maluku, East Nusa Tenggara, West Nusa Tenggara, Papua and West Papua.

Eastern Indonesia (KTI) lags in development compared to the western part of Indonesia. Therefore, the Western Region of Indonesia is considered more developed than the Eastern Region of Indonesia (KIT), which is still developing. This condition can be seen from the proportion of regional contributions to the National Gross Domestic Product (GDP). The Western Indonesia Region contributes about 75% of the total national GDP, while the Eastern Indonesia Region only contributes approximately 25% (Ministry of PUPR, 2017).

In addition, the backwardness of Eastern Indonesia (KTI) is also seen in the 2017 Human Development Index (HDI) data from the Central Statistics Agency (BPS). In this case, only North Sulawesi is included in Indonesia's top ten highest HDI. Although the Human Development Index (HDI) data in Indonesia during 2015-2020 shows that the Human Development Index of provinces in Indonesia continues to increase. However, the Human Development Index is still lagging compared to western Indonesia. In 2020, only North Sulawesi Province was included in the top ten highest HDI in Indonesia. In addition, in 2015-2017, only the Provinces of North Sulawesi and South Sulawesi were included in the high HDI category. Meanwhile, the regions in Maluku and Papua are still in the medium HDI category and are at the lowest position compared to other provinces in Indonesia (BPS Indonesia,2022). Therefore, the government's attention is very much needed in carrying out development in Eastern Indonesia which is expected to be an important step and have a major impact on increasing HDI in Eastern Indonesia.

To find out the level of development inequality between provinces that occurred between provinces in Eastern Indonesia for the 2015-2020 period, it can be analyzed using the regional inequality index, namely the Williamson inequality index. The Williamson index ranges from $0 < IW < 1$, were getting closer to zero means the region is at a low level of development inequality. Meanwhile, the closer to one, the higher the level of inequality in the region's development (Sjafrizal, 2012).

Table 1. Williamson Indonesia and 12 Provinces Index in Eastern Indonesia 2015-2020

Province	Year					
	2015	2016	2017	2018	2019	2020
Indonesia	0.70	0.70	0.70	0.71	0.73	0.72
NTB	0.85	0.82	0.86	0.67	0.65	0.77
NTT	0.64	0.47	0.46	0.46	0.46	0.45
Ignite	0.48	0.49	0.49	0.50	0.50	0.48
Sul Teng	0.49	0.52	0.55	0.58	0.61	0.65
Sul Sel	0.67	0.67	0.68	0.69	0.70	0.69
Sul Tra	0.40	0.40	0.42	0.42	0.42	0.39
Gorontalo	0.15	0.15	0.14	0.14	0.14	0.19
Sul Bar	0.37	0.36	0.35	0.35	0.34	0.33
Maluku	0.18	0.18	0.17	0.17	0.17	0.17
Ut Mall	0.27	0.28	0.27	0.27	0.28	0.28
Pap Bar	0.62	0.60	0.67	0.67	0.66	0.69
Papua	0.81	0.82	0.82	0.83	0.85	0.87

Source: Data Processed by the Author

Based on the table 1 which describe Williamson Index in Indonesia and 12 Provinces in Eastern Indonesia 2015-2020, it is known that the level of regional development inequality in Indonesia is still quite high (>0.5), with an average development inequality of 0.71 during the 2015-2020 period. Meanwhile, the high level of development inequality (>0.5) in Eastern Indonesia is seen in Papua, West Papua, West Nusa Tenggara, East Nusa Tenggara, North Sulawesi, Central Sulawesi, and South Sulawesi with an average development inequality of 0, 64. Meanwhile, the provinces of Gorontalo, West Sulawesi, Southeast Sulawesi, Maluku, and North Maluku showed a low level of inequality (<0.5) during the 2015-2020 period, with an average development inequality of 0.275. This shows that the 12 provinces in Eastern Indonesia are mostly at a high level of development inequality.

According to Sjafrizal (2012), several factors influence regional development inequality, namely differences in natural resources, differences in demographic conditions, lack of smooth mobility of goods and services, and concentration of regional economic activities that affect the level of economic growth and human development in an area, and allocation of regional development funds, such as in the fields of education, health and infrastructure.

Gross Regional Domestic Product (GDP) influences the economic growth of a region. The higher the growth economy, the development gap of a region will be reduced. Based on the theory of development model from modern economic theory, namely the endogenous growth model. The endogenous growth model emphasizes that human resources are the main driver of economic growth (Trisnanto, 2018).

Theoretically, regional development inequality is raised by Douglas C North in his analysis of the neoclassical theory of economic growth. In this theory, a prediction emerges about the relationship between a country's national economic development level and regional development inequality. This theory explains that at the beginning of the development of a country. Development inequality tends to increase. This process will occur until the inequality reaches a peak. After that, if the development process continues gradually, development inequality will decrease. Based on this hypothesis, it can be concluded that in developing countries or regions that are in the early stages of development, in general, development inequality between regions tends to be higher than in developed countries or regions where the level of regional development inequality tends to be lower (Sjafrizal, 2012).

The government's efforts to increase development in eastern Indonesia can be carried out by improving community welfare and public services such as education, health and infrastructure. Each region is free to

regulate regional autonomy, including regulating the distribution of budget amounts in the Regional Revenue and Expenditure Budget (APBD) sector. This is also regulated in Law No. 32 of 2004 concerning Regional Government. Autonomous regions are given the authority to regulate and manage all government affairs by providing services, increasing participation, initiatives, and community empowerment to improve people's welfare (DJP, 2020).

Based on the theory of development model on the development of government spending developed by Rostow and Musgrave, which connects the development of government spending with the stages of economic development distinguished between the early, intermediate, and advanced stages. In the early stages of economic development, the percentage of government investment to the total investment is large because the government must provide facilities and services such as education, health, and infrastructure. Then in the middle and advanced stages of economic development, government investment is still needed to increase economic growth so that it continues to increase (Prasetya, 2012).

Development expenditures in the education sector can be allocated for providing educational infrastructure and providing education services to the entire population of Indonesia equally. Government spending on the education sector will indirectly affect the economy because education will produce higher-quality human resources and ultimately increase production. Meanwhile, government spending on the health sector is an effort to meet basic human needs. The health aspect is one of the factors that affect human quality. For this reason, government spending on the health sector that is issued to fulfil one of the basic rights to obtain health services in the form of health facilities and services is a prerequisite for increasing community productivity. This is expected to contribute to the formation of human capital, which is an important element in the development of a region. Infrastructure development is important in increasing economic growth, encouraging productive investment, creating jobs and reducing poverty. The development of quality human resources through government spending on infrastructure is expected to increase people's productivity, ultimately affecting economic growth.

Based on the description above, it is necessary to see how far the role of the government through local government spending, in this case, is the realization of regional budgets for regional development inequality in 12 Provinces in Eastern Indonesia. Based on this situation, it makes interest to observe its effect by raising this phenomenon in a study entitled "The Effect of Regional Government Expenditures on Regional Development Inequality in Eastern Indonesia".

Economic Development

The terms economic growth and economic development are sometimes used interchangeably, but they are fundamentally different. Economic growth refers to an increase in national or per capita income. If the production of goods and services in a country increases, in one way or another, and the average income increases accordingly, the country has achieved economic growth. Economic growth explains why the percentage of the world's population living in low-income countries, defined in terms of GNI per capita, has fallen so rapidly over the last three decades. Economic development implies more specifically, improvements in health, education, and other aspects of human well-being. Countries that increase their income but do not increase life expectancy, increase education, and expand individual opportunities, lose several important aspects of development (Perkins, 2013). Economic development in a country is not only measured by the increase in the production of goods and services that apply from year to year but also needs to be measured by other changes that apply in various aspects of economic activity, such as developments in education, technological developments, improvements in health, improvements in infrastructure that available and an increase in people's income (Setiawan, 2016).

Regional Development Inequality

Development inequality between regions is a common phenomenon that occurs in the process of economic development of a region. This inequality was initially caused by differences in the content of natural resources and differences in demographic conditions in each region. As a result, the ability of regions to increase economic growth and encourage the development process will also be different. So it is not surprising that each region has relatively developed and relatively backward regions (Sjafrizal, 2012).

Regional Development Levels can be measured using the Williamson Index. Jeffrey G. Williamson developed this index in 1965. Williamson examines the relationship between regional disparities with the level of economic development. The Williamson Index formula can be written as follows:

$$IW = \frac{\sqrt{\sum (Y_i - Y)^2 \frac{F_i}{n}}}{Y}$$

Information:

- Y_i = PDRB per capita at current prices in area i
- Y = average GRDP per capita at current prices in the area
- F_i = total population in area i
- n = total population of the area.

Williamson Index Criteria, according to Permendagri No. 54 of 2010, are as follows:

- a. If $IW < 0.5$, Inequality is low.
- b. If $IW > 0.5$ Inequality is high.

Economic Growth

In general, economic growth is defined as an increase in the ability of an economy to produce goods and services. Therefore, economic growth is one of the important elements that must be carried out in regional economic development. Even today, high economic growth is the main target in the development plan. Through high economic growth, it is hoped that the community's welfare can also be gradually improved (Aswuriyani, 2020). Thus, in the era of autonomy, each region competes to increase economic growth to encourage the local community's prosperity. The regional economic growth rate can be measured by calculating the increase in the value of the Gross Regional Domestic Product (GDP) in a certain year to the following year. To avoid price increases in the calculation, the data used is GRDP data at constant prices, not current prices (Sjafrizal, 2012).

Human Development Index

HDI is a variable that reflects the achievement of the population's welfare on basic services in education, health and public welfare (wikiapbn, 2015). HDI is formed based on four indicators: life expectancy, literacy rate, the average length of schooling, and purchasing power. The United Nations Development Program (UNDP) defines human development as expanding people's choices. In particular, the Human Development Index measures development achievements based on some basic components of quality of life. HDI is calculated based on data describing the four components: life expectancy, which represents the health sector. The literacy rate and the average length of schooling measure the achievement of development in the field of education and the purchasing power of the community towards some basic needs as seen from the average amount of per capita expenditure as an income approach that represents development achievements for a decent living (BPS Indonesia, 2019).

Local Government Expenditure

Government spending is one fiscal policy component that aims to achieve steady economic stability while maintaining the pace of economic growth. When viewed from the development of government activities from year to year, it is seen that the role of the government is always increasing in almost all economic fields. (IPM) can be realized through the realization of state spending on public services. Based on Law no. 32 of 2004 concerning Regional Government, regional spending is prioritized to protect and improve the quality of people's lives to fulfil regional obligations, which are manifested in the form of improving basic services, education, providing health service facilities, social facilities and proper public facilities and developing social security by taking into account analysis of expenditure standards, price standards, performance benchmarks and minimum service standards set by laws and regulations (Kuncoro, 2013).

METHODOLOGY

This type of research uses a quantitative approach. The quantitative research method used in this study measures and analyzes the effect of government spending on education, health and infrastructure, the human development index and economic growth on regional development inequality in Eastern Indonesia from 2015 to 2020. This research uses variable X1 expenditure government in the education sector, variable X2 government expenditure in the health sector, variable X3 government spending in infrastructure, variable Y1 human development and Y2 economic growth as factors that influence variable Y3 regional development inequality.

The type of data used for this research is panel data. Panel data is a combination of time series and cross-section. Time series data in the form of 2015-2020, cross-section data from 12 provinces in Eastern Indonesia. The sample in this study is data on total regional spending in the fields of education, health, and infrastructure, economic growth and the Human Development Index (HDI) in 12 provinces in Eastern Indonesia in 2015-2020. The data used in this study uses secondary data sourced from BPS in the form of economic growth data human development index (HDI) and comes from the Directorate General of Fiscal Balance (DJPK). Namely in the form of data on total regional spending in the fields of education, health, and infrastructure in 12 provinces in Eastern Indonesia.

Based on the data collection techniques in this study under the form of a quantitative research approach, the data collection method used in this study is the documentation method by downloading data in the form of documentation data that has been published by the official website of the Central Statistics Agency (BPS) and sourced from the Directorate General of Balance. Finance (DJPK) Ministry of Finance of the Republic of Indonesia takes the population of 12 provinces in the Eastern Indonesia Region. The dependent variable in the study is regional development inequality. Meanwhile, the independent variables are local government spending on education, health, infrastructure, human development index, and economic growth. The data analysis method used in this research is panel data regression analysis using Eviews and SMART PLS software. The equation of the panel data regression model in this study can be formulated in the following model:

$$Y_3 = \pi_0 + \pi_1 \text{Ln}X_{1it} + \pi_2 \text{Ln}X_{2it} + \pi_3 \text{Ln}X_{3it} + \gamma_4 Y_{1it} + \gamma_5 Y_{2it} + \mu_{it}$$

Information:

- $\gamma_0, \gamma_4 \alpha_0, \gamma_5 \beta_0 \alpha_0, \gamma_5 \beta_2 \alpha_0 = \text{Constant}$
- $\gamma_4 \mu_1, \gamma_5 \beta_2 \mu_1, \gamma_5 \mu_2, \mu_2 = \text{composite error term}$
- $X_1 = \text{local government spending on education}$
- $X_2 = \text{local government spending on health}$
- $X_3 = \text{expenses_government area field infrastructure}$
- $\gamma_1 = \text{human development index}$
- $\gamma_2 = \text{economic growth}$
- $\gamma_3 = \text{inequality regional development}$

RESULTS

After going through the model selection test process, the effect of each independent variable on the dependent variable in a regression model can be seen from the coefficient values and the significance level of each in an analysis model. This study used Eviews and SMART PLS software for analysis by generating an estimation model. The analysis of the estimation results aims to determine the effect between variables. Based on the results of data analysis, the direct, indirect and total effects are obtained as follows:

Table 2 Estimation Results The direct effect of the variable independent of the dependent variable

Influence Direct	Coefficient	t count	p-value
$X_1 \rightarrow Y_1$	3.8476	0.8787	0.0388
$X_2 \rightarrow Y_1$	3.0180	0.5576	0.0000
$X_3 \rightarrow Y_1$	-0.3332	0.1449	0.0252
$X_3 \rightarrow Y_2$	-0.0127	0.0310	0.0589
$Y_1 \rightarrow Y_2$	0.4252	0.1208	0.0008
$X_1 \rightarrow Y_3$	0.1847	0.0345	0.0000
$X_2 \rightarrow Y_3$	0.0231	0.0238	0.0364
$X_3 \rightarrow Y_3$	-0.0341	0.0110	0.0031
$Y_1 \rightarrow Y_3$	-0.0327	0.0024	0.0000
$Y_2 \rightarrow Y_3$	-0.0007	0.0025	0.7797

*Significant at = 5%;

Source: SMART PLS Software Output Results, Processed

Table 3 Results of Indirect Effect Estimation independent variable to dependent variable

Influence Not Direct	Coefficient	t count	p-value
$X_1 \rightarrow Y_1 \rightarrow Y_2 \rightarrow Y_3$	0.466	2,578	0.010
$X_2 \rightarrow Y_1 \rightarrow Y_2 \rightarrow Y_3$	0.394	2,267	0.024
$X_3 \rightarrow Y_1 \rightarrow Y_2 \rightarrow Y_3$	0.056	0.914	0.361
$X_1 \rightarrow Y_1 \rightarrow Y_2$	0.855	3.296	0.001
$X_2 \rightarrow Y_1 \rightarrow Y_2$	0.722	2,658	0.008
$X_3 \rightarrow Y_1 \rightarrow Y_2$	-0.102	0.931	0.352
$Y_1 \rightarrow Y_2 \rightarrow Y_3$	-0.375	3.901	0.000

* Significant at = 5%

Source: SMART PLS Software Output Results, Processed

DISCUSSION

The Direct Effect of Local Government Expenditures on Education on the Human Development Index

The effect of local government spending on education on the human development index in 2015-2020 is declared to have a positive effect. The findings of this study indicate that the amount of local government spending on education, which continues to increase every year, has been running as it should, and infrastructure development and improvement of education services have been realized effectively and efficiently. Education is a fundamental development goal because education is the main thing to achieve a satisfying and valuable life, so it is fundamental to forming wider human capabilities that are at the core of the meaning of development. Therefore, education has an important role in shaping the ability of a developing country to absorb modern technology and develop the capacity to create sustainable growth and development (Todaro, 2006). In addition, the research uses the Two Stage Least Square (TSLS) data analysis method, which states that the government expenditure variable in education positively affects the human development index in Makassar City (Putri, 2018).

Direct Effect of Regional Government Expenditures on Health on the Human Development Index

Local government spending on health on the human development index in Eastern Indonesia in 2015-2020 is declared to have a positive effect. The results of this study indicate that the amount of local government expenditure on field health has significantly influenced the human development index number, where the health indicator is a variable to calculate the human development index. Government spending on education and health is an instrument to improve the quality of human resources (Agussalim, 2009). Therefore, health is an important thing that needs to be considered, which can affect the quality of human resources in increasing community productivity. On the other hand, research uses the Two Stage Least Square (TSLS) data analysis method, which states that the government expenditure variable in the health sector positively affects the human development index in Makassar City (Putri, 2018).

Direct Effect of Local Government Expenditures on Infrastructure on the Human Development Index

Local government spending on infrastructure on the human development index in Eastern Indonesia in 2015-2020 is stated to have a negative relationship. The results of this study indicate that there is a negative relationship between local government spending on infrastructure and the human development index, where the human development index data for 12 provinces in Eastern Indonesia in 2015-2020 have been in the high and medium human development index categories while the government expenditure data the infrastructure sector in Eastern Indonesia in 2015-2019 fluctuated even in 2020 the average tended to decrease. This is due to the impact of the Covid-19 pandemic. The Covid-19 pandemic has significantly impacted the infrastructure sector, namely budget reductions. The Indonesian government took this policy on the basis that the funds would be reallocated to the health budget to tackle the Covid-19 problem (Kemenkeu PPP, 2021). In addition, this study uses the Two Stage Least Square (TSLS) data analysis method, which states that the government expenditure variable in the health sector positively affects the human development index in Makassar City (Putri, 2018).

The Direct Effect of Regional Government Expenditures on Infrastructure on Economic Growth

The effect of local government spending on infrastructure on economic growth in 2015-2020 is declared to have no effect. The development model developed by Rostow and Musgrave, which links the development of government spending with the stages of economic development, which are distinguished into early stages, intermediate stages, and advanced stages. In the early stages of economic development, the percentage of government investment to the total investment is large because the government must provide facilities and services such as education, health, and infrastructure. Then, in the middle stage of economic development, investment is still needed to increase economic growth, which is one of the indicators of development (Prasetya, 2012). In addition, the Solow growth model emphasizes that the physical investment made by the government is public capital investment, such as in the construction of roads and bridges. Therefore, infrastructure development plays an important role in encouraging a region's economy. Open infrastructure access will facilitate an area's economic activities (Nugroho, 2019).

However, this is outside the results of this study, where the variable government spending on infrastructure has no direct effect on economic growth. Several things cause this to happen, one of which is the realization of regional government spending on provincial infrastructure in Eastern Indonesia from 2015 to 2019, which tends to fluctuate until 2020 decreases. This is due to the impact of the Covid-19 pandemic. The Covid-19 pandemic has significantly impacted the infrastructure sector, namely budget reductions. The Indonesian government took this policy on the basis that the funds would be reallocated to the health budget to tackle the Covid-19 problem (Kemenkeu PPP, 2019).

The Direct Effect of the Human Development Index on Economic Growth

The influence of the human development index on economic growth in 2015-2020 is declared to have a positive effect. This is because the quality of human resources, as measured by the Human Development Index, influences a region's economic growth. This result is in line with the theory of endogenous growth, which states that investment in human resources, innovation, and knowledge are factors that affect economic growth. This explains economic growth, emphasizing the importance of saving and investing in human capital to accelerate growth (Prapanca & Febriansyah, 2019). Thus, a region's increase in the Human Development Index can illustrate that labour productivity has also increased. Then this will lead to increased economic growth. In addition, research using the path analysis technique states that the human development index variable affects economic growth in Indonesia (Yusuf, 2021).

The Direct Effect of Regional Government Expenditures on Education on Regional Development Inequality

The effect of local government spending on education on regional development inequality in 2015-2020 is declared to have a positive effect. Government spending on education has been realized in improving the quality of education services that make it easier for the community to access education to increase more productive human development and ultimately increase economic growth so that it can have a good impact on equitable regional development to reduce regional development inequality. Based on the human capital theory states that education has an influence on economic growth and will reduce regional development inequality. Therefore, education has an important role in advancing the economic development of a region (Hendarmin, 2019). In addition, other research findings using the panel data regression analysis method with the Random Effect Model

approach show that local government spending affects regional development inequality (Harun & Maski, 2012).

Direct Effects of Regional Government Expenditures on Health on Regional Development Inequality

Local government spending on health on regional development inequality in Eastern Indonesia in 2015-2020 is declared to have a positive effect. The results of this study indicate that the amount of local government spending on health in 2015-2020, which continues to increase every year, affects reducing the level of regional development inequality in Eastern Indonesia. Government spending in the health sector needs to be considered because health is important in carrying out daily life, which will encourage the improvement of human resources and community productivity, reducing regional development inequality. Meanwhile, the findings of other studies using the panel data regression analysis method with the Random Effect Model approach show that local government spending affects regional development inequality (Harun & Maski, 2012).

Direct Effects of Regional Government Expenditures on Infrastructure on Regional Development Inequality

Local government spending on infrastructure on regional development inequality in Eastern Indonesia in 2015-2020 is stated to have a negative relationship. Several factors cause this to happen, one of which in this study can be seen in the data on the realization of government spending on the infrastructure sector in Eastern Indonesia, which tends to fluctuate in each region. Even in 2020, this has decreased due to the impact of the Covid-19 pandemic. The Covid-19 pandemic has considerably impacted the infrastructure sector, namely a reduction in the budget for infrastructure development. The Indonesian government took this policy on the basis that the funds would be reallocated to the health budget to tackle the Covid-19 problem. The delay in construction activities has an impact on the non-absorption of domestic raw materials, a decrease in imports of capital goods, and the loss of jobs that contribute to the increase in unemployment so that there is no economic benefit derived from infrastructure development (KPB Ministry of Finance, 2021). In addition, research using the panel data regression analysis Fixed Effect Model method shows that government spending harms development inequality (Dhyatmika, 2013).

Direct Effect of Human Development Index on Regional Development Inequality

The direct influence of the human development index on regional development inequality in Eastern Indonesia in 2015-2020 is stated to have a negative relationship. Based on the Human Capital theory states that education influences economic growth, where if humans have higher education, they will have jobs and wages that are higher. Greater than humans who have education low (Hendarmin, 2019). If wage rates can reflect productivity, the more people with higher education, the better the economy will be. Thus, a region's increase in the Human Development Index can illustrate that labour productivity has also increased. Then, this will cause income to increase, especially per capita income. When the per capita income of a region increases, it can reduce development inequality between regions. In addition, research using panel data regression with the Random Effect Model method found that the human development index harmed regional inequality in Java (Zusanti, 2019).

Direct Effect of Economic Growth on Regional Development Inequality

The direct effect of economic growth (Y2) on regional development inequality (Y3) in Eastern Indonesia in 2015-2020 is declared to have no effect. This means that if economic growth in Eastern Indonesia increases, it cannot affect the inequality of regional development in Eastern Indonesia. Based on the Neo-Classical hypothesis proposed by Douglas C North, a prediction about the relationship between the level of national economic development of a country and the regional inequality between regions emerges. According to this hypothesis, it is stated that at the beginning of a country's development process, development inequality between regions tends to increase until the inequality reaches a peak. After that, if the development process continues, the inequality between regions will gradually decrease (Sjafrizal, 2012).

However, in this study, the variable economic growth did not affect the regional development inequality variable. Several things caused this to happen, one of which is that in 2015-2020 there was an imbalance in the data on the economic growth rate. It can be seen that in the data on the rate of economic growth in this study, the economic growth of provinces in Eastern Indonesia in 2015- In 2020, we can see that there is an imbalance in the rate of economic growth where in 2015-2019 tends to experience fluctuations caused by the influence of other variables that also affect economic growth, such as investment and so on until 2020 due to the impact of the Covid-19 pandemic so that cause an economic recession. Meanwhile, research using multiple linear regression analysis found that economic growth did not affect regional development inequality in South Sulawesi Province (Mansyur, 2021).

Indirect Influence of Regional Government Expenditures on Education on Regional Development Inequality through the Human Development and Economic Growth Index

The indirect effect of local government spending on education on regional development inequality through the human development index and economic growth in 2015-2020, is declared to have a positive effect. Government spending on education and health is an instrument to improve the quality of human resources. This can be done by providing free education and health costs and increasing the access of the poor to social and economic

facilities to improve the quality of human resources (Agussalim, 2009). The results of other studies also show that local government spending affects regional development inequality. Therefore, the budget allocation for education sector expenditure can be allocated for providing educational infrastructure and education services to the entire population of Indonesia equally to create equity in regional development (Harun & Maski, 2012).

Indirect Effect of Regional Government Expenditures on Health on Regional Development Inequality through the Human Development and Economic Growth Index

The indirect effect of local government spending on health on regional development inequality through the human development index and economic growth in 2015-2020, is declared to a positive effect. In addition, other studies also show that local government spending affects regional development inequality (Harun & Maski, 2012). This is because government spending on education and health is an instrument to improve the quality of human resources. This can be done by providing free education and health costs and increasing the access of the poor to social and economical facilities to improve the quality of human resources. When an area has healthy and highly educated human resources, this will have an impact on community productivity in carrying out economic activities. Then, the level of community income will increase and affect the reduction of development inequality between regions (Agussalim, 2009).

Indirect Influence of Regional Government Expenditures on Infrastructure on Regional Development Inequality through the Human Development and Economic Growth Index

The indirect effect of local government spending on infrastructure on economic growth through the human development index in 2015-2020, is declared to have no effect. Therefore, regions that receive a larger allocation of regional development funds from the government, such as in the infrastructure sector, will tend to have a faster economic growth rate. This condition will certainly encourage development in the area concerned by providing more jobs (quality of human resources) and a higher income per capita (economic growth). So, in conclusion, improving the quality of human resources and community productivity can reduce regional development inequality.

However, the results of this study indicate that the regional government expenditure on infrastructure has no indirect effect on inequality in regional development through the human development index and economic growth. Several things cause this to happen, one of which is the realization of regional government spending on provincial infrastructure in Eastern Indonesia from 2015 to 2019, which tends to fluctuate until 2020 decreases. This is due to the impact of the Covid-19 pandemic. Meanwhile, another study found that government spending on infrastructure did not affect regional development inequality. On the contrary, the realization of government spending in the infrastructure sector increased. However, uneven development led to inequality, which could slow economic growth (Iqbal, 2017).

Indirect Effect of Human Development Index on Regional Development Inequality through Economic Growth

The indirect effect of the human development index on regional development inequality through economic growth in 2015-2020, is declared to have a negative relationship. Human Capital theory states that education influences economic growth where if humans have higher education, they will have lower jobs and wages. Greater than humans who have education low (Hendarmin, 2019). If wage rates can reflect productivity, the more people with higher education, the better the economy will be. Thus, a region's increase in the Human Development Index can illustrate that labour productivity has also increased. Then, this will cause income to increase, especially per capita income. When the per capita income of a region increases, it can reduce development inequality between regions. In addition, other studies have found that the human development index affects regional inequality in Java. 2010-2018 (Zusanti, 2018).

Indirect Effect of Local Government Expenditures on Education on Economic Growth through the Human Development Index

The indirect effect of local government spending on education on economic growth through the human development index in 2015-2020, is declared to have a positive effect. The results of this study are by the Human Capital theory, which states that education influences economic growth. If humans have higher education, they will have lower jobs and wages. Greater than humans who have low education. If wage rates can reflect productivity, the more people with higher education, the better the economy will be. Thus, an increase in the Human Development Index in an area can illustrate that labour productivity also increases (Hendarmin, 2019). Meanwhile, research using multiple linear analysis techniques shows that regional education expenditures affect economic growth (Nurjanana, 2019).

Indirect Effect of Regional Government Expenditures on Health on Economic Growth through the Human Development Index

The indirect effect of local government spending on health on economic growth through the human development index in 2015-2020, is declared to have a positive effect. The data on the realization of local government expenditures in the health sector in Eastern Indonesia from 2016 to 2020 in this study shows that it tends to increase yearly. The increased budget is certainly inseparable from the regional government's policy strategy in

solving problems related to improving the quality of health services faced by local governments that need a budget for improving health services. Government spending on the health budget issued to fulfil one of the basic rights to obtain health services in the form of health facilities and services is a prerequisite for increasing community productivity (Todaro & Smith, 2006). In addition, research using the path analysis technique found that government spending in the health sector affects economic growth (Nasution, 2021).

Indirect Influence of Regional Government Expenditures on Infrastructure on Economic Growth through the Human Development Index

The indirect effect of government spending on infrastructure on economic growth through the human development index in 2015-2020, is declared to have no effect. The development model developed by Rostow and Musgrave links the development of government spending with the stages of economic development, which are distinguished into early, intermediate, and advanced stages. In the early stages of economic development, the percentage of government investment to the total investment is large because the government must provide facilities and services such as education, health, and infrastructure. Then, in the middle stage of economic development, investment is still needed to increase economic growth, which is one of the indicators of development (Prasetya, 2012). In addition, Dornbusch and Fisher's theory states that government spending is a reflection of fiscal policy, which is one of the government's instruments to influence the course of the economy (Manik and Hidayat, 2012 in Nurjanana, 2019).

However, this is different from the result of this study, where the variable government expenditure in the infrastructure sector indirectly does not affect economic growth through the human development index. Several things cause this to happen, one of which is the realization of regional government spending on provincial infrastructure in Eastern Indonesia from 2015 to 2019, which tends to fluctuate until 2020 decreases. This is due to the impact of the Covid-19 pandemic. In addition, the research found that government spending in the infrastructure sector did not affect economic growth. The realization of local government spending on infrastructure increased. However, uneven development led to imbalances that could slow economic growth (Sinaga, 2021).

CONCLUSION

Based on the data that has been processed and has been analyzed, it can be concluded:

The results of this study indicate that there are four variables in this study that affect regional development inequality in Eastern Indonesia. These variables are local government spending on education, local government spending on health, local government spending on infrastructure, and the human development index. Meanwhile, the variable of local government expenditure in infrastructure does not affect economic growth, and the variable of economic growth does not affect the inequality of regional development in the Eastern Region of Indonesia in 2015-2020.

The results of this study indicate that three variables indirectly affect regional development inequality in Eastern Indonesia. These variables are local government spending on education and local government spending on health through the human development index and economic growth, as well as the human development index variable. The indirect effect on regional development inequality through economic growth. Meanwhile, the variable of local government expenditure in the infrastructure sector does not indirectly affect the inequality of regional development through the human development index and economic growth.

REFERENCES

- Aaron, et al. (2012). Analysis of Regional Government Expenditures and Economic Growth Effect on Regional Development Inequality (Study on Regencies and Cities in East Java). *Scientific Journal* Vol. 1, Number 2
- Agussalim (2009). *Reducing Poverty: A New Proposal for Indonesia*. Nala Cipta Litera, Makassar.
- Angela Aprilia. (2021). *The Impact of the Pandemic on Infrastructure Development*. Government Cooperation with Business Entities Ministry of Finance of the Republic of Indonesia
- Aswuriyani. (2020). *Economic Sector Potential with LQ Analysis, Shift Share, and Klassen Typology in Kediri and Regencies Nganjuk, East Java Province*. East Java National Development University
- Bappenas. (2019). *Initial Draft of the National Medium Term Development Plan (RPJMN) 2020-2024*. Ministry of National Development Planning/BAPPENAS.
- Baransano, et al. (2016). Analysis of Factors Affecting Regional Development Disparity in the Province of West Papua. *Journal of Economics and Development Studies* Vol. 4, No. 2
- Bonet, J. (2006). Fiscal Decentralization and Regional Income Disparities: Evidence from The Colombian Experience. *Original Paper Regional Economics* Volume 40, pp. 661-676. Urbana: University of Illinois
- Dhyatmika, et al. (2013). Analysis of the Inequality of Development of Banten Province after the Expansion. *Journal of Economics* Volume 2, Number 2
- Directorate General of Finance and Balance. (2020). *Regional Financial Management Capacity Building Module*. Indonesian republic's finance ministry

- Fleisher, et al. (2010). Human Capital, Economic Growth, and Regional Inequality in China. *Journal of Development Economics* Volume 92, 215-231.
- Hamsa Fahrer. (2017). The Effect of Government Expenditure on Education, Gender Gap and Per capita Income on Education Inequality and District/City Income Inequality in West Kalimantan Province. *Journal of Business Economics and Entrepreneurship*, Volume 6 No.2
- Hendarmin. (2019). Retracing the Role of Human Capital and Physical Capital Investment in Increase Productivity Growth. *Journal of Business Economics and Entrepreneurship (JEBIK)*, Vol.8 No.3
- Hidayat P & Lumbantoruan E P. (2012). Analysis of Economic Growth and Human Development Index (HDI) of Provinces in Indonesia (Cointegration Method). *Journal of Financial Economics*, Volume 2 No.2
- Iqbal Muhammad, et al. (2017). Analysis of the Effect of Infrastructure on Regional Development Inequality in Aceh Province. *Tataloka* , Volume 21 No.1: Bureau of Publishing Planology UNDIP
- Islami, FS & Nugroho, SBM (2018) . Factors influencing regional inequality in East Java Province, Indonesia. *Significant: Journal of Economics*, Volume 4 No.1
- Jhingan ML (2013). *Economics Development and planning*. PT. Rajagrafindo Persada, Depok.
- Joseph. (2021). The Effect of Government Expenditure on Economic Growth Through the Human Development Index in Indonesia. Hasanuddin University, Makassar
- Kuncoro Mudrajad. (2004). *Regional Autonomy and Development Reform, Planning, Strategy and Opportunity*. Erlangga. Jakarta.
- Kuncoro Mudrajad. (2019). *Regional Economics (Theory and Practice)* . PT. Rajagrafindo Persada, Depok.
- Kurt & Stephan. (2008). *Regional Disparities in The European Union: Convergence and Agglomeration*. *Papers in Regional Science* Volume 87, No 2
- Law Number 32 of 2004 concerning Regional Government. (2004). Jakarta: Supreme Audit Agency of the Republic of Indonesia
- Mansyur Kurniati, et al. (2021). Analysis of Economic Growth, Investment and Government Expenditure Effect on Regional Development Inequality in South Sulawesi Province. *Development Policy and Management Review (DPMR)*, Volume 1 Issue 2
- Nasution Diwayana Putri, et al. (2021). Effect of Government Expenditure on Health and Education Sector on Economic Growth in Medan City. Volume 14 No.1
- Nurjanana, et al. (2019). Effect of Government Expenditure on Education and Health Infrastructure Sector on Economic Growth in East Kalimantan Province. *Economic Forum*, Volume 21 No.2
- Prasetya Ferry. (2012). *Public Economics Module Part V: Theory of Government Expenditure*. Brawijaya University, Malang.
- Princess Nurvadila. (2017). *Government Expenditure and Human Development Index in Makassar City*. Hasanuddin University, Makassar
- Sinaga Syamsidar. (2021). *Analysis of the Effect of Infrastructure on economic growth in the Province of North Sumatra*. North Sumatra University
- Sjafrizal. (2012). *Regional Economics, Theory and Implications*. PT. Self-help Commerce, Jakarta
- Suhartono. (2015). Inequality and economic development of districts/cities in the newly created regions: Case studies in Namten and Gorontalo Provinces. *Journal of Economics and Public Policy*. Volume 6 No.1
- Susanti & Hidayat. (2020). Analysis of the Effect of Government Expenditure on Education, Health, and Infrastructure on Human Development Index in East Kalimantan Province. *Eco-Build Journal*, Volume 4 No.2:25
- Todaro, et al. (2006). *Economic Development, Volume 1, (translation)*, ninth ed. Erlangga, Jakarta.
- United Nations Development Program (UNDP). (2018). *Human Development Index (HDI)*.