DETERMINANTS OF DEVELOPMENT INEQUALITY BETWEEN REGIONS IN NORTH SUMATRA PROVINCE

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Abstract

The area to be built must be evenly distributed in Indonesia, uneven development causes jealousy and dissatisfaction between regions. based on this will be detrimental to the development that a region wants to achieve. The formulation of the problem in this study is whether there is an influence of economic growth in population and the human development index on development inequality in the province of North Sumatra. The type of research used in this research is quantitative research. The results of the study indicate that the economic growth of the population has an effect on development inequality. While the human development index has no effect on development inequality.

Keywords: Human Development Index, Development Inequality, Economic Growth

Introduction

Development is an activity carried out by a country or a region in an effort to increase economic income for the benefit of community welfare. Basically, development has a multidimensional nature that covers various aspects of people's life. Development condition in a number of countries has several problems, one of which is inequality. Inequality of development between these regions can lead to several engagement relationships for a region, one of which is jealousy and dissatisfaction between regions. Inequality of development between regions is a problem that occurs in all countries, both developed and developing countries.

One of the economic problems which, if not addressed immediately, will lead to a more complex crisis, both economic, social, political and environmental, is development inequality. In a broader context, inequality in development can also be detrimental to the development process that a region wants to achieve. The existence of developed and less developed regions is the root cause of disparities in economic development. Due to the disparity in the initial gift factor between regions, Kuncoro argues that inequality refers to the relative standard of living of the community as a whole. Because of these differences, the level of development in various regions is different, causing inequality gaps in these regions.

North Sumatra is a province in Indonesia which consists of 25 regencies, 8 cities, 444 subdistricts, 693 families, 51,497 villages. Each of these areas has differences in geographical location and potential of natural resources so that it has a strong influence on the creation of economic development in North Sumatra Province but is not uniform, resulting in different growth capabilities. These different growth capabilities ultimately lead to inequality in both development and results.

The Williamson index can be used to determine the magnitude of regional income disparities. The use of GRDP per capita for the total population of each region is the basis for the calculation. The results of the Williamson index measurement are represented by the numbers 0 to 1 or 0 IW 1. When the Williamson Index is closer to 0, inequality between regions is low or economic growth is evenly distributed, and when it is close to 1, inequality is getting higher or higher. Economic expansion is not evenly distributed between regions.. The following is the development of the Williamson Index in North Sumatra Province in 2015-2019.

Table 1

Year	Williamsom Index
2015	0.021704
2016	0.022387
2017	0.022636
2018	0.022952
2019	0.023407

Williamsom Index Between Regions in North Sumatra Province

Source : Processed Data

Based on table 1 above, it can be seen that the williamsom index in North Sumatra Province for the last 5 years regional inequality has increased every year from 2015-2019. Inequality that occurs in North Sumatra Province is below 1, if the Williamsom Index is below 1, it means that the inequality that occurs is getting closer to being uneven. This means that inequality in North Sumatra Province is getting closer to being evenly distributed.

There are several factors that influence development inequality, namely population, inflation, HDI, investment and economic growth. Regarding one of them, economic growth which has an impact on development inequality, economic growth is a measure of the success of development. This can be seen from the lower income inequality between residents, between regions, and between sectors. If the level of economic activity is higher than the previous period, then the economy is said to be growing.

Monetary development is also a process to increase per capita output in the long run. Due to its dynamic component, the process is very important in this context. The meaning, nature, and concept of economic growth are still being refined by development economic theorists today. According to theorists, economic growth is not only measured by increases in GDP (Gross Domestic Product) and GRDP (Gross Regional Domestic Product), but also by immaterial factors such as a sense of security and peace and community satisfaction.

One of the successes in economic development is economic growth. According to Kartika that in the implementation of development, high economic growth accompanied by the distribution of development results is the main target. However, in reality the higher economic growth causes disparities in development in each region (Andhiani dkk., 2018). This is not in accordance with Yosi's opinion that economic growth should be able to show an increasing trend from year to year, because high economic growth is needed to accelerate changes in the structure of the regional economy towards a balanced and dynamic economy

in order to increase people's incomes and overcome socio-economic inequality (Putri dkk., 2015). The following is a table of the economic growth rate of North Sumatra Province in 2015-2019.

Economic Growth in North Sumatra Pr	rovince in 2015-2019
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Year	Economic growth (%)	Williamsom Index
2015	5,10	0.021704
2016	5.18	0.022387
2017	5,12	0.022636
2018	5.18	0.022952
2019	5.22	0.023407
2018	5.18	0.022952

Source : BPS

Based on table 2 above, it shows that economic growth in North Sumatra Province in recent times has experienced economic growth that tends to fluctuate or fluctuate. In 2015 economic growth was 5.10 percent, while the Williamsom Index was 0.021704. then in 2016 economic growth increased by 5.18 percent, while the Williamsom Index was 0.022387. And in 2017 Economic Growth decreased by 5.12 percent, while the Williamsom Index increased in 2017 by 0.022636. In 2018 Economic Growth again increased by 5.18 percent, while the Williamsom Index increased slowly from the previous year of 0.022952. In 2019 Economic Growth increased by 5.22 percent, while the Williamsom Index increased again by 0.023407. Sumiyarti in his research in Banten Province said that the problem of economic growth and regional inequality has a close relationship with the national development goal, namely improving welfare. Generally speaking, in this case, the higher the economic growth and the more equitable the regional development, the more prosperous the community will be (Sumiyarti, 2019). A good economic structure is characterized by the absence of inequality in economic development with economic growth that always increases from year to year. Based on the development of economic growth in table 2 above, it can be seen that from 2016 to 2017 Economic Growth decreased but the Williams index also decreased. An increase in economic growth should actually reduce inequality in the economic development of a region. Kamal Idris in his research said that Economic growth is negatively related to development inequality because economic growth is a measure of the success of development which can be seen from economic growth, economic structure and the smaller income inequality between residents, between regions and between sectors. The next factor that affects

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development inequality is the population. High population growth increases the number of residents and results in a decrease in per capita income, a high population is a factor that contributes to the slow development of a certain area (Idris dkk., 2014).

According to Andri Devita, the number of residents is for the local government in development planners are seen as basic capital assets for development. If the capital assets of development can improve the quality and expertise, it can increase national production (Devita dkk., 2014). In the implementation of development, a large population also affects development inequality, where the impact on the process and results of development efforts. A large population if able to act as a qualified workforce is a development capital that will be profitable for development efforts in all fields. The large number of regional residents can reflect the budget allocation from the central government for each region in order to meet the needs of their respective regions. The following is a table of the population in North Sumatra Province.

Year	Total Population (Soul)	Williamsom Index	
2015	13,937,797	0.021704	
2016	14,102,911	0.022387	
2017	14,262.147	0.022636	
2018	14,451,391	0.022952	
2019	14,562,549	0.023407	

Table 3Population Development in North Sumatra Province

Source : BPS

Based on table I.3 above, it shows that the population in North Sumatra Province in 2015-2019 has increased every year. In 2015 the population was 13,937,797 people, while the Williamsom index was 0.021704. In 2016 the total population increased by 14,102,911 people , the williamsom index also increased by 0.022387. And in 2019 the population reached 14,562,549 people and the Williamsom index was 0.023407.

Musfidar in his research in South Sulawesi Province said that the number of people of productive age, both those who are working and those who have not worked, will increase the inequality of income distribution. This is because the proportion of the working population is still not evenly distributed in a number of areas, many of them still work in rural areas compared to urban areas, resulting in differences in income between those who work in cities and those who work in villages. Those who work in urban areas have a high level of income when compared to those who work in rural areas (Matondang, 2018).

The next factor influencing high inequality is the condition of the human development index. The HDI that is not evenly distributed between regions means that regions with higher HDI will have good quality human beings so that they can support development, this is based on the opinion of Yosi Eka Putri (Putri dkk., 2015). The economic growth of a region and the standard of living of the people, also known as the Human Development Index (IPM), if the HDI increases, it is considered successful in economic development.

The level of population productivity will be affected by a low or high HDI; the lower the HDI, the lower the level of population productivity will also affect low income; conversely, the higher the HDI, the higher the level of population productivity which causes the level of income to increase. According to Nita Tri Hartini, there is a problem, namely the HDI for each region is different, so HDI is one of the factors that affect regional income inequality (Hartini, 2017).

HDI is an important indicator to measure success in building the quality of human life. The HDI also explains how the population can access development outcomes for income, health and education.

Year	Human Development Index (HDI)	Williamsom Index
2015	69.51	0.021704
2016	70.00	0.022387
2017	70.57	0.022636
2018	71.18	0.022952
2019	71.74	0.023407

Table 4Human Development Index (HDI) in North Sumatra Province

Source : BPS

From table 4 above, it can be seen that the Human Development Index and the Williamsom Index in North Sumatra Province. The Human Development Index has increased every year in 2015 the HDI was 69.51 and the Williamsom Index was 0.021704. In 2016 the HDI increased by 70.00 and the Williamsom Index 0.022387. In 2017, the HDI also increased by 70.57 and the Williamsom Index by 0.022636. In 2018 the HDI was 71.18 and the Williamsom Index was 0.023407.

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The achievement of the performance of the human development index in North Sumatra Province does have a tendency to increase in absolute terms. However, this increase was not strong enough to raise the relative position of the Human Development Index to the nationally expected level (Anggara, 2019). The higher and more evenly distributed HDI in the region can encourage an increase in economic growth so that it will reduce the level of inequality in economic development in North Sumatra Province.

In North Sumatra Province, the Human Development Index (IPM) and inequality in economic development have a significant impact on the level of people's welfare. It is realized that a high HDI supports disparities in monetary circulation. Increasing regional competition is a positive effect of inequality. Income inequality is also negatively affected by the Human Development Index (IPM) and inequality in income distribution. According to Becker, who conducted in-depth research on the role of formal education in driving economic expansion, labor productivity will increase with higher levels of formal education. This is in line with the Human Capital theory which states that education has an effect on economic growth and will reduce income inequality because it increases labor productivity. This is based on Haikal's opinion in his research (Haikal, 2020).

Methods

Three variables that are thought to have an impact on inequality in economic development are used in this study which was conducted in North Sumatra Province. This research was conducted from September 2021 to March 2022. This research is included in quantitative research. According to Syafaruddin Azwar (Azwar, 2012), quantitative research emphasizes its analysis on data in the form of numeric (numbers) that are processed using statistics. According to Iskandar (Iskandar, 2008), quantitative research is research that uses certain formulas that are adapted to the topic of the problem under study. This study uses a quantitative approach in the form of data based on time series, namely data arranged chronologically according to changes in a certain time span (Kuncoro, 2009). Sugiyono gave the term "population" referring to the generalized area of the object or subject that the researcher chose to investigate and draw conclusions (Sugiyono, 2012). People, as well as other natural things and objects, make up the population. This study takes into account the population of 25 regencies and 8 cities in North Sumatra Province between 2015 and 2019. The number and characteristics of the population including the sample (Sugiyono, 2012). In this study, the sampling technique was *purposive sampling*. *Purposive sampling* is a sampling technique that is carried out based on the characteristics determined by the population elements that are adjusted to the objectives or research problems. The characteristics used in this study are as follows: The data taken are data in North Sumatra Province based on *time series* and *cross sections* in 2015-2019. Availability of data on Economic Growth, Population and Human Development Index published by the Central Statistics Agency of North Sumatra Province through the official website <u>www.bps.go.id</u>. To get research results in accordance with research objectives, it is necessary to use data analysis techniques. The collected data will be processed and analyzed using the Eviews program. There are three panel data models, namely common effect, fixed effect, and random effect. However, we must choose one of the most appropriate methods to perform data analysis. There are three panel data models, namely the *common effect model*, *fixed effect*, and *random effect*. However, in order to estimate and analyze the results, all three are not used, it is necessary to choose which model is the best model. There are three ways to select the model, namely the Chow test, Hausman test and the Lagrange multiplier (LM) test.

Results and discussion

Regional Development Inequality

Inequality refers to the standard of living of the whole society. Dedy Tulus Wicaksono argues that at the poverty level, wealth is only owned by one person or a certain group of people and the level of inequality is very high (Wicaksono, 2018). Differences in economic development between one region and another vertically and horizontally which cause disparities or inequalities in development. Inequality in regional development is the difference in the distribution of economic development between one region and another, both vertically and horizontally, which causes unequal regional economic development. Regional inequality is one of the problems that inevitably arises in regional development. There is sufficient evidence that can be put forward to show how much inequality is still a concern. Even in everyday life, this evidence can be seen with the naked eye and felt. The emergence of slums in the middle of several big cities, and vice versa, on the other hand, the presence of enclaves of luxurious settlements on the outskirts of cities or even in rural areas, is clear evidence of inequality that we can see and feel and this was conveyed by Dumairy (Dumairy, 2018). This difference causes the level of development in various regions to vary so that it creates a gap in welfare in various regions. The gap between regions is caused by differences in the *endowment factor*. This difference causes the level of development in various

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regions to vary, thus creating a gap in welfare in various regions. Based on some of these inequalities, researchers can draw the conclusion that inequality is an inequality of development that refers to people's living standards both vertically and horizontally, causing a gap in welfare in various regions.

The gap in the distribution of vertical and horizontal economic development that results in inequality of regional economic development is referred to as regional development (Sjafrizal, 2014). The level of development in various regions is different, giving rise to disparities in welfare. Differences in waqf factors are the cause of disparities between regions. from the inequality of the initial grace it is natural (natural) or even divine. However, some are structural in nature. The inequalities of the initial gift resulted in the opportunities and expectations to take part in development to become unbalanced. Some are quick to seize building opportunities, some are slow.

Regional development is the difference in the distribution of economic development between one region and another, both vertically and horizontally, which causes inequality in regional economic development. Regional inequality is one of the problems that inevitably arises in regional development. This difference causes the level of development in various regions to vary, causing a gap in welfare in various regions. The gap between regions is caused by differences in the *endowment factor*. from the inequality of initial grace it is natural *or* even *divine*. However, some are structural. The inequalities of the initial grace resulted in unbalanced opportunities and hopes to take part in development. Some can quickly seize building opportunities, some are slow (Dumairy, 2018).

Measurement of Regional Development Inequality. Regional development inequality is measured using the Williamsom Index. The first measurement of development inequality between regions was the Williamson Index used in the study of Jeffrey G. Williamson in 1966. The term Williamson Index emerged as a tribute to the initial users of the index in measuring development inequality between regions (Sjafrizal, 2014).

Economic Development in Islamic Perspective. In Islamic economics, it also discusses a concept of sharia development where the concept is defined as a concept that studies and analyzes the development process, the influencing factors and identifies and recommends development policies based on the Qur'an and the Sunnah of the Prophet Muhammad (Andhiani dkk., 2018). Economic development in a region is directed at realizing an increasingly prosperous, just and prosperous development. To realize an increasingly

prosperous, just, and prosperous development, it can be done with hard work from various parties, both the government and the community.

Human Development Index

The United Nations Development Program (UNDP) says that human development is a way to give people more choices. Economic growth must be considered together with human development in the concept of human development, not just economic growth. According to Bella in her research, to ensure that human development goals are achieved, four considerations need to be made: empowerment, equity, sustainability and productivity (Febriantikaningrum, 2020). Muhammad Haikal also argues that using several basic aspects of quality of life, the human development index (IPM) specifically evaluates human development (Haikal, 2020). According to Garibaldi and Paidi Hidayat, the main components of HDI are longevity and health. Where health is considered important and an integral part of national development. Educated and knowledgeable. Education is a means to improve the quality of human resources, through education can improve knowledge and skills. Education is a long-term investment to achieve a more decent job target with income that can support a more prosperous life. Decent standard of living (Garibaldi & Hidayat, 2014).

According to the UNDP (*United Nations Development Programme*, in the human development index there are three composite indicators that are used to measure the average achievement of a country in human development, namely length of life, which is measured by the expected rate at birth, education which is measured by the average length of life). schools and the literacy rate of the population aged 15 years and over, and the standard of living as measured by per capita expenditure adjusted for purchasing power parity. The HDI ranges from 0-100. If the HDI value is close to 100, it indicates that human development is getting better. UNDP divides the human development status of a country or region into three categories based on the HDI value in the following table:

Category of HDI Value HDI Value Information HDI<60 Low Medium/Medium 60 ≤HDI<70 Tall 70 ≤HDI<80 HDI ≥80 Very high

Table 5

The HDI value of a region shows how far the region has achieved the specified targets, namely a life expectancy of 85 years, basic education for all levels of society, and levels of expenditure and consumption that have reached a decent standard of living. Human capital formation is a process to obtain and increase the number of people who have expertise, education, and experience that can determine economic development in a region. Therefore, the formation of human capital and its development as a creative and productive resource (Febriantikaningrum, 2020).

This research is entitled Determinants of Development Inequality Between Regions in North Sumatra Province. The researcher uses multiple linear regression analysis with the aim of seeing how the state of the ups and downs of the value of the dependent variable, if two or more independent variables are factors that increase and decrease the value of the dependent variable. So multiple linear regression analysis is done if the number of independent variables is two or more. The constant value is -0.183730 states that if all independent variables are omitted then the value of Development Inequality is -0.183730. The value of the regression coefficient b1 (economic growth variable) is positive at 0.042859, meaning that for every increase in economic growth, development inequality will increase by 0.042859 with the assumption that other independent variables have a fixed value. The Effect of Economic Growth on Development Inequality in North Sumatra Province. One of the successes in economic development is economic growth. In the implementation of development, high economic growth accompanied by equitable distribution of development results is the main target, but in fact an increase in economic growth can lead to a decrease in development inequality. In this study, the variable Economic Growth affects Development Inequality, it is shown from the results of the T test that economic growth has a T arithmetic value > T table = (20.09506 > 1.70526) means that there is an influence of economic growth on development inequality in North Sumatra Province.

The Influence of Population on Development Inequality in North Sumatra Province. Population growth is indeed a problem in the long term where an increase in population if it is not in line with an increase in the number of jobs it can disrupt economic development. However, according to Putong, if a large population growth is followed by a high level of productivity will lead to a high level of economic growth, high economic growth will increase welfare and education levels and will ultimately be able to improve the quality and image of life. In this study, the population variable affects development inequality, it is shown from the results of the T test that the total population has a T arithmetic value > T table = (8,400255 > 1.70526) meaning that there is an influence of population on development inequality in North Sumatra Province.

The Effect of Human Development Index on Development Inequality in North Sumatra Province. Economic development is also said to be successful by looking at the standard of living of the community evenly or known as the human development index. Low or high HDI has an impact on the productivity level of the population, the lower the HDI, the productivity level of the population will also be low. In this study the Human Development Index has no effect on Development Inequality , it is shown from the results of the t test that the Human Development variable has a T _{count} > T _{table} = (-0.127998. < 1.70526) means that there is no influence of the human development index on development inequality in North Sumatra Province. This is because there is no significant improvement in the ranking of the human development index in North Sumatra Province nationally due to the movement in the value of the human development index which is not sufficiently accelerated. Even some of the dimensions that make up the human development index show a lower value than the national achievement.

Conclusion

The Effect of Economic Growth on Development Inequality in North Sumatra Province. In the implementation of development, high economic growth accompanied by equitable distribution of development results is the main target, but in fact an increase in economic growth can lead to a decrease in development inequality. The Influence of Population on Development Inequality in North Sumatra Province. Population growth is indeed a problem in the long term where an increase in population if it is not in line with an increase in the number of jobs it can disrupt economic development. Economic development is also said to be successful by looking at the standard of living of the community evenly or known as the

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human development index. Low or high HDI has an impact on the productivity level of the population, the lower the HDI, the productivity level of the population will also be low. Even some of the dimensions that make up the human development index show a lower value than the national achievement.

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