Determinant of Human Development Index (HDI) Towards Poverty in the Regency/City of North Sumatera Province (Case Study Medan, Binjai, Deli Serdang, Karo, and Pematang Siantar)

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Abstract: *Developmentis a process of changing towards the better. Development should lead to human beings as the ultimate goal of development, and not as a tool of development. Human development in 5 Regencies/Cities in North Sumatera Province (Medan, Binjai, Deli Serdang, Karo, and Pematang Siantar) is still less maximum and less evenly distributed, proven by the low number of Human Development Index (HDI) and also the poverty that occurs Between North Sumatra. This study aims to analyze how the unemployment rate, economic growth, inflation, investment, Pendapatan Asli Daerah (PAD), Gini Ratio, and Regional Expenditure affect HDI and Poverty in 5 Regencies/Cities of North Sumatera Province in 2006-2015. The method used in this research is panel data regression analysis and path analysis. The results of this study using the panel data regression analysis method show that economic growth variables have a positive and significant effect on HDI in North Sumatera Regency, the Gini variable has a positive effect on HDI in North Sumatera Regency. The result of research by the method of path analysis of the variables selected shows that the variables of economic growth a significant negative effect on poverty in the Regency of North Sumatera, the variable Gini ratio significantly affect poverty in the Regency of North Sumatera and variable IPM affect thepoverty level.*

Keywords: *HDI, Poverty, Economic Growth, North Sumatera Province*

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I. Introduction

The ultimate goal of development is people's welfare. Humans are not just development objects but are expected to be subjected, so they can contribute to the advancement of a region that macro becomes a state of progress. The number of poor people and unemployment in North Sumatera is still high, in the need to continue to press the percentage in 2011. Because, if these two things are not handled immediately, the impact can lead to social insecurity and the occurrence of instability at the local level.

From late December 2009 to April 2010, unemployed populations still accumulate in urban areas, and the spread of poor populations remains dominant in rural areas. One of the goals of national development is lowering poverty. According to M. Nasir in Ernawati (2012), poverty is a complex and multidimensional problem. Therefore, the efforts of poverty alleviation should be carried out comprehensively, covering various aspects of public life, and implemented in an integrated manner.

Classifications between developed countries, developed or backward countries can use the Human development index indicator. The Human Development Index (HDI) is an indicator that explains how the inhabitants of a region have the opportunity to access the outcome of development as part of its right to obtain income, health, education, Etc. The Human development index consists of three components related to the productivity level of the community. With a healthy and educated community, community productivity will increase and will increase spending on consumption, when the expenditure for ingestion increases then the level of poverty will decrease.

Five Regencies/Cities chosen by the author in the city of Medan as the capital of North Sumatra province, the city of Binjai which is the city of Smart City and as a city that is planning to transfer time into an industrial area, Pematangsiantar city that is In the construction of toll road phase I Tebing Tinggi-Siantar and as the city of regional activities in North Sumatera province, Karo Regency which is famous as the producer of the best coffee and as a regency that is running 2 sectors, namely Tourism sector and agribusiness sector, and lastly, Deli Serdang Regency has good tourism potential and has good product excellence.
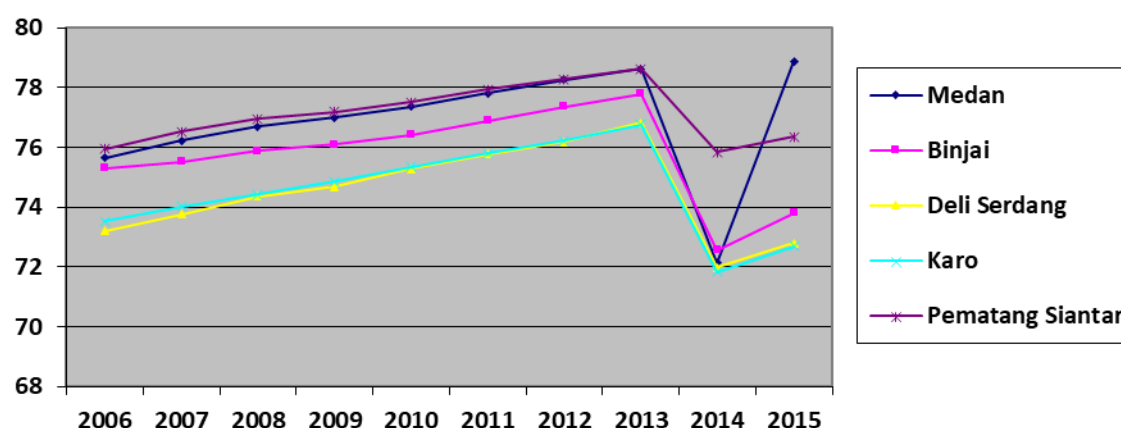

Human Development Index (HDI) is a measuring instrument of the quality of life of the community by looking at the level of education, health, and economics. The low Human Development index resulted in the productivity of population work. There are several benefits of the human development index including, to assert that the main criteria in assessing the development of a state are not economic growth. In addition to the human development index, the unemployment decline in a country is expected to reduce the poverty rate. Unemployment is a measure of what if a person does not have a job but they are actively doing business to find a job. Unemployment is a condition in which a person belonging to a workforce wants to get a job but they cannot obtain the job (Sukirno, 1997). Unemployment can occur due to an imbalance in the labor market.

The phenomenon of the problem in this study is to see variable response-intervening variables in influencing free variables in 5 regencies/cities of North Sumatra province in the research period (2001 – 2015), as follows:

Table 1.1: Human Development Index (HDI) 5 Regencies/Cities of North Sumatera Province (%), 2006 – 2015

YEAR	MEDAN	BINJAI	DELI SERDANG	KARO	PEMATANG SIANTAR
	HDI (%)	HDI (%)	HDI (%)	HDI (%)	HDI (%)
2006	75.65	75.3	73.2	73.52	75.95
2007	76.22	75.51	73.76	74.01	76.52
2008	76.7	75.88	74.36	74.43	76.95
2009	76.99	76.09	74.67	74.84	77.18
2010	77.36	76.41	75.28	75.34	77.51
2011	77.81	76.88	75.78	75.79	77.93
2012	78.25	77.36	76.17	76.22	78.27
2013	78.62	77.79	76.82	76.76	78.62
2014	72,13	72.55	71.98	71.84	75.83
2015	78.87	73.81	72.79	72.69	76.34

Source: Badan Pusat Statistik

Figure 1.1: HDI Development (%) 5 Regencies/Cities of North Sumatera Province, 2006 – 2015

Based on the tables and charts above is known that the growth of IPM 5 Kab/city of North Sumatra province in 2014 decreased from the previous year, Medan City decreased 6.49%, Kota Binjai decreased by 5.24%, Kab. Of Deli Serdang decreased by 4.84%, Kab. Karo declined by 4.92%, and Pematang Siantar decreased by 2.79%. Poverty is seen as the inability of the economic side to meet the basic needs of food and not food measured from the expense (https://www.bps.go.id/sdgs/16). Poverty is a problem faced by all nations. Economic growth as one of the indicators in addressing the problem of poverty, because economic growth is a concept of economic development (Atalay,2015). On the other hand, unemployment is one of the causes of poverty. Unemployment, half-idle, or lack of productive land as income-generating assets is an acute thing for the poor when acquiring the most basic needs for food, water, and shelter. Fought daily (David K, 2017).

In 2014 the number of poor people in North Sumatra was reduced by 129,700 people from a total of 1,416,400 people in 2013. This decline was a positive impact due to declining inflation trends, rising farmers ' rate and declining open unemployment. According to Sharp, quoted (Kuncoro, 2006) The cause of poverty is seen from the economic side is the result of the low quality of human resources. On the other hand

(Kartasasmita, 2008) The condition of poverty can be caused by a low degree of health. Low health and nutritional status lead to low physical durability, senility, and initiatives.

The health of the people of North Sumatra generally also tends to improve compared to previous years. This can be seen from Life Expectancy (e0), Infant Mortality Rate (IMR), and Total Birth Rate (TFR). In 2016, every baby born alive had a life expectancy of 68.04 years, an increase of 68.29 years in 2015. This life expectancy was obtained using the latest method HDI. Meanwhile, in 2010, there were 26 babies died out of 1,000 live births, this number has decreased compared to 2007 which reached 27 per 1,000 births. In general, the welfare condition of the people of North Sumatra improved in 2015. In this regard, it is necessary to continue to strive to improve the quality of economic growth that can maintain sustainable development and job creation and reduce the poor population, so that it is beneficial in improving the socio-economic conditions of society in general.

II. Literature Review

1. The Human Development Index (HDI) Theory

According to UNDP (https://www.bps.go.id/sdgs/16), the Human Development Index (HDI) is an index used to measure human development achievements based on many basic components of quality of life. HDI is built through a basic three-dimensional approach, these dimensions include a long life and healthy life, knowledge, and a decent standard of living. HDI can be used as an important indicator to measure success in efforts to build the quality of human life and HDI can also determine the rank or level of development of an area. These three indicators or dimensions are the result of the formation of the Human Development Index figures. The three dimensions of HDI have a very broad understanding because they are related to many factors. In measuring the dimensions of healthy life expectancy is used, then to measure the dimensions of education use a combination of indicators of average length of school and long-term expectation rates, while to measure the dimensions of life feasible to use indicators of people's purchasing power of a number of basic needs as seen from the average the amount of expenditure per capita as an income approach that represents development achievements for a decent life (Nurul, 2016).

The position and role of HDI in development will be more visible if it is equipped with data containing indicators that are relevant to HDI and compiled as a complete data system. a complete and accurate data system will be better able to assess various constraints and implementation of development programs in the previous period, and the potential of an area to be included as input in the planning of the next period of development, so it is expected that the HDI value as a benchmark of development can reflect the conditions of community poverty the truth (Wali Aya, 2016).

2. Poverty Concept

In a proper sense, poverty is understood as a state of lack of money and goods to ensure survival. In the broadest sense, it is said that poverty is integrated concept that has five dimensions, namely: 1) poverty (proper), 2) helplessness (powerless), 3) vulnerability to face emergency (state of emergency), 4) dependence (Dependence), and 5) isolation both geographically and sociological (Chambers, 2010).

3. Open unemployment

Open unemployment is the percentage of the population in the workforce that does not have a job and is seeking employment. The problem of unemployment that causes the national income and the level of Community prosperity does not reach the maximum potential of the most important macroeconomic problem (Kussetiyono, 2013:43).

4. Economic growth

Economic growth is an important condition for alleviating people from poverty, although economic growth cannot stand alone to alleviate poverty, as economic growth remains a key factor to Alleviate Poverty. Economic growth is a long-term increase in capacity from the relevant state to provide a variety of economic goods to its inhabitants as determined by the advancement or adjustment of technology, institutional (and ideological against the various demands of the present state (Simon Kuznets in Todaro, 2004).

5. Inflation

The definition of inflation, in general, can be interpreted as a constant rising of general prices over a certain period.

6. Investments

The economic theory finalized investment like a government expenditure to buy capital goods and production equipment to replace and especially add capital goods that will be used to produce goods and services in the future.

7. *Pendapatan Asli Daerah* (PAD)

Pedapatan Asli Daerah (PAD) is the acceptance obtained by the area from the sources in its territory collected based on local regulations by following with the prevailing laws and regulations (Marihot. P. Siahaan: 2005). Then PAD is the income obtained by the region and collected based on local regulations under the legislation (Cici, 2016).

8. Regional expenditure

The definition of shopping according to PSAP No. 2 is all expenses from accounts of the state/local treasury which reduce the balance of budget in the period of the relevant budget that will not be obtained back by the government. While according to the regulation of the Minister of Home Affairs No. 21 of 2011, regional expenditure is defined as the obligation of the local Government recognized as a reduction in net worth value. The shopping term is found in the budget Realization report still using the cash base (UNP, 2016:9).

9. Gini index or Gini ratio

Gini ratio is used to see the relationship between the amount of income received by the entire family or individual with total income. The Gini's size ratios as a measure of revenue equalization have a value interval of between 0 and 1. When Gini's close to zero ratios indicates the presence of low inequality and when Gini ratio approaches one indicates high inequality (Todaro, 2006).

III. Method Of Research

The research approach is associative-quantitative research. According to Rusiadi (2013), associative-quantitative research is research that aims to determine the degree of relationship and patterns/forms of influence between two or more variables, in which this research theory will be built which serves to explain, predict a symptom. To support the quantitative Panel Regression analysis and Path Analysis models are used where both models can explain the relationship between variables.

IV. Result

1. Economic growth variables have a positive and significant effect on the human development index with a T-count value of 2.157 and sig. $0.036 < 0.05$. This shows that if economic growth has increased by 1%, it will increase the human development index in the Regency/city of North Sumatera.
2. The variable Gini ratio is positively influential to the human development index in the Regency/city of North Sumatra with a T-count value of 2.575 and significant 0.013. By in fact the amount of income and wealth will have an impact on the rise of the welfare and Human Development Index in the Regency/city of North Sumatra.
3. Economic growth variables have a negative and significant effect on poverty in the Regency/city of North Sumatra with a T-calculate value of-2.749 and a significance of 0.009. Economic growth has a beta coefficient of-0.974, meaning that if economic growth increased by one percent, the poverty rate would decline by 0.974.
4. The variable Gini ratio to the poverty level indicates that the Gini ratio is not significant. Based on the column of significance indicates that the Gini ratio has a significance value of 0.222 is greater than 0.05. This is due to inequality and poverty, income distribution can be used as a basis to analyze more specific development problems such as population growth, unemployment, rural development, education in the District/city North Sumatera.
5. The Human development index variable affects the level of poverty. Based on the column of significance indicates that the human development Index has a T-count value of 2.029 and the significance of 0.048 is smaller than 0.05. Improving access to the consumption of social services (education, health, and nutrition) can reduce the level of poverty**.**

V. Conclusion

1. To increase the quality of economic growth to the human development index in North Sumatera. The government is advised to be able to realize the increase in economic growth by improving human resource capability, technological development, utilization of natural empowered to provide a positive effect on the development of Sustainable human beings.

2. Gini ratio remains to be suppressed so that income is evenly distributed in every community. Another thing to note in addition to equalization is increasing public income. The need to increase the income of the community, especially the middle-

3. In this research, the economic growth of negative and significant influence on the level of poverty in North Sumatra therefore to reduce poverty in North Sumatera governments need to stimulate continued economic growth. and maintain socio-political stability, because it is inside. With the increase in investment will make the growth of economic progressively higher. Because of the higher economic growth, the level of poverty will decline. If economic growth has increased, the per capita income of the community also increases so that it will result in increased welfare of society to reduce poverty.

4. In this research, the Gini ratio does not affect and is not significant to the level of poverty. Governments should make efforts to improve equitable equality, not only rely on a trickle-down effect but also need to be supplemented with policies for equalization. As there is a progressive income tax where the wealthy or richer are required to pay a larger tax percentage compared to the poor

5. Variables of the human development index affect poverty in the regency of North Sumatra. Therefore, the Government is expected to design a sustainable program to boost the value of HDI by facilitating the public to reach a higher level and easy to gain access to health Especially for underprivileged communities.

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