UNIVERSITAS ANDALAS

THE EFFECT OF POVERTY, HEALTH BUDGET, EDUCATION BUDGET, AND LOCAL OWN REVENUE ON HUMAN RESOURCES QUALITY
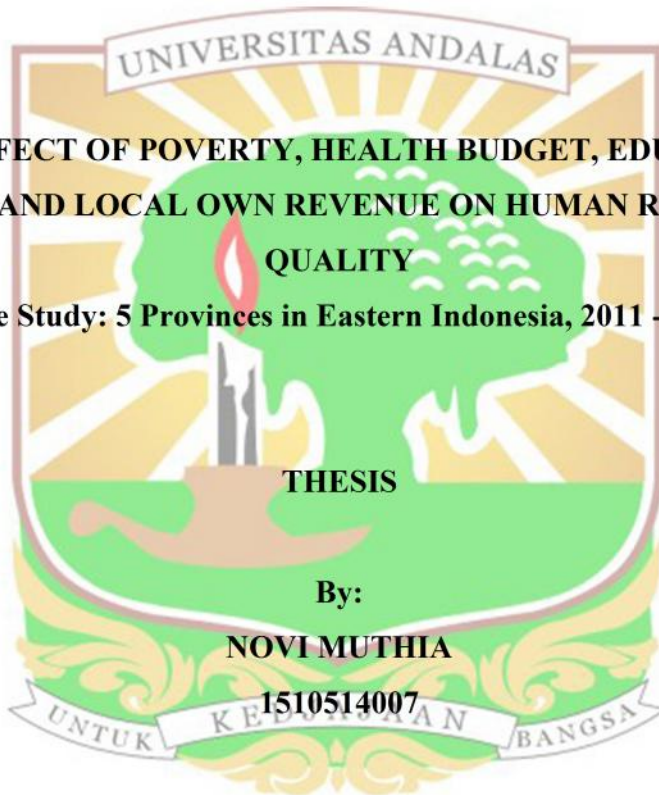
(Case Study: 5 Provinces in Eastern Indonesia, 2011 - 2020)

THESIS

By:

NOVI MUTHIA

1510514007

Thesis Advisor:

Dr. M. Nazer, SE, MA

FACULTY OF ECONOMICS AND BUSINESS

DEPARTMENT OF ECONOMICS

PADANG

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The Effect of Poverty, Health Budget, Education Budget, and Local Own

Revenue on Human Resources Quality

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Submitted to Department of Economics

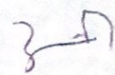In partial to fulfillment of the requirements for the degree of

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Universitas Andalas

Author...

Department of Economics

Certified by...

Dr. M. Nazer, SE, MA
Thesis Advisor

Accepted by..

Hadi Rahadian, SE, M.Si.
Head of International Program Department of Economics

Approved by...

Dr. Fajri Muharja, SE, M.Si.
Head of Department of Economics

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ABSTRACT

This study aims to analyze the effect of poverty, health budget, education budget, and local own revenue and on the human development index in 5 provinces of Eastern Indonesia during 2011-2020 using Software Eviews 10. The data used in this study is secondary data consisting of time series and cross data. section by using panel data regression. The data analysis tool in this study uses the Fixed Effect Model method. The variables used in this study are the dependent variable, namely the Human Development Index and the independent variables, namely Poverty, Health Budget, Education Budget, and Local Own Revenue.

The results of this study indicate that the poverty rate, health budget, education budget and local taxes simultaneously have a significant effect on human development. Partially, increasing poverty levels will reduce human development. Then an increase in the health budget will reduce human development. This can occur due to delays in development or inefficiency budget allocation. Meanwhile, increasing the education budget will increase human development in 5 provinces of Eastern Indonesia.

Keywords: Human Development, Poverty, Health Budget, Education Budget and Local Own Revenue.

Thesis Advisor: Dr. M. Nazer, SE, MA

LETTER OF STATEMENT

I declare that my thesis is entitled "The Effect of Poverty, Health Budget, Education Bugdet and Local Own Revenue on Human Resources Quality. Case Study 5 Provinces Eastern of Indonesia" is my own work and there is no part or all of the work of others which I have quoted without giving due credit to the original author. I have included the sources that come from other people's work in accordance with the norms, ethics, and rules of scientific writing. If in the future plagiarism is found in this thesis, I am willing to accept the sanction of revocation of the academic degree that I have gained.

Padang, 25 August 2022

Novi Muthia

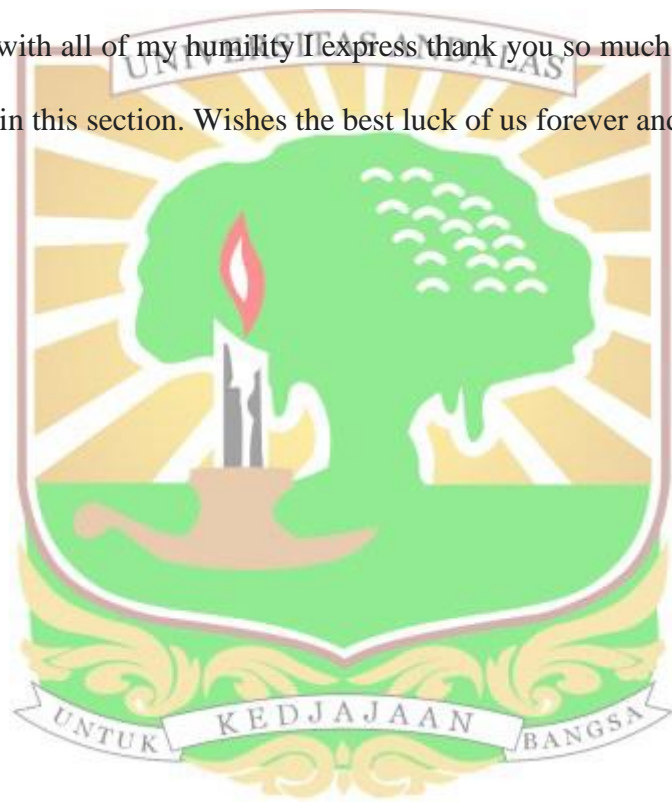1510514007

PREFACE

بِسْمِ اللهِ الرَّحْمٰنِ الرَّحِيْمِ

Alhamdulillah, all praise due to Allah SWT, the most merciful, who has provided convenience and pleasure and mercy in writing this thesis entitled " The Effect of Poverty, Health Budget, Education Budget, and Local Own Revenue on Human Resources Quality (Case Study : 5 Provinces in Eastern Indonesia, 2011 - 2020)". This thesis is submitted as a partial requirement to acquire Bachelor Degree at Economics Department of Economics Faculty of Andalas University. In the process of writing this research can't be separated from the guidance and support of various parties both those involved directly or indirectly. Therefore, on this occasion the author would like to express gratitude to:

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8. GBK as my support system.

9. Annabelle and Top10.

10. Members of International Economics 2015 as a good friends.

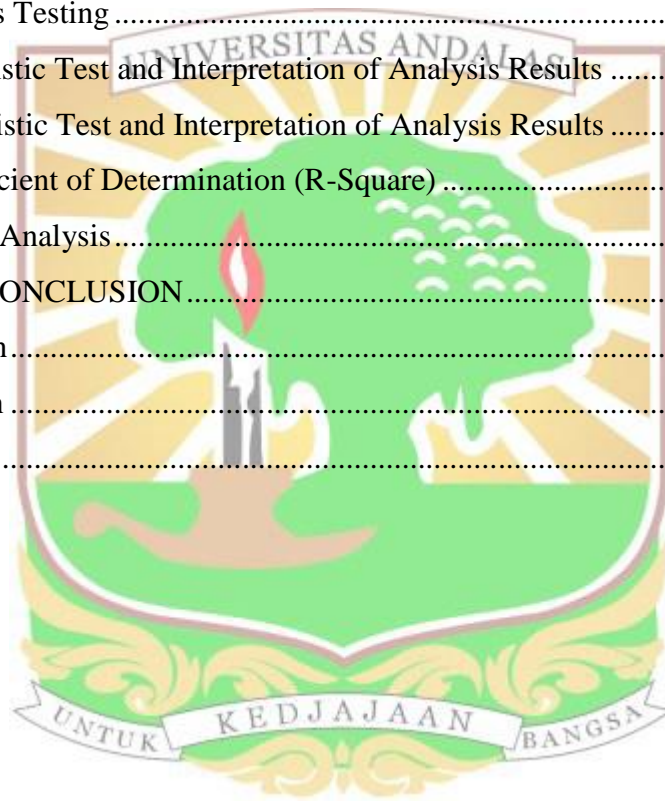11. For all parties who doesn't mentioned above, may Allah return all the goodness.

Finally, with all of my humility I express thank you so much for people who fully unstated in this section. Wishes the best luck of us forever and always.

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CHAPTER I

INTRODUCTION

1.1 Background

Economic development is an effort or process to make changes for the better with the aim of making the community welfare. Initially, the economic development of a country is said to be successful if the country is able to create the maximum possible increase in production which can result in high economic growth. Then the understanding of the development that has been successfully carried out by a country experiences a shift. The development of a country is considered successful not only in terms of the economic aspect, but also from the aspect of the quality of society or human resources in that country. Therefore, the measure of the success of a country's development to achieve prosperity apart from increasing income is also seen from the increase in the quality of human resources.

Human resources have an important role for the success of a country's economic development. In observing the progress of the country's economy, the quality factor of human development is another determinant that needs to be considered, especially for a country with an abundant population like Indonesia. Human Resources (HR) is one of the factors of production other than natural resources, capital, and technology that contribute to economic development. The achievement of human resources that can compete in the international market is seen from the success of a country's efforts in building the quality of its people. The United Nations Development Program (UNDP) has issued an index that can

describe the level of human development in all countries including Indonesia, namely the Human Development Index.

Human Development Index (HDI) illustrates the key to the success of human resources quality, namely a healthy life and a long life, knowledge, a having a decent standard of living. This means that a country with a high level of human development describes the conditions in which welfare is achieved for the majority of society, as well as the availability of adequate facilities for each individual to gain access to health, education, broaden knowledge, opportunities to improve welfare, and develop their potential.

. **Table 1.1**

Human Development Index in Indonesia 2014-2018

Year	Human Development Index
2014	68.3
2015	68.6
2016	69.1
2017	69.4
2018	70.8

Source: BPS, 2019

In the table above, it is known that human development in Indonesia has increased from year to year. Despite the increase, in Southeast Asia in terms of human development index, Indonesia still lags behind Singapore, Brunei

Darussalam, Malaysia, Thailand and the Philippines. Both in ASEAN and in the world, Indonesia is in the middle rank. Indonesia is ranked 6th in ASEAN and 111th in the world out of 189 countries.

Graph 1.1

Human Development Ranking ASEAN Countries 2018
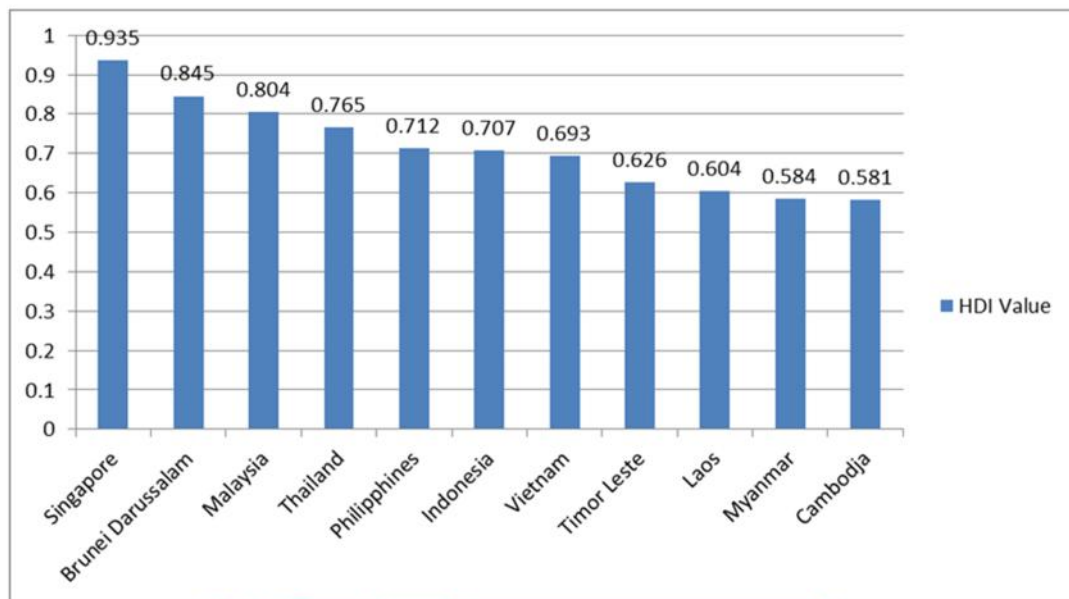
Source: UNDP Human Development Index Ranking

When viewed from around 189 countries (United Nations Development Program, 2018), the ranking of the Human Development Index achieved by Indonesia can be said to be quite good. Unfortunately, the increase achieved by Indonesia is still in the middle category. This can be seen from most regions in Indonesia, especially in Eastern Indonesia, which are still in the low and medium level category of human development. Indonesia should be able to improve the level of human development to be advanced or even very advanced seeing the abundant potential of human resources. However, the abundance of human

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resources owned if it is not accompanied by the state's commitment to good human development will of course be in vain.

Graph 1.2. Five Provinces Human Development Index in Eastern Indonesia 2018
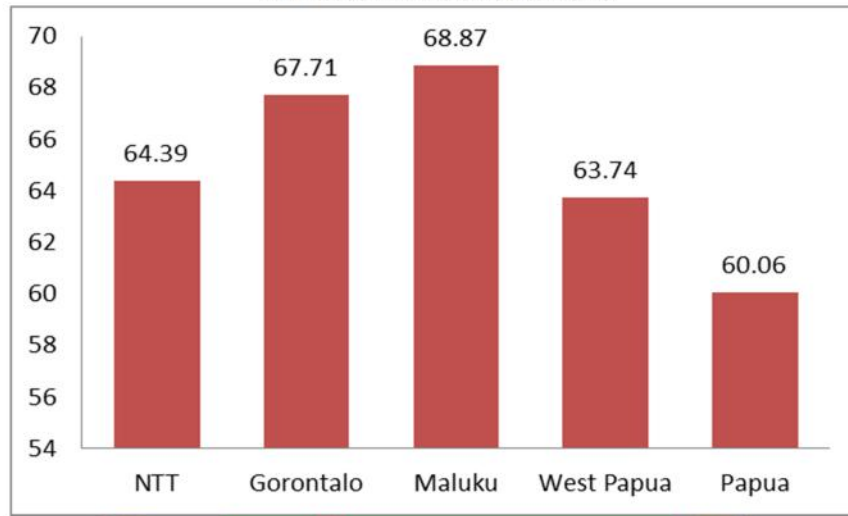
Most of the provinces with low levels of human development are in Eastern Indonesia. There are ten out of thirteen provinces in Eastern Indonesia that still have a low to medium human development index. Meanwhile, the other three provinces, namely Bali, North Sulawesi, and South Sulawesi already have an advanced human development index. Graph 1.1 above depicts five provinces in Eastern Indonesia with a lower HDI compared to other provinces. Of the five provinces, Papua Province has the lowest HDI score of 60.06. Meanwhile, the other four provinces have HDI scores that are already above 60. Papua is the only province in Indonesia with a low level of human development. Meanwhile, East Nusa Tenggara, Gorontalo, Maluku, and West Papua are included in several provinces with a medium level of human development in Indonesia.

Human resource quality may also play a role in the disadvantaged population's development. The quality of human resources can be determined by looking at the

quality of life index. The population's work productivity will suffer due to the low Human Development Index (HDI). Lower revenue acquisition is a result of inadequate productivity. As a result, low income leads to many poor people.

Lanjouw et al. (in Yani Mulyangsih, 2008) stated that human development is synonymous with poverty reduction in Indonesia. Investments in education and health will be more beneficial for the poor than the non-poor, given that the poor's most valuable asset is their manual labor. The availability of low-cost education and health facilities will significantly aid in increasing production and revenue.

The occurrence of poverty among them is caused by the underdevelopment of humans and natural resources. Natural resource management is very dependent on the productive ability of humans. If many people are poor and have low education, this will result in scarcity of technical skills, knowledge, and entrepreneurial activities which will automatically cause the available natural resources to be abandoned, undeveloped, or even misused. These natural resources will affect the level of economic growth. On the other hand, the lack of natural resources will cause poverty because natural resources are the main source of human needs. Poverty in natural resources is both a cause and a result of human poverty (Jhingan, 2016:34).

Graph 1.3

Poverty Rate of Five Provinces of Eastern Indonesia in 2018 (in percent)
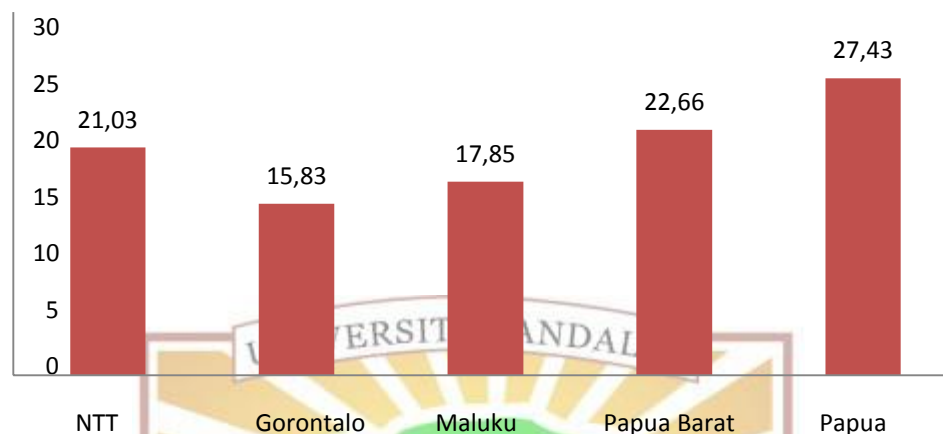
Source: BPS, 2019

Graph 1.2 above illustrates the poverty level in five provinces with low human development index scores in Eastern Indonesia. These five provinces are provinces with the highest poverty rates among the upper ten provinces of Eastern Indonesia, which have a low to medium human development index. Based on data from the Central Statistics Agency (BPS), Papua is the province with the highest poverty rate of the five provinces. The province of Papua has a poverty rate in 2018 of 27.43 percent with a total poor population of 915.22 thousand people. Meanwhile, the poverty rate of West Papua Province is below Papua with a percentage of 22.66 percent and the number of poor people as much as 213.67 thousand people. Of the five provinces, Gorontalo is the province with the lowest poverty rate, which is 15.83 percent and the number of poor people is 188.30 thousand people.

The second factor affecting HDI is the health and education budget. In terms of human development, government spending, especially in the health and education sectors, plays an important role in increasing the productivity and quality of

community resources in the regions. Based on the research of Dianaputra & Aswitari (2017) and Zulyanto (2018), it was found that government spending in an area in the health and education sector can improve human development so as to improve the quality of human resources in the region. According to Suparno (2014), health is the essence of welfare and education is essential to achieve a well-to-do life. These two sectors play an important role in increasing productivity and improving the level of social welfare. Therefore, the Indonesian government allocated a certain amount of budget for the health and education sectors.

Based on data from the World Bank (2019), Indonesia has government expenditure on health amounted to 3.12% of GDP, and for the education sector amounted to 3.6% of GDP (The World Bank, 2019). The budget for the health and education sector in Indonesia is mandatory, namely the fulfillment of expenditures mandated by statutory regulations (mandatory spending).

In accordance with the mandate of Law Number 36 of 2009 concerning Health, the provincial government allocates a minimum health budget of 10% of the Regional Revenue and Expenditure Budget (APBD) excluding salaries. Meanwhile, for the education sector in accordance with the mandate of Law Number 20 of 2003 concerning the National Education System, local governments allocate a minimum budget of 20% of the APBD apart from teacher salaries and official education costs. Thus, the government at the regional level is also obliged to increase the welfare of the Indonesian people through the amount of the health and education budget allocated from the APBD. This is also consistent with the existence of a regional autonomy system in Indonesia.

Graph 1.4

Provinces of Eastern Indonesia Health and Education Budget 2018
(in Billion Rupiah)
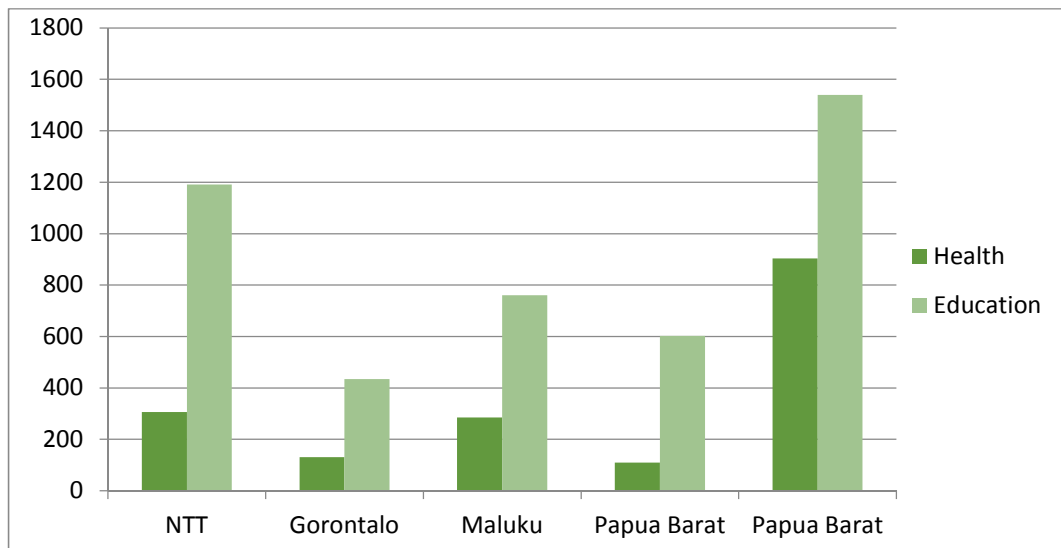
Source: DJPK Kemenkeu

From the graph above, the provincial government of West Papua has allocated the lowest amount of health budget among other provinces, namely 110 billion rupiah. Meanwhile in the education sector, the provincial government of Gorontalo also allocates the amount with the lowest amount of 434 billion rupiah. Papua has a fairly high health and education budget even though it has the lowest Human Development Index and the highest poverty rates compared to other provinces. Papua's health budget in 2018 is IDR 903 billion, while the education budget is IDR 1.5 trillion. In fact, the amount of the Papua provincial government budget allocation for these two sectors can be said to be higher than some provinces that have better human development indexes and poverty levels.

The last factor affecting human development index is local revenue. The amount of revenue can be used as a measure of how much independent a region is

in financing its regional development. Regional revenues are expected to increase regional government capital expenditure investment in addition to funding routine expenditures, so that the quality of public services is getting better. Improving the quality of public services will certainly have an impact on the welfare of society and will increase the Human Development Index (Putra & Ulupui, 2015).

Law No. 32 of 2004 explains that local own revenue is one source of regional income. Local own revenue include local taxes, retributions, revenue of local government corporate and management of local asset, and other legitimate local own revenue. The local government is responsible for every rupiah provided by the community through the payment of local taxes and retributions. Therefore, the community can enjoy these results in the form of capital expenditures that have been become a priority for the community. Capital expenditures for public services are regulated according to needs society based on increasing demand and flows to improve service and community welfare.

In carrying out government responsibilities and public service facilities, the local own source revenue must be used for regional facilities and infrastructure. The government basically has no money of its own, because everything is public property. Therefore, local governments should change the structure spending to improve the quality of public services. With increase in income obtained by the region, the region is able to meet the needs of the community.

The greater local own revenue can help improve quality public welfare as measured in the Human Development Index. The more the high income obtained by the region, it makes the region able to pay and meet public needs. If local own

revenue increases, allowing for hope for increased well-being community if the funds are allocated in sectors that can afford increase HDI.

Based on the description above, the researcher in this study took the title of the thesis "The Effect of Poverty, Health Budget, Education Budget, and Local Government Own Revenue on Human Resources Quality (Studies on Five Provinces of Eastern Indonesia 2011-2020)."

1.2 Formulation of Problem

Based on the background description that has been written above, several problems are identified as follows:

1. How does poverty rate affect human development in the five provinces of Eastern Indonesia in 2011-2020?

2. How does the health sector budget affect human development in the five provinces of Eastern Indonesia in 2011-2020?

3. How does the educational sector budget affect human development in the five provinces of Eastern Indonesia in 2011-2020?

4. How does the local own revenue affect human development in the five provinces of Eastern Indonesia in 2011-2020?

1.3 Research purpose

The following are the research objectives, which are based on the formulation of the problem above:

1. To determine the effect of partial poverty levels on human development in the five provinces of Eastern Indonesia in 2011-2020.

2. To determine the effect of health budget partially on human development in five provinces of Eastern Indonesia in 2011-2020.

3. To determine the effect of education budget partially on human development in the five provinces of Eastern Indonesia in 2011-2020.

4. To determine the effect of local own government revenues on human development in five provinces of Eastern Indonesia in 2011-2020.
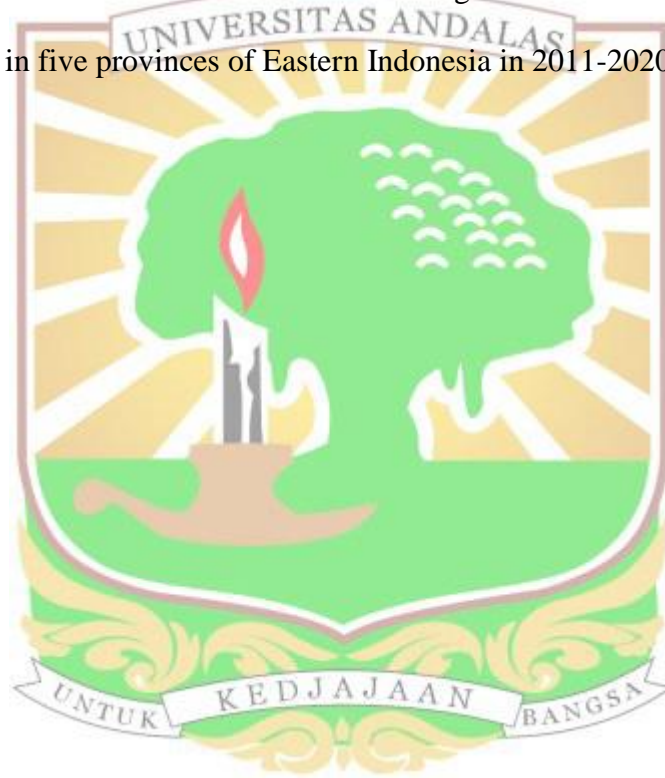
CHAPTER II

THEORETICAL FRAMEWORK

2.1 Grand Theory

2.1.1 Human Quality Resources

Quality of resource development human in this study use refers to quality human resources according to The United Nations Development Program (UNDP), a the world body under the United Nations (UN) which deals with problems development of countries in the world. Agency on under the United Nations it uses Human Development Index (HDI) as a proxy measurement of the quality of human resources. HDI is an index that measures the socio-economic development of a country that combines the fields of education, health and adjusted real income per capita. The HDI shows that differences in income are greater than differences in other development indicators, at least in the areas of health and education. HDI, we can see that real development is human development in a broad sense, namely not only working with high incomes. HDI has a strong tendency to increase as per capita income increases, as wealthier countries or regions can invest more in health and education which means additional human resources to increase pr006Fductivity.

The United Nations Development Programme (UNDP) presented the concept of human development as a new paradigm of development models in its report "Global Human Development Report" in 1990. UNDP defines human development as an effort to create or expand human choices. As the report issued by UNDP, in

human development there are several concepts that need to be considered, namely as follows.

   a) The population should be prioritized as the focus of development

   b) Development aims to broaden the population's alternatives, not only to increase their income. As a result, the concept of human development must be oriented on the entire population rather than just the economic side.

   c) Efforts to increase human capacity and also efforts to make optimal use of human capabilities must be considered in human development.

   d) Productivity, fairness, sustainability, and empowerment are four fundamental pillars that support human growth.

   e) Human development is the starting point for analyzing the many methods for achieving them.

In order to support human development efforts, there are four important pillars to consider:

   a) Productivity, People must be able to boost their productivity and fully contribute to the process of obtaining income or wage labor.

   b) Fairness: Every community member should have equitable access to economic and social resources.

   c) Sustainability, not only for the current generation to gain access, but also for future generations.

   d) Empowerment and development must be carried out by the community, which means that the community must be fully involved in decision-making and processes that affect the community itself.

According to the UNDP, human development is a process of increasing people's choices. The most important options are to live a long, healthy life, get enough education, and live a decent quality of living (Hakim, 2002). Therefore, the UNDP developed the Human Development Index as an alternative measure of well-being. The Human Development Statistic (HDI) is a composite index that considers three factors: health, education, and standard of living (Arsyad, 2010).

The components seen in calculating HDI are based on the essential quality of life, such as life expectancy, literacy rates, average years of schooling, and a decent standard of living (Kuncoro, 2009). Therefore, the HDI category is determined on a scale of 0.0-0.10, with the following values:

1. Low category: HDI value 0-0.05

2. Intermediate category: HDI values between 0.51-0.79

3. High category: HDI value 0.8-1

Components of the Human Development Index :

a) Longevity

Long life as a measure of health and nutrition. Longevity is measured by the average life expectancy (in years) of the birth rate, calculated by assuming that a baby born in a certain year will experience an instant death rate for each age group throughout his life (Hakim, 2002).

b) Education

The education level component is measured using two variables, the literacy rate (Lit) and the average length of schooling (Hakim, 2002). The literacy rate is the proportion of the population aged 15 years and over who can read and

write other letters. The average length of schooling is the number of years people aged 15 years and over have spent at all levels of formal education that they have had or are currently undergoing. This indicator is calculated from the variable of highest education completed, level of education being completed and level of education occupied.

c) Standart of Living

High living standards demonstrated by the high level of income, low income inequality, in good health, as well as the inadequacy of system education quality. Conversely, a low standard of living is indicated by low income levels, severe income inequality, good health conditions and an inadequate education system.

2.1.2 Poverty

Poverty is a condition that all countries face, even though it is especially severe in developing countries like Indonesia. Poverty is a limitation imposed on a person, family, community, or even a state that causes discomfort in daily life, threatens law enforcement and justice and the loss of generations and the gloomy future of the nation and state. That definition is a broad understanding, it has been said that poverty is related to discomfort in life. In all fields, people always become marginalized because they cannot equate conditions with the conditions of the surrounding community.

a) Factors that Cause Poverty

1. Poverty emerges on a micro level as a result of unbalanced patterns of resource ownership, which leads to unequal income distribution. The impoverished have few and poor-quality resources.

2. Poverty is caused by disparities in human resource quality. Low productivity, as a result of low human resource quality, leads to low salaries. Low human resource quality can be attributed to a lack of education, bad luck, discrimination, or inheritance.

3. Poverty is caused by disparities in capital access.

Figure 2.1
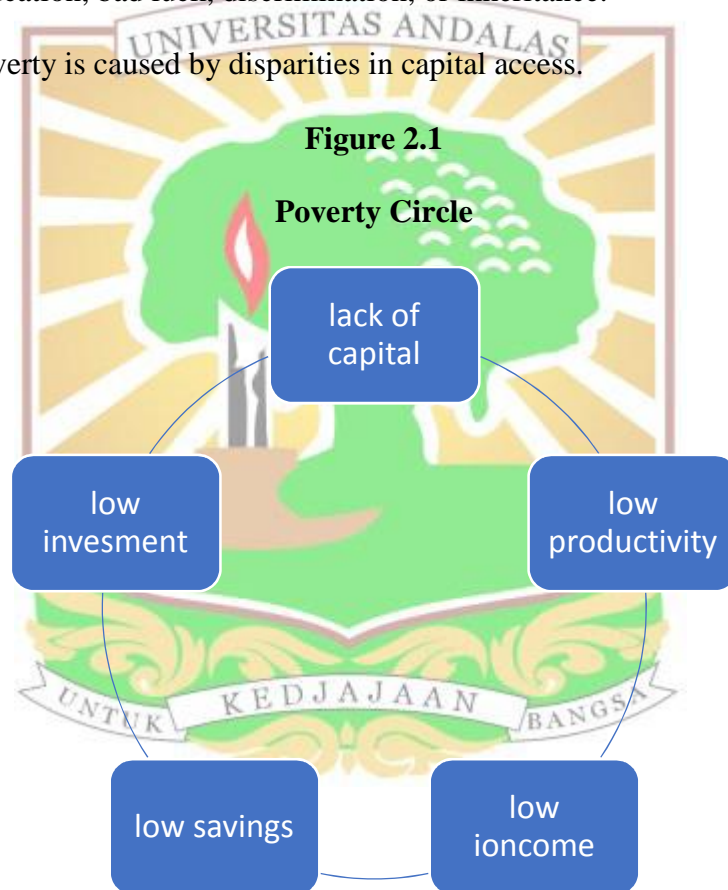
Poverty Circle

Source : Mudrajad Kuncoro (1997)

The vicious circle of poverty theory underpins the three causes of poverty listed above. A cycle of poverty is a series of events that interact in such a way that a country remains impoverished and faces numerous

challenges in achieving a higher degree of development. Low productivity is caused by underdevelopment, market flaws, and a lack of capital. They have a low salary because of their low productivity. Low income will result in lower savings and investment, both in terms of human and capital. Low investment leads to underdevelopment and other issues. Ragnar Nurkse, who stated in 1953 that "a poor country is a poor country because it is poor," elucidated this concept.

b) Types of Poverty

1. Absolute poverty

   Someone who is a member of the poorest of the poor. A poor population is defined as someone who is unable to meet their basic necessities in order to survive.

2. Relative poverty

   If a person has been able to meet his basic necessities, but his position is still significantly worse than that of the surrounding community, he is categorized as a comparatively poor group.

c) Poverty Theory

   According to the Central Statistics Agency (2010), the poor are those whose average monthly per capita expenditure falls below the poverty level. The neighborhood's computation of the poverty line is for persons earning less than Rp 7,057 per person per day. The number of Rp. 7,057 per person per day was calculated using the poverty line, which considers both food and non-food needs. The daily calorie requirement for food is 2,100 kcal per
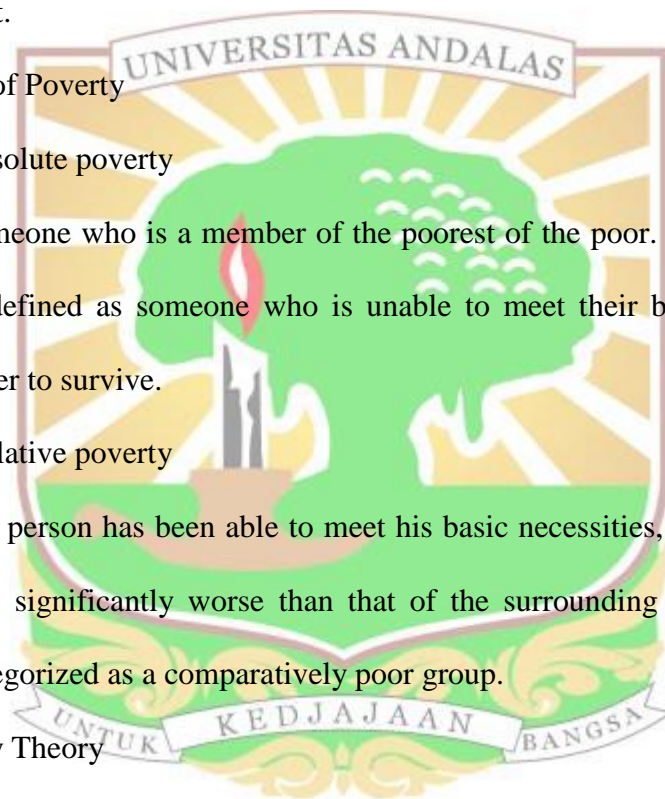
capita. The non-food poverty line is defined as the minimum requirement for housing (floor area, clean water, and defecation facilities); education (literacy rate, nine years of compulsory education, and dropout rate); and health (low consumption of nutritious food, lack of health facilities and inadequate sanitary and environmental conditions).

Meanwhile, poverty is measured by per capita income. Poor people have an income per capita of less than one-third of the average national per capita income. The World Bank defines poverty as $2 per person per day in this context. Poverty perceptions have evolved over time and differ significantly from culture to culture. The criteria used to distinguish the impoverished from the non-poor reflect national goals and normative notions of happiness. However, as countries become wealthier, ideas of what constitutes a minimum acceptable level of consumption, i.e., the poverty line, will shift.

The poverty line is a benchmark or a metric that specifies the amount of money needed to cover the basic needs of food and non-food items for a person to be considered poor from a consumption standpoint. Because each country's poverty line is different, there is not a universally recognized poverty line. This is related to variances in geographic location and living standards. According to the Central Statistics Agency (2010), the determination of the poverty line in society is those whose income is below consumption (consumption-based poverty line).

Poverty lines are differentiated according to place and time, so that each region, both in the area and in the city, has different values and usually this value increases in certain norms, the choice of norms is very important, especially in terms of measuring poverty. The poverty line is differentiated between rural and urban areas. This difference is very significant between rural and urban areas, this is due to the differences and complexity in villages and cities.

The Central Bureau of Statistics employs the concept of the ability to basic needs approach to measure poverty. Poverty is defined as an inability to meet basic food and non-food needs in terms of spending when using this approach. People who have an average monthly spend per capita below the poverty line are considered impoverished.

2.1.3 Health Budget and Educational Budget

Government expenditure is one of the instruments of fiscal policy, namely government policy in regulating the economy. Government spending plays a role in capital formation through government spending in various fields such as facilities and infrastructure, which is very important in economic growth (Suparno, 2014). According to Dumairy (1999) in Suparno (2014), the government makes development expenditures as a step to carry out allocative, distributive, stabilitative and dynamic functions. According to Pujoalwanto (2014), government spending is an important part of a country's macro economy because it determines where the country's conditions will be taken.

Government spending in the social sector, especially health and education, is basically a form of government public service to the community. According to Mahmudi (2007) in Widodo, Waridin, & K. (2011), public services are all service activities organized by public service providers as an effort to fulfill public needs and implement provisions of laws and regulations. In this case, the public service provider in question is a good government at the central and regional levels. Fulfilling basic needs by the government in this sector will contribute to producing quality human resources.

The basic needs of society that must be fulfilled by the government are health and education. Health is the core of welfare, while education is essential to achieve a decent life (Suparno, 2014). The health and education sector budget is a government effort to produce quality human resources so that later a productive workforce will be created. The education budget is an important thing that must be done by the government because education is one of the factors driving economic growth (Suparno, 2014). According to Dianaputra & Aswitari (2017) and Zulyanto (2018), government spending on the health and education sectors has a positive and significant impact on HDI. Therefore, increasing the amount of budget allocated to these two sectors will contribute to increasing HDI in the region.

As a form of increasing public welfare, the Indonesian government has allocated a budget for the health and education sectors at both the central and regional levels. This is in accordance with the mandate of Law Number 36 of 2009 concerning Health and Law Number 20 of 2003 concerning the National Education System. The amount of health budget allocated is a minimum of 5% of the APBN

excluding salaries at the central level and a minimum of 10% of the APBD excluding salaries at the regional level. Meanwhile, the amount of education budget allocated is a minimum of 20% of the APBN at the central level and a minimum of 20% of the APBD at the regional level excluding teacher salaries and official education costs. If you look at from 2010 to 2017, it can be said that the amount of the Indonesian government education budget shows a trend that tends to increase. In 2017, Indonesia's education budget touched around 400 billion rupiah. However, the amount of the education budget allocation at the regional level still varies from province to province. For example, in several provinces in Eastern Indonesia, there are significant differences between the total education budgets for the Papua government and the Gorontalo government.

2.1.4 Local Own Revenue

Local Own Government Revenue is the amount withheld by local governments in compliance with the law to fund their operations. Local Own Revenue comprises local taxes, retributions, regional government corporate income, and the administration of segregated regional government wealth, as well as other sources of local revenue. One of the region's most important sources of money is local government revenue. The ability of a local government to significantly enhance its revenue implies that the region's current potential has been fully used.

Local own revenue is a source of revenue that is excavated in the area and utilized by local governments to fund development and enterprises in order to lessen reliance on central government funds. Local governments are prohibited from: maintaining local income laws that cause the economy significant expenses;

maintaining local income regulations that inhibit people mobility, traffic of goods and services across regions, and import/export activities in order to increase local own revenue.

Apart from being projected to have a favorable impact on economic growth, local own revenue can also be used as a source of alternative funding for the region's infrastructure and service facilities. This is in line with the principle of using the proceeds of retribution according to Law Number 28 In 2009 that the utilization of the receipt of each type of levy is prioritized to fund activities directly related to the provision of the service concerned. With the availability of facilities and infrastructure that is expected to encourage the creation of a conducive investment climate as well as create new job opportunities for local communities. With the creation of new job opportunities, is expected to have an effect on increase people's income, so that economic growth can increased (Ministry of Finance, 2013).

2.2 Previous Research

Research conducted by Anisa, Candra, David Kaluge (2018) with title "A Panel Approach: How does Government Expenditure influence HDI?" This research aims to determine the impact of government spending on education, health, economics, and infrastructure on education, health, and economic indicators in East Java. This study applied a quantitative approach by using the Fixed Effect Model and Random Effect Model as the panel data analysis method. The mathematical equation model is a follows:

$$Y_{it} = \beta_0 + \beta_1 X1_{it} + \beta_2 X2_{it} + \cdots + n\varepsilon_{it}$$

There were 38 cities and districts used as the analysis units during 2010-2015. Three dependent variables were employed in the analytical model to comprehend each dimension better. The estimation reveals that government spending on education contributes positively to enhancing the human development index through the education index.

Research conducted by Ça layan-Akay & Van (2017) with entitled "Determinants of the Levels of Development Based on the Human Development Index: Bayesian Ordered Probit Model". The aim of the study is to examine the factors affecting the levels of development of 130 countries selected for 2009-2014 period. For this aim, Bayesian ordered probit model, an approach that has recently come into use. The model was used are follows:

$$Y_{it} = z_{it-1} + \beta' X_{it} + \epsilon_{it}, \text{t=1}$$

The reason for using this model is to review both the short-term and long-term effects of the factors affecting the level of human development, and to determine whether these effects change over time.

Based on the results testing, author get results research that population variable villagers, sector spending health, GDP, total Internet user, life of expectancy, and part of expected year from the school chair on parliament have a relationship positive with the HDI inside short-term. In the long run, expenditure variable health sector, GDP, number of users the internet, and part of expected year from the school chair on parliament has positive relationship with HDI. The results of this study indicate that there is a relationship positive between government spending on the social sector and HDI in India.

Razmi et al. (2012). They found that allocating funds to promote public health, social awareness, health services, and non-government health organizations favors the HDI. As a result, government expenditure on education, health, and the economy positively and considerably impact education, health, and income indices. On the other hand, government expenditure on infrastructure benefits the education and income indices but does not affect the health indices. Furthermore, government expenditure on education, health, and the economy in underdeveloped and developed regions yield differing results regarding the education, health, and income indexes.

Another studied from Gustav Ranis (2005) in his article "Human Development: Beyond the HDI" identifies a broader set of choice measures (11 variables) that might qualify as part of Human Development and to analyze how good or bad a broader list of choices in the HDI is using cross-country data. This paper has explored possible ways to increase understanding in measuring Human Development.

Nujum, Syamsu, et al (2013) in their research entitled "Analysis of The Reciprocal Relationship Of Local Government Expenditure Towards Human Development Index (HDI) And Its Influence On Economic Performance In South Sulawesi" concludes that the Human Development Index in Makassar City averaged 78.11 percent during the period 2008-2013, higher than the districts of Takalar and Gowa, Maros. The Makassar City human development index does not show a significant influence on the current performance development. In Takalar, Gowa, and Maros, loans and HDI simultaneously have a significant effect, but

show a proportionately partial effect in supporting the improvement of economic development performance.

2.3 Research Framework
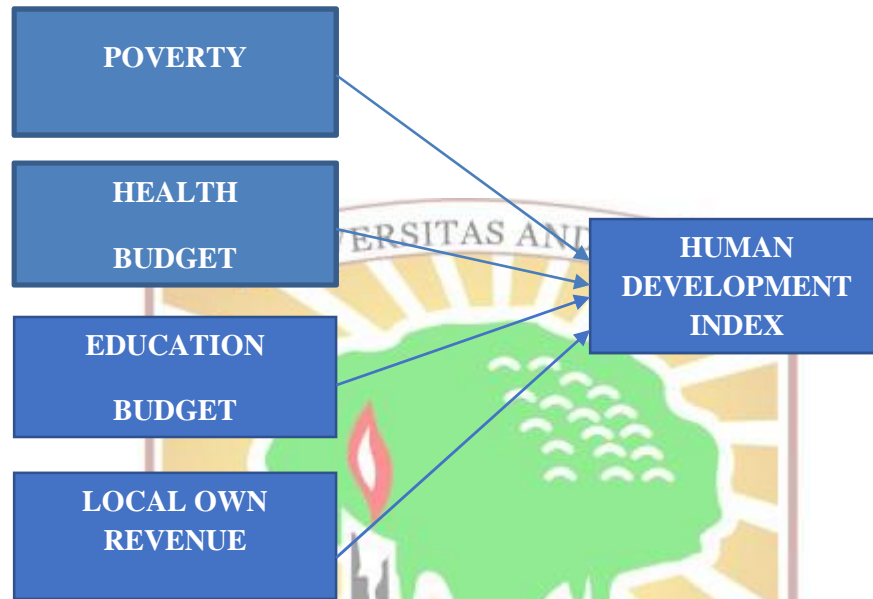
2.4 Hypothesis

By referring to theoretical studies and empirical studies that have existed and by using a significance level of 5%, the hypotheses in this study are:

1. **H0**: It is assumed that there is no significant effect of poverty levels on human development in the five provinces of Eastern Indonesia in 2011-2020.

   Ha: It is suspected that there is a significant effect of poverty levels on human development in the five provinces of Eastern Indonesia in 2011-2020.

2. **H0:** It is assumed that there is no significant effect of the educational sector

budget on human development in the five provinces of Eastern Indonesia in 2011-2020.

Ha: It is suspected that there is significant effect of the educational sector budget on human development in the five provinces of Eastern Indonesia in 2011-2020.

3. **H0:** It is assumed that there is no a significant effect of the health sector budget on human development in five provinces of Eastern Indonesia in 2011-2020.

Ha: It is suspected that there is a significant effect of the health health sector budget on human development in five provinces of Eastern Indonesia in 2011-2020.

4. **H0:** It is assumed that there is no significant effect of the local own revenue on human development in five provinces of Eastern Indonesia in 2011-2020.

Ha: It is suspected that there is significant effect of the original local own revenue on human development in five provinces of Eastern Indonesia in 2011-2020.
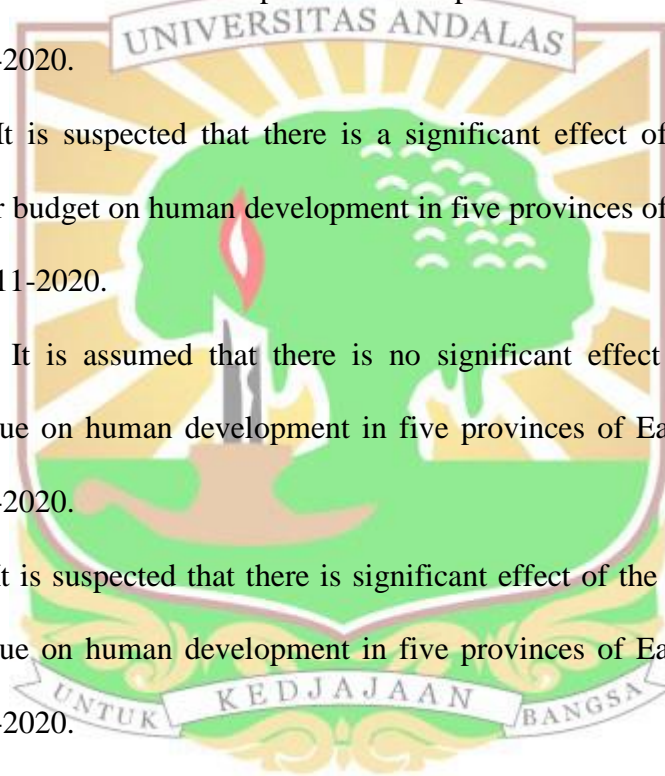
CHAPTER III

RESEARCH METHODOLOGY

3.1 Population and Sample

Operationally this research aims to solve the problem of human resources quality. With this research can take appropriate steps and strategies as well as the appropriate targets systematically in order to achieve predetermined goals, namely satisfactory results. The satisfying results are optimal results which means maximum positive impact and minimum negative impact on human development.

This study employs the panel data regression to see the effect of poverty on human development index. The panel data is a collection of data that contains data of individuals sample (countries) within period of time. In simply words, panel data analyze two dimensional data, a combination of time series and cross-section.

A common panel data regression model is expressed as follow :

$$HDI_{it} = \beta_0 + \beta_1 POV\_rate_{it} + \beta_2 LN\_HEALTH_{it} + \beta_3 LN\_EDU_{it} + \beta_4 LN\_REV_{it} + e_{it}$$

Where :

HDI it   : HDI at unit area i at time t

POV_rate it   : Poverty rate at unit area i at time t

LN_HEALTH it : Logaritma natural health budget in unit area i at time t

LN_EDU it   : Logaritma natural educational budget in unit area i at time t

LN_REV it   : Logaritma natural local government revenue at unit area i at time t

I	: 5 provinces in Eastern Indonesia
T	: Time series (2011-2020)
β	: Intercept
1 - 4	: Regression coefficient
e	: Disturbance factor or cannot be observed

3.2 Types and Source Data

This research was conducted in five provinces in Eastern Indonesia , namely: East Nusa Tenggara (NTT), Gorontalo, Maluku, West Papua, and Papua. Among other provinces, the five provinces have the lowest levels of human development and the largest levels of poverty. The research time used was from 2010 to 2020 because it adjusted to the HDI calculation of the new method according to BPS.

This study relied on quantitative data, which is information presented in the form of numbers or numerals. Secondary data, or data gained through the outcomes of second-party processing from the findings of field research, is employed in this study, and it comes in both qualitative and quantitative forms (Teguh, 2005). This type of data is obtained through monographs published by each institution, weekly, monthly, quarterly and yearly reports, profile books, literature, magazines, and data publication from newspapers. Secondary data were obtained by the authors from several related official institutions as follows:

a. Human Development Index Data (in Index)

The authors proxied utilizing the human development index data to see the results of human resource development in each province. This information was acquired from the Indonesian Central Bureau of Statistics and is based on

the United Nations Development Program. The Human Development Index is a composite index that measures three critical aspects of human development: the ability to live a long and healthy life, as measured by life expectancy at birth; the ability to acquire knowledge, as measured by average expected school years and years of schooling; and the ability to achieve an adequate standard of living, as measured by per capita expenditure.

b. Poverty Data (in percent)

Poverty data is used by the author to see how the poverty rate in each province. This poverty data is obtained from Badan Pusat Statistika Indonesia (BPS).

c. Health and Education Budget Data (in Rupiah transform to LN)

The data sources that the authors use for the health and education function expenditure budget variables at the central government level are obtained from the Ministry of Finance of the Republic of Indonesia. Meanwhile, health and education function budget data at the regional government level were obtained from the Direktorat Jendral Perimbangan Keuangan (DJPK) of the Ministry of Finance of the Republic of Indonesia.

d. Local Own Revenue Data (in Rupiah transform to LN)

The data source that the author uses for the variable local government revenue is obtained from BPS. The data and information supplied include the provincial government's revenue and expenditure (budget realization). According to Ghozali (2009) data that are not normally distributed can be transformed to become normal. The data transformation is carried out with

the aim of being able to meet the normality test as a condition so that the data can be analyzed using regression. By knowing the shape of the histogram graph we can determine the shape of the transformation. The data distribution of the health budget, education budget, and local own revenue variables has a substantial positive skewness, so the natural logarithm or ln(x) transformation can be more effectively.

3.3 Panel Data Regression Analysis Procedure

A panel data set is a collection of individual sample data (from a household, company, district, or city, for example) collected over a while. Panel data, in other words, is a collection of cross-time (time-series) and cross-individual data (cross-section). Gujarati (2012) claims that panel data has the following advantages over cross-section data or time series:

a) Data relates to individuals, companies, regions, countries, from time to time, there are limits to heterogeneity in each unit. By including subject-specific variables in panel data approaches, heterogeneity can be directly addressed.

b) The data panel can provide more meaningful data, diversified data, less collinearity across variables, and a greater degree of freedom and efficiency by combining time-series observations with cross-section

c) Panel data is best for analyzing change dynamics since it allows for repeated cross-section observations..

d) Panel data is ideal for detecting and quantifying basic dangers that aren't visible in pure time-series or pure cross-sections.

e) Panel data simplifies the analysis of complex behavior models.

f) Panel data minimizes the bias that can occur when individuals and companies are aggregated in huge aggregations by creating thousands of unit data.

3.3.1 Pooled Least Square Model (Common Effect)

The common effect model is the most basic regression strategy for estimating panel data by mixing time series and cross section data. Because it uses ordinary little squares, this model can be compared to the OLS (ordinary least square) method because it merely combines the two data without looking at differences in time and individuals.

3.3.2 Fixed Effect Model (FEM)

The fixed effect model is characterized by the fact that the intercept model varies by subject (cross-section), but the coefficients of each subject do not change over time. The fixed effect model, often known as the dummy variable least square, is used in this approach model. Estimates can be made without weighting (no weighted) or with least square dummy variables (LSDV) and weighting (cross-section weight) or with generic least square methods in the fixed effect technique (GLS).

3.3.3 Random Effect Model (REM)

The parameters that are not the same between areas and times are included in the mistake in this model. As a result, the component error model is also known as the random effect model. It will be possible to save on the use of degrees of freedom by using this random effect model rather than the fixed effect model.

Random effects are used to solve the shortcomings of fixed effects models that use apparent variables, resulting in uncertainty in the model. The approach uses random residual effects, which are assumed to have a relationship between time and objects, instead of apparent variables.

3.4 Method Analysis

The method of analysis performed in this study was a quantitative analysis using the multiple linear regression method. The authors use the Eviews 10 application to help with data processing.

3.4.1 Selection of Panel Data Regression Method

a) **Chow Test**

A Chow test was carried out to choose a model between common effects and fixed effects. The probability value of the F statistic is used to compare models in this test. A fixed effect model is an ideal model to utilize if the resulting probability value is less than 0.05. The common effect is the optimal model to apply if the resulting probability value is larger at 0.05.

b) **Hausman Test**

To choose between random effects and fixed effects models, the Hausman test is used. This test is used to compare models by taking into account the probability value of the F statistic. The random effect is the proper model to apply if the resulting probability value is greater than 0.05. If the resulting probability value is less than 0.05, the fixed effect model is the best choice.

3.4.2 Classical Assumption Test

This classic assumption test is used to determine whether or not the regression form that has been created is viable to employ in research.

a) **Test of Normality**

The purpose of the normality test is to see if the two variables in the regression method, the independent and bound variables, have a normal distribution or not. The Jarque Bera test is used in this test. If the significance is greater than 0.05, the data has a normal distribution.

b) **Multicollinearity Test**

The multicollinearity test is used to see if there is a link or relationship between independent variables in a sample research study. If the number indicating the link between the independent variables is less than 0.8, a study can be deemed to be free of multicollinearity

c) **Heteroscedasticity Test**

The Heteroscedasticity Test is used to determine whether the variables in the generated regression model have unequal variance. Heteroscedasticity is not required in the regression model.

3.4.3 Hypothesis Testing

a) **Model F Feasibility Test (F-test)**

The purpose of the Model F Feasibility Test is to assess the feasibility of multiple linear regression models as an analytical instrument. The F test is used to determine whether all independent variables are eligible to be tested. To evaluate whether all independent variables are eligible for

testing, the F test is used. If the F test states that the Prob (F-statistic) value is small than alpha (0.05), the relationship between the variables of independent is significant to the variable of dependent and and the regression model used is considered feasible to be tested

1. If Prob (F-Statistics) which measure the significance of F value falls within critical value 0.05, we accept H1, it means independent variables together or simultaneously influence dependent variable significantly or strongly

2. If Prob (F-Statistics) is greater than critical value 0.05, we accept H0, it means independent variables together or simultaneously do not influence dependent variable significantly or strongly.

b) **Partial Test (t-test)**

To test the effects of each independent variable on the dependent variable, a partial test (t-test) is used. Poverty, health and education budget sector, and local government revenue consist of independent variables. While, the variable of dependent is human development index.

1. If Probability value (p-value) which shows the degree of significant from partial t in t-statistics column in order to answer the partial test hypothesis is less than critical value 0.05, H1 is accepted or the independent variable significantly influence the dependent variable statistically

2. Meanwhile, if p-value is greater than critical value 0.05, H0 is accepted, it means the independent variable does not have strong influence to dependent variable.

3. do not influence dependent variable significantly or strongly.

c) **Determinant Coefficient Test (R2)**

.The coefficient of determination test is used to determine how much the independent variable influences the dependent variable's explanation. If R2 is low, it suggests that independent variables have a limited ability to explain variance in the dependent variable. When the R-Squared value is larger than 0.5 and closer to 1, it indicates that independent factors have a considerable influence on the dependent variable.
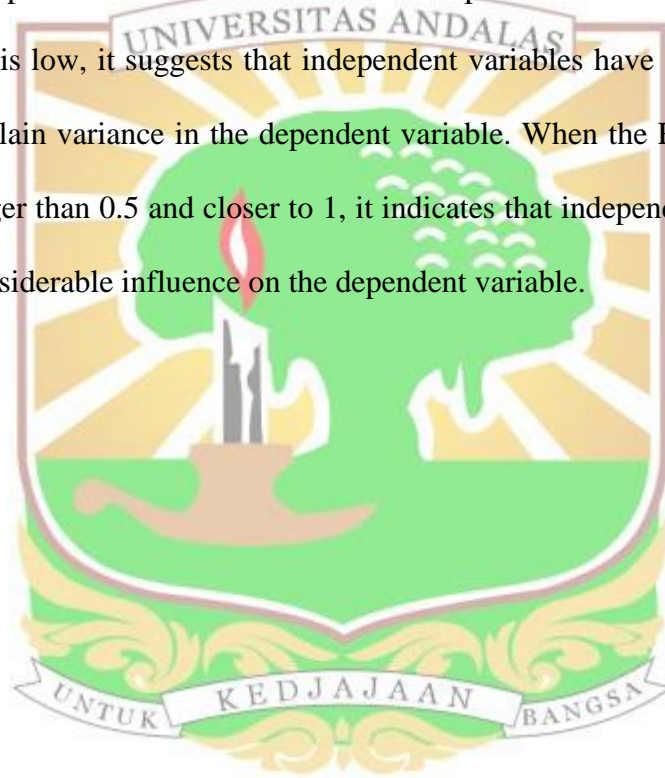
CHAPTER IV

EMPIRICAL RESULT AND ANALYSIS

4.1 Overview of Research Object

Eastern Indonesia is an area located in the eastern part of Indonesia including Sulawesi, Bali, Nusa Tenggara Islands, Maluku Islands, and Papua. Previously this area was referred to as the Greater East during the Dutch East Indies period and was referred to as the State of East Indonesia (except Papua) during the United States of Indonesia (RIS). Currently, Eastern Indonesia consists of 13 provinces, namely: Bali, West Nusa Tenggara, East Nusa Tenggara, West Sulawesi, South Sulawesi, Central Sulawesi, Southeast Sulawesi, North Sulawesi, Gorontalo, Maluku, North Maluku, West Papua, and Papuans.

Table 4.1.

Population Projection of Eastern Indonesia (thousand people)

Provinces	Year			
	2015	2020	2025	2030
East Nusa Tenggara	5,120.1	5,541.4	5,970.8	6,402.2
Gorontalo	1,133.2	1,219.6	1,299.7	1,370.2
Maluku	1,686.5	1,831.9	1,972.7	2,104.2
West Papua	87.5	981.8	11,092.2	1,200.1
Papua	3,149.4	3,435.4	3,701.7	3,939.4

source : BPS, 2014

Based on data from the Central Statistics Agency in 2014 which is described in table 4.1 above, we can see the projected population of several provinces in Eastern Indonesia which are the objects of this research. According to the population projection data, population growth in Eastern Indonesia is not too high. In 2020, the

province of Nusa Tenggara East will have a number of people that most lots that 5,541,400 inhabitants among five other provinces. Meanwhile, West Papua province has the least population of the four other provinces, which is 981,800 people. Despite the increase in population, it can be said that the projected population of the five provinces until 2030 is not even 30%.

Table 4.2

Number of Poor People in Eastern Indonesia (thousand people)

Provinces	Year			
	2017	2018	2019	2020
East Nusa Tenggara	1,134.74	1,34.11	1,129.46	1,173.53
Gorontalo	200.91	188.3	184.71	185.31
Maluku	320.42	317.84	319.51	322.4
West Papua	212.86	213.7	207.59	215.22
Papua	910.42	915.22	900.95	912.23
source : BPS, 2020				

Inequality and poverty that have occurred in Indonesia so far have been concentrated in areas in Eastern Indonesia, particularly in rural areas. Based on data from the Central Statistics Agency in 2020, East Nusa Tenggara was the province with the highest number of poor people, namely 1,173,530 people among the five provinces. Meanwhile, Gorontalo is the province with the least number of poor people, namely 188,300 people. This condition is one of the reasons the government is now also focusing on development in Eastern Indonesia to reduce regional disparities.

According to Bappenas (National Development Planning Agency), the real conditions of the Eastern Region of Indonesia are as follows:

a) Limited provision of basic facilities

b) Limited infrastructure supporting the economy, such as supply of drinking water, clean water, electricity, and energy

c) Limited transportation facilities and infrastructure to improve economic accessibility.

d) The quality of human resources is still low

e) Vulnerable to the threat of separatism (separation from Indonesia)

To improve the balance and equity of development between the Western Indonesia Region and the Eastern Indonesia Region, the government accelerates development both from the physical side in the form of infrastructure and from the social side, namely the quality of human resources. The development carried out by the government is also adjusted to the competitive advantages of each region. Based on the Ministry of Public Works and Housing of the People (PUPR), Eastern Indonesia is now the focus of infrastructure and connectivity development to reduce disparities between the eastern and western regions of Indonesia.

Meanwhile, one of the efforts to reduce development disparities in Eastern Indonesia is to improve basic services. This can be done by fulfilling public access to health and education which can improve the quality of human resources and will have a direct impact on the human development index.

Table 4.3

Health Budget in 5 provinces in eastern Indonesia 2011 – 2020
(in millions of rupiah)

Year	Province				
	NTT	Gorontalo	Maluku	Papua Barat	Papua
2011	142,069	25,809	113,984	73,579	475,364
2012	165,695	35,621	117,980	67,329	578,871
2013	574,035	61,653	170,803	73,195	672,966
2014	198,570	84,579	81,510	682,850	649,772
2015	46,621	24,601	68,520	63,753	156,786
2016	259,929	167,086	255,670	186,944	682,510
2017	45,135	21,143	70,319	33,240	146,910
2018	305,992	131,454	285,235	110,059	903,231
2019	621,406	130,163	307,580	226,539	1,318,267
2020	998,304	443,333	610,409	522,029	1,820,968

Source : DJPK, 2020

Based on data from DJPK (Directorate General of Fiscal Balance) in table 4.3 above, it can be said that the amount of local government budget in eastern Indonesia allocated for the health sector fluctuates in each province. However, in the last two years, the budget for health has continued to increase. The smallest amount of health budget in 2020 is Gorontalo, which is worth 443 billion rupiah. Meanwhile, the largest health budget in 2020 is Papua, which reached 1.8 trillion rupiah. This increase in the health budget can be said to be quite significant. It is hoped that this health budget allocation can improve the quality of human resources in the eastern provinces of Indonesia.

Table 4.4

Education Budget in 5 provinces of eastern Indonesia 2011 – 2020
(in millions of rupiah)

Year	Province				
	NTT	Gorontalo	Maluku	Papua Barat	Papua
2011	82,903	66,837	142,333	127,203	270,683
2012	91,084	54,867	104,266	132,558	291,779
2013	248,605	63,864	91,881	126,341	218,341
2014	65,216	83,797	43,069	1,280,719	154,491
2015	50,340	52,498	73,238	77,390	80,973
2016	92,806	117,108	179,705	182,989	531,588
2017	50,575	74,511	80,897	86,903	125,888
2018	1,190,841	434,486	761,408	602,627	1,539,751
2019	1,960,030	698,419	1,128,737	563,336	1,457,883
2020	798,759	830,511	1,042,334	973,518	1,298,955

Source : DJPK, 2020

Based on the data from DJPK above, it can be said that the amount of government budget allocated to the education sector has fluctuated. However, in contrast to the health budget which has increased in the past two years, the budget for education has decreased in 2020. The largest education budget in 2019 reached 1.9 trillion was the province of East Nusa Tenggara. Meanwhile, in 2020 the lowest education budget is East Nusa Tenggara at 798 billion. With this regional budget allocation for the education sector, it is hoped that it will increase human development efforts in Eastern Indonesia

Table 4.5

**Local Own Revenue in 5 provinces of eastern Indonesia 2011 – 2020
(in millions of rupiah)**

Year	Province				
	NTT	Gorontalo	Maluku	West Papua	Papua
2011	391,829	158,083	221,882	152,164	363,101
2012	459,657	180,039	267,503	175,450	623,163
2013	528,832	214,684	304,365	236,283	597,707
2014	695,416	274,275	439,589	203,783	762,151
2015	882,315	289,557	390,813	322,799	912,908
2016	995,186	311,223	600,782	338,811	1,019,733
2017	1,047,492	348,268	430,866	467,075	1,015,781
2018	1,061,828	384,435	465,780	459,243	924,482
2019	1,258,959	433,428	482,806	483,726	3,016,316
2020	1,588,859	282,775	526,648	517,290	1,185,019

Source : BPS, Financial Statistic of Province Government 2020

Table 4.5 illustrates that the provincial government's total revenue realization in five provinces in Eastern Indonesia increased from 2011 to 2020. The increase in municipal own-source revenue, particularly from local taxes, was mostly responsible for the gain in 2020. Furthermore, the boost in revenue is aided by an increase in the balance fund's aim, particularly the Special Allocation Fund (DAK) component. Papua is the province with the highest annual income growth. Gorontalo, on the other hand, has the lowest income.

One of the most important sources of revenue for the region is local own revenue. The fact that the local government has the power to dramatically raise revenue suggests that this region has maximized its present potential. Local government revenue is an important factor in determining a municipality's financial independence. The bigger the importance of the local own revenue in the budget

than the central government transfer of funds, the stronger the local government's independence. When a region's level of independence is "extremely low," it can be assumed that the central government plays a larger role than the local government.

4.2 Classical Assumption Test

4.2.1 Normality Test

The normality test is carried out to see whether the data is normally distributed or not by looking at the probability value on the graph.

Graph 4.1 Normality Test Result

Series: Standardized Residuals	
Sample 2011 2020	
Observations 50	
Mean	1.25e-18
Median	-0.000726
Maximum	0.021139
Minimum	-0.018404
Std. Dev.	0.008407
Skewness	0.492338
Kurtosis	3.478191
Jarque-Bera	2.496360
Probability	0.287027
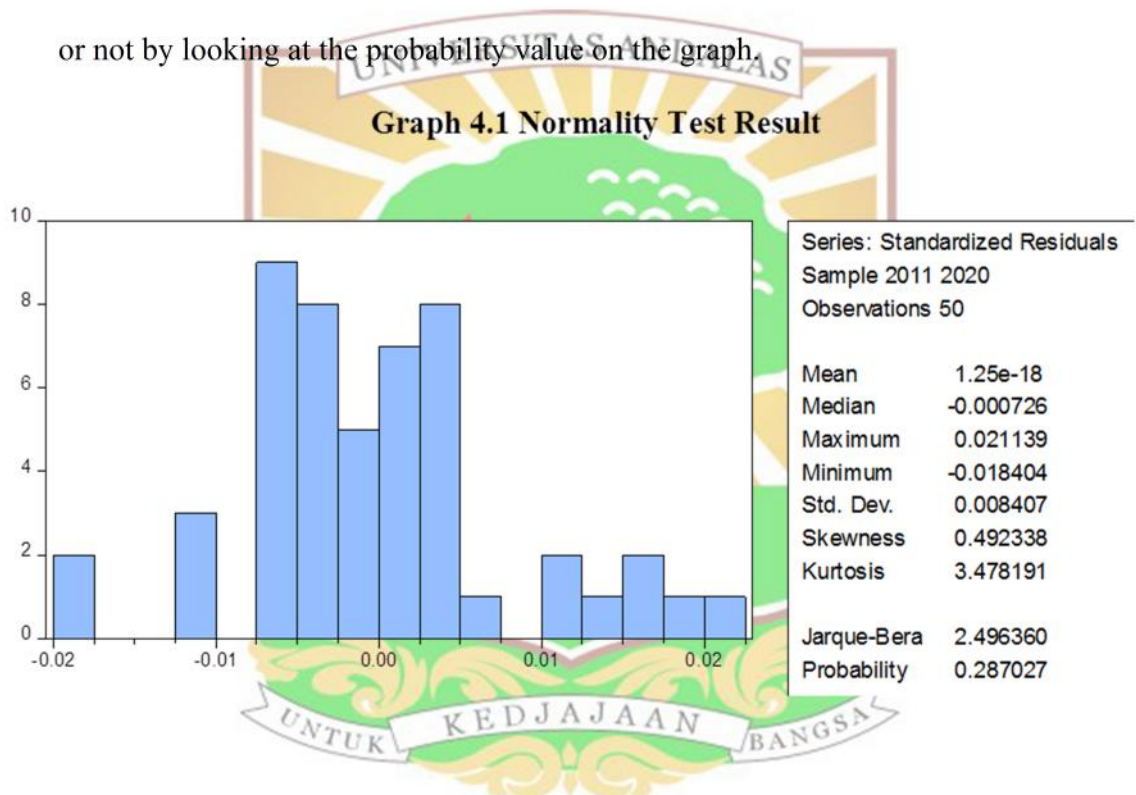
Based on the graph above, the probability value is 0.287027 which is above the significance level ($\alpha = 5\%$) so that the data is normally distributed.

4.2.2 Multicollinearity Test

This test is conducted to see whether there is a correlation between the independent variables. Multicollinearity occurs if the correlation value between independent variables is greater than 0.8.

Table 4.6 Multicollinearity Test Result

	POV	HEALTH	EDU	REV
POV	1.0000	0.3459	0.1021	0.2051
HEALTH	0.3459	1.0000	0.7751	0.5722
EDU	0.1021	0.7751	1.0000	0.4022
REV	0.2051	0.5722	0.4022	1.0000

Source : Data Processed, Eviews 10

Based on table above, these results indicate that the correlation coefficient of each independent variable with other independent variables is smaller than 0.8. So, that this model does not indicate a multicollinearity problem.

4.2.3 Heteroscedasticity Test

Heteroscedasticity is a well-known assumption test for determining whether the regression model's assumptions are correct. The variance of the residuals for all observations in the regression model is unequal, resulting in this divergence. The absence of heteroscedasticity deviations is one of the criteria that must be fulfilled.

In this study the data generated did not show symptoms of multicollinearity because the probability value generated for all independent variants was bigger than 0.05

Table 4.7 Heteroscedasticity Test Result

Variable	Coefficient	Prob.
C	-0.03715	0.6474
POV	0.009774	0.8626
HEALTH	-0.001132	0.4771
EDU	0.001433	0.2865
REV	-0.001235	0.6401

Source: Data Processed, Eviews 10

In the table above, the probability value in the heteroscedasticity test carried out by each variable produces a probability value is bigger than 0.05. So it can be concluded that the variables used in this study are free from heteroscedasticity symptoms.

4.3 Panel Data Analysis

4.3.1 Chow Test

This test is conducted to see whether Pooled Least Square (PLS) or Fixed Effect Model is more suitable for use in a study. If the F-statistical probability value obtained is smaller than the significance level of = 5%, then the model that is more suitable is Fixed Effect. Meanwhile, if the F-statistical probability value obtained is greater than the significance level of = 5%, then the PLS or Common Effect model is more suitable for use in research. The formulation of the research hypothesis is as follows:

H0 : PLS model or Common Effect

Ha : Fixed Effect Model

Based on the results of the Chow test that has been carried out, the following results are obtained:

Table 4.8 Chow Test Result

Effects Test	Statistic	d.f.	Prob.
Cross-section F	69.270187	(4,41)	0
Cross-section Chi-square	102.436661	4	0

Source : Data Processed, Eviews 10

Based on the results of the Chow test described in table above, the cross-section F-statistic value is 69.270187 with a degree of freedom value of 4.41 and a probability value of 0.0000. The probability value of this cross-section F is smaller than the significance level of 0.05 (α = 5%), so the results of the Chow test state reject H0 and accept Ha so that the model chosen is the Fixed Effect Model (FEM).

4.3.2 Hausman Test

After the Chow test was carried out and obtained the Fixed Effect model, the Hausman test was conducted to see which model is more suitable in a study between the Fixed Effect Model or the Random Effect Model. If the probability value obtained is smaller than the significance level = 5%, then the model that is more suitable is Fixed Effect. Meanwhile, if the probability value obtained is greater than the significance level = 5%, then the Random Effect model is more suitable for use in research. The formulation of the research hypothesis is as follows:

H0 : Random Effect Model

Ha : Fixed Effect Model

Based on the results of the Hausman test that has been carried out, the following results are obtained:

Table 4.9 Hausman Test Result

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	277.080723	4	0

Source : Data Processed, Eviews 10

Based on the Hausman test results in table above, the Chi-square statistical value is 277.080723 with a degree of freedom value of 4 and a probability value of 0.0000. This probability value is smaller than the 0.05 significance level ($\alpha = 5\%$), then the Hausman test results reject H0 so that the more suitable model is the Fixed Effect Model (FEM).

4.3.3 Fix Effect Model

Based on the model selection test that has been carried out, the model in this study is the Fixed Effect Model (FEM) which can be described through the following regression equation:

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Table 4.10 Fixed Effect Model

Dependent Variable: HDI
Method: Panel Least Squares
Date: 06/07/21 Time: 19:04
Sample: 2011 2020
Periods included: 10
Cross-sections included: 5
Total panel (balanced) observations: 50

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.952424	0.140727	20.97973	0.0000
POV	-0.297583	0.097846	-3.041328	0.0041
HEALTH	-0.004901	0.002751	-1.781570	0.0822
EDU	0.011111	0.002314	4.802611	0.0000
REV	0.040820	0.004572	8.972888	0.0000

Source : Data Processed, Eviews 10

HDIit = 2.952424 – 0.297583 (POV_rateit) – 0.004901 (LN_Healthit) + 0.011111 (LN_Eduit) + 0.040820 (LN_Revit) + eit

Where:

HDIit   = Human Development Index in province i in period t

POV_rateit   = Poverty rate in province i in period t

LN_Healthit   = Budget for health function in province i in period t

LN_Eduit   = Budget for education function in province i in period t

LN_Revit   = Local Own Revenue in province i in period t

eit   = error term

Based on the regression results with the Fixed Effect model described in table 4.3.3 above, the poverty level variable has a negative influence on the HDI variable with a coefficient of 0.297583. This means that when the poverty rate in five provinces in Eastern Indonesia increases by 1%, it will reduce the HDI by 0.297583 or 29%. Thus, the hypothesis which states that the level of poverty affects human development in the five provinces of Eastern Indonesia is acceptable.

Likewise with the health budget variable which has a negative influence on the HDI variable with a coefficient of 0.004901. This means that when the health budget in five provinces in Eastern Indonesia increases by 1%, which means an increase in the provincial budget allocation for the health sector, it will reduce the HDI by 0.004901 or 0.4%. Therefore, the hypothesis which states that the health budget affects human development in the five provinces of Eastern Indonesia is acceptable. However, this result is different from several previous studies which stated that the health budget can increase human development so that further analysis is needed.

Unlike the poverty level and the health budget, the education budget variable has a positive influence on the HDI variable with a coefficient of 0.011111. This means that when the education budget in five provinces in Eastern Indonesia increases by 1%, which means there is an increase in the provincial budget allocation for the education sector, it will increase the HDI by 0.01111 or 1%. Thus, the hypothesis which states that the education budget affects human development in five provinces in Eastern Indonesia is acceptable.

The local government revenue variable which has a positive influence on the HDI variable with a coefficient of 0.040820. This means that when local government revenues in five provinces in Eastern Indonesia increase by 1%, it will increase the HDI by 0.040820 or 4%. Thus, the hypothesis which states that the local government revenue affects human development in five provinces in Eastern Indonesia is acceptable.

4.4 Hypothesis Testing

4.4.1 F-Statistic Test and Interpretation of Analysis Results

The F test is used to see the effect of all independent variables, namely poverty level, health and education budget simultaneously on the dependent variable, namely HDI. The test is carried out by comparing the value of the F-statistics of the regression results with the F-table or looking at th The F test can also be used to reject or accept the hypothesis that has been prepared. The hypotheses of this research are as follows:

H0: It is suspected that there is no significant effect of the poverty level, the regional budget for health and education functions simultaneously on human development in the five provinces of Eastern Indonesia in 2011-2020.

Ha: It is suspected that there is a significant influence of the poverty level, the regional budget for health and education functions simultaneously on human development in the five provinces of Eastern Indonesia in 2011-2020.

Based on the results of panel data regression analysis with the Fixed Effect model, the F test results are obtained as follows:e probability value of the F-statistics with a significance level of = 5%

Table 4.11 F Statistic Result

F-statistic	258.9562
Prob(F-statistic)	0.0000

Source : Data Processed, Eviews 10

Based on the results of the F test described in table 4.7 above, a probability value of 0.000000 is obtained which is below the 5% significance level. Therefore, this result rejects H0 and accepts Ha so that it can be said that there is a significant effect of the poverty level, health and education budgets simultaneously on human development in the five provinces of Eastern Indonesia in 2011-2020.

4.4.2 T-Statistic Test and Interpretation of Analysis Results

The t-test was used to see the effect of each independent variable, namely the poverty level, health budget, and education budget partially on the dependent variable, namely HDI. The test is done by comparing the t-statistic value of the regression results with the t-table or looking at the probability value of each variable with a significance level.

The t-test can also be used to reject or accept the hypothesis that has been prepared. The hypothesis of this research is as follow:

1. H0: It is suspected that there is no significant effect of the partial poverty level on human development in the five provinces of Eastern Indonesia in 2011-2020.

   Ha : It is suspected that there is a significant effect of the partial poverty rate on human development in the five provinces of Eastern Indonesia in 2011-2020.

2. H0: It is suspected that there is no significant effect of the health sector budget partially on human development in the five provinces of Eastern Indonesia in 2011-2020.

   Ha : It is suspected that there is a significant influence of the health sector budget partially on human development in the five provinces of Eastern Indonesia in 2011-2020.

3. H0: It is suspected that there is no significant effect of the educational sector budget for the function of education partially on human development in the five provinces of Eastern Indonesia in 2011-2020.

   Ha : It is suspected that there is a significant influence of the educational sector budget for the function of education partially on human development in the five provinces of Eastern Indonesia in 2011-2020.

4. H0: It is suspected that there is no significant effect of partial local government revenues on human development in the five provinces of Eastern Indonesia in 2011-2020.
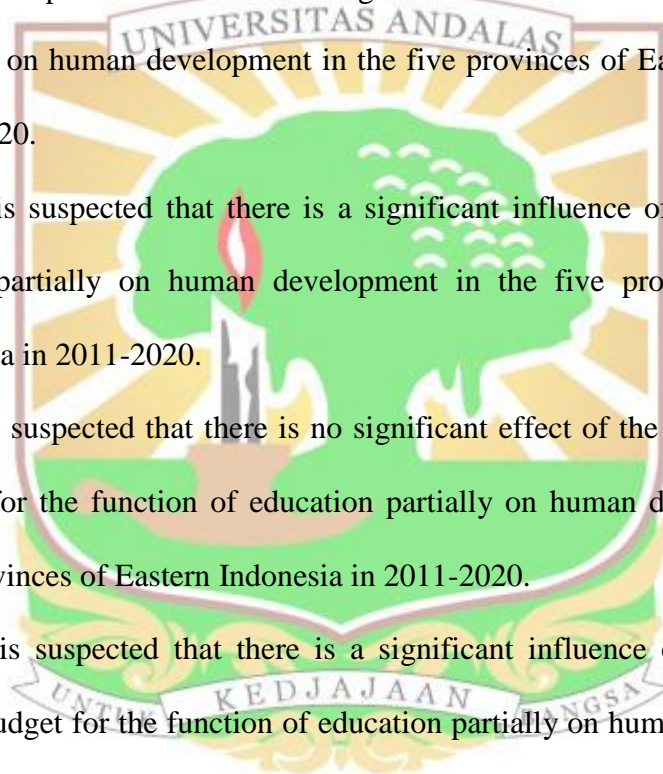
Ha : It is suspected that there is a significant influence of the local government's partial acceptance of education on human development in the five provinces of Eastern Indonesia in 2011-2020.

Based on the results of panel data regression analysis with the Fixed Effect model, the results of the t-test are as follows:

Table 4.12 T Statistic Result

Variable	Coefficient	t-Statistic	Prob.
C	2.725619	20.97973	0.0000
POV	-0.443002	-3.041328	0.0041
HEALTH	-0.005447	-1.781570	0.0822
EDU	0.010395	4.802611	0.0000
REV	0.047947	8.928888	0.0000

Source : Data Processed, Eviews 10

Based on the results of the t-test in table 4.8 above, in this study all independent variables, namely the poverty rate, health budget and education, and local government revenue partially has a significant effect on human development. Thus, the hypothesis can be proven as follows:

1. The poverty rate has a probability value of 0.0041 which is below the 5% significance level. Therefore, this result rejects H0 and accepts Ha so that it can be said that there is a significant effect of the poverty rate on human development in the five provinces of Eastern Indonesia in 2011-2020.

2. The health budget has a probability value of 0.0822 which is above the 5% significance level. Therefore, this result accepts H0 and rejects Ha so that it can be said that there is no significant effect of the health budget on human development in the five provinces of Eastern Indonesia in 2011-2020.

3. The education budget has a probability value of 0.0000 which is below the 5% significance level. Therefore, this result rejects H0 and accepts Ha so that it can be said that there is a significant influence of the education budget on human development in the five provinces of Eastern Indonesia in 2011-2020.

4. Local government revenue has a probability value of 0.0000 which is below the 5% significance level. Therefore, this result rejects H0 and accepts Ha so that it can be said that there is a significant influence of the education budget on human development in five provinces of Eastern Indonesia in 2011-2020.

4.4.3 Coefficient of Determination (R-Square)

The coefficient of determination (R2) is used to see how the influence of the independent variable on the dependent variable. The value of the coefficient of determination can be seen from the R-square (if there is only one independent variable) or Adjusted R-square (if the independent variable is more than one).

Based on the results of panel data regression analysis with the Fixed Effect model, the coefficient of determination is obtained as follows:

Table 4.13 Adjusted R-Square

R-squared	0.980593	Mean dependent var	4.146650
Adjusted R-squared	0.976806	S.D. dependent var	0.060351
S.E. of regression	0.009191	Akaike info criterion	-6.37959
Sum squared resid	0.003464	Schwarz criterion	-6.03543
Log likelihood	168.4900	Hannan-Quinn criter.	-6.24853
F-statistic	258.9562	Durbin-Watson stat	2.058613
Prob(F-statistic)	0		

Source : Data Processed, Eviews 10

Based on table 4.4.1 above, the adjusted R-squared value is 0.980539 or 98.0539%. Therefore, it can be said that 98.0539% of HDI variables in five provinces in Eastern Indonesia can be explained by the variables of poverty level, health and education budget, and local government revenue while the remaining 1.9461% (100% - 98.0539%) is explained by other variables outside this research model.

4.5 Economic Analysis

a) Poverty Rate on Human Development

Poverty measures the ability of the community to be able to meet their needs, especially basic needs such as clothing, food and shelter. Poverty is seen as the inability of people to meet basic needs because they have limited resources. Poverty alleviation is the first goal in the Sustainable Development Goals. As one of the strategies to alleviate poverty, the government is now implementing an inclusive economic development strategy, namely economic development that not only increases economic growth but also increases the number of jobs and can reduce poverty. This is because one measure of the success of economic development is the level of poverty. Poverty can also describe the inability of the community to access health and education facilities. Therefore, there are several programs from the government related to poverty alleviation as well as to improve public access to health and education facilities, such as *Bantuan Operasional Sekolah (BOS), Kartu Indonesia Pintar (KIP), and Program Keluarga Harapan (PKH).*

In this study, the variable poverty rate and human development index have a negative relationship. This means that a decrease in the level of poverty marked by an increase in the ability of the poor to meet their daily needs, access health and education, will increase the human development index, which consists of components of health, education, and a decent standard of living. The results of this study are supported by pous studies conducted by Adelfina & Jember (2016) which analyzed the Effect of Economic Growth, Poverty, and Regional Expenditure on the Human Development Index in the Regency City of Bali Province for the 2005-2013 period and Syofya (2018) which analyzed on the Effect of Poverty Levels and Economic Growth on Indonesia's Human Development Index.

b) **Health Budget on Human Development**

As a form of public service, the government allocates a large amount of budget to increase the community's ability to enjoy the results of economic development. The government has allocated a budget for the health sector as an effort to improve the quality of public health because as we know that health is a basic need that must be provided by the government. The health budget, which is mandatory spending, is also allocated to comply with the law. In accordance with the mandate of Law No. 36 in 2009 concerning Health, local governments were mandated to allocate a health budget of 10% of the APBD excluding salaries. This is done to improve facilities and infrastructure in the health sector which will contribute to increasing community productivity.

In this study, the health budget variable has a negative relationship with HDI. This means that an increase in the amount of budget allocated by local governments to the health sector cannot contribute to increasing the HDI. This finding is different from several previous studies where the higher the budget allocated to the health sector, the higher the quality of public health and the HDI. Such as research conducted by Dianaputra & Aswitari (2017) which analyzed the Effect of Government Financing in the Education and Health Sector on Human Quality Index and Economic Growth in Regency/City of Bali Province in 2011-2015 and a layan-Akay & Van (2017) which analyzed on Determinants of the Levels of Development Based on the Human Development Index: Bayesian Ordered Probit Model .

Meanwhile, the research results obtained by this author are supported by previous studies conducted by Hakim & Sukmana (2017) which analyzed the Effect of Government Expenditure on the Education and Health Sector on Human Development Index in 16 Organizational Islamic Conference Countries (OIC) and Zulyanto (2018) which analyzes Government Expenditures and the Human Development Index (HDI) in Bengkulu Province . The results of the study which showed a negative relationship between the health budget and the HDI could be caused by inefficiency in budget allocation so that the large amount of the budget was unable to achieve the development target. Then due to the fact that the health program has not been running thoroughly and on target so that the large amount of budget allocation is wasted. Another reason is that there is a period of time to get the results, such as a health facility

development which does not have a direct impact. In addition, this condition can be caused by indications still high number of corruption so that the allocation the budget becomes inefficient and on target because it cannot have a direct impact on the development of the quality of public health.

c) **Education Budget on Human Development**

In addition to the health sector, other forms of public services provided by the government are also found in the education sector. The government has allocated a certain amount of education budget to increase public access to educational facilities. The education budget is also a mandatory spending that must be met by the government. In accordance with the mandate in Law Number 20 of 2003 concerning the National Education System, local governments in this case at the provincial level are mandated to allocate a minimum education budget of 20% of the APBD excluding educator salaries and official education costs. This is done as an effort to improve the quality and productivity of the community through the education sector which in turn will contribute to improving human development.

In this study, the education budget variable has a positive relationship with HDI. An increase in the amount of budget allocated to the education sector will increase the human development index because the quality of public education will be better. Increasing the allocation of the education budget by the provincial government which is used for appropriate and targeted programs will support the creation of an increase in the quality of education in each region. Therefore, this can give birth to knowledgeable and competitive human

resources so that they can contribute to Indonesia's economic development. The results of this study are supported by previous studies conducted by Dianaputra & Aswitari (2017) which analyzed the Effect of Government Financing in the Education and Health Sector on Human Quality Index and Economic Growth in Regency/City of Bali Province in 2011-2015 and Zulyanto (2018).) which analyzes Government Expenditure and Human Development Index in Bengkulu Province.

d) **Local Government Revenue on Human Development**

In this study, the local government revenue variable has a positive relationship with human development index. local government revenue has an important role in human development index. In other words, local government revenue has an effect on increasing human development index. The increase in local government revenue means that the region has sufficient funds to spend on sectors that support the human development index because local government revenue is more development-oriented that leads to human development such as health, education and others. Local governments are expected to continue to explore the potential of local government revenue in their respective regions in order to reduce dependence on the central government and increase human development index achievements in the future. This is in line with research conducted by Saridan Supadmi (2016), and Amalia (2016).

CHAPTER V

CONCLUSION

5.1 Conclusion

This study discusses the effect of poverty, health budget, education budget and local revenue on human development in five provinces in Eastern Indonesia 2011-2020. Based on the results of the analysis and discussion that have been described previously, the a uthors obtain conclusions that can be explained as follows:

1. The poverty rate has a negative and significant impact on human development in the provinces of East Nusa Tenggara, Gorontalo, Maluku, West Papua, and Papua. This means that an increase in the poverty rate will reduce the HDI in the five provinces. The more the number of poor people in the region, the more people who have a low level of welfare and are unable to access health and education so that it can reduce the quality of human resources.

2. The education budget has a positive and significant impact on human development in the provinces of East Nusa Tenggara, Gorontalo, Maluku, West Papua, and Papua. The results of this study indicate that the greater the allocation of regional budgets for the education sector can contribute to increasing human resources.

3. The health budget has a negative and no significant impact on human development in the provinces of East Nusa Tenggara, Gorontalo, Maluku, West Papua, and Papua. Increasing regional budget allocations for the health sector cannot contribute to increasing HDI in the five provinces. This condition can be

caused by inefficient and not well-targeted budget allocations so that the large amount of the health budget does not contribute significantly to human development efforts. Another thing there is rarely a reaction caused by an instantaneous reaction. The government's budget in the health sector cannot directly affect HDI in the same year but requires time lag.

4. Local revenue has a positive and significant impact on human development in the provinces of East Nusa Tenggara, Gorontalo, Maluku, West Papua, and Papua. The role of regional original income is quite large in funding capital expenditures which will later be used by local governments in funding development in regions that will support community welfare. The large allocation of local revenue will have a major impact on increasing human quality resources.

5.2 Suggestion

Based on the conclusions described above, the authors provide some suggestions as follows:

1. The high poverty rate in the provinces of East Nusa Tenggara, Gorontalo, Maluku, West Papua, and Papua is still a problem that must be resolved both for the central and local governments. It is necessary to strengthen poverty alleviation programs from the government, especially in terms of increasing access to health and education for the community so that in addition to improving people's welfare, it is hoped that these efforts can improve the quality of human development in the five provinces.

2. Local governments are expected to maximize local own revenue for capital expenditures, build better infrastructure such as hospitals and schools to accelerate human quality resources.

3. Local governments are expected to allocate budgets for the health and education sectors in accordance with the ratios set by law and used appropriately so that they can support the efforts of the central government in producing quality and competitive Indonesian human resources.

4. For further researchers, There is a time lag when the government issues the state budget or development for the two sectors, so research that uses a fairly long time series is needed.

5. Adding or using other independent variables to determine factors other than the determinant variables in this study that can affect human development efforts. And analyze what factors can affect the existence of inefficiencies in the allocation of health and education budgets at the provincial level.
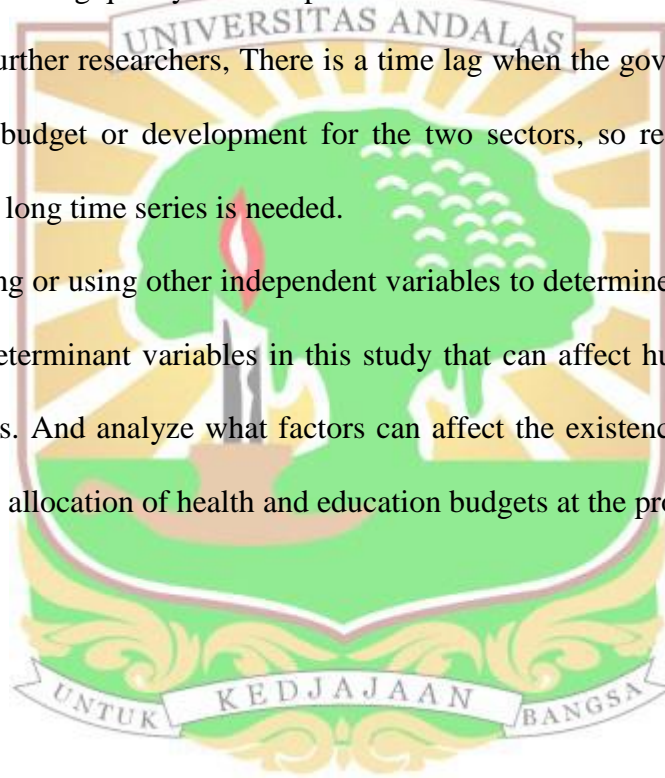
REFERENCES

Adelfina, & Jember, I. M. (2016). Pengaruh Pertumbuhan Ekonomi, Kemiskinan, dan Belanja Daerah Terhadap Indeks Pembangunan Manusia di Kabupaten Kota Provinsi Bali Periode 2005 - 2013. E-Jurnal Ekonomi Pembangunan Universitas Udayana, 5, 1011–1025.

Arisman. (2018). Determinant of Human Development Index in ASEAN Countries. Signifikan: Jurnal Ilmu Ekonomi, 7 (1), 113–122.

Ça layan-Akay, E., & Van, M. H. (2017). Determinants of the Levels of Development Based on the Human Development Index: Bayesian Orderes Probit Model. International Journal of Economics and Financial Issues, 7(5), 425–431.

Dianaputra, I. G. K. A., & Aswitari, L. P. (2017). Pengaruh Pembiayaan Pemerintah di Sektor Pendidikan dan Kesehatan Terhadap Indeks Kualitas Manusia serta Pertumbuhan Ekonomi pada Kabupaten/Kota Provinsi Bali Tahun 2011-2015. E-Jurnal Ekonomi Pembangunan Universitas Udayana, 6 Nomor 3.

Fadilah, A., Ananda, C. F., & Kaluge, D. (2018). A Panel Approach: How Does Government Expenditure Influence Human Development Index? Jurnal Ekonomi Dan Studi Pembangunan, 10(2).

Hakim, A. A. A. A., & Sukmana, R. (2017). Pengaruh Pengeluaran Pemerintah di Sektor Pendidikan dan Kesehatan Terhadap Indeks Pembangunan Manusia di 16 Negara Organisasi Konfrensi Islam (OKI). Li Falah Jurnal Studi Ekonomi Dan Bisnis Islam, 2 Nomor 1.

Jacobus, E. H., Kindangen, P., & Walewangko, E. N. (2018). Analisis Faktor- faktor yang Mempengaruhi Kemiskinan Rumah Tangga di Sulawesi Utara. Jurnal Pembangunan Ekonomi Dan Keuangan Daerah, 19 Nomor 7..

Javarov, E., & Gunnarson V. (20008). Government Spending on Health Care and Education in Croatia: Efficiency and Reform Options. IMF Working Paper

Lengkong, S., Rotinsulu, D., & Wawalengko, E. N (2017). Pengaruh Alokasi Anggaran Pendidikan dan Kesehatan terhadap Index Pembangunan Manusia dan Dampaknya terhadap Pertumubuhan Ekonomi Kota Bitung, 16 No.02

Lubis, I. H. (2015). Regional Government Budgets and Human Development Outcomes Across Indonesia's Provinces (Study Case of Provinces in Indonesia).

Mahulaw, A., Santosa, D., & Mahardika P. (2016). Pengaruh Pengeluaran Kesehatan dan Pendidikan serta Insfrastruktur terhadap Index Pembangunan Manusia di Maluku. Jurnal Ekonomi Pembangunan Vol. 14 No. 02

Matondang, E. (2017). Finding Out the Potential of Nusa Tenggara Timur in Poverty Alleviation: The Effect of Local Government's Policies. Jurnal Bina Praja, 9 (2), 231–242. https://doi.org/10.21787/jbp.09.2017.231-242

Mittal, P. (2016). Social Sector Expenditure and Human Development of Indian States (No. 75804).

Muliza, Zulham, T., & Seftarita, C. (2017). Analisis Pengaruh Belanja Pendidikan, Belanja Kesehatan, Tingkat Kemiskinan dan PDRB Terhadap IPM di Provinsi Aceh. Jurnal Perspektif Ekonomi Darussalam, 3 Nomor 1.

Nortje, M. J. (2017). The Effect of Poverty on Education in South Africa. Educor Multidisciplinary Journal, 1 No. 1.

Palenewen, T. O. M., Walewangko, E. N., & Sumual, J. I. (2018). Pengaruh Pengeluaran Pemerintah Sektor Pendidikan dan Sektor Kesehatan Terhadap IPM dan Dampaknya Terhadap Kemiskinan di Sulawesi Utara. Jurnal Berkala Ilmiah Efisiensi, 18 No. 04.

Satyakti, Y., Pamungkas, E., Rum, I. A., Sihaloloho, E., & Rijoly, J. D. (2018). Analyzing the Island Province Policy on Poverty Alleviation in Maluku Province. Advances in Social Science, Education and Humanities Research (ASSEHR), 126.

Suparno, H. (2014). Pengaruh Pengeluaran Pemerintah Sektor Pendidikan, Kesehatan, dan Infrastruktur Terhadap Pertumbuhan Ekonomi dan Peningkatan Pembangunan Manusia di Provinsi Kalimantan Timur. Ekonomika-Bisnis, 5 Nomor 1, 1–22.

Sirait, S. (2015). The Efficiency in Education Expenditure and Relationship to Human Development Index in Indonesia, Dongbei University of Finance and Economic (DUFE).

Syofya, H. (2018). Pengaruh Tingkat Kemiskinan dan Pertumbuhan Ekonomi Terhadap Indeks Pembangunan Manusia Indonesia. Jurnal Ilmiah Ekonomi Dan Bisnis, 15 Nomor 2.

Tarumingkeng, W. A., Rumate, V. A., & Rotinsulu, T. O. (2018). Pengaruh Belanja Modal dan Tingkat Kemiskinan Terhadap Indeks Pembangunan Manusia (IPM) di Provinsi Sulawesi Utara. Jurnal Pembangunan Ekonomi Dan Keuangan Daerah, 19 Nomor 6.

Todaro, M. P., & Smith, S. C. (2009). Pembangunan Ekonomi (Edisi Kesebelas Jilid 1). Jakarta: Erlangga.

Zulyanto, A. (2018). Pengeluaran Pemerintah dan Indeks Pembangunan Manusia (IPM) di Provinsi Bengkulu. PARETO: Jurnal Ekonomi Dan Kebijakan Publik, 1 Nomor 1.
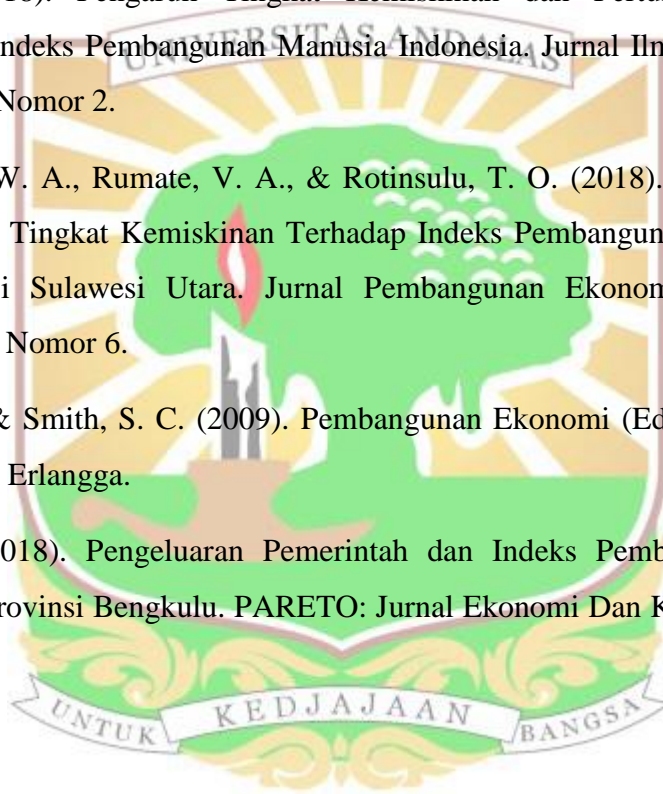
1. **DATA**

Tahun	Provinsi	HDI	POV RATE	HEALTH (RP)	EDU (RP)	GOV REV (RP)
2011	NTT	60.24	0.2123	142,068,878,326	82,903,236,761	1,444,705,000,000
2012	NTT	60.81	0.2041	165,695,156,349	91,083,795,500	2,430,253,000,000
2013	NTT	61.68	0.2024	574,035,036,408	248,605,077,141	2,639,015,000,000
2014	NTT	62.26	0.196	198,569,827,000	65,216,268,000	2,818,931,000,000
2015	NTT	62.67	0.2258	46,621,066,071	50,340,148,922	3,570,228,000,000
2016	NTT	63.13	0.2201	259,928,934,497	92,805,528,096	4,040,760,000,000
2017	NTT	63.73	0.2138	45,134,588,871	50,575,368,555	4,987,989,000,000
2018	NTT	64.39	0.2103	305,991,588,680	1,190,841,423,000	5,059,885,000,000
2019	NTT	65.23	0.2062	621,406,043,760	1,960,029,576,087	5,448,447,000,000
2020	NTT	65.19	0.2121	998,303,596,000	798,759,487,770	6,851,778,000,000
2011	Gorontalo	63.48	0.1875	25,808,639,647	66,836,783,302	794,420,000,000
2012	Gorontalo	64.16	0.1722	35,620,621,365	54,866,882,859	997,139,000,000
2013	Gorontalo	64.7	0.1801	61,653,398,122	63,864,303,406	1,153,659,000,000
2014	Gorontalo	65.17	0.1741	84,579,441,957	83,797,397,579	1,304,658,000,000
2015	Gorontalo	65.86	0.1816	24,600,779,660	52,497,993,005	1,476,327,000,000
2016	Gorontalo	66.29	0.1763	167,085,856,255	117,107,913,756	1,652,704,000,000
2017	Gorontalo	67.01	0.1714	21,143,050,367	74,510,509,686	1,829,857,000,000
2018	Gorontalo	67.71	0.1583	131,453,779,736	434,486,076,568	1,889,286,000,000
2019	Gorontalo	68.49	0.1531	130,162,761,341	698,418,929,896	1,955,667,000,000
2020	Gorontalo	68.68	0.1559	443,332,564,000	830,511,198,000	1,719,762,000,000
2011	Maluku	64.75	0.23	113,984,123,580	142,332,875,789	1,193,672,000,000

2012	Maluku	65.43	0.2076	117,980,407,791	104,266,220,752	1,514,750,000,000
2013	Maluku	66.09	0.1927	170,803,401,282	91,881,312,068	1,694,903,000,000
2014	Maluku	66.74	0.1844	81,510,352,157	43,068,964,652	1,926,719,000,000
2015	Maluku	67.05	0.1936	68,519,503,263	73,237,730,282	2,304,537,000,000
2016	Maluku	67.6	0.1926	255,669,820,943	179,704,755,892	2,831,652,000,000
2017	Maluku	68.19	0.1829	70,318,878,888	80,896,939,805	2,845,812,000,000
2018	Maluku	68.87	0.1785	285,234,771,463	761,408,494,771	1,907,106,000,000
2019	Maluku	69.45	0.1765	307,579,752,866	1,128,736,630,607	3,230,500,000,000
2020	Maluku	69.49	0.1799	610,408,511,000	1,042,334,294,000	3,380,216,000,000
2011	Papua Barat	59.9	0.3192	73,578,875,526	127,202,550,210	4,053,068,000,000
2012	Papua Barat	60.3	0.2704	67,328,957,694	132,557,799,122	4,271,507,000,000
2013	Papua Barat	60.91	0.2714	73,194,956,061	126,340,776,840	6,010,272,000,000
2014	Papua Barat	61.28	0.2626	682,850,044,956	1,280,719,000,638	5,920,196,000,000
2015	Papua Barat	61.73	0.2573	63,752,890,963	77,389,944,506	7,506,270,000,000
2016	Papua Barat	62.21	0.2488	186,944,309,297	182,989,027,421	7,257,003,000,000
2017	Papua Barat	62.99	0.2312	33,240,030,960	86,902,567,110	7,839,000,000,000
2018	Papua Barat	63.74	0.2266	110,058,654,612	602,627,012,184	8,098,275,000,000
2019	Papua Barat	64.7	0.2151	226,539,105,000	563,335,931,000	8,729,203,000,000
2020	Papua Barat	65.09	0.217	522,029,046,000	973,517,739,000	9,371,589,000,000
2011	Papua	55.01	0.3198	475,363,886,398	270,682,515,290	7,138,484,000,000
2012	Papua	55.55	0.3066	578,870,773,655	291,779,213,007	8,241,636,000,000
2013	Papua	56.25	0.3153	672,966,034,000	218,340,884,000	9,129,555,000,000
2014	Papua	56.75	0.278	649,772,365,282	154,490,959,100	11,315,078,000,000

2015	Papua	57.25	0.284	156,785,871,335	80,972,960,775	12,986,632,000,000
2016	Papua	58.05	0.284	682,509,511,628	531,588,191,604	13,071,335,000,000
2017	Papua	59.09	0.2776	146,910,165,961	125,888,297,437	14,016,057,000,000
2018	Papua	60.06	0.2743	903,231,039,555	1,539,750,827,595	14,134,105,000,000
2019	Papua	60.84	0.2655	1,318,266,736,346	1,457,883,243,900	13,978,118,000,000
2020	Papua	60.44	0.268	1,820,967,731,000	1,298,955,152,000	15,197,966,000,000

2. DATA TRANSFORM

Provinsi	Tahun	HDI	POV RATE	LN HEALTH	LN EDU	LN GOV REV
NTT	2011	4.0983	0.2123	25.6796	25.1409	27.9989
NTT	2012	4.1078	0.2041	25.8334	25.2350	28.5190
NTT	2013	4.1220	0.2024	27.0760	26.2391	28.6014
NTT	2014	4.1313	0.196	26.0144	24.9010	28.6674
NTT	2015	4.1379	0.2258	24.5653	24.6421	28.9037
NTT	2016	4.1452	0.2201	26.2837	25.2538	29.0275
NTT	2017	4.1547	0.2138	24.5329	24.6467	29.2381
NTT	2018	4.1650	0.2103	26.4468	27.8057	29.2524
NTT	2019	4.1779	0.2062	27.1553	28.3040	29.3264
NTT	2020	4.1773	0.2121	27.6293	27.4063	29.5555
Gorontalo	2011	4.1507	0.1875	23.9740	24.9255	27.4009
Gorontalo	2012	4.1614	0.1722	24.2962	24.7282	27.6282
Gorontalo	2013	4.1698	0.1801	24.8448	24.8800	27.7740
Gorontalo	2014	4.1770	0.1741	25.1610	25.1517	27.8970
Gorontalo	2015	4.1875	0.1816	23.9260	24.6840	28.0206
Gorontalo	2016	4.1940	0.1763	25.8418	25.4864	28.1334
Gorontalo	2017	4.2048	0.1714	23.7746	25.0342	28.2353
Gorontalo	2018	4.2152	0.1583	25.6019	26.7974	28.2672
Gorontalo	2019	4.2267	0.1531	25.5921	27.2721	28.3018
Gorontalo	2020	4.2295	0.1559	26.8176	27.4453	28.1732
Maluku	2011	4.1705	0.23	25.4593	25.6814	27.8081
Maluku	2012	4.1810	0.2076	25.4938	25.3702	28.0463
Maluku	2013	4.1910	0.1927	25.8638	25.2438	28.1586
Maluku	2014	4.2008	0.1844	25.1240	24.4861	28.2868
Maluku	2015	4.2054	0.1936	24.9504	25.0170	28.4659

Maluku	2016	4.2136	0.1926	26.2672	25.9146	28.6719
Maluku	2017	4.2223	0.1829	24.9763	25.1164	28.6769
Maluku	2018	4.2322	0.1785	26.3766	27.3584	28.2766
Maluku	2019	4.2406	0.1765	26.4520	27.7521	28.8037
Maluku	2020	4.2412	0.1799	27.1374	27.6725	28.8490
Papua Barat	2011	4.0927	0.3192	25.0216	25.5690	29.0305
Papua Barat	2012	4.0993	0.2704	24.9329	25.6103	29.0830
Papua Barat	2013	4.1094	0.2714	25.0164	25.5622	29.4245
Papua Barat	2014	4.1155	0.2626	27.2495	27.8784	29.4094
Papua Barat	2015	4.1228	0.2573	24.8783	25.0721	29.6468
Papua Barat	2016	4.1305	0.2488	25.9541	25.9327	29.6130
Papua Barat	2017	4.1430	0.2312	24.2270	25.1881	29.6901
Papua Barat	2018	4.1548	0.2266	25.4243	27.1246	29.7227
Papua Barat	2019	4.1698	0.2151	26.1462	27.0571	29.7977
Papua Barat	2020	4.1758	0.217	26.9810	27.6042	29.8687
Papua	2011	4.0075	0.3198	26.8873	26.3242	29.5965
Papua	2012	4.0173	0.3066	27.0843	26.3993	29.7402
Papua	2013	4.0298	0.3153	27.2350	26.1093	29.8425
Papua	2014	4.0387	0.278	27.1999	25.7634	30.0572
Papua	2015	4.0474	0.284	25.7781	25.1174	30.1949
Papua	2016	4.0613	0.284	27.2490	26.9991	30.2014
Papua	2017	4.0791	0.2776	25.7131	25.5587	30.2712
Papua	2018	4.0953	0.2743	27.5292	28.0626	30.2796
Papua	2019	4.1082	0.2655	27.9073	28.0080	30.2685
Papua	2020	4.1017	0.268	28.2304	27.8926	30.3522

1. COMMON EFFECT MODEL

Dependent Variable: HDI
Method: Panel Least Squares
Date: 06/07/21   Time: 19:03
Sample: 2011 2020
Periods included: 10
Cross-sections included: 5
Total panel (balanced) observations: 50

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4.215539	0.167172	25.21670	0.0000
POV	-1.124718	0.125663	-8.950258	0.0000
HEALTH	-0.015275	0.005443	-2.806086	0.0074
EDU	0.018776	0.005221	3.595957	0.0008
REV	0.003015	0.007601	0.396742	0.6934

R-squared	0.849650	Mean dependent var		4.146650
Adjusted R-squared	0.836285	S.D. dependent var		0.060351
S.E. of regression	0.024419	Akaike info criterion		-4.492259
Sum squared resid	0.026833	Schwarz criterion		-4.301057
Log likelihood	117.3065	Hannan-Quinn criter.		-4.419448
F-statistic	63.57519	Durbin-Watson stat		0.452232
Prob(F-statistic)	0.000000			

2. FIXED EFFECT MODEL

Dependent Variable: HDI
Method: Panel Least Squares
Date: 06/07/21   Time: 19:04
Sample: 2011 2020
Periods included: 10
Cross-sections included: 5
Total panel (balanced) observations: 50

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.725619	0.163976	16.62211	0.0000
POV	-0.443002	0.088587	-5.000787	0.0000
HEALTH	-0.005447	0.002730	-1.995554	0.0527

EDU	0.010395	0.002333	4.456694	0.0001
REV	0.047947	0.005344	8.972479	0.0000

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.980718	Mean dependent var	4.146650
Adjusted R-squared	0.976955	S.D. dependent var	0.060351
S.E. of regression	0.009162	Akaike info criterion	-6.386042
Sum squared resid	0.003441	Schwarz criterion	-6.041878
Log likelihood	168.6510	Hannan-Quinn criter.	-6.254982
F-statistic	260.6631	Durbin-Watson stat	1.160914
Prob(F-statistic)	0.000000		

3. RANDOM EFFECT MODEL

Dependent Variable: HDI
Method: Panel EGLS (Cross-section random effects)
Date: 06/07/21   Time: 19:05
Sample: 2011 2020
Periods included: 10
Cross-sections included: 5
Total panel (balanced) observations: 50
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4.215539	0.062720	67.21205	0.0000
POV	-1.124718	0.047146	-23.85582	0.0000
HEALTH	-0.015275	0.002042	-7.479280	0.0000
EDU	0.018776	0.001959	9.584586	0.0000
REV	0.003015	0.002852	1.057469	0.2959

Effects Specification

		S.D.	Rho
Cross-section random		5.10E-07	0.0000
Idiosyncratic random		0.009162	1.0000

Weighted Statistics

R-squared	0.849650	Mean dependent var	4.146650
Adjusted R-squared	0.836285	S.D. dependent var	0.060351

S.E. of regression	0.024419	Sum squared resid	0.026833
F-statistic	63.57519	Durbin-Watson stat	0.452232
Prob(F-statistic)	0.000000		

Unweighted Statistics			
R-squared	0.849650	Mean dependent var	4.146650
Sum squared resid	0.026833	Durbin-Watson stat	0.452232

1. **CHOW TEST**

Redundant Fixed Effects Tests

Equation: Untitled

Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	69.672725	(4,41)	0.0000
Cross-section Chi-square	102.689126	4	0.0000

Cross-section fixed effects test equation:

Dependent Variable: HDI

Method: Panel Least Squares

Date: 06/07/21   Time: 18:39

Sample: 2011 2020

Periods included: 10

Cross-sections included: 5

Total panel (balanced) observations: 50

Variable	Coefficient	Std. Error	t-Statistic	Prob.
POV	-1.124718	0.125663	-8.950258	0.0000
HEALTH	-0.015275	0.005443	-2.806086	0.0074

EDU	0.018776	0.005221	3.595957		0.0008
REV	0.003015	0.007601	0.396742		0.6934
C	4.215539	0.167172	25.21670		0.0000

R-squared	0.849650	Mean dependent var	4.146650
Adjusted R-squared	0.836285	S.D. dependent var	0.060351
S.E. of regression	0.024419	Akaike info criterion	-4.492259
Sum squared resid	0.026833	Schwarz criterion	-4.301057
Log likelihood	117.3065	Hannan-Quinn criter.	-4.419448
F-statistic	63.57519	Durbin-Watson stat	0.452232
Prob(F-statistic)	0.000000		

2. HAUSMAN TEST

Correlated Random Effects - Hausman Test

Equation: Untitled

Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	278.690896	4	0.0000

Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
POV	-0.443002	-1.124718	0.005625	0.0000
HEALTH	-0.005447	-0.015275	0.000003	0.0000
EDU	0.010395	0.018776	0.000002	0.0000

REV	0.047947	0.003015	0.000020	0.0000

Cross-section random effects test equation:

Dependent Variable: HDI

Method: Panel Least Squares

Date: 06/07/21   Time: 18:52

Sample: 2011 2020

Periods included: 10

Cross-sections included: 5

Total panel (balanced) observations: 50

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.725619	0.163976	16.62211	0.0000
POV	-0.443002	0.088587	-5.000787	0.0000
HEALTH	-0.005447	0.002730	-1.995554	0.0527
EDU	0.010395	0.002333	4.456694	0.0001
REV	0.047947	0.005344	8.972479	0.0000

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.980718	Mean dependent var	4.146650
Adjusted R-squared	0.976955	S.D. dependent var	0.060351
S.E. of regression	0.009162	Akaike info criterion	-6.386042
Sum squared resid	0.003441	Schwarz criterion	-6.041878
Log likelihood	168.6510	Hannan-Quinn criter.	-6.254982
F-statistic	260.6631	Durbin-Watson stat	1.160914
Prob(F-statistic)	0.000000		

ASSUMPTION CLASSIC TEST

1. Normality Test

Series: Standardized Residuals	
Sample 2011 2020	
Observations 50	
Mean	-1.35e-18
Median	-0.000776
Maximum	0.020997
Minimum	-0.014126
Std. Dev.	0.008380
Skewness	0.419389
Kurtosis	2.743628
Jarque-Bera	1.602655
Probability	0.448733
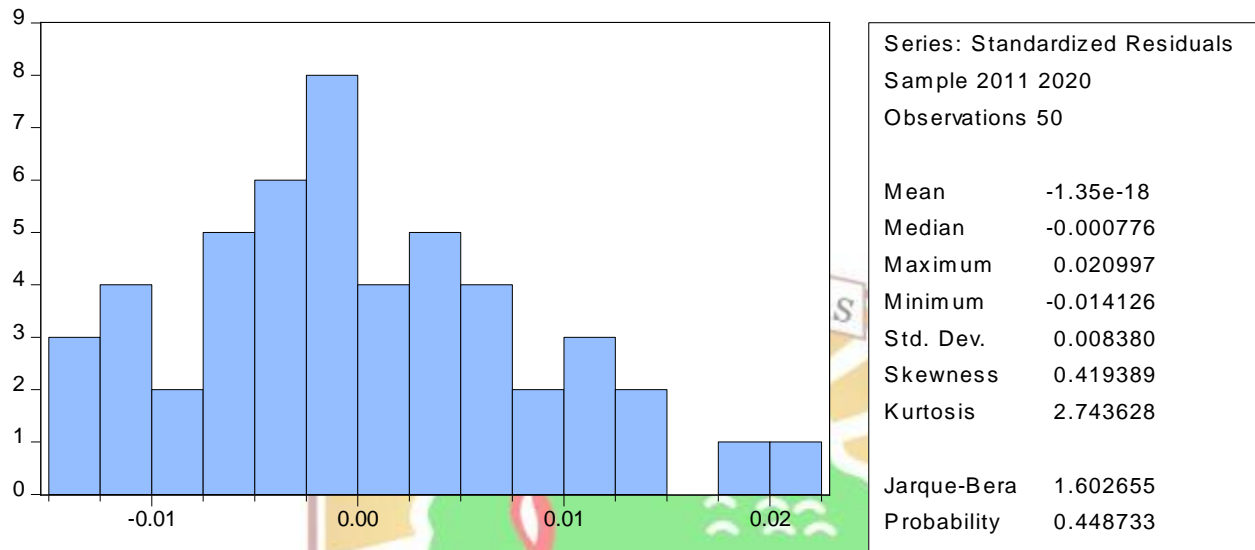
2. Multicollinearity Test

	POV	HEALTH	EDU	REV
POV	1	0.345	0.102	0.745
HEALTH	0.345	1	0.775	0.555
EDU	0.102	0.775	1	0.442
REV	0.745	0.555	0.442	1

3. Heteroscedasticity Test

Dependent Variable: RESABS
Method: Panel Least Squares
Date: 06/07/21   Time: 20:22
Sample: 2011 2020
Periods included: 10
Cross-sections included: 5
Total panel (balanced) observations: 50

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.066265	0.076271	0.868804	0.3900
POV	0.022870	0.041205	0.555042	0.5819
HEALTH	-0.000111	0.001270	-0.087465	0.9307
EDU	0.002021	0.001085	1.862621	0.0697
REV	-0.003953	0.002486	-1.590210	0.1195

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.396964	Mean dependent var	0.006643
Adjusted R-squared	0.279298	S.D. dependent var	0.005020
S.E. of regression	0.004261	Akaike info criterion	-7.916885
Sum squared resid	0.000745	Schwarz criterion	-7.572721
Log likelihood	206.9221	Hannan-Quinn criter.	-7.785826
F-statistic	3.373662	Durbin-Watson stat	2.335580
Prob(F-statistic)	0.004625		