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THE EFFECT OF REGIONAL DEVELOPMENT INEQUALITY ON THE NUMBER OF POOR PEOPLE IN WEST PAPUA PROVINCE IN 2010-2017

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The purpose of the research is to analyze the influence of regional development inequality on the number of poor people in West Papua Province. The data used in this study are secondary data, namely ADHK GDP data for 2010-2017 and calculated and wiliamson index to obtain data on inequality rates and data on the number of poor people in Regencies/Cities in West Papua Province in 2010-2017 which were obtained as many as 104 observations. The analysis method used in this study is regression analysis with panel data calculated using EVIEWS 12, based on the results of the selection of the best model used is Fixced Effect. The results of this research show that inequality in regional development has a positive and significant effect on the number of poor people in West Papua Province. This means that if regional development inequality decreases, the number of poor people will decrease, and vice versa. So it can be concluded that development inequality affects the number of poor people but is not the main indicator in affecting the number of poor people because poverty is also influenced by other indicators, between income distribution and labor absorption.

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1. Introduction

One of the main economic development efforts is that in addition to creating the highest growth, it must also eliminate or reduce the level of poverty, income inequality, and unemployment, as well as open job opportunities for the population or community, so that they will earn enough income and then increase income to meet their living needs (Todaro in Kuncoro, 2004).

According to Arsyad, (2010) Economic growth, namely an increase in Gross Domestic Gross (Gross Domestic Product) and Gross National Gross (GNP) regardless of whether the increase is greater or smaller than the population growth rate, and there is an improvement in the economic structure or institutional system. According to Simon Kuznets, economic growth is an increase in the long-term capacity of the country concerned to provide various economic goods for its population. The increase in capacity itself is determined or made possible by advances or adjustments

Economic growth is classically influenced by two main factors, namely total output growth and population growth. Economic growth is greatly influenced by the productivity of sectors in using their production factors. Productivity can be increased through various means of education, training and better management (Sukirno, 2008).

According to the traditional neoclassical growth theory, output growth is always sourced from one or more of three factors, namely an increase in the quality and quantity of labor, capital increase (savings and investment) and technological improvement (Todaro and Smith, 2008), Romer and Weil (MRW) modified the neoclassical growth model where they proposed the use of the human capital accumulation variable). The source of economic growth thus comes from the growth of capital, labor and human capital. The estimation results produced from the MRW model turned out to be better than the neo-classical model (Mankiw, 2006).

Development inequality between regions is one of the aspects that occurs in economic activities in a region due to differences in natural resources and demographic conditions in each region. This results in a difference in the ability of a region to encourage the development process that occurs in developed regions and underdeveloped regions.

The definitive expansion of the province in Papua Province was only carried out based on Presidential Instruction No. 1 of 2003 and changed its name to West Papua Province based on Government Regulation No. 24 of 2007. West Papua as a province that obtained special autonomy status. Law No. 26 of 2002 concerning the Expansion of New Districts and the Establishment of Districts, including South Sorong Regency, Raja Ampat, Kaimana, Bintuni Bay, and Wondama Bay. West Papua Province has twelve districts and one city consisting of Fak-fak, Kaimana, Manokwari, South Manokwari, Arfak Mountains, Maybrat, Bintuni Bay, Wondama Bay, Sorong, South Sorong, Tambrauw, Raja Ampat and the city of Sorong.

The rate of economic growth in West Papua fluctuates every year, where economic growth accelerated in the last five years in 2013 by 6.86 percent and 4.57 percent in 2017. Although this growth is relatively high, this growth experienced a downward trend during 2013-2015 then rose in 2016 and fell again until 2017 by 4.57 percent and is below the national average of 5.23 percent. Over the past five years, the trend of economic growth trends in West Papua Province can be estimated from the movement of the growth rate of the oil and gas sector, namely the Oil and Gas Mining and Oil and Gas Processing Industry, if the two sub-categories experience high positive growth, it is certain that the regional economic growth rate will be positively high or accelerate. (BPS West Papua 2018)

The definition of development inequality or disparity is the difference in development between one region and another region vertically and horizontally which causes disparity or inequality of development between regions

and the center and between regions and between regions and other regions is a natural thing, because there is a difference in resources and the beginning of the implementation of development between regions (Sjafrizal in Mandasari, 2017).

Regional inequality is a logical consequence of the development process and will change in line with the level of the development process itself. Development patterns and levels of inequality in development encountered in some of these countries, such as resource ownership, facilities owned, infrastructure, history of the region, location Inequality is increasing because the gap between modern and traditional sectors is increasing. The increase occurred because development in the modern sector is faster than in the traditional sector.

Regional inequality can be seen in the existence of developed regions with underdeveloped or lagging behind, this is because each Regency/City has a different background. This difference is in the form of different natural, social, economic, and natural resource characteristics regardless of whether the growth is greater or smaller than the population growth rate, as well as the GDP and results in the rise and fall of the growth of the poor population, so it is necessary to question whether the inequality causes the rise and fall of the number of poor people. In developed regions, the number of people is increasing compared to areas that are still lagging behind, from this there is a gap between the poor population and the rich population. On the other hand, economic growth that is rising fluctuates, but on the other hand, there is a decrease in the growth rate of the poor population. From the above conditions, the purpose of this study is to find out whether there is inequality between regions and the influence of regional development inequality on the number of poor people in districts/cities of West Papua province.

Williamson Index

The measure of development inequality is to analyze how large the gap between regions/regions is by using the Williamson Index calculation method. The following is the formulation of the Regional Inequality Index presented by Jeffrey G. Williamson as follows:

$$IW = \sqrt{\Sigma(Yi - Y)^2(\frac{fi}{n})}$$

Information:

IW = Williamson Index

Yi = GDP Per Capita of Regencies/Cities

Y = Average GDP Per Capita of West Papua Province

Fi = Number of residents of Regencies/Cities

n = Number of population of West Papua Province

There are three criteria in the calculation of the Williamson Index, which are as follows:

The number is 0.0 to 0.2, then the inequality is low

The number is 0.21 to 0.35, then the inequality is moderate

The > number is 0.35, so the inequality is high.

The measurement results of the Williamson Index value are indicated by the number 0 to the number 1 or $0 < Iw < 1$. If the Williamson Index is getting closer to 0, the lower the development inequality and if the Williamson Index is closer to 1, the wider or higher the development inequality (Arsyad, 2015).

The occurrence of inequality between regions will have an impact on the level of community welfare between regions, to see the inequality of development between regions in a region is not easy. There are many arguments that explain that inequality exists because of high poverty in a region and also many who argue that inequality occurs because poverty exists in the midst of

community inability, but in the inequality of development between these regions that is the focus is not between rich and poor groups but the existence of underdeveloped areas and developed areas. Poverty is very diverse, diversity in the definition of poverty because the problem has spread to the multidimensional level, meaning that poverty is related to each other with various dimensions of human needs. The inability to meet the minimum standard of living in accordance with the level of living feasibility can be said to be poverty (Todaro in Mandasari, 2017)

The percentage of the number of poor people in West Papua Province for eight years, namely in 2010-2017 tends to decrease every year, the growth rate of the poor population in each year is growing but slow, where in 2013 it decreased by -2.99 percent and increased in 2014 by 4.51 percent, which then decreased again in 2015-2016 and in 2017 increased by 1.17 percent. From the table above, it can be seen that the average number of missionary population in West Papua Province from 2010-2017 has accelerated by -1.41 percent, which indicates that the government's efforts to reduce the number of poor people have not been evenly distributed to all districts/cities in West Papua Province. (BPS West Papua 2018)

Poverty is defined as a low standard of living, which is the existence of a level of material deprivation compared to the standard of living that is generally prevailing in the society concerned. Economically, poverty can also be interpreted as a lack of resources that can be used to improve the welfare of a group of people (Yasa in mandasari, 2017). Poverty can also be defined as "the inability to meet the minimum living needs". The basic needs that must be met include food, clothing, board, education and health. According to the Central Statistics Agency (BPS), poverty is the inability to meet the minimum standards of basic needs which include food and non-food needs.

According to Jhingan (2000), there are 3 (three) main characteristics of developing countries that are the

causes and at the same time the consequences that are interrelated with poverty. First, inadequate infrastructure and educational facilities that cause a high number of illiterate people and lack of skills or expertise. The second characteristic, poor health advice and consumption patterns so that only a small part of the population can become a productive workforce and the third is the population concentrated in the agricultural and mining sectors with outdated and outdated production methods.

Poverty can be measured by comparing a person's consumption level with the poverty line or the amount of rupiah spent on people's consumption per month. Meanwhile, the poor are residents who have an average monthly per capita expenditure below the poverty line (Kuncoro in Mandasari 2017). The determination of the calculation of the poverty line in society is people whose income is below Rp. 7,057 per person per day. The determination of the figure of Rp. 7,057 per person per day comes from the calculation of the poverty line which includes food and non-food needs. For the minimum food needs, it is equivalent to 2,100 kilocalories per capita per day. The non-food poverty line is the minimum need for housing (building land area, clean water use, and large water disposal facilities); education (literacy rate, compulsory education for 9 years, and dropout rate); and health (low consumption of nutritious food, lack of health facilities and inadequate sanitation and environmental conditions) BPS (2010).

Kuncoro (2006), Causes of poverty. The mass poverty that occurred in many developed countries that became independent after World War II focused on the backwardness of the country's economy as the root of the problem. The country's population is poor because it relies on a subsystem agricultural sector, traditional production methods, which are often accompanied by apathy towards the environment.

The cause of poverty is seen from an economic perspective. First, on a macro level, poverty arises because of unequal patterns of resource ownership that

cause unequal income distribution. The poor have only a limited number of resources and low quality. Second, poverty arises due to differences in the quality of human resources. The low quality of human resources means that the productivity is low, which in turn means that the wages are low. The low quality of human resources is due to low education, unfortunate fate, discrimination, or heredity. Third, poverty due to differences in capital. These three causes of poverty boil down to the vicious circle of poverty theory, the existence of underdevelopment, market imperfections, and lack of capital cause low productivity resulting in low income they receive. Low income will have implications for low savings and investment. Low investment results in underdevelopment and so on. The Relationship Between Inequality and Poverty (Sumarto in Kuncoro, 2006

as follows:

There is a very strong negative relationship between growth and poverty. This means that when the economy grows, poverty decreases; But when the economy contracted growth, poverty increased again.

Contemporary growth can reduce poverty. Therefore, sustainable growth is important to reduce poverty.

Although there is growth in the long term, it does not reduce poverty permanently. A large number of people remain vulnerable to poverty, therefore management of shocks and safety nets must be implemented.

Reducing inequality reduces poverty significantly. So it is very important to prevent growth that increases inequality.

Providing property rights and access to capital for the poor can reduce inequality, stimulate growth, and reduce poverty.

Hypothesis

A hypothesis is a provisional answer to the formulation

of a research problem where the formulation of the research problem has been stated in the form of a question sentence.

H0 = β = 0 : Regional Development Inequality does not have a significant effect to the Number of Poor People in West Papua Province.

Ha = β ≠ 0 : Inequality in Regional Development has a significant effect to the Number of Poor People in West Papua Province.

2. Research Method

The data analysis method of this study is in the form of panel data regression using the help of the Eviews 10.0 program. This analysis is used to examine the effect of regional development inequality on the number of poor people. The model approach used is as follows:The general form of the panel data regression equation model is as follows:

Yit = a + β Spray + εit ; i = 1.2, ... , N; t = 1.2,... , T

Information:

Yit = The number of poor people in the Province (Regency) in the yeari The time tot

a = Constant (Intercept)

β = Regression coefficient

Spray = Inequality in regional developmenti and the time tot

εless = Standard Error.

The type of data used in this study is panel data which is a combination of cross section data , namely data from 12 districts and 1 city in West Papua Province and time series data from 2010-2017 (8 years) so that the

number of observations is 104 observations. Time Series data is data that is collected and measured variable at a certain time. Data in the form of this Time Series can be in the form of daily, weekly, monthly, quarterly, semester, yearly, or other specific time periods in the same time range. The sample determination method used in this study is Nonprobability Sampling, which is a saturated sample. A saturated sample is that all members of the population are sampled or another term is census data (Sugiyono, 2016) as observation data. a total of 104 observation units from 12 districts and 1 city in West Papua Province, obtained from BPPS data of West Papua Province in 2010-2017

Regression Estimation With Panel Data

The regression model of panel data generally results in difficulties in the specification of the model. The residual will have three possibilities, namely residual time series, cross section, or a combination of both. In the estimation method, the panel data regression model can be done through three approaches (Hidayat, 2014).

A. **Common Effect Model (CEM)**

It is the simplest panel data model approach because it only combines data Time Series and cross section. In this model, neither the time nor individual dimensions are considered. This method can use the Ordinary Least Square (OLS) approach or the smallest squares technique to estimate the panel data model.

B. **Fixed Effect Model (FEM)**

This model assumes that differences between individuals can be accommodated from their intercept differences To estimate the panel data of the Fixed Effect model using a dummy variable technique to capture intercept differences between companies, intercept differences can occur due to differences in work culture, managerial, and incentives. However, the slop is the same between companies. This estimation model is often also referred to as the Least Squares Dummy Variable (LSDV).

C. **Random Effect Model (REM)**

This model will estimate panel data where the perturbation variables may be interrelated between time and between individuals. On the model Random Effect

Intercept differences are accommodated by error terms of each company. Advantages of using the model Random Effect namely eliminating heteroscedasticity. This model is also called Error Component Model (ECM) or engineering Generalized Least Square (GLS).

Selection of Panel Data Method

According to Winarno, (2007) in determining the method of processing panel data, a comparison was carried out Pooled Least Square (PLS) with the method of Fixed Effecct Model (FEM), if the results obtained are accepted with the PLS approach, the PLS method will be used to analyze, if the FEM approach model is accepted, it will be carried out again with the Approach model Random Effect model (REM) so that comparisons can be made. In testing the selection of panel data can be done with two tests, if from the second test the model to be used then there is no need to carry out further testing, to find out the model to be used, it is necessary to carry out tests including:

D. **Test Chow Test**

In this test, it can be used to find out the model to be used, whether in the test using the PLS or FEM method to be selected for data estimation. The hypothesis in this test is as follows:

H0 : Model Pooled Least Square/Common Effect

H1 : Model Fixed Effect

In this test, the value of probability is followed, where the value of probability will be compared with the real level of 10%. If the probability value ≤ 0.10, the H0 hypothesis is rejected (PLS rejected) and H1 accepted (FEM) is accepted. Conversely, if the probability value ≥ 0.10, H0 is accepted (PLS accepted) and H1 is rejected (FEM rejected).

E. **Uji Hausmann Test**

This test is carried out to determine whether the Fixed Effect or Random Effect model will be selected. This test is carried out with the following hypotheses:

H0 : Model Random Effect

H1 : Model Fixed Effect

The basis for the rejection of H0 is to use a comparison between the value of probability and the real level of 0.10. If the probability value ≤ 0.05, then H0 is rejected and H1 is accepted, meaning that the model to be chosen is the Fixed Effect model. On the other hand, if the probability value ≥ 0.10, then H1 is accepted and H0 is rejected, then the selected model is Random Effect.

F. **Uji LM Test (Langrange Multiplier)**

The LM test is used as a statistical consideration in choosing the Random Effect or Pooled Least Square model. The LM test is carried out with the following hypotheses:

H0 : Model Pooled Least Square

H1: Model Random Effect

In the rejection of H0 is by using a comparison, among others, the statistical LM value and the critical LM value, if the statistical LM value ≥ critical LM, then H0 is rejected so that the selected model is the REM model, on the other hand, if the statistical LM < critical LM, then H1 is accepted and H0 is rejected.

3. Result and Discussion

Univariate Analysis

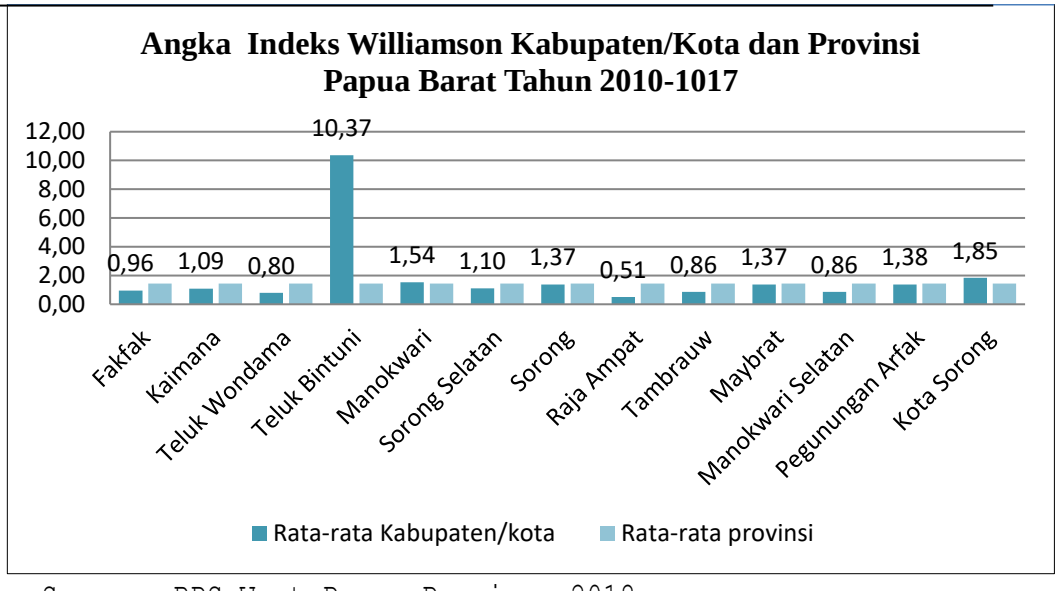
1. **Development Inequality Between Regions, Independent Variable (X)**

Development inequality between regions is a condition where there is a difference in the content of natural resources in underdeveloped areas and developed areas which will affect the level of community welfare between regions. In this study, inequality between regions is calculated using the Williamson Index. The basis of the calculation is using the GDP per Regency/City in relation to the number of population per Regency/City of West Papua Province in 2010-2017.

2. **Poor Population, Dependent Variable (Y)**

Based on (BPS) West Papua Province, the poor are residents whose per capita expenditure per month is below the Poverty Line (GK). GK consists of two components, namely the Food Poverty Line (GKM) and the Non-Food Poverty Line (GKBM).

Regional inequality in West Papua Province averages 1.45. This figure shows that inequality between districts/cities in West Papua Province is in the high category, in other words, there is a relative lack of equity in terms of per capita income. Regional inequality between districts/cities in West Papua Province from 2010 to 2017 fluctuated and decreased. It can be seen in Figure 5.2. below:



Source: BPS West Papua Province 2018

Figure 1. Average Development Inequality in Regencies/Cities and West Papua Province in 2010-1017

Inequality between regions in West Papua Province is actually in the high category when viewed from the average between 2010 and 2017, which is 1.45 or exceeds the number 1 which is a high category on the Williamson Index. Teluk Bintuni Regency has an inequality index of 11.18 in 2013 which exceeds the inequality of West Papua Province, while Raja Ampat Regency in 2014 has an inequality almost close to 0, which is 0.36 which is still classified as a low inequality category, which can be seen in appendix 10. When viewed from the average per capita income between districts/cities, it is indeed very different from the

average per capita income of West Papua Province, the per capita income of Arafak Mountains Regency and Tambraw Regency is the lowest compared to other regions such as Teluk Bintuni Regency which has the highest per capita income and is far adrift from the average per capita income of West Papua Province. Based on the population of Manokwari Regency and Sorong City having the most population, the inequality rate will be higher than other regions, as well as the increasing number of population will increase inequality in West Papua Province and vice versa, the decreasing population will reduce inequality. Teluk Bintuni Regency, has the highest regional per capita income in West Papua, and because the population is also dense, the inequality rate is large. South Manokwari Regency and Arfak Mountains Regency are new districts resulting from expansion, with relatively low inequality compared to other areas in West Papua, indicating that this area is organizing its regional development which is indeed relatively lagging behind other regions. This area is also still very minimal facilities and the welfare of the population is also relatively low.

Some of the main factors that cause inequality between regions according to Sjafrizal (2012) are:

1. **Differences in natural resource content**

The difference in natural resource content will affect production activities in the area concerned. Areas with high natural resource content will be able to produce certain goods at relatively low costs compared to other areas with lower natural resource content. This condition encourages the economic growth of the region concerned to be faster. Meanwhile, other areas with smaller natural resource content will only be able to produce goods with higher production costs so that their competitiveness becomes weak. This condition causes the area concerned to tend to have slower economic growth.

2. **Differences in demographic conditions**

Differences in demographic conditions include differences in rates and population structures, differences in education and health levels, differences in employment conditions and differences in behavior and habits as well as work ethic owned by the people of the area concerned. Demographic conditions will affect the work productivity of the local community. Areas with

good demographic conditions will tend to have higher work productivity so that this will encourage increased investment which will further increase the provision of jobs and economic growth in the area.

3. **Lack of smooth mobility of goods and services**
Mobility of goods and services includes trade activities between regions and migration, either government-sponsored (transmigration) or spontaneous migration. The reason is that if mobility is not smooth, the excess production of an area cannot be sold to other areas in need. As a result, development inequality between regions will tend to be high, so that underdeveloped areas find it difficult to encourage the development process.

4. **Concentration of regional economic activities**
Economic growth will tend to be faster in an area where the concentration of economic activities is quite large. This condition will further encourage the regional development process through increasing the provision of jobs and the level of community income.

5. **Allocation of development funds between regionsResults**
The regression model test used in this study will greatly determine the results of the analysis related to inequality to the number of poor people in West Papua Province with the help of EViews software 10. The regression equation model used in this study is as follows:

$$Yit = a + \beta\ Xit + \varepsilon it$$

Ket : Number of Poor People = a + β Inequality + εi

Panel data regression estimation with Common Effect
Common effect model is a panel data approach with this model is very simple where in this model it does not pay attention to individuals or time. This model simply combines data Time Series in the form of Pool, estimating using the smallest square/pooled least square.

Table 1. Panel Data Estimation Results with Common Effect Model

Dependent Variable: Y

Method: Panel Least Squares

Sample: 2011 2018
Periods included: 8
Cross-sections included: 13
Total panel (balanced) observations: 104

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.039971	0.209576	9.733778	0.0000
X	0.557348	0.183706	3.033914	0.0031

Based on Table 1. The regression results above show that the inequality variable (X) has a positive effect and significant to the number of poor people (Y).

Panel Data Regression Estimation with Fixced Effect
Fixced effect model is an approach that assumes there are different effects between individuals where the difference lies in the interception. The results of the analysis of labor absorption in 12 districts and 1 city in West Papua Province by assuming that the intercept is different between districts/cities while the slope remains the same between districts/cities. The results of the estimation are as follows:

Table 2. Panel Data Estimation Results with Fixced Effect Model

Dependent Variable: Y
Method: Panel Least Squares
Sample: 2011 2018
Periods included: 8
Cross-sections included: 13
Total panel (balanced) observations: 104

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4.542143	1.133238	4.008111	0.0001
X	-1.830162	1.080588	-1.693672	0.0938

From the results of the regression test above with the Fixced Effect approach , it shows that variable (X) has a negative and significant effect on the number of poor people (Y).

Panel Data Regression Estimation with Random Effect
Random effect model where in this model the specific effects of

each individual are treated as part of the error which is random and does not correlate with explanatory variables. Here are the results of the estimate random effect :

Table 3. Panel Data Estimation Results with Random Effect Model

Dependent Variable: Y
Method: Panel EGLS (Cross-section random effects)
Sample: 2011 2018
Periods included: 8
Cross-sections included: 13
Total panel (balanced) observations: 104
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.454715	0.518765	4.731845	0.0000
X	0.161610	0.447837	0.360868	0.7189

From the results of the regression test above with the approach random effect shows that variable (X) has a positive and insignificant effect on the number of poor people (Y).

Determination of Panel Data Estimation Model

The initial stage of panel data regression is to create an estimation model that will be used. There are three models in determining the estimation model that can be used for this research to be tested, namely the test Chowtest hausman, and test LagRange Multiplier (LM). Test Chow used to determine a better model between Fixced Effect or Common Effect. While the hausman test is used to determine a better model between Fixced Effect or random, and test LagRange Multiplier used to test whether random effect better than Common Effect.

a. **Chow Test**

If the probability value < 0.10, then the model suitable for estimating the panel data is Fixced Effect and vice versa, if the probability value > 0.10, it means that the right model for the panel data is a model Common Effect.

Table 4. Chow Test

Redundant Fixed Effects Tests
Equation: FEM
Test cross-section fixed effects

Effects Test	Statistics	D.F.	Prob.
Cross-section F	26.627609	(12,90)	0.0000

Cross-section Chi-square	157.581184	12	0.0000

Test result table Chow in table 4. indicates that Probability Cross-Section Chi-Square Being at 0.0000 means less than the significance level of 0.10. Then it can be decided that H0 is rejected and H1 is accepted so that the selected model is Fixced Effect Model.

b. Hausman Test

If the probability value Cross-section random < 0.10 then the right model is to use Fixced Effect and vice versa if > 0.10 then the correct model is to use random effect.

Table 5. Hausman Test

Correlated Random Effects - Hausman Test

Equation: REM
Test cross-section random effects

Test Summary		Chi-Sq. Statistics	Chi-Sq. D.F.	Prob.
Cross-section random		4.102060	1	0.0428
Cross-section random effects test comparisons:				
Variable	Fixed	Random	var(diff.)	Prob.
X	-1.830162	0.161610	0.967113	0.0428

Based on the results of the hausman test in Table 5. It is known that the value of probability cross-section random is as large as 0,0428 The result is smaller than the significance level of 0.10 so that the selected model is Fixced Effect Model. Because in the test Chow choose Fixced Effect and test hausman Selected Fixced Effect then there is no need to conduct tests anymore lagrange multiplier, and the best models are Fixced Effect which is used for modeling in the regression data panel.

Data Panel Test Interpretation

Table 6. Data Panel Test Intrusion

No.	Test Type	Intrepetation of Test Results
1.	Chow *Test*	calculates > f-table, then H0 is rejected, thus

		accepting the *fixced effect* model and rejecting *the common effect model*
2.	Hausman *Test*	*i-square statistic* < critical *chi-square*, then H0 is accepted, thus accepting the *random effect* model and rejecting *the fixced effect model*
3.	Lagrange Multiplier *Test*	*statistically* > LM is critical, so H0 is rejected so that it accepts *the random effect* model and rejects *the common effect* model.

From the results of the selection of research model criteria, which are shown in the Table. Showing a feasible and appropriate panel data method to be used in the study of the influence of development inequality on the number of poor people in Regencies/Cities of West Papua Province is a fixced effect model.

Panel Data Regression Model Estimation

Type Fixced Effect is a model that is selected after testing. The following are the results of the best model estimate:

Table 7. Estimated Results Fixced Effect

Dependent Variable: Y
Method: Panel Least Squares
Sample: 2011 2018
Periods included: 8
Cross-sections included: 13
Total panel (balanced) observations: 104

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4.542143	1.133238	4.008111	0.0001
X	-1.830162	1.080588	-1.693672	0.0938

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.798427	Mean dependent var	2.624086
Adjusted R-squared	0.769311	S.D. dependent var	0.877335
S.E. of regression	0.421385	Akaike info criterion	1.234111
Sum squared resid	15.98090	Schwarz criterion	1.590087
Log likelihood	-50.17379	Hannan-Quinn criter.	1.378328
F-statistic	27.42216	Durbin-Watson stat	0.611100

Prob(F-statistic)	0.000000

Based on Table 7, the results of the model estimation equation can be obtained, namely: Y = 4.542143 - 1.830162 X

By returning the LN model to the original data model as follows:

$$Y = 20.0855 + 0.1603 X$$

Based on the above equation, it can be seen that the inequality of regional development to the number of poor people is 0.1603 this number means that it has a positive and significant effect. This means that every increase in regional development inequality by 1% in the current year will result in an increase in the number of poor people by 0.16% in the next year, and vice versa, if regional development inequality decreases by 1% in the current year, it will cause the number of poor people to decrease by 0.16% in the following year.

The results of the test are that regional development inequality has a positive and significant influence on the number of poor people, meaning that if regional development inequality decreases, the number of poor people decreases, and vice versa. It can be assumed that development inequality affects the number of poor people but is not the main indicator in affecting the number of poor people but is influenced by other indicators. This research is also not in line with (Puti Andiny and Pipit Mandasari, 2017) that Poverty has no effect on inequality in Aceh Province.

The causes of economic and social disparities in West Papua Province include the limited distance between the quality of health services, education, and economic empowerment. The gap in the economy causes differences, especially the soaring prices of

basic necessities, for example, Sorong City is the center of economic activities which also absorbs resources from an area that functions as a supplier and fulfillment of the needs of basic foodstuffs as well as a place for the production of export commodities so that people in this region enjoy higher per capita income, lower poverty rates, and better quality of human resources. The potential for natural resources in West Papua is abundant, but several districts in this province are still underdeveloped areas.

The growth achieved by each region is not the same caused by several things such as the lack of resources owned; There is a tendency for investors to choose urban areas or areas that already have facilities such as transportation infrastructure, electricity networks, telecommunication networks, as well as skilled labor which then results in inequality between regions. In addition to the above factors, the causes of regional inequality include differences in the content of natural resources (SDA), differences in demographic conditions, lack of smooth mobility of goods and services, concentration of regional economic activities, allocation of development funds between districts/cities in West Papua Province. Regarding the factor of less smooth trade between provinces, it can be caused by inadequate infrastructure, besides that infrastructure factors also greatly affect the performance of foreign trade (export-import). Economic growth and regional inequality are a function of time in the early stages of development. The wide difference in development inequality between

regions has resulted in the number of poor people between regions. However, in the long term, when production factors in the regions are increasingly optimized in development, the difference in inequality between regions will tend to decrease. To deal with the number of poor people, it is necessary to reduce inequality, it is characterized by an increase in average per capita income in each region over time.

Inequality between regions in West Papua Province is relatively high, in other words, the level of per capita income between regions is not evenly distributed. However, what needs to be underlined is that the inequality occurs at low and high per capita income levels, so that the high inequality condition actually does not reflect the success of complete community development because there are areas where inequality is lower than other regions. The high per capita income and the number of poor people are relatively low, namely in Raja Ampat Regency, which can be seen in appendix 1. The picture of the number of poor people and inequality, where there is a decrease in the number of poor people, namely Fak-fak district, Wondama Bay, Bintuni Bay, Manowari, Raja Ampat while others such as Tambrauw, South Manokwari, Arfak Mountains, Sorong City have experienced an increase in the number of poor people, this is because the district is a new expansion district so that at the beginning of the year the inequality is still relatively low, but in the year it is along with the With the increase in population and per capita income, inequality occurs as well as the number of poor people, and for Kaimana Regency, Maybrat is classified as stagnant

or does not experience a drastic increase and decrease.

The average population of West Papua Province in 2011-2018 was 17.27. If viewed from the average of districts/cities, Manokwari Regency is 97.79, Sorong City is 38.98, Sorong 26.55, Teluk Bintuni 22.37, and Fak-Fak 20.70 can be seen in Appendix 11. This figure dominates the largest number of people compared to the poor population of other districts such as South Manokwari Regency, Tambrauw, Arfak Mountains, South Sorong where the district is a district that has new village expansion so that the number of poor people is less than that of the old district and has a larger population.

Poverty Alleviation Components

Poverty alleviation efforts according to Law Number 25 of 2000 concerning Perpenas are pursued through two main strategies. First, protecting families and community groups experiencing temporary poverty. Second, helping people who experience chronic poverty by empowering and preventing new poverty. The strategy is then outlined in 3 (three) programs that are directly directed at the poor, namely:

1) Provision of basic necessities.
2) Development of the Social Security System.
3) Development of Business Culture of the Poor.

The latest poverty alleviation policy in Indonesia is contained in Presidential Regulation Number 7 of 2005 concerning the National Medium-Term Development Plan, which states that poverty alleviation policies include: policies for the fulfillment of basic rights and regional development policies to support the

fulfillment of basic rights.

As long as government policies have not been able to overcome poverty, the poor have their own strategies to overcome poverty by: being in debt from various sources of informal loans, working odd jobs, working with wives and children, utilizing the natural resources around them, working outside the region, and saving money by reducing or changing the type of food and managing finances.

Poverty Alleviation Strategy/Policy

1. Human Resource Development

According to Arsyad (2015), Improving access to social service consumption (education, health and nutrition) is an important policy tool in the government's overall strategy to reduce poverty rates and improve the welfare of Indonesia's population. Expanding the scope and quality of these basic services requires investment in the capital. At the same time, these services are directly able to satisfy consumption for basic needs.

In Indonesia, or perhaps anywhere else, education (both formal and non-formal) can play an important role in reducing poverty in the long term, either indirectly, by training the poor with the skills needed to increase their productivity, which in turn will increase their income.

Government investment in public health is also one of the important policy tools to reduce poverty. There are three main actors underlying this policy. First, reducing the burden of direct suffering can satisfy the need for the consumption of basic goods which is also a very important social policy objective.

Second, improved health will increase the productivity of the poor, better health will increase the workforce, reduce non-working days and increase energy output. Third, the reduction of infant and child mortality rates also indirectly plays a role in reducing poverty, namely lowering fertility rates, lower mortality rates not only help parents to achieve the number of families they want, but also make them want smaller families.

Basic services, such as electricity and clean water, decent housing, good health facilities, and so on are also quite important for the poor. Without improving the access of the poor to these basic services, the effectiveness of every social service, such as education and health, can be disrupted. Although the main objectives are the same, the necessary government strategies and priorities differ between rural and urban areas, due to differences in institutional needs and frameworks. In rural areas, the most crucial need is clean water and sanitation. Other services are less crucial, because living conditions and housing in general are better. Urban areas need a broader program to provide basic services to meet the needs of their poor. Therefore, urban development policies are needed that can accommodate the increasing urban population, especially low-income groups, such as the provision of clean water, waste disposal management, village improvement programs, the provision of low-cost housing for the poor, and so on.

2. Agricultural and Rural Development

One reality that cannot be denied is that at the time of the

emergence of the New Order regime, about two-thirds of the population of Indonesia worked in the agricultural sector. But at the same time, Indonesia is recorded as one of the largest rice importing countries in the world. A reality that is able to carve out a bad image for development failure (especially in the agricultural sector) in this country that proclaims itself as "Agrarian Nation". This reality gives birth to a determination to prioritize economic development as a whole.

3. The role of Non-Governmental Organizations (NGOs)

NGOs can play a greater role in the design and implementation of poverty reduction programs. Because of their flexibility and knowledge of the communities they foster, these NGOs are in some ways able to reach the poor more effectively than the requester programs. Furthermore, the active involvement of these NGOs in government programs tends to increase the "acceptance" of rural communities to government programs and will ultimately increase community participation. The involvement of NGOs includes: (1) Non-Governmental Organizations (NGOs), (2) Non-Governmental Institutions (LPSM), (3) Other Social Organizations, and (4) Semi-governmental Organizations.

4. Conclusion

Using the Williamson Index method to measure regional development inequality in West Papua Province calculated during 2010-2017 is still classified as a high category, this is because the average value of the Williamson index per district/city is 1.85. And the lowest inequality occurred in Raja Ampat Regency at 0.36 in 2015. The

highest inequality was in Teluk Bintuni Regency in 2013 at 11.18. When viewed from the average Williamson Index of West Papua Province from 2010-2017 of 1.45. The district that dominates the highest inequality is in Teluk Bintuni Regency from 2010-2017, while the district that dominates the lowest inequality is in Raja Ampat Regency in 2010-2017.

Based on the regression equation of panel data with the fixced effect model , it can be seen that the effect of inequality on the number of poor people is 0.1603, this number means that it has a positive and significant effect, meaning that every increase in regional development inequality by 1% in the current year will result in an increase in the number of poor people by 0.16% in the next year and vice versa if inequality Regional development decreases by 1% in the current year, which will cause the number of poor people to decrease by 0.16% in the following year.

The West Papua Provincial Government as a decision-maker and policy maker to increase economic growth and, The government must mobilize economic sectors in the regions to contribute more to economic growth in West Papua Province, so that it can absorb labor. So that it can limit inequality in economic development in West Papua.

For the next researcher, it is expected to use a longer period and the latest research year and add a number of variables such as inequality in income distribution, population growth in order to obtain better results.

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