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Determinants of Poverty in West Java Province After the Regional Expansion of Pangandaran District

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Abstract: This research aims to analyze the influence of Human Development Index, population growth, and Gross Regional Domestic Product on poverty level in 27 districts/cities in West Java Province. The panel data obtain from Statistics Indonesia, consists of time series data is taken from 2015 to 2018, and cross-section data includes 27 districts/cities in West Java Province. The estimator of this research is using multiple linear regressions (Ordinary Least Squares) with fixed-effect model. The results show that Human Development Index, population growth and Gross Regional Domestic Product have negative and significant effect on the poverty level in West Java Province after regional expansion of Pangandran district.

Keywords: Poverty level; Human Development Index; Population growth; Gross Regional Domestic Product.

Introduction

A very serious problem to be handled by each country in the world is the problem of poverty. The dimension of poverty are very broad, therefore, it is possible for people to face the problem of poverty. Poverty generally occurs in developing countries and third world countries or Least-Developed Countries (LDCs). The cause of poverty in Indonesia is not only from income disability, but has also, from social and political powerlessness (Suryawati, 2005). Indonesia is a developing country that has complex social problems. The issue in poverty still draw a heat debate in the last decade in international and national level. One of the many strategies to alleviate poverty is to build human resources (HR). Improving access to the consumption of social services (education, health, and nutrition) is one of many ways to develop human resources. It can be done by government strategy to reduce poverty and improve welfare. Human Development Index (HDI) is the measure of human development, which is a composite index to measure the achievement of the quality of human development (Subandi, 2012). Poverty reduction is synonymous with human development in Indonesia. Investments in education and health care will be more meaningful to the poor than non-poor since the main assets of the poor were abused. One of many ways to increase the productivity of human resources is the availability of cheap educational and health facilities, and in turn, will increase revenue. Thus it can be said that human development has not been optimally done because it only focuses on reducing poverty (Ginting, 2008). In this case, it explains that,

social development is a development approach explicitly trying to integrate the process of economic and social development. Without economic development, social development can't work well, while economic development is meaningless unless followed by increasing the social welfare of the population as a whole. A prerequisite for the achievement of human development is the meaning of economic development or more precisely economic growth because with the assured economic development increased productivity and increased income through job creation. Relatively, the high level of human development can affect the performance of economic growth through population capability and the consequence is the increase in people's productivity and creativity (Subandi, 2012).

Population growth is one of many variables that can affect poverty. Population growth affects poverty in three ways. First, rapid population growth is can be to reduce per capita income growth and well-being, which tends to increase poverty. Second, in densely populated poor nations with pressure on land, rapid population growth increases landlessness and hence the poverty arises. Finally, the effects of rapid population growth on child health, and possibly on education, will likely increase poverty in the next generation.

According to Statistics Indonesia (BPS), GRDP is the amount of added value generated by all business units in an area, or it is the total value of final goods and services produced by all economic units in a region. Thus, when the total GDRP is in a small amount then poverty will be increasing as time goes by. Therefore, the GRDP can be used as a reference for given prosperity reached by residents of a country. According to Hudiyanto (2015), to overcome the problem of poverty in a district, it cannot be separated from how to increase GRDP (Gross Regional Domestic Product) which will ultimately have an impact on increasing the income of the community itself, education problems, health levels, the rate of population growth in an area because all of that affects poverty. Poverty is always associated with people who are not able to provide their lives properly but also related to the imbalance between the high-income population and low-income population. According to Sukirno (2000), the rate of economic growth is an increase in GRDP regardless of whether the increase is greater or smaller. Furthermore, development economic isn't solely measured by the growth of gross regional domestic product (GRDP) as a whole, but must pay attention to the extent to which the distribution of income has spread to the strata of society and who has enjoyed the results. The poverty condition in Indonesia is indicated in Figure 1.

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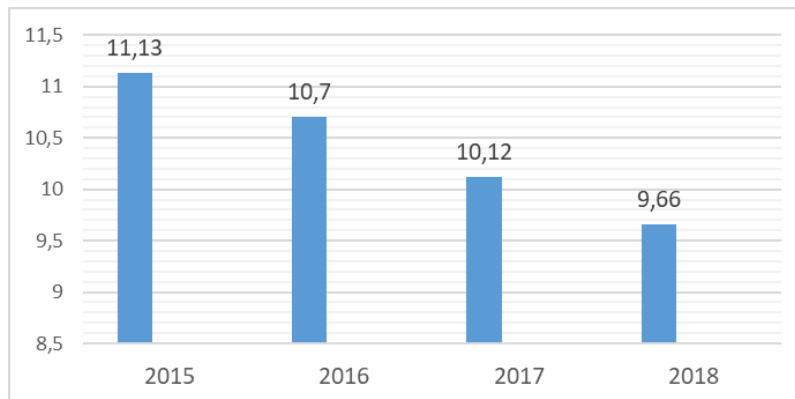


Figure 1 Percentage of Poverty in Indonesia Period 2015-2018
Source: Statistics Indonesia Tahun 2015-2018

As can be seen in Figure 1, it can be concluded that, poverty conditions in Indonesia decreases. It has been recorded that, in 2015, poverty in Indonesia was 11.13%, then in 2016 it decreases to 10.70%, in the next year, in 2017 poverty continue to decrease to 10.12%. Furthermore, in 2018, poverty in Indonesia become only 1 digit at about 9.66%. The decreasing trend is a good performance for Indonesia's poverty rate. Nevertheless, the ratio of the decline is quite small, since from year to year, the decline reach less than 1%.

There are several provinces that contribute to the high poverty rate in Indonesia. One of provinces is West Java. Therefore, West Java Province is preferred as the research observation. From 2015 until 2019, West Java province is the third most populous province in Indonesia under East Java and Central Java. Even though the population number is quite large, but by looking at statistics to other provinces in Indonesia, the province of West Java is able to withstand the social symptoms of poverty with decreasing trend of poverty level each year. However, the decline of poverty rate is still not reach the target of 2015-2018 Medium-Term Regional Development Plan (RPJMD).

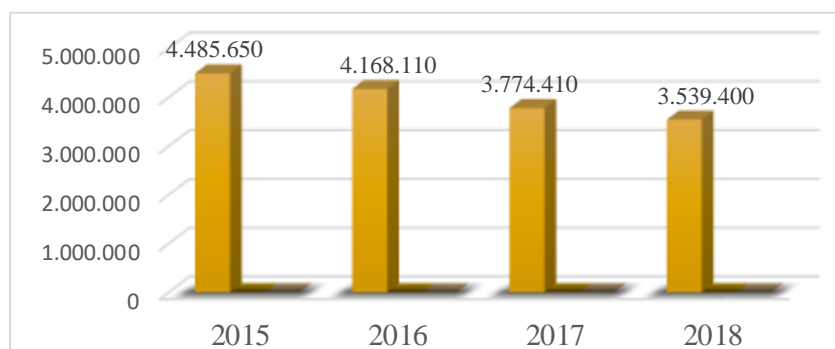


Figure 2 The Number of Poor People in West Java Province Period 2015-2018
Source: Statistics Indonesia-West Java 2016-2019

From Figure 2, it can be seen that poverty in West Java in the period 2015 to 2018 tends to decrease. Even though in 2015, the poor people increase to 4,485,650 people. Conversely, in 2016 the poor people in the West Java Province decreases to 4,168,110 people, and continue to decrease in 2017 and 2018 to 3,774,410 people and 3,539,400 people respectively.

Table 1 Percentage of Poverty and Target of RPJMD West Java Period 2015-2018

Tahun	2015	2016	2017	2018
Persentase kemiskinan	9,57%	8,77%	7,83%	7,45%
Target RPJMD	6,8% -5,9%	5,9% -5%	7,97%	7,17%

Source: Final draft of the West Java RPJMD 2018-2023

From Table 1, the percentage of poverty rate in the province of West Java experienced a fluctuating situation in 2015 to 2018. Note that, in 2015, the poverty rate in the province of West Java was 9.57%, then in 2016, 2017 and 2018 there was a continuous decline 8.77%, 7.83% and 7.45% respectively. Not all of these poverty percentages reached the RPJMD target, it was recorded that only in 2017 it reached the target. Therefore, this issue become a big project for the regional government of West Java province.

Understanding the problems in poverty that exist in Indonesia, it is not only about the economic situation and welfare, but also needs to pay attention to the local issue in each region, that is, poverty at the local level, that has been determined by the local government. West Java Province consists of 19 Regencies and 8 Cities. This change in the number of autonomous regions has a very long process and history, the most recent being at the end of 2012. Pangandaran Regency is a division of Ciamis Regency. Then the Pangandaran Regency become an autonomous region and was officially opened on 25 October 2012, but Pangandaran Regency only had a regent in 2016.

The benchmark of human development is used in Indonesia is Human Development Index (HDI), which is a valuation of several aspects such as the level of education, health and living standard. HDI can indicate the heterogeneity of each individual, the level of human livelihood is not necessarily represented by the level of income alone, but the social conditions of society become an important series in development and liberation of society from poverty both short-term and long-term influence (Todaro and Smith, 2006). In addition to HDI, population growth is an important indicator of development evaluation. The population growth is a dynamic balance between forces that increase and forces that reduce the population. Problems will arise when a very large population will increase competition in the world of work. If the competitiveness of the people in West Java Province is low, then this will become a very dangerous social problem and if not anticipated by the local government. This issue will cause the impact of community buildup, which will result unfavorable economic turmoil if not balanced with a decent quality of life. To overcome the problem of poverty, there is a strategy that could not be separated from the strategy on how to increase Gross Domestic Product (GDP) which will ultimately have an impact to increase the income of the community itself, to solve the education problems, and to increase the health levels, the rate of population growth

in an area because all of that affects poverty. Poverty is always associated with people who are not able to provide their lives properly, but also related to the imbalance between high-income residents and low-income populations (Hudiyanto, 2015).

The three variables above have been used in several previous studies, such as those examined by Pratama (2014) which uses the HDI (Human Development Index) variable. Results indicate that, HDI has a negative and significant effect on poverty in Indonesia, inflation has a negative and not significant effect on poverty in Indonesia, consumption has a negative and significant effect on poverty in Indonesia, education has a positive and significant effect on poverty in Indonesia, also, per capita income has a positive and insignificant effect on poverty in Indonesia. Population growth has effect on poverty, this research is conducted by Masunah (2013). Results show that, population growth and education level have negative and significant effect on poverty, unemployment has a positive and significant effect on poverty in the province of East Java. Girsang et al (2015) investigate how GRDP variable (Gross Regional Domestic Product) effect on poverty. The results of this study indicate that, GRDP has a negative and significant effect on poverty. Besides, the level of education, the unemployment rate and the employment opportunities have positive and significant effect on poverty level in Riau Province.

Based on the background that has been stated, the authors are interested in finding out and analyzing further through a study of determinants that affect poverty in the West Java Province after regional expansion of Pangandaran Regency in 2015-2018.

Literature Review and Hypothesis Development

Poverty

Poverty is a condition of life that is completely lacking experienced by a person or household so that he is unable to meet the minimum or decent needs for his life. The minimum basic needs referred to are those related to food, clothing, housing and social needs needed by residents or households to fulfill their needs properly (Ritonga, 2003). In a broad sense that poverty is an integrated concept that has five dimensions, such as poverty, powerlessness, vulnerability to deal with an emergency situation (dependency), dependency, isolation both geographically and sociologically (Suryawati, 2005).

Human needs are very diverse, which are multidimensional, aspects of poverty when viewed through the terms of public policy there are 2 aspects, such as [1] Aspects of primary poverty, such as poor assets, insights, skills, and organization in the social and political fields; [2] Aspects of secondary poverty, such as poor social, financial and information networks. Based on the condition of poverty which is seen as a form of multidimensional problems, poverty has four forms. The four forms of poverty are (Suryawati, 2005): [1] **Absolute Poverty** is a condition where a person or group of people who have income below the poverty line that causes them unable to meet the needs of their standard of living such as the needs of clothing, food, shelter, health, and

education that will be needed to improve their quality of life to get a job; [2] **Cultural Poverty** is a condition in which poverty occurs because of the consequences of the attitude of a person or society caused by cultural factors or customs, and in general they do not have the will to improve or improve their standard of living with more modern procedures; [3] **Relative Poverty**; [4] **Relative Poverty** is a condition where poverty occurs due to the imperfect effects of development policies in the community, because it has not reached all levels of society, which causes inequality in welfare standards or inequality in income; [5] **Structural Poverty** is a condition in which this poverty occurs because of the low access to resources which usually occurs in a social political and socio-cultural structure that is less supportive of the liberation of poverty.

Human Development Index

United Nations Development Programme (UNDP) in 1990 introduced the concept of human development (human development) as a new model development paradigm. Expanding choices for humans, which can be seen from the effort towards the expansion of choices, and as the level achieved in these efforts. Human development can also be interpreted as the development of human capabilities by improving health, knowledge, and skills as well as the utilization of human capabilities themselves.

To measure the health dimension, life expectancy is used, then to measure the dimension of knowledge, a combination of literacy indicators and average length of schooling is used, while to measure life dimensions, it is appropriate to use purchasing power indicators (Winarti and Purwanti 2014).

1. Level of Education

In measuring the educational dimensions of the population using two indicators, namely the average length of schooling and literacy rates. The process of counting the two indicators is combined after each one is given a weight. The average length of schooling is rated one third and literacy rates are rated two thirds. After the literacy rate is obtained and the average length of school is adjusted so that the two grades are on the same scale between 0-1, after the two values are adjusted then put together to get an education index with a weight ratio of 2 for literacy and 1 for average old school according to what has been determined by UNDP. Can be formulated as follows:

$$IP = \frac{2}{3} \text{ Indeks Lit} + \frac{1}{3} \text{ Indeks MYS}$$

2. Life expectancy

Life Expectancy is an index used to measure the number of years of life that are expected to be enjoyed by residents in a particular area, by using information on birth rates and deaths per year. Life expectancy can be calculated using an indirect approach (Brass, Trussel Variant), in the calculation of life expectancy there are two types of data used namely children born alive and children still alive from women who are married.

3. Decent standard of living

Other dimensions of human quality of life are decent living standards, decent aspects of life are measured by people's purchasing power, UNDP uses adjusted real Gross Domestic Product (GRDP). The adjusted per capita expenditure will be determined from the value of expenditure per capita and purchasing power parity (PPP).

Population Growth

Population growth is a process of changing the number of population and its composition which is influenced by three elements of demographic components, namely fertility, mortality, and migration (Mulyadi, 2003). The formula for calculating population growth from year to year is as follows:

$$\text{Pertumbuhan Penduduk} = \frac{P_n - (P_{n-1})}{P_{n-1}} \times 100\%$$

Note:

P_n = Current population

$P_n - 1$ = Total population of the previous year

Population growth is caused by 3 components, namely:

1. Fertility

Fertility is a demographic term that is interpreted as a real reproduction of a woman or a group of women, in other words this fertility is a description of the number of live births in a region at a certain time period.

2. Mortality

Mortality, also known as death, is one of the three demographic components that can affect population changes. In this case the high and low mortality rates in one region with other regions of course different, mortality (death) circumstances disappearing the signs of life permanently, and can occur at any time after live birth.

3. Migration

Migration is the process of moving people from one place to another that crosses certain boundaries. Migration itself is a form of response from the population to improve decent living standards and welfare of their lives, residents migrate from rural to urban areas due to more jobs in urban areas.

Gross Regional Domestic Product (GRDP)

According to Badan Pusat Statistik, Gross Regional Domestic Product (GRDP) is the final total amount of goods and services produced by all economic business units in a region /

region or can be interpreted as the amount of added value sourced from the results of all business units in an area. GRDP at constant prices is a value added from goods and services that are usually calculated using prices in a certain year as the base year, in this calculation commonly used as a base year 2000.

There are three approaches or ways to calculate GRDP, namely the income, production and expenditure approaches, among others as follows:

1. Revenue Approach

In this approach it is explained that the GRDP is a reward received by factors of production that contribute to the production process in a region in a certain time. What is meant by compensation is in the form of salary or wages, capital interest, house rent, and profits (before deducting direct taxes and income tax).

2. Production Approach

GRDP is the total value added of goods and services derived from the results of various production units in a region within a certain time period. The production unit is divided into nine types of business fields, namely as follows: a) animal husbandry, fisheries, forestry, and agriculture, b) excavation and mining, c) processing industry, d) electricity, clean water, and gas, e) construction, f) restaurants, commerce and hotels, g) communications and transportation, h) real estate, finance and corporate services, i) services.

3. Expenditure Approach

Gross Regional Domestic Product is all part of the final demand consisting of: a) expenditure of all non-profit private household and household consumption, b) government consumption, c) gross domestic fixed capital formation, d) changes in inventory, and e) net exports.

Research Framework

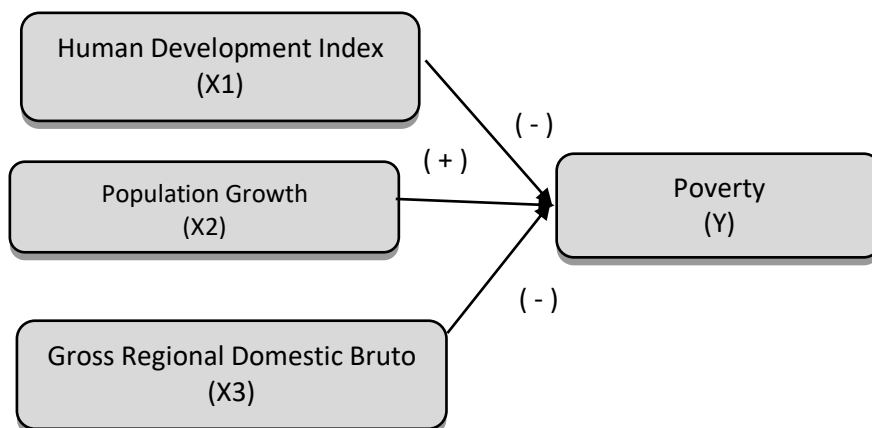


Figure 1. Research Framework

Research Method

This study discusses what factors influence poverty. The object of this research is all regencies / cities in West Java province, consisting of 18 regencies and 9 cities. The subject in this study the dependent variable is poverty and the independent variable consists of three variables, namely the Human Development Index (in percentage), population growth (in percentage) and Gross Regional Domestic Product (in rupiah).

This study uses quantitative analysis and secondary data in the form of time series data and cross sections in the form of annual data for the period of 2015 to 2018. The data in this study were obtained from several main sources such as Statistics Indonesia (BPS) of West Java and all Statistics Indonesia (BPS) of 27 Regencies and Cities in West Java, Pusdalisbang (Data Development and Analysis Center) West Java, and other related sources.

According to Basuki and Yuliadi (2017) said that, heteroscedasticity is a state in which when the regression model is said to be affected by heteroscedasticity in the event of an unequal variance in the residual from one observation to another. If the variant from the residual and observer to the other observer is fixed, then homoscedasticity is called. If different variants are called heteroscedasticity. Multicollinearity is a condition in which one or more independent variables can be called a colliner combination of other variables. This test is shown to find out whether the models in the regression found a correlation between independent variables, if there is a correlation means the data have multicollinearity problems.

According to Basuki and Yuliadi (2017) the estimation method of regression models with panel data can be done through three approaches, namely the Pooled Least Square model (Common Effect Model), is the simplest regression technique for estimating panel data by simply combining time series data with data cross section. Fixed Effect Model is a model that can estimate estimates can be done with no weighting or LSDV (Least Square Dummy Variable) and with a weighting (cross section weight) or General Least Square. The purpose of weighting is to reduce heterogeneity between cross section units (Gujarati, 2012). The use of this model is appropriate to see the data behavior of each variable so that it is more dynamic in interpreting the data. Finally, there is the Random Effect Model. In the use of this random model, it will provide the use of degrees of freedom a little does not reduce the amount as is done in the fixed effects model. This has implications for the parameters which are the estimation results will be more efficient.

Basuki and Yuliadi (2017) contend that, to determine the most appropriate model used in processing panel data there are several tests conducted, first there is a chow test, which is a test conducted to determine the Fixed Effect or Random Effect model that is most appropriate to be used in estimating data panel. Finally there is the Hausman test, which is a statistical test to choose whether the Fixed Effect or Random Effect model is the most appropriate to use.

The statistical test used is the Determination Coefficient Test (R^2). In the essence, this test measures how far the model's ability to explain the variation of independent variables in measuring the goodness of a model (Goodness of Fit). The coefficient of determination between 0 and 1 ($0 < R^2 < 1$), a small R^2 value means that the ability of the independent variables in explaining the variation of the independent variable is very limited. Next Test F. Decision making in the F test is done by comparing the probability of the effect of the independent variables simultaneously between the dependent variable with the alpha value (α) used. If the probability of the independent variable $>$ alpha then the hypothesis H_0 is accepted, meaning that the independent variable simultaneously does not significantly affect the dependent variable or vice versa. Finally there is the t-statistic test. This test is conducted to see the significance of the influence of the independent variables individually on the dependent variable by considering other independent variables are constant (Basuki and Yuliadi, 2017). If the probability of the independent variable $>$ alpha then the hypothesis H_0 is accepted, meaning that the independent variable partially does not significantly affect the dependent variable. If the probability of the independent variable is $<$ α , then the H_0 hypothesis is partially rejected or accepts H_1 , meaning that the independent variable partially influences the dependent variable, or vice versa.

Result and Discussion

Result

1. Data Quality Test

Table 2 Heteroscedasticity Test

Variable	Coefficient	Std Error	t-Statistic	Prob.
C	-0.215323	1.072889	-0.200695	0.8415
IPM	0.003447	0.003683	0.935985	0.3522
LOG(POP)	0.013776	0.028697	0.480059	0.6325
LOG(PDRB)	-0.000856	0.039392	-0.021733	0.9827

Source: Data processing results Eviews 7

Note: Significant at level * = 10%; ** = 5%; *** = 1%

From Table 2, it is known that the probability value on the Human Development Index variable is 0.3522, the Population Growth variable is 0.6325, the Gross Regional Domestic Product variable is 0.9827 which means that, all the independent variables are more than α , it can be concluded that this model does not contain heteroscedasticity.

Table 3 Multicollinearity Test

	IPM	POP	PDRB
IPM	1.000000	0.493645	0.266351
POP	0.493645	1.000000	0.510034
PDRB	0.266351	0.510034	1.000000

Source: Data processing results Eviews 7

From the table, it can be seen that the correlation coefficient between independent variables is below 0.85, so the data in this study do not occur multicollinearity problems.

2. Panel Data Model Analysis

Table 4

Dependent Variable	Model		
	Common Effect	Fixed Effect	Random Effect
Poverty			
Constant (C)	-2.11322	30.97218***	6.246597***
Standard Error	(1.548679)	(4.962402)	(1.951874)
Human Development Index	-0.10657***	-0.085436***	-0.12467***
Standard Error	(0.009087)	(0.017067)	(0.009341)
Population Growth	-0.0198	-0.2854**	0.100869
Standard Error	(0.05403)	(0.133425)	(0.062081)
Gross Regional Domestic Product	0.68429***	-0.42005**	0.451513***
Standard Error	(0.045454)	(0.182125)	(0.074596)
R ²	0.789783	0.997954	0.689735
F-Statistic	130.242	1311.615	77.06577
Prob (F-Stat)	0.0000***	0.0000***	0.0000***
Durbin-Watson Stat	0.042762	2.460479	1.90374

Source: Author Estimation Significant at level * = 10%; ** = 5%; *** = 1%

To find out which model will be used, a data specification test will be conducted to find out which model is more appropriate to use.

3. Test Data Specifications

Chow test is a test to determine the fixed effect or common effect model that is most appropriate to be used in estimating panel data. The hypotheses in the chow test are:

H₀: common effect model or pooled OLS

H₁: fixed effect model

Table 5 Chow Test

Effects Test	Statistic	d,f,	Prob.
Cross-section F	305.171942	(26.78)	0.0000***
Cross-section Chi-square	500.260924	26	0.0000***

Source: Author Estimation

Significant at level * = 10%; ** = 5%; *** = 1%

Based on the results of the redundant fixed effect test for this model, the F probability value is 0.0000 (α), so H₀ is rejected and H₁ is accepted, the corresponding model of this result is the fixed effect model.

Hausman test is a test to determine the fixed effect or random effect model that is most appropriate to be used in estimating panel data. The hypotheses in the hausman test are:

H₀: random effect model

H₁: fixed effect model

Table 6 Hausman Test

Test Summary	Chi-Sq, Statistic	Chi-Sq, d.f.	Prob.
Cross-section random	32.18052	3	0.0000***

Source: Author Estimation

Significant at level * = 10%; ** = 5%; *** = 1%

Based on the results of the Hausman test showed a significance value of 0.0000 ($<\alpha$), then H₀ was rejected and H₁ was accepted, the corresponding model of this result is the fixed effect model.

Based on the model specification tests that have been done, the regression model used is a fixed effect model.

Table 7 Fixed Effect Model Estimation

Dependent Variable:	Model
Poverty	Fixed Effect
Constant (C)	30.97218***
Standard Error	(4.962402)
Human Development Index	-0.085436***
Standard Error	0.017067
Population Growth	-0.28541**
Standard Error	0.13343
Gross Regional Domestic Product	-0.42005**
Standard Error	0.182125
R ²	0.997954
F-Statistic	1311.615***
Prob (F-Stat)	0.0000***
Durbin-Watson Stat	2.460479

Source: Author Estimation

Significant at level * = 10%; ** = 5%; *** = 1%

4. Statistics Test

a. Coefficient of Determination (R²).

The coefficient of determination of 0.997954 is positive, this shows that 99.7% of the variation in poverty can be explained by the variables Human Development Index,

Population Growth and Gross Regional Domestic Product. While the remaining 0.3% is explained by other variables outside the model.

b. F-test.

From the results of the regression analysis the significance probability value from Fstatistik is 0.0000. Because the probability of the significance of F-statistics $< \alpha$ H_0 is rejected and H_1 is accepted, meaning that the Human Development Index, Population Growth and Gross Regional Domestic Product simultaneously or jointly have a significant effect on poverty

c. t-test.

To find out the effect of each variable on the dependent variable can be explained below:

Table 8 t-test Result

Variabel	Regression coefficient	t-statistik	Prob.
Human Development Index	-0.085436	-5.20455	0.0000***
Population Growth	-0.2854	0.133425	0.0356**
Gross Regional Domestic Bruto	-0.42005	0.182125	0.0237**

Source: Author Estimation

Significant at level * = 10%; ** = 5%; *** = 1%

From the table shows that each independent variable gives a different effect on the dependent variable:

a. Effect of Human Development Index on Poverty

The variable value of the Human Development Index variable is 0.0000. Because the probability value of the Human Development Index $< \alpha$ then H_0 is accepted and H_1 is rejected so that the Human Development Index variable significantly influences poverty, thus the hypothesis is accepted.

b. Effect of Population Growth on Poverty

The probability value of the variable Population Growth is 0.0356. Because the probability value of Population Growth $< \alpha$, H_0 is accepted and H_1 is rejected so that the Population Growth variable has a significant effect on Poverty. Thus the hypothesis is accepted.

c. Effect of Gross Regional Domestic Product on Poverty

The GRDP variable probability value is 0.0237. Because the GRDP probability value $< \alpha$, then H_0 is accepted and H_1 is rejected so that the GRDP variable significantly influences poverty. Thus the hypothesis is accepted.

From the estimation results on the fixed effect model, the regression coefficient values for each variable in the study are obtained with the following equation:

$$\log[\text{POV}] = 30.97218 - 0.085436 [\text{IPM}] - 0.285400[\text{POP}] - 0.420052 \log[\text{PDRB}] + \text{et}$$

Interpretation of regression results of the influence of Human Development Index, Population growth and Gross Regional Domestic Product on poverty in West Java's Districts/Cities after the division of Pangandaran District in 2015 - 2018 are as follows:

1. Effect of Human Development Index on Poverty

Based on the results of the data processed in this study, the HDI variable showed a significant negative result on poverty by -0.085436, which means that if there is an increase in HDI 1% it will decrease by -0.085436 % in West Java Province in 2015- 2018, assuming there is no change in the number of independent variables. These results are in accordance with the research hypothesis. The results of this study are consistent with Pratama's research (2014), where the results of the study show that when the Human Development Index increases by 1% it will reduce the poverty rate to 1.071%. Other suitable research results are Zuhdiyaty and Kaluge (2017), where the results of the study show that when the Human Development Index increases by 1% it will reduce the poverty rate by 0.28%. Other suitable research is Kristianto and Ichtiarto (2015), the results of the study indicate that when the Human Development Index increases by 1% it will reduce the level of monetary poverty by 2.69%.

2. Effect of Population Growth on Poverty

Population Growth variable shows negative and significant results on poverty of -0.2854, which means that if an increase in population growth of 1% will reduce poverty by 0.2854% assuming there is no change in the number of independent variables in the province of West Java in the year 2015-2018. So with this result, the hypothesis is rejected. The population growth in West Java Province in 2015-2018 has a negative influence on existing poverty. This is because in the study year, the population in West Java Province was dominated by the population of productive age and TPAK (Labor Force Participation Rate) which was relatively high. Recorded in 2015 to 2017, the increase in the number of productive age population is always accompanied by an increase in TPAK, only in 2018 there was a decrease in the TPAK by 0.42%. But overall the TPAK in West Java stands at 60%. This means that out of 100 population of productive age there are 60 residents who are actively involved in the labor market with status of work, finding workers or preparing a business. The birth rate in West Java Province has steadily decreased in 2015-2018. This is inseparable from the success of the *Kampung KB* (Family Planning Village) program in West Java. With a total number of 1,300 *Kampung KB* in 2018, West Java Province is one example of the success of the *Kampung KB* program in Indonesia, bearing in mind that, this program has just been announced. This result is in accordance with the research of Agustina et al. (2018), if the population growth increased by 1% it would reduce poverty by 1.006%. Another suitable

study is the study of Silastri et al (2017), when population growth increase by 1% it will reduce poverty by 0.046%.

3. Effect of Gross Regional Domestic Product on Poverty

The GRDP variable (Gross Regional Domestic Product) shows a negative and significant result on poverty by -0.420052 which means that if an increase in GRDP of 1% will reduce poverty by 0.420052% assuming there is no change in the number of independent variables in West Java in 2015-2018. These results are in accordance with previous theories and research from Suliswanto (2010), he contends that, each increase in GDP by 1% it will reduce poverty by 0.011%. In addition, Puspita research (2015), find that, when the GRDP variable increases by 1%, it will reduce poverty by 0.01%. Moreover, Jufriadi (2015) said that, if the GRDP variable increases by 1% it will reduce poverty by 1.231%. Furthermore, another study that in line with the result is conducted by Wati and Sadjarto (2019), the result show that, if the GRDP increases by 1%, it will reduce poverty by 0.268%.

Conclusion

Based on the results of research that has been done, the following conclusions can be drawn as follow: [1] the result show that, Human Development Index has a negative and significant effect on poverty levels in West Java Province after regional expansion in 2015-2018. This is consistent with the hypothesis proposed that the Human Development Index has a negative effect on poverty levels; [2] population growth has a negative and significant effect on poverty in West Java Province after regional expansion in 2015-2018. This is not in accordance with the hypothesis proposed that the population growth has a positive effect on poverty levels; [3] GRDP has a negative effect on poverty in West Java Province after regional expansion in 2015-2018. These results are consistent with the hypothesis proposed that GRDP has a negative effect on poverty levels.

Based on the research results and conclusions obtained, the research give some policy recommendation, as follow; (1) The regional government is expected to design a sustainable program, therefore, it can spur the increase in HDI values given the level of HDI in West Java Province has not reached the target in accordance with the 2015-2018 Medium-Term Regional Development Plan (RPJMD). (2) Employment opportunities must be increased and evenly distributed in each region, so as to reduce unemployment which will later reduce poverty in the province of West Java. In addition, the Kampung KB (Family Planning Village) program during the research period was a success. Noted that, in 2018 there are about 1,300 villages that have participated in the Kampung KB program, this program have to be improved by the regional government of West Java Province. (3) Public and private sector have to create new job, therefore, it can reduce unemployment, also, the Indonesian government should grant the equitable income distribution and provide social security system for people who cannot work such as

pensioner and elderly, also people people who are participating in the workforce, but have not get job yet.

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