SINOMICS JOURNAL
International Journal of Social Science, Education, Communication and Economics
ISSN (e): 2829-7350 | ISSN(p): 2963-9441

The Influence of Wages, Human Development Index, And Gross Regional Domestic Product on Poverty in Provinces in Indonesia

Andika Pratama[1], Arivina Ratih[2]
University of Lampung, Indonesia
E-mail: andikapratama152000@gmail.com[1], arivinaratih@gmail.com[2]

Abstract

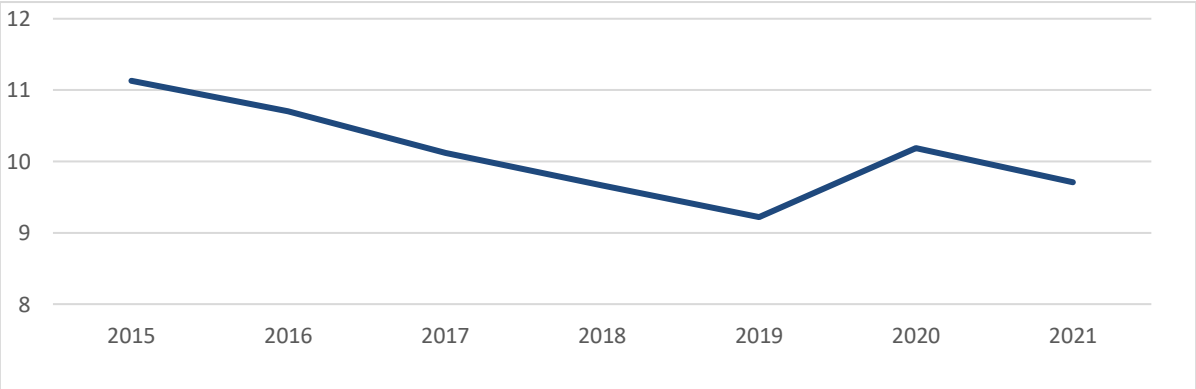
The main goal of this study is to ascertain how poverty is affected in 16 Indonesian provinces by which is the Human Development Index, gross regional product, and minimum salaries in each province. Multiple linear regression analysis is the method utilized for analysis. The Fixed Effect Model is the estimate technique used for panel regression models. The analysis's findings demonstrate that the provincial minimum wage has no discernible impact on poverty, indicating that raising the minimum wage does not always translate into more prosperity or a decline in poverty. In the meantime, poverty is negatively impacted by both the Human Development Index and the Gross Regional Domestic Product, which means that poverty is significantly negatively impacted by both the HDI and GRDP.

Keywords *Provincial Minimum Wage, Human Development Index, Gross Regional Bruto Domestic Product*

INTRODUCTION

Poverty is a widespread problem, especially in underdeveloped nations Poverty is the limited amount of food, access and quality of health services and the low quality of education services, employment and business opportunities, limited housing and sanitation facilities. High population burden due to low trust in ownership and control of clean water and land, environmental and natural resource degradation, poor security guarantees, low participation and heavy family responsibilities (Suhandi et al., 2018). In all developing countries, including Indonesia, poverty is still a social problem. Indonesia is one among the developing nations that is grappling with the problem of poverty. Poverty poses diverse and complex challenges. Therefore, initiatives aimed at reducing poverty must be implemented in an integrated manner and cover various aspects of society. (Nasir, 2008).

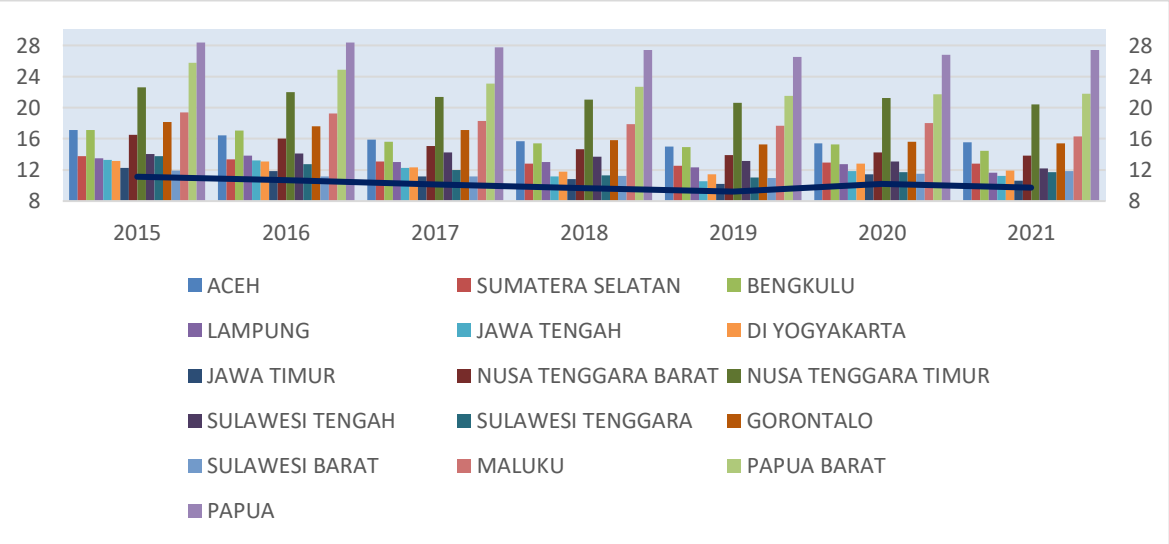
Figure 1 Percentage of Poor Population (P0) in Indonesia for the 2015-2021 Period



Source: Central Statistics Agency (BPS)

Based on the picture above, the issue of destitution continues to be a challenge facing Indonesia. According to data from the Central Statistics Agency (BPS), the proportion of the Indonesian population living in poverty has decreased since 2015-2019, but in 2020 it has increased by 0.97% from 2019. Thus, it can be concluded that the proportion of the impoverished in Indonesia in 2015-2021 will experience fluctuations. The increase in the poor population according to. Indonesia is a developing country that still has many development problems that must be resolved, among them is the issue of poverty. Poverty poses an issue that hinders Indonesia from improving social welfare and can hinder the Indonesian economy. Poverty is a sign of the success of a nation's development (Claro, S., Paunesku, D. & Dweck, 2016). Poverty is a complex problem that affects every aspect of life (Giyarsih, 2014).

Figure 2. Percentage of Poor Population (P0) According to 16 Provinces for the 2015-2021 Period



Source: Central Statistics Agency (BPS)

Based on the figure above, 34 provinces in Indonesia experience poverty problems, but only 16 provinces have scores above the Indonesian average from 2015 to 2021. A comparison of poverty conditions in the 16 provinces can be seen from several provinces, namely, Papua Province, West Papua, Nusa West Southeast, Maluku, Aceh, Bengkulu were recorded as having the highest poverty rates, as did Lampung Province, Central Sulawesi, West Sulawesi, South Sumatra, Central Java, Southeast Sulawesi, DI Yogyakarta, East Nusa Tenggara, and Gorontalo. Because of these conditions, the research will take 16 provinces in Indonesia's Central Statistics Agency (BPS). According to (Word Bank, 2004). Lack of resources to meet needs such as housing, food, clothing, and livable standards of health and education is one of the causes of poverty. Additionally, poverty is associated with a lack of employment opportunities; Usually, those who are classified as poor are those who are unemployed, have a low level of education, and generally have poor health. In other words, this strategy needs to be implemented across all sectors and actors in a coordinated and

ISSN (e): 2829-7350 | ISSN(p): 2963-9441

integrated manner. Poverty can be overcome through wage income. For residents who work as workers, worker productivity can be increased through wages.

Human development cannot occur without economic growth, because economic growth guarantees higher incomes and productivity through the creation of new jobs. A relatively high level of human development will have an impact on the capabilities of the population, thereby impacting economic growth performance. The result is increased productivity and creativity in society. By increasing creativity and productivity, local communities can better absorb and manage resources that are important for economic growth. (Ukhti Ciptawaty & Fadeli Yusuf Afif., 2020).

The UMP can affect poverty levels because if the minimum wage is set too low, then workers will not be able to meet their basic needs and can be trapped in poverty. On the other hand, if the UMP is set too high, then the company may not be able to pay the wages needed to maintain the continuity of their business. Therefore, determining the right UMP is very important in reducing poverty. Efforts made to raise the level of the population who are unable to meet their daily needs due to low income are by using the Provincial Minimum Wage policy. (Kauffman, 2000).

Another element that contributes to poverty may be the caliber of available personnel. The Index of Human Development (HDI), also known as the Quality-of-Life Index, provides insight into the quality of human capital. One metric for assessing the quality of human development that can be applied to aspects of human existence, both non-physical (intellectuality) and physical (health and welfare) is the human development index. Life expectancy and purchasing power are development indicators that influence the physical condition of society; The non-physical impact is clearly visible on society's educational standards (Susanti, 2013). HDI according to BPS 2015-2021 This is a measure of the success of human development based on several fundamental aspects of quality of life. Data that can be used to describe four components are used to calculate the HDI: life expectancy, a gauge of health sector success; literacy rates and average years of education, which measure academic achievement and people's buying capacity which is based on averages and covers several essential needs. On average per capita expenditure, which is an income approach, measures success in achieving a decent living. The Human Development Index (HDI) measures the main aspects of human growth which are considered to represent basic skill conditions. (basic capabilities) residents (Ridho Andykha, Herniwati Retno Handayani, 2018).The Human Development Index (HDI) is one of the main metrics that forms the basic framework of regional development in relation to the economic development of a region. This shows that IPM plays an important role in managing regional development. Targeted planning and development will be implemented through the use of HDI and other human development indicators. HDI, which is a measure of a region's development, must be positively correlated (Sayifullah & Gandasari, 2016).

It can be seen that investing in education will be able to improve the quality of human resources, which is demonstrated by increasing a person's knowledge and skills. The higher a person's level of education, the more knowledge and skills will increase, thereby

expanding employment opportunities (Nurlaila Maysaroh Chairunnisa, 2020). In general, economies with sustainable economic growth and increasing efficiency in the use of production sources have experienced a significant decline in reducing poverty levels. Apart from that, reducing poverty can also be seen from the aspects of education and health levels as well as decent living standards which are included in the increasing Human Development Index and increasing population and (Shidiq Ramdan Dinata, Mahendra Romus, 2020). Index of Human Development (HDI) is a standard by which the welfare of a region or country is seen based on three basic dimensions, namely: a long and healthy life, knowledge and a decent standard of living. Living). The indicator of life expectancy at birth measures health, the indicator of expected years of schooling and the average number of years of schooling measures education and finally the adjusted per capita expenditure indicator measures expenditure. (Moneyzar Usman, Hayrun Nisa Eka Afriliani, 2023).

According to (Sadono Sukirno, 2000) Long-term economic growth is an increase in output per person term, three elements are highlighted: procedure, output per capita , and Extended period. Growth in the economy is not merely a momentary financial image. For sectoral development in the regions to function, regional development and sectoral development must be coordinated in accordance with regional potential and priority. A region's gross regional domestic product, or GDP, is its added value produced in every regions' commercial and service sectors, utilizing the entire amount of the finished products and services that each economic unit produces. One element that may have an impact on reducing poverty is economic growth. Rapid economic growth is not only necessary, but must also be distributed evenly across all levels of society. Inequality and poverty can be caused by an increase in economic growth that is not balanced across all levels of society and is concentrated in one level of society (Putu Seruni Pratiwi Sudiharta, 2013). One of the most important indicators of the success of a country's economic development is the rate of economic growth. If more goods and services are produced, an economy is said to be growing. The value of gross domestic product (GDP) illustrates this. GDP figures are used to calculate the percentage of economic growth of a country. Neoclassical growth theory states that increase in the quality and quantity of labor (resulting from population growth and educational progress), increases in capital (arising from higher savings and investment), and technological progress are the three main drivers of output growth. One can gain capital growth through investment or debt but debt is excessive (Arivina Ratih Taher, Neli Aida & Shella Yuliana, 2020).

METHOD

The panel data method is a data analysis technique applied in this research. The author uses E-Views 10 as an analytical tool in this research. Time series and cross-section data are combined to produce panel data (Widardjono, 2018). Data arranged according to time sequence, such as daily, monthly, quarterly or yearly data, is called a time series. Meanwhile, cross-section data is information collected simultaneously from several provinces in Indonesia. If 24 different forms of data are combined, it can be seen that the

SINOMICS JOURNAL
International Journal of Social Science, Education, Communication and Economics
ISSN (e): 2829-7350 | ISSN(p): 2963-9441

research variables are 16 provinces in Indonesia (cross section)
over varying periods of time (time series).

The use of panel data has a number of benefits, including the ability to produce a higher degree of freedom and independence.

$$KM_{it} = \beta_0 + \beta_1 LogUMP_{it} + \beta_2 IPM_{it} + \beta_3 LogPDRB_{it} + \mu$$

Where:

KM_i	= Poverty (Percent)
$\beta_0, \beta_1, \beta_2, \beta_3$	= Constant
UMP_{it}	= Provincial Minimum Wage (Rupiah)
IPM_{it}	= Human Development Index (Percent)
$PDRB_{it}$	= Gross Regional Domestic Product (Million Rupiah)
μ	= *error term*

Classic assumption test

1. Normality test
   The normality test is needed to determine the normality of the error terms and variables (independent and dependent variables), whether the data is distributed normally or not.
2. Multicollinearity Test
   According to Gujarati (2004), multicollinearity is a linear relationship that occurs between independent variables. The purpose of the multicollinearity test is to determine whether the regression model has a perfect correlation problem between the independent variables.

Significant Test

a. Test Partial (t-test)

The significance of the data is determined using the t test. influence on the dependent variable at each independent variable's α=5% with the understanding that the additional variables are regarded as constants.

b. (F- Test)

Comprehensive testing was performed using the simultaneous significance test, or f statistical test. The F test is applied test model importance. Analysis of variance can be used to explain the F test (ANOVA).

c. Determination Coefficient (R2)

The concept of the coefficient of determination (R2) is used to determine how well the regression line fits the data or to calculate the percentage of Y's total variation that is explained by the regression line.

RESULTS AND DISCUSSION

Table 1. Descriptive Statistics in 16 Provinces in Indonesia

	KM	UMP	IPM	PDRB
Mean	15.70571	2081872.	68.42777	243111.1
Median	14.08000	2013805.	68.87500	94289.00
Maximum	28.40000	3516700.	80.22000	1668749.
Minimum	10.20000	910000.0	57.25000	22069.00
Std. Dev.	4.638963	565595.2	4.332575	396320.3
Skewness	1.223863	0.403497	0.255437	2.485618
Kurtosis	3.645465	2.673431	4.189874	8.041896
Jarque-Bera	29.90395	3.536806	7.825027	233.9582
Probability	0.000000	0.170605	0.019990	0.000000
Sum	1759.040	2.33E+08	7663.910	27228446
Sum Sq. Dev.	2388.717	3.55E+13	2083.604	1.74E+13
Observations	112	112	112	112

Description:
KM is Poverty; UMP is the Provincial Minimum Wage; HDI is the Index of Human Development; GRDP is The Gross Regional Product.

It is evident from Table 1 that the number of data observations used was 112 observations sourced from 16 provinces in Indonesia for 2015-2021.

The Provincial Minimum Wage (thousand rupiah) shows a mean value of 2081872. The Human Development Index (one percent) shows an average value (mean) of 68.4. Gross Regional Domestic Product (thousand rupiah) shows the highest average of 243111.1. Meanwhile, the poverty variable (one percent) shows an average of 15.7, in 16 Indonesian Provinces.

Table 2. Regression Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	50.70520	9.465461	5.356865	0.0000
LOGUMP	-0.184772	0.496231	-0.372350	0.7114
IPM	-0.252299	0.043859	-5.752521	0.0000
LOGPDRB	-1.348777	0.129356	-10.42689	0.0000

SINOMICS JOURNAL
International Journal of Social Science, Education, Communication and Economics
ISSN (e): 2829-7350 | ISSN(p): 2963-9441

Based on panel data regression outcomes show that selection, namely the fixed effect model (FEM), it shows that the results of estimating the relationship between the variables discussed in this research produce the following equation:

Y = 50.7051960525 - 0.184771578665*LOGX1 - 0.252299402367*X2 - 1.34877729721*LOGX3

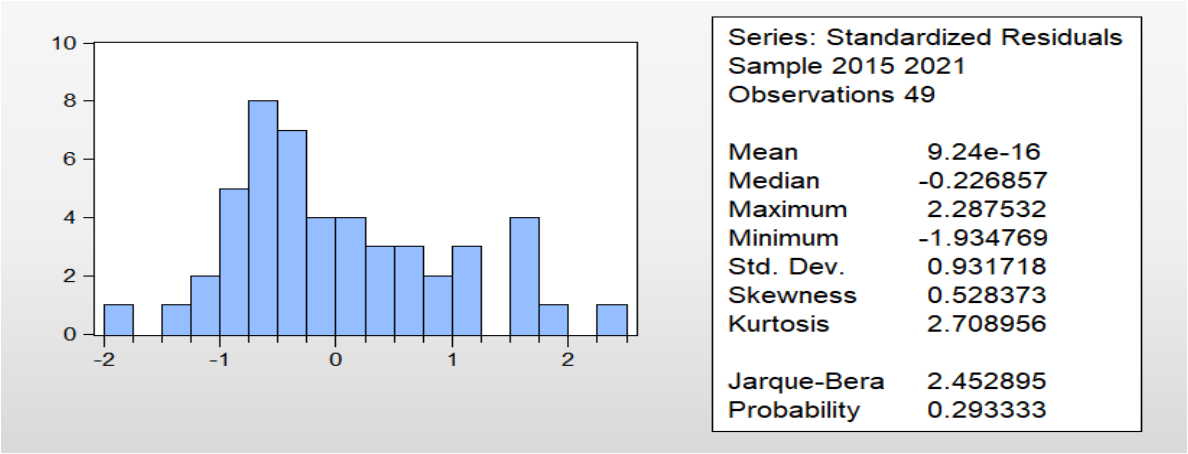
Y = 50,71 – 0,18*LOGX1 – 0,25*X2 – 1,35*LOGX3

Explanation: This equation shows that the value of C (Coefficient) has an effect on poverty in 16 provinces in Indonesia, amounting to 50.70520. This means that the average value of the percentage of poor people when the UMP, HDI and GRDP values are zero (0) is 50.71 percent. The variable coefficient value (LOGUMP) is – 0.18, if the other variable values are constant and the LogX1 variable increases by 1% then the poverty variable (Y) will decrease by 18%. Vice versa, if the values of other variables don't change, and the LogX1 variable decreases by 1%, then variable Y will increase by 18%. The variable coefficient value (X2 HDI) is -0.25, if the values of other variables are constant and variable X2 increases by 1%, then variable Y will experience a decrease of 25%. Vice versa, if the values of other variables are constant and variable X2 experiences a decrease of 1%, then variable Y will experience an increase of 25%. The coefficient value of the GRDP variable (LOGPDRB) is -1.35, if the values of other variables don't change, and the LogX3 variable rises by 1%, then variable Y will experience a decrease of 135%. Vice versa, if the values of other variables are constant and the LogX3 variable decreases by 1%, then variable Y will increase by 135%.

Classic Assumption Test Results

1. Normality test

Figure 3. Normality Test



Source: Data Processing Test Results with Eviews10

Considering the outcomes of the Normality test, it shows that the probability worth of this is greater than 0.05, namely 0.293333 > 0.05. This means that the data is normally distributed.

2. Multicollinearity Test

Figure 4. Multicollinearity Test

Correlation				
	KM	**LOGUMP**	**IPM**	**LOGPDRB**
KM	1.000000	0.308543	-0.256320	-0.736918
LOGUMP	0.308543	1.000000	-0.246826	-0.258900
IPM	-0.256320	-0.246826	1.000000	-0.242941
LOGPDRB	-0.736918	-0.258900	-0.242941	1.000000

Source: Data Processing Test Results with Eviews10

Considering the outcomes of the multicollinearity test, Multicollinearity Detection is used to determine whether there is a relationship between independent variables in one model. One method used to detect the presence or absence of multicollinearity is by calculating the partial correlation between independent variables, showing that the correlation number between variables is less than 0.8, indicating the absence of symptoms of multicollinearity in the regression model, therefore it can be concluded that the variables used do not exist. Multicollinearity So it can be concluded that there is no linear relationship between the independent variables used in this res.

CONCLUSION

Based on testing of hypotheses and the outcomes of analysis that has been completed a regression model for panel data and carried out using the Eviews program. The Provincial Minimum Wage variable does not have a significant effect on poverty, while This variable does not significantly affect poverty or have a negative impact on poverty.. The results of panel data regression using the fixed effect method provide information on the negative influence on poverty in 16 provinces in Indonesia. By involving all 16 provinces in modeling estimates, it shows that partially the UMP does not have a significant effect on poverty, while for HDI, GRDP itself has a significant negative effect.

REFERENCES

Arivina Ratih Taher, Neli Aida, & Shella Yuliana. (2020). *Inflasi Terhadap Pertumbuhan Ekonomi Di 7 Negara Asean Periode 2012-2020*. *17*(3), 1927–1936.

Claro, S., Paunesku, D. & Dweck, C. S. (2016). Growth mindset tempers the effects of poverty on academic achievement. *Proceedings of the National Academy of Sciences*.

Giyarsih, S. R. (2014). Pengentasan kemiskinan yang komprehensif di bagian wilayah terluar Indonesia - kasus Kabupaten Nunukan Provinsi Kalimantan Utara. *Manusia Dan Lingkungan*.

Kauffman. (2000). “Should you take aspirin to prevent heart attack”. *Journal of Scientific Exploration*, *14*, 621–641.

ISSN (e): 2829-7350 | ISSN(p): 2963-9441

Moneyzar Usman, Hayrun Nisa Eka Afriliani, et al. (2023). *Pengaruh Belanja Daerah dan Tingkat Pengangguran Terbuka Terhadap Indeks Pembangunan Manusia Di Kabupaten / Kota Se-Provinsi Lampung*. *2*(2), 360–367.

Nasir, M. M. S. & M. (2008). Analisis Faktor-Faktor yang Mempengaruhi Kemiskinan Rumah Tangga di Kabupaten Purworejo. *Jurnal Eksekutif*, *Vol. 5 No.*

Nurlaila Maysaroh Chairunnisa, Y. N. Q. (2020). *Pengaruh Kesehatan, Tingkat Pendidikan, dan Upah Minimum terhadap kemiskinan pada provinsi jawa barat*. *7*(1), 147–161.

Putu Seruni Pratiwi Sudiharta, K. S. (2013). *Pengaruh PDRB Perkapita, Pendidikan, dan Produktivitas Tenaga Kerja Terhadap Kemiskinan di Provinsi Bali*. 431–439.

Ridho Andykha, Herniwati Retno Handayani, N. W. (2018). *Analisis Pengaruh PDRB, Tingkat Pengangguran, dan IPM Terhadap Tingkat Kemiskinan di Provinsi Jawa Tengah*. *33*(2), 113–123.

Sadono Sukirno. (2000). *Makro Ekonomi Modern: Perkembangan pemikiran dari klasik sampai keynesian. Lembaga Penerbit FE-UI. Jakarta.*

Sayifullah, S., & Gandasari, T. R. (2016). Pengaruh Indeks Pembangunan Manusia Dan Pengangguran Terhadap Kemiskinan Di Provinsi Banten. *Jurnal Ekonomi-Qu*, *6*(2), 236–255. https://doi.org/10.35448/jequ.v6i2.4345

Shidiq Ramdan Dinata, Mahendra Romus, Y. (2020). *Faktor faktor yang mempengaruhi Tingkat Kemiskinan di Provinsi Riau*. *2*, 116–137.

Suhandi, N., Putri, E. A. K., & Agnisa, S. (2018). Analisis Pengaruh Jumlah Penduduk terhadap Jumlah Kemiskinan Menggunakan Metode Regresi Linear di Kota Palembang. *Jurnal Ilmiah Informatika Global*, *9*(2), 77–82. https://doi.org/10.36982/jig.v9i2.543

Susanti, S. (2013). *Pengaruh Produk Domestik Regional Bruto , Pengangguran dan Indeks Pembangunan Manusia terhadap Kemiskinan di Jawa Barat dengan Menggunakan Analisis Data Panel*. *9*(1), 1–18.

Ukhti Ciptawaty, & Fadeli Yusuf Afif. (2020). *Daya Saing Dan Pertumbuhan Ekonomi Negara Berkembang ASEAN 1*.

Word Bank. (2004). *Mewujudkan Pelayanan Umum bagi Masyarakat Miskin. The World Bank, Jakarta.*

Andika Pratama[1], Arivina Ratih[2]
DOI: https://doi.org/10.54443/sj.v2i5.216