

## THE EFFECT OF POLITICAL AND ECONOMIC DIMENSIONS ON POVERTY IN INDONESIA

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### Abstract

This study aims to identify and analyze the factors that influence poverty of 33 province in Indonesia at 2010-2019. In this study using panel data regression using the *Random Effect Model (REM)*. The independent variables used in this study consisted of the Indonesian Democracy Index (IDI), Economic Institutions, Regional Minimum Wage, Gross Regional Domestic Product (GRDP), Open Unemployment Rate, Mean Years School and Life Expectancy. The results of the study show that simultaneously all independent variables have a significant effect on poverty variables in Indonesia and partially economic institution variables, mean years school, life expectancy, have a negative effect and open unemployment rate variables have a positive effect on poverty in Indonesia in 2010-2019. In addition, IDI, Regional Minimum Wage, GRDP have no significant effect on poverty in Indonesia in 2010-2019.

**Keywords:** *Democracy, Economic Institutions, Poverty, Panel Data*

**JEL Classification:** C33; I32; P13; P26

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### INTRODUCTION

Poverty eradication is the main goal in every country. It was proven in September 2000, there were 189 countries that joined the UN to declare the Millennium Development Goals (MDG's). The MDG's goals consist of eight achievements that must be met by 2015, one of which is eradicating poverty and hunger. After that, on 25 September 2015 as many as 193 heads of state including Indonesia ratified again in sustainable development agenda, namely the Sustainable Development Goals (SDG's). The first goal in SDG's is to end poverty in all its forms everywhere. This proves that poverty is still an important problem for countries throughout the world, especially developing countries like Indonesia.

Based on publications of Central Statistics Agency (2020) it was noted that the poor population in Indonesia reached 27.55 million people or the equivalent of 10.19% of the population in Indonesia. This figure is felt to be far from the minimum limit set by the MDG's which should be 7.5% of the population.

Cantillon (2011) says that the problem of poverty is relative, multidimensional and has different meanings. World Bank (2004) defines poverty as a problem that involves many aspects because it is related to low income, illiteracy, low health status, and inequality between genders and a bad environment. Meanwhile, Samuelson & Nordhaus (2010) also said that the lack of human resources will cause individuals to be trapped in a cycle of poverty (vicious cycle). Sen (1981) also argues that poverty occurs as a result of capability deprivation. So that poverty occurs when individuals experience backwardness and lack of access to a more decent life, both in the dimensions of health, decent quality of life, education, access to the economy and access to democracy.

The government as a policy maker has planned a strategy that aims to improve and develop the quality of existing human resources as a key in helping reduce poverty in Indonesian, including through education and health. This explanation is in line with research conducted by Lawanson & Umar (2021); Sudaryati et al (2021) which stated that the health dimension which was illustrated by life expectancy and the educational dimension which was illustrated by the average length of schooling showed that the two variables had a significant effect on reducing the amount of poverty.

In addition, Sen (1981) stated that poverty is also influenced by political aspects which reflect weak access to democracy. When the democratic process does not work as it should in the community, poverty will also increase. This democracy has a negative influence on poverty, meaning that when democracy is carried out properly it will reduce the number of poor people. This statement is also in line with research conducted by Gao & Zang (2022) which states that improving the quality of government, increasing freedom of speech, increasing the provision of political rights can reduce poverty. This is clarified by the findings by Adnan & Amri (2021) which explain that in the short term calm does not have a significant effect on poverty, but in the long term calm has a significant effect on reducing the poverty rate.

In addition to the level of democracy, Andre Bayo Ala (1981) stated that the problem of poverty can be overcome by two strategies, namely in the short term and long term. A short-term strategy for reducing poverty is by increasing income and improving its distribution, this has been implemented in Malaysia through the New Economic Policy to reduce poverty by increasing income and increasing employment opportunities (Hassan, 2017). While the long-term strategy is to grow local self-help. One way to increase local self-help can be done by increasing capital investment. According to Kartasapoetra (2007) cooperatives are economic institutions with members who join voluntarily and come from economically weak communities. This statement is also strengthened that low-income and disadvantaged people are the best reach of cooperatives (Carina et al., 2022). The existence of economic institutions through cooperatives is said to be the best solution in overcoming financial problems and also socio-economic problems, especially in households and rural communities who have low education and are less fortunate. Based on data from the Central Statistics Agency (2019) the number

of members joining as part of cooperatives always increases every year. It was proven that in 2010 the number of cooperative members in Indonesia was around 29,240,271 members until in 2019 it increased to 41,543,451 members. This reflects that cooperatives are still one of the economic institutions that are of interest to the wider community.

The study of the influence of the determinants of poverty in Indonesia is very interesting to do because first, the number of poor people in Indonesia is still fluctuating in the 2010-2019 even though during the same period mean years school, health, regional minimum wage and the number of cooperative units in Indonesia have always increased. Secondly, as explained by Todaro & Smith (2014) that poverty in developing countries is largely due to the lack of quality of existing human resources. In addition, Narayan (2006) explains that there is no democracy in developing countries that has success in eliminating poverty. With this background, researchers are interested in being able to analyze the influence of democracy, economic institutions, regional minimum wage, mean years school, life expectancy, GRDP and the open unemployment rate on poverty in Indonesia by using panel data regression as an analytical tool.

## **LITERATUR REVIEW**

### **The Relationship of Democracy to Poverty**

Democracy is an institutional arrangement of political decisions taken from the results of decisions chosen by each individual based on the choices of each individual (Schumpeter, 1974). Sen (1981) stated that democracy is a universal value, where this concept can and should be applied by all countries in the world. When democracy throughout this country runs well, it will contribute or provide policies that are useful for the lower middle class. As explained by Sen (1981) that one of the causes of someone experiencing poverty is the difficulty of access to democracy and also voicing opinions.

This opinion is different from that expressed by Narayan (2006). Narayan (2006) states that democracy is basically unable to be a solution in overcoming poverty, especially poverty in developing countries. This is because the poverty caused in developing countries originates from different problems and also comes from different groups as well.

Both theories have also been proven. As research conducted by Yolanda (2019) shows that democracy has an insignificant and negative effect on poverty. This means that if democracy increases, poverty will decrease. These results differ from research conducted by Harber (2002) where democracy can be a better choice than authoritarianism in helping reduce poverty.

### **Relationship of Economic Institutions to Poverty**

According to Sen (1981) that one of the causes for someone to enter poverty is weak access to the economy. Access to economic facilities can be reflected through economic institutions. The definition of economic institutions themselves are institutions that deal with social welfare issues by means of production, distribution and consumption of goods and services. There are 3 types of economic institutions in Indonesia, namely State Owned Enterprises (SOE), Privately Held Company and cooperatives. This research uses a type of economic institution in the form of cooperatives. The definition related to the cooperative itself is a business

entity in which there are members voluntarily to manage and also fulfill needs together both in the economic, social and cultural fields.

The right alternative to avoid poverty is through increased investment in the form of capital. This is reinforced by Samuelson & Nordhaus (2010) who say that problems regarding the circle of poverty can occur when people experience limited capital, market imperfections, and a slowing economy. According to Kartasapoetra (2007) cooperatives is economic institutions with members who join voluntarily and come from economically weak communities. This statement is also strengthened that low-income and disadvantaged people are the best reach of cooperatives (Carina et al., 2022). The existence of economic institutions through cooperatives is said to be the best solution in overcoming financial problems and also socio-economic problems, especially in households and rural communities who have low education and are less able in family economic problems (Divya, 2014).

### **Relationship of Regional Minimum Wage to Poverty**

Simultaneous improvement in wage rates is carried out by the government by setting a new minimum wage standard every year, where the minimum wage continues to increase every year. The increase in the minimum wage is expected to be able to improve workers' welfare, reduce inequality by increasing income for low-income workers. The minimum wage policy increases the probability for the poor to get out of poverty according to a study in Nicaragua (Alaniz et al., 2011).

The relationship between minimum wage policy and poverty reduction is positive. An increase in the minimum wage will increase the probability of unemployment, an increase in the number of unemployed will have an impact on increasing the amount of poverty according to research conducted in Washington (Ramirez et al., 2015). The minimum wage policy is still being debated regarding its effect on reducing poverty, for its supporters it is hoped that the minimum wage will increase welfare and reduce poverty, while those who oppose this idea say that the minimum wage will reduce people's welfare.

### **Relationship of Gross Regional Domestic Product to Poverty**

According to, Todaro & Smith (2014) state that for any added value to goods and services obtained in each region, one of the objectives is to eradicate poverty and is directly proportional to solving the problem of income inequality and available employment so that the economy can continue to develop. Meanwhile, according to the "Inverted U" curve it is shown that in the early stages of economic growth there will be problems with income distribution, and at this stage economic growth is also considered to have not been able to reduce poverty. Research conducted by Putriani et al. (2018) is also in line with the theory that the Gross Regional Domestic Product (GDP) has a significant influence on reducing the number of poverty.

### **Relationship of Open Unemployment Rate to Poverty**

Unemployment is a macroeconomic problem that affects humans directly and is the most severe. Most people losing their jobs raises the problem of declining living standards which can lead to poverty. An empirical study found that an increase in unemployment had a positive and significant impact on the poverty rate

in Central Java, where an increase in unemployment led to wastage of labor resources and decreased income. Decreased income tends to reduce an individual's ability to meet needs or desires, as a result the poverty rate will tend to increase (Bintang & Woyanti, 2018).

### **Relationship between Education and Poverty**

Becker (1993) in Widyasworo (2014) states that human capital is structured based on two things, namely education and training. These two things can develop a person's skills, which will later affect individual freedom to choose what job suits him. Human capital can be used to determine the productivity of a company or agency. This productivity calculation is based on the output produced by a worker. Increasing the quality of human capital will affect the production output which will also increase along with the more qualified a worker, both in quality and quantity.

According to Samuelson & Nordhaus (2010) there are two factors that cause poverty among residents in low-income countries, namely due to low levels of health and nutrition, and a lack of attention to improving the quality of education. The theory that has been put forward shows that when an individual gets a difficult level of education, it will result in the individual being unable to increase productivity so that they will be trapped in a cycle of poverty.

### **Relationship of Health to Poverty**

Todaro & Smith (2014) stated that individuals who are susceptible to disease will affect the opportunity for these individuals to be able to earn greater income. The existence of differences in conditions in terms of socio-economic in each region makes life expectancy in each region also vary. The low life expectancy occurs due to the influence of access and purchasing power which is lacking in society, so that the impact on people's productivity will also decrease. The worst impact that can occur because of this is malnutrition or malnutrition which indicates poverty.

### **Previous Research**

Previous research contains studies conducted by various parties that discuss the factors that influence poverty. According to Yolanda (2019) conducted research on the effects of corruption, democracy and politics on poverty in eight ASEAN countries by using panel data regression. The results obtained in this study, the Corruption Perception Index (CPI) and politics have a significant negative effect on poverty, while the Indonesian Democracy Index (IDI) variable has a negative but not significant effect on poverty.

Meanwhile, the results of this study are different from research conducted by Harber (2002) regarding education, democracy and poverty reduction in Africa. The results obtained are democracy will be a better choice than authoritarianism in helping reduce poverty in Africa and education also has the potential to play an important role in helping reduce poverty.

Research on the influence of economic institutions in the form of cooperatives has also been carried out. As research conducted by Yang & Hung (2014) with the results of the research showing that tourism cooperatives have proven effective in alleviating the poverty of Yuhu villagers, China. In addition, Lal (2018) has also researched the results of this study, namely poverty alleviation can

be done through cooperatives. Not only that, syariah cooperative which is also part of the cooperative is considered effective in reducing poverty (Adnan & Ajija, 2011).

Other research regarding the effect of regional minimum wage on poverty has also been carried out by Utami & Masjkuri (2018) the results stated that it had a significant negative effect, meaning that an increase in the minimum wage on unemployment led to a decrease in the number of poverty in Indonesia, this is in line with the results obtained by Kurniawati et al. (2017). However, this is inversely proportional to the research conducted by Sutikno et al. (2019) which states that an increase in regional minimum wage on unemployment can increase poverty.

In addition, research that discusses the influence of education and health on poverty has also been carried out. Like the research conducted by Bintang & Woyanti (2018); Putriani et al. (2018); Amaluddin et al. (2018); Hidayat et al. (2020) where the results obtained in this study showed that the education variable in the form of mean years school and the health variable in the form of life expectancy proved to have a negative effect on poverty.

Not only that, there are studies that discuss the effect of GRDP on poverty. As research conducted by Putriani et al. (2018); Puspita (2015); Wirawan & Arka (2015) where the research results obtained were that the Gross Regional Domestic Product (GRDP) variable had a significant influence in reducing the number of poverty in various regions. Apart from GRDP, research on the effect of unemployment on poverty was also conducted by Bintang & Woyanti (2018); Hidayat et al. (2020); Puspita (2015); Wirawan & Arka (2015) with the results of research that the open unemployment rate has a positive influence on poverty.

## METHOD

This study uses a panel data regression analysis model. The panel data itself is a combination of data between time series data and cross section data. The data used in this study were obtained from publications published by the Central Statistics Agency in each province in 2010-2019. The data used are data on the Percentage Of Poor People, Indonesian Democracy Index (IDI), Economic Institutions (Coop), Regional Minimum Wage (RMW), Gross Regional Domestic Product ( GRDP), Open Unemployment Rate (Unemployment), Mean Years School (MYS), and Life Expectancy Rate (Lifeexp).

$$POV_{i,t} = \beta_0 + \beta_1 IDI_{i,t} + \beta_2 LnCoop_{i,t} + \beta_3 LnRMW_{i,t} + \beta_4 LnGRDP_{i,t} + \beta_5 Unemployment_{i,t} + \beta_6 LnMYS_{i,t} + \beta_7 LnLifexp_{i,t} + \varepsilon_{i,t}$$

Variable dependent in this research is poverty. Poverty is the percentage of poor people who have an average monthly expenditure per capita below the poverty line in each province in 2010-2019 in percent units. And than variable independent is IDI. The measure of the level of democracy used in this research is reflected in the Indonesian Democracy Index (IDI). IDI is a comprehensive indicator that shows the level of democratic development in Indonesia in each province in the 2010-2019 period in points. The IDI calculation itself consists of 3 aspects, 11 variables and 28 indicators. Meanwhile, the provincial minimum wage (UMP) is the minimum wage that applies to all districts/cities in one province. Economic institutions are institutions that handle community welfare issues by producing, distributing and

consuming goods and services. The type of economic institution used in this research is a cooperative. The definition of a cooperative itself is an economic institution that has many voluntary members and is a legal entity. All types of cooperatives were used in this research with units in each province in the 2010-2019 period.

Gujarati (2009) mentions that there are several tests in selecting the best model (PLS, FEM, REM) in panel data. Determination between *Pooled Least Square (PLS)* and *Fixed Effect Model (FEM)* uses the *F-restricted test*, by comparing the probability F at the FEM output with the level  $\alpha$  (1%, 5%, 10%). The hypothesis obtained is  $H_0$ : PLS;  $H_1$ : FEM, when the probability value  $F < \alpha$  (1%, 5%, 10%), then  $H_0$  is rejected, and the use of the FEM model is considered more appropriate. Furthermore, if F-restricted chooses the FEM model, it will continue using the Hausman test. Hausman test is used to determine the best model between FEM and REM. This test was carried out by comparing the chi-square probability value at the hausman output with the  $\alpha$  level (1%, 5%, 10%). When the probability value of chi-square  $< \alpha$  (1%, 5%, 10%), then  $H_0$  is rejected, and the use of the appropriate FEM model is used.

When the Hausman test chooses the REM model, it is followed by the Lagrange test. This test was conducted to determine the best model between the *Random Effect Model (REM)* and *Pooled Least Square (PLS)*. The Lagrange Multiplier test is seen based on the chi-square distribution with a degree of freedom equal to the number of independent variables. When the statistical LM value  $>$  chi-square value, then  $H_0$  is rejected and the use of the REM method is more appropriate.

## RESULTS AND DISCUSSION

Panel data analysis has three estimates, namely *Pooled Least Square (PLS)*, *Fixed Effect Model (FEM)*, and *Random Effect Model (REM)*. Based on the calculations that have been done using panel data regression, the results obtained from each model are as follows:

**Table 1.** PLS, FEM and REM regression results

| Independent Variable | Description | PLS         | FEM         | REM         |
|----------------------|-------------|-------------|-------------|-------------|
| Constanta            | Coefisien   | 271.9523*** | 412.5435*** | 362.6875*** |
|                      | T-stat      | 5.89        | 3.83        | 4.39        |
|                      | Prob        | 0.000       | 0.000       | 0.000       |
| IDI                  | Coefisien   | -0.04782    | 0.02346     | 0.02294*    |
|                      | T-stat      | -0.98       | 1.62        | 1.60        |
|                      | Prob        | 0.329       | 0.105       | 0.110       |
| Coop                 | Coefisien   | 1.1480      | -1.0983     | -0.95066**  |
|                      | T-stat      | 2.00        | -2.62       | -2.34       |
|                      | Prob        | 0.046       | 0.009       | 0.019       |
| RMW                  | Coefisien   | 1.12069     | 0.11431     | -0.12758    |
|                      | T-stat      | 1.26        | 0.20        | -0.28       |
|                      | Prob        | 0.210       | 0.840       | 0.780       |
| GRDP                 | Coefisien   | -1.2089***  | -0.5104     | 0.17417     |
|                      | T-stat      | -2.62       | -0.41       | 0.22        |
|                      | Prob        | 0.009       | 0.686       | 0.825       |
| Unemployment         | Coefisien   | 0.4058***   | 0.1233      | 0.13465     |
|                      | T-stat      | 2.44        | 1.56        | 1.75        |
|                      | Prob        | 0.015       | 0.119       | 0.080       |
| MYS                  | Coefisien   | -21.0501**  | -12.1669    | -14.6309**  |
|                      | T-stat      | -6.40       | -2.71       | -3.77       |
|                      | Prob        | 0.000       | 0.007       | 0.000       |
| Life expectancy      | Coefisien   | -53.3703*   | -86.1063    | -74.5026    |
|                      | T-stat      | -4.75       | -3.10       | -3.49       |
|                      | Prob        | 0.000       | 0.002       | 0.000       |
| R-squared            |             | 0.4295      | 0.5361      | 0.5346      |

Source: Regression Results with STATA 13

### Selection of Analysis Model

To prove the hypothesis and answer the objectives of the research, this sub-chapter describes the stages in formulating the analytical tools to be used. The first step in testing this time is to use the F-restricted test. The F-restricted test aims to determine the best model between *Pooled Least Square (PLS)* and *Fixed Effect Model (FEM)*. The following is the calculation result of the F-restricted test.

**Table 2.** F-restricted Test

|                      |        |
|----------------------|--------|
| No. of Observation   | 330    |
| Prob > F             | 0.0000 |
| A                    | 5%     |
| H <sub>0</sub> = PLS |        |
| H <sub>1</sub> = FEM |        |

Source: Regression Results with STATA 13

The results of the *F-restricted test* state that  $\text{Prob } F < \alpha = 0.0000 < 0.05$  so that the FEM model is better than the PLS model. After the FEM model is selected, the next step that must be done is to do the *Hausman test*. The Hausman test aims to determine whether in this study it is better to use FEM or REM. The following are the results of the *Hausman test*:



**Table 3. Hausman Test**

|                      |        |
|----------------------|--------|
| Chi square           | 2.84   |
| Prob > Chi square    | 0.8289 |
| A                    | 5%     |
| H <sub>0</sub> = REM |        |
| H <sub>1</sub> = FEM |        |

Source: Regression Results with STATA 13

When the test was carried out in the *Hausman test*, the Prob Chi value  $< \alpha$ , so the FEM model was chosen compared to the REM model. Based on table 4.4, it shows that  $0.8289 < 0.05$ , this means that the model selected in the *Hausman test* is the REM model. If the *Hausman test* has found that the best model is REM then proceed with the *Lagrange Multiplier (LM) test* to choose REM or PLS. The following is the result of the calculation of the *Lagrange Multiplier*:

**Table 4. Lagrange Multiplier Test**

|                      |        |
|----------------------|--------|
| Prob > Chi square    | 0.8289 |
| A                    | 5%     |
| H <sub>0</sub> = PLS |        |
| H <sub>1</sub> = REM |        |

Source: Regression Results with STATA 13

When the statistical LM value  $>$  chi-square value, then H<sub>0</sub> is rejected and the use of the REM method is more appropriate.

## Random Effect Model Regression Results

### *Simultaneous Test Results*

Based on the regression results using the REM model (*Random Effect Model*) which has been carried out in table 1. the probability value of the *F-Statistics* test results is 0.000 with a significance level of 5% or 0.05. It can be concluded that statistically the independent variables (Indonesian Democracy Index, Economic Institutions, Regional Minimum Wage, GRDP, Open Unemployment Rate, Mean Years School, and Life Expectancy) simultaneously affect the dependent variable, namely the percentage of poor people in Indonesia during the period 2010-2019. These results indicate that the significance of the independent variables in the model can be used as a consideration by the government in making policies to reduce poverty in Indonesia.

These results are also in line with the theory put forward by Sen (1981), where Sen states that poverty can occur, one of which is due to limited accessibility. Accessibility is meant here, namely the existence of democratic freedoms, freedom of economic access, adequate education and health facilities, and opportunities to have a decent quality of life. In addition to these theories, the results obtained are also consistent with the results of research by Bintang & Woyanti (2018) and Putriani et al. (2018) that simultaneously all independent variables (Mean Years School, Life Expectancy, GRDP, Open Unemployment Rate) have an effect on reducing poverty rates in Central Java and Jambi City. Meanwhile, there is no journal that explains the influence of all independent variables (Indonesian Democracy Index, Economic Institutions, Regional Minimum Wage, GRDP, Open

Unemployment Rate, Mean Years School, and Life Expectancy) on poverty. So that the results obtained in this study can be a differentiator between studies that have been done before.

### ***Partially Test Results***

#### *Effect Indonesian Democracy Index on Poverty*

Based on the regression results using the REM model (*Random Effect Model*) in table 1. it shows that the coefficient of Indonesian democracy index variable is 0.02294 and the p-value significance value is 0.110 using a significance of 10%, it can be interpreted that partially Indonesian democracy index variable does not have significant influence on the number of poor people in Indonesia in 2010-2019.

The results of this study are in line with the theory explained by Narayan (2006), that there is no democracy in developing countries that has success in eliminating poverty because on the one hand, the direct method of poverty alleviation has greater political significance in democracy and on the other hand else poor people usually do not come from the same ethnic group. The failure of democracy in reducing the level of democracy shows that the indicators used in calculating the democracy index in Indonesia are still not effective and need to be reviewed because some people argue that the level of democracy is only measured through the general election process.

This is also reinforced by research conducted by Yolanda (2019) with the results obtained that the Indonesian democracy index has a negative but not significant effect on poverty in ASEAN. Based on these results, it shows that democracy in Indonesia is still poor and has not been enforced fairly in all circles of society. One example that Indonesia's democracy is still low is the public policies made by the government that do not pay attention to public opinion, including the revisions to the Corruption Eradication Commission Law and the Job Creation Law. However, at present the Job Creation Law has been declared unconstitutional by the Constitutional Court, which indicates that this regulation is indeed problematic in line with what has been voiced by the public so far.

#### *Effect Economic Institutions on Poverty*

The REM in table 1. shows that partially the variables of economic institutions have a significant and negative influence on the number of poor people in Indonesia in 2010-2019. The estimation results in table 4.2 show that the coefficient of the economic institution variable is -0.95066 and the *p-value* is 0.019. The interpretation of these results is that when an increase in economic institutions is one percent, it will reduce the percentage of poor people by 0.95066 percent assuming other variables are constant.

The results obtained are consistent with Sen's theory, (1981) which states that the cause of poverty is limited accessibility. Accessibility is meant here, namely the existence of democratic freedoms, freedom of economic access, adequate education and health facilities, and opportunities to have a decent quality of life. The theory explains that economic access is one of the things that can cause a person to be trapped in difficult economic conditions. Because when a person experiences difficulties with economic access, that person is unable to carry out economic activities to fulfill his/her life needs.

This statement is supported by research from Akinwale et al. (2018) who conducted research in Nigeria stating that the existence of farmer cooperatives helps people get out of poverty. Financial institutions such as cooperatives have a strong influence on poverty because they can help households with low incomes to access basic financial services such as savings and credit, so as to be able to boost their financial economy and improve income inequality problems and reduce the number of poor people (Lal, 2018; Makmur & Hassan, 2016). In addition, the results obtained also show that cooperatives are able to become a source of capital for people with low economies because with easy access to the economy or capital, a person will get out of the poverty cycle trap. As Nurkse explained in Samuelson & Nordhaus (2010) that when a person has capital for economic activity, the level of productivity of that person will also increase.

#### *Effect Regional Minimum Wage on Poverty*

Based on the regression results using the REM model (*Random Effect Model*) in table 1. it shows that the variable coefficient of Regional Minimum Wage is -0.1275 and the p-value significance value is 0.780 using a significance of 10%, it means that partially the Regional Minimum Wage does not have significant influence on the number of poor people in Indonesia in 2010-2019. This is in line with research conducted by Putra & Khoirudin (2020); Qurrata & Ramadhani (2021) which states that the minimum wage does not have a significant effect on poverty because there are still many companies that have not implemented a Minimum Wage in accordance with the rules set by the district/city or provincial governments.

#### *Effect GRDP on Poverty*

Based on the regression results using the REM model (*Random Effect Model*) in table 1. it shows that the coefficient of the Indonesian democracy index variable is 0.17417 and the p-value significance value is 0.825 using a significance of 10%, it can be interpreted that partially the Gross Regional Domestic Product variable (GRDP) has no significant effect on the number of poor people in Indonesia in 2010-2019. This is in line with Sari (2018) and Sinaga (2020) who found that GRDP has no significant effect on poverty. This occurs because of the problem of uneven distribution of income in the region concerned, so that GRDP is not the main reference for reducing poverty (Brigsten et al., 2003).

#### *Effect Open Unemployment Rate on Poverty*

Based on the regression results using the REM model (*Random Effect Model*) in table 1. shows that open unemployment rate variable has a significant and positive influence on the number of poor people in Indonesia in 2010-2019. The estimation results in table 1. show that the variable coefficient of open unemployment rate is 0.134654 and the significance value of the p-value is 0.080 with a significance of 10%. The interpretation of these results is that when open unemployment rate increases by one percent, it will increase the percentage of poor people by 0.134654 percent assuming other variables are constant. In line with Bintang & Woyanti (2018) and Hidayat et al. (2020) which states that there is a positive relationship between open unemployment rate and poverty. This happens because unemployed people do not have sufficient sources of income to meet their

basic needs as a result of not having a job. The limited fulfillment of these basic needs greatly affects the increase in the number of poor people. The results of this study are also in accordance with Sen and Nurkse's theory of poverty, when individuals do not have access to economic activities and there is no income for the workforce, these individuals are classified as poor because they are unable to meet their basic needs properly.

However, this is not in line with Sinaga (2020) who found that there is a significant negative relationship between open unemployment rate and poverty. This is due to factors from large families that can meet the basic needs of unemployed people and can reduce the poverty rate in these families and possibly enrich the unemployed even though they are not working.

#### *Effect Mean Years School on Poverty*

Based on the regression results using the REM model (*Random Effect Model*) in table 1. it shows that partially mean years school has a significant and negative effect on the number of poor people in Indonesia in 2010-2019. The estimation results in table 1. show that the variable coefficient of mean years school is -14.6309 and the significance value of the p-value is 0.000. The interpretation of these results is that when mean years school increases by one percent, it will reduce the percentage of poor people by 14.6309 percent assuming other variables are constant.

The results obtained are in line with the theory put forward by Samuelson & Nordhaus (2010) in which there are two factors that cause poverty in people in low-income countries, namely due to low levels of health and nutrition, and a lack of attention to improving the quality of education. In addition to this theory, the results obtained are also in line with Amartya Sen's theory in Houghton & Khandker (2009) which sees poverty using a shared welfare approach in a broader sense, namely an ability to be able to bring benefits and contributions to the wider community. Based on this approach, poverty arises as a result of major incapacity which can indirectly impact on the level of public opinion, inadequate education, declining health, insecurity, powerlessness, low self-confidence and the absence of freedom of opinion or the right to speak.

This is in line with research conducted by Bintang & Woyanti (2018); Putriani et al. (2018); Amaluddin et al. (2018); Hidayat et al. (2020); and Azizah et al. (2018) who included mean years school in analyzing poverty levels. The result they get is that the higher or the longer the schooling period that an individual takes, the greater the potential for efforts to reduce poverty in that area. This reflects that the theory of human capital by Lucas-Romer through education and health is an important factor for reducing poverty. Ineffectiveness and non-maximum productivity gains are due to low access to education and health. The achievement of productivity will have an impact on the acquisition of income in the future, so that the level of education and health status is closely related in improving the condition of poverty in society. Increasing education in Indonesia will make the development process faster so that people's welfare will be achieved.

#### *Effect Life Expectancy on Poverty*

Based on the results of the regression using the REM model (*Random Effect Model*) which has been carried out in table 1. shows that, life expectancy variable

has a significant and negative effect on the number of poor people in Indonesia in 2010-2019. The estimation results in table 1. show that the coefficient of the variable life expectancy is -74.5026 and the significance value of the p-value is 0.000. The interpretation of these results is that an increase in life expectancy by one percent will reduce the percentage of poor people by 74.5026 percent assuming other variables are constant.

The results of this study are in accordance with the theory of human capital by Lucas-Romer. That through education and health is an important factor to reduce poverty. Ineffectiveness and non-maximum productivity gains are due to low access to education and health. The achievement of productivity will have an impact on the acquisition of income in the future, so that the level of education and health status is closely related to improving the condition of poverty in society, thus, a good level of health is health which will have a negative effect related to poverty. In addition, the results obtained are also in line with Samuelson & Nordhaus (2010) where there are two factors that cause poverty in residents in low-income countries, namely due to low levels of health and nutrition, and a lack of attention to improving the quality of education.

This research is in line with research conducted by Bintang & Woyanti (2018); Putriani et al. (2018); Amaluddin et al. (2018); and Hidayat et al. (2020) which includes the variable life expectancy and has a negative and significant relationship to the poverty. Life expectancy in Indonesia from 2010-2019 has increased every year, the average life expectancy of Indonesia's population is recorded at 70.68 years. The higher life expectancy indicates that the degree of health in Indonesia is increasing.

## CONCLUSION

Research on the determinants of poverty has been studied in various countries, especially in Indonesia. However, there are differences in what the research carried out this time, namely by combining independent variables such as education, health, democracy, economic institutions, GRDP, minimum wage, open unemployment rate and expanding the research object to 33 provinces in Indonesia. The analysis used is *Random Effect Model* which aims to analyze the factors that influence poverty in Indonesia in 2010-2019. Based on the theory used, previous research and also the results obtained in this study, it is concluded that economic institutions, open unemployment rate, mean years school, and life expectancy affect the poverty rate in Indonesia, while the Indonesian democracy index, regional minimum wage, and gross regional domestic product have no effect on the poverty rate in Indonesia in 2010-2019. This means that democracy in Indonesia has not been enforced fairly in all circles of society this is in contrast to Sen (1981) who stated that one of the causes of someone experiencing poverty is the difficulty of access to democracy and voicing opinions., the setting of the minimum wage has not been fully implemented by all business owners, meaning that there are still many workers in Indonesia who earn wages below the minimum wage, and there are still problems regarding the distribution of income that is not evenly distributed. in Indonesia, so that GRDP is not the main reference in reducing poverty.

From these results, the Government as a policy maker can organize or improve cooperative management training programs such as administration and finance in each region with the aim that cooperatives that have been established but

are not yet mature in a systematic way can carry out the tasks and functions of cooperatives so that in this way the poor will be helped with the cooperative. In addition, conducting a review of the indicators used to measure the index of democracy in Indonesia with the aim that the aspirations that have been voiced by the lower-class population can be absorbed and the policies issued can also have an impact on poverty reduction. On the other hand, the government must also act decisively on business owners to provide wages to their employees according to predetermined wage standards.

Improving the quality of health and education can be done by improving health services by administering vaccines regularly and free of charge to the community with the aim of avoiding all diseases and the impact is able to reduce mortality, create a package chase program for people with low levels of education and increase the number of schools and teaching staff in areas with low levels of education, as well as increasing total productivity in areas with high levels of poverty by opening soft skills training such as making handicrafts so that they can add value to the area.

## REFERENCES

- Adnan, G., & Amri, K. (2021). Do gender empowerment and democracy reduce poverty rate? A cross-provinces evidence from western Indonesia. *Economics & Sociology*, 14(3), 54-71.
- Adnan, M. A., & Ajija, S. R. (2011). *The effectiveness of Baitul Maal wat Tamwil in reducing poverty The case of Indonesian Islamic Microfinance Institution*. 159,104.  
[http://189.28.128.100/dab/docs/publicacoes/geral/diretrizes\\_rastreamento\\_cancer.pdf](http://189.28.128.100/dab/docs/publicacoes/geral/diretrizes_rastreamento_cancer.pdf)
- Akinwale, S. O., Adekunle, E. O., & Obagunwa, T. B. (2018). Foreign direct investment inflow and agricultural sector productivity in Nigeria. *Journal of Economics and Finance*, 9(4), 12-19.
- Ala, A. B. (1981). *Kemiskinan dan strategi memerangi kemiskinan*. Liberty.
- Alaniz, E., Gindling, T. H., & Terrell, K. (2011). The impact of minimum wages on wages, work and poverty in Nicaragua. *Labour Economics*, 18, S45-S59.
- Amaluddin, Payapo, R. W., Laitupa, A. A., & Serang, M. R. (2018). *A Modified Human Development Index and Poverty in the Villages of West Seram Regency, Maluku Province, Indonesia*. *International Journal of Economics and Financial Issues*, 8(2), 325–330
- Azizah, E. W., Sudarti, & Kusuma, H. (2018). Pengaruh Pendidikan, Pendapatan Perkapita Dan Jumlah Penduduk Terhadap Kemiskinan Di Provinsi Jawa Timur. *Jurnal Ilmu Ekonomi*, 2(1), 167–180
- Bigsten, A., Collier, P., Dercon, S., Fafchamps, M., Gauthier, B., Gunning, J. W., ... & Zeufack, A. (2003). Credit constraints in manufacturing enterprises in Africa. *Journal of African Economies*, 12(1), 104-125.
- Bintang, A. B. M., & Woyanti, N. (2018). MEDIA EKONOMI DAN MANAJEMEN Vol. 33 No. 1 Januari 2018. 33(1), 20–28.
- Cantillon, B. (2011). *The paradox of the social investment state: Growth, employment and poverty in the Lisbon era*. *Journal of European Social Policy*, 21(5), 432–449. <https://doi.org/10.1177/0958928711418856>
- Carina, T., Rengganis, R. M. Y. D., Mentari, N. M. I., Munir, F., Silaen, M. F.,

- Siwiyanti, L., ... & Setyaka, V. (2022). *Percepatan Digitalisasi Umkm Dan Koperasi*. TOHAR MEDIA.
- Central Bureau of Statistic Indonesia. (2021). Jumlah Koperasi Aktif Menurut Provinsi (Unit), 2019-2021. <https://www.bps.go.id/indicator/13/760/1/jumlah-koperasi-aktif-menurut-provinsi.html>, Accessed on 01 November 2021.
- Central Bureau of Statistic Indonesia. (2021). *Profil Kemiskinan di Indonesia September 2020*. Jakarta: Central Bureau of Statistic Indonesia
- Divya, K. (2014). *Banks on wheels for financial inclusion: a case study*. *International Journal of Research in Computer Applications and Management*, 4(9), 36–40.
- Gao, Y., & Zang, L. (2022). Is democracy pro-poor? An empirical test of the Sen Hypothesis based on global evidence. *Governance*, 35(3), 847-868.
- Harber, C. (2002). *Education, democracy and poverty reduction in Africa*. *Comparative Education*, 38(3), 267–276. <https://doi.org/10.1080/0305006022000014133>
- Hassan, A. A. G. (2017). *Growth, structural change and regional inequality in Malaysia*. Routledge.
- Haughton, J., & Khandker, S. R. (2009). *Handbook on Poverty and Inequality*. The World Bank
- Hidayat, E. W., Rosyadi, & Bariyah, N. (2020). *Human Development Index, Unemployment and Poverty Rate in Kalimantan Barat*. *Seminar Akademik Tahunan Ilmu Ekonomi Dan Studi Pembangunan (SATIESP 2020)*, 12–23
- Kartasapoetra, G. (2007). *Koperasi Indonesia*. Cetakan Ketuju. Jakarta: PT Rineka Cipta.
- Kurniawati, A., Gunawan, B. T., & Indrasari, D. P. R. (2017). Dampak upah minimum terhadap kemiskinan di Indonesia tahun 2006-2014. *Jurnal Riset Ekonomi Dan Manajemen*, 17(2), 233-252.
- Lal, T. (2018). *Impact of financial inclusion on poverty alleviation through cooperative banks*. *International Journal of Social Economics*, 45(5), 807–827. <https://doi.org/10.1108/IJSE-05-2017-0194>
- Lawanson, O. I., & Umar, D. I. (2021). The life expectancy–economic growth nexus in Nigeria: the role of poverty reduction. *SN Business & Economics*, 1(10), 1-26.
- Makmur, Aliman., & Hassan, A. A. G. (2016). *The Effectiveness of the Pro-poor Program in Kampar, Riau*.
- Narayan, D. (2006). Book Review: Measuring empowerment: cross-disciplinary perspectives. In *Progress in Development Studies* (Vol. 6, Issue 4). The International Bank for Reconstruction and Development. <https://doi.org/10.1177/146499340600600414>
- Puspita, D. W. (2015). Analisis Determinan Kemiskinan Di Provinsi Jawa Tengah. *Jejak*, 8(1), 100–107. <https://doi.org/10.15294/jejak.v8i1.3858>
- Putra, D., & Khoirudin, R. (2020). Tingkat Kemiskinan di Sumatra Selatan dan Analisisnya. *JURNAL AKUNTANSI, EKONOMI dan MANAJEMEN BISNIS*, 8(2), 127-133.
- Putriani, P., Junaidi, & Edi, jaya K. (2018). Pengaruh pertumbuhan ekonomi, pendidikan dan kesehatan terhadap tingkat kemiskinan di Kota Jambi Periode 2004-2017. *Jurnal Pendidikan Dan Ekonomi*, 7(1), 33–41

- Qurrata, V. A., & Ramadhani, N. (2021). The Impact of HDI, Minimum Wages, Investment and GRDP on Poverty in East Java in 2019. *KnE Social Sciences*, 411-418.
- Ramirez, C., Pensa, R., & Mogensen, A. (2015). The Effect of Minimum Wage on Poverty.
- Samuelson, P. A., & Nordhaus, W. D. (2010). *ECONOMICS* (Nineteen E).
- Sari, N. P. (2018). Minimum Wage Implications and Poverty Numbers East Java Province. *Jurnal Ekonomi Pembangunan* 16(2), 121-130.
- Sen, A. (1981a). *Poverty and Famines An Essay on Entitlement and Deprivation*.
- Sen, A. (1981b). *Poverty and Famines An Essay on Entitlement and Deprivation*. Oxford University Press.
- Sinaga, M. (2020). Analysis of Effect of GRDP (Gross Regional Domestic Product) Per Capita, Inequality Distribution Income, Unemployment and HDI (Human Development Index) on Poverty. *Budapest International Research and Critics Institute-Journal* 3(3), 2309-2317.
- Sudaryati, S., Ahmad, A. A., & Suprpto, S. (2021). The Effect of Average Length of Schooling, Life Expectancy and Economic Growth on Poverty in Banjarnegara Regency 2005-2019. *Eko-Regional: Jurnal Pembangunan Ekonomi Wilayah*, 16(1).
- Sutikno, R. Y., Rotinsulu, D. C., & Tumangkeng, S. Y. (2019). Pengaruh Upah Minimum dan Investasi terhadap Kemiskinan di Provinsi Sulawesi Utara. *Jurnal Berkala Ilmiah Efisiensi*, 19(01).
- Todaro, M. P., & Smith, S. C. (2014). *Economic Development* (Twelve Edi).
- Utami, H. W., & Masjkuri, S. U. (2018). Pengaruh Pertumbuhan Ekonomi, Upah Minimum, Tingkat Pengangguran Terbuka Dan Pendidikan Terhadap Jumlah Penduduk Miskin. *Jurnal Ekonomi Dan Bisnis Airlangga*, 28(2), 105-116.
- Widyasworo, R. (2014). Analisis Pengaruh Pendidikan, Kesehatan, dan Angkatan Kerja Wanita Terhadap Kemiskinan di Kabupaten Gresik (Studi Kasus tahun 2008-2012). Universitas Brawijaya.
- Wirawan, I., & Arka, S. (2015). Analisis Pengaruh Pendidikan, Pdrb Per Kapita, Dan Tingkat Pengangguran Terhadap Jumlah Penduduk Miskin Provinsi Bali. *Jurnal Ekonomi Pembangunan*, 4(5), 546-560
- Yang, X., & Hung, K. (2014). Poverty alleviation via tourism cooperatives in China: The story of Yuhu. *International Journal of Contemporary Hospitality Management*, 26(6), 879-906. <https://doi.org/10.1108/IJCHM-02-2013-0085>
- Yolanda, Y. (2019). Pengaruh Korupsi, Demokrasi Dan Politik Terhadap Kemiskinan Di Delapan Negara Asean Dengan Pertumbuhan Ekonomi Sebagai Variabel Moderasi. *Jurnal Kajian Ekonomi Dan Pembangunan*, 1(3), 845. <https://doi.org/10.24036/jkep.v1i3.7711>