

## Factors Determining Poverty Rate in Sulawesi and Maluku in 2010-2019

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### Abstract

*This study aimed to determine the effect of economic growth, education level, health status, and inflation on Sulawesi and Maluku Islands' poverty in the 2010-2019 period. Data were analyzed using the panel data regression with the Random Effect Model (REM). The results indicated that economic growth positively and significantly affected the poverty rate, while the average length of schooling and life expectancy had a negative and significant impact. Conversely, inflation negatively but insignificantly affected poverty in Sulawesi and Maluku Islands.*

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## 1. Introduction

Economic growth is an essential indicator in assessing and analyzing a country or region's economic performance and development. It indicates that the production of goods and services has increased from the previous year. Furthermore, it shows how the economic activity could generate additional income or social welfare in a certain period. An increase in economic growth illustrates that the country or region is developing well. The government sometimes fails to develop the economy, making it difficult to break poverty. This occurs when government fails to manage the economic growth rate. The failure to regulate the wage-giving system also reduces or stagnates welfare, affecting poverty. The roots of poverty come from political-economic institutions. Countries with inclusive political institutions tend to have the potential to become rich countries. On the other hand, a country whose political-economic institutions are extractive tends to be dragged down into poverty, political instability, and leads to a fail state (Acemoglu & Robinson, 2014).

Indonesia's increasing economic growth is important in poverty alleviation because it reflects development to achieve better prosperity. Currently, the economy is experiencing growth, reflecting the production factors contributing to creating welfare. This means that higher economic growth increases productivity and workers' wages. It is a benchmark for a nation's economic progress and development (Kuncoro, 2014). The growth rate has declined due to the economic sector's lower production as well as economic and political crises. The decline has caused a reduction in people's income, making it difficult to fulfil all needs and increasing inequality and poverty (Sastra, 2017).

Education is a basic need for all people because an educated society has the ability to free itself from poverty. The level of education could be an indicator to determine the level of welfare of a population. In this study, education was seen from the average length of schooling (RRLS), which indicates the population's quality based on the formal education completed. The poverty rate is also affected by health, whose problems mostly face the poor. As an important factor in reducing poverty, health is indicated by the Life Expectancy Rate (AHH). A higher life expectancy shows that the health status of a country is increasing (Alisjahbana & Murniningtyas, 2018).

Inflation indicates macroeconomic performance and is used as a consideration in monetary stability. An unstable monetary area receives fewer investor visits, including international monetary institutions. Therefore, business actors, consumers, and government need a joint commitment to reducing the inflation rate. Poverty is a significant problem and a focus of attention for the government. This complex and multidimensional problem relates to social, economic, cultural and other aspects. Poverty is a phenomenal problem in many parts worldwide, specifically in developing countries, such as Indonesia. It is worsened by unemployment, higher inflation, and slowed economic growth. Furthermore, the problem is triggered more because many people are unemployed and cannot meet their daily needs. Poverty is an economic disease that must be cured or reduced. It is a complex and multidimensional problem that requires integrated alleviation



efforts. The problem arises when people cannot realize economic prosperity or fulfil their basic needs, the minimum requirement of a certain living standard.

Based on data sources from the Central Agency of Statistics, the percentage level of poverty in Sulawesi and Maluku, both urban and rural poor populations have fluctuated. North Sulawesi Province in 2010-2019 experienced a decline, in 2010 it was 9.1 percent in 2019 it was 7.51 percent. Central Sulawesi Province in 2010-2019 experienced a decrease in 2010 by 18.07 percent and in 2019 by 13.18 percent. South Sulawesi Province in 2010-2019 experienced a decrease in 2010 by 11.6 percent and in 2019 by 8.56 percent. Southeast Sulawesi Province in 2010-2019 experienced a decline, in 2010 it was 17.05 percent and in 2019 it reached 6.51 percent. Gorontalo Province experienced a decline in 2010-2019, in 2010 it was 23.19 percent and in 2019 it was 15.31 percent. West Sulawesi Province in 2010-2019 experienced a decline, in 2010 it was 13.58 percent and in 2019 it was 10.95 percent. Maluku Province in 2010-2019 experienced a decline, in 2010 it was 27.74 percent and in 2019 it was 17.65 percent.

During the 2010-2019 research period, the rate of economic growth fluctuated in Sulawesi and Maluku. Based on the rate of economic growth in the last 10 years, the provinces on Sulawesi Island and Maluku have shown fluctuating movements, namely North Sulawesi. From 2012 to 2019 there was an increase of 5.66 percent. Central Sulawesi Province in 2010-2014 decreased by 8.75 percent to 3.37 percent but in 2015 it increased again by 13.68 percent but again decreased until 2018 by 4.72 percent but increased again in 2019 by 7.15 percent. South Sulawesi Province in 2010-2011 experienced a decrease in 2010 by 7.21 percent and in 2011 by 6.86 percent but in 2012 it rose again by 7.63 percent but again decreased until 2019 by 6.92 percent. Southeast Sulawesi Province in 2010-2013 experienced an increase of 8.19 percent to 9.22 percent but experienced a decrease from 2014-2018 of 5.22 percent and in 2018 of 4.36 percent and increased again in 2019 of 6.51 percent. Gorontalo Province in 2010-2019 experienced a decrease in 2010 by 8.91 percent and 2019 by 6.72 percent. West Sulawesi Province in 2010-2011 experienced an increase in 2010 of 7.16 percent and 2011 of 8.59 percent but in the following year until 2019 it experienced a decrease of 7.4 percent. Maluku Province in 2010 to 2019 experienced a decrease in 2010 by 6.95 percent and in 2019 by 5.57.

The average length of schooling on the islands of Sulawesi and Maluku has fluctuated. Based on data regarding the average length of schooling in North Sulawesi Province in 2010-2019 it has increased in 2010 to 8.66 years and in 2019 to 9.43 years. Central Sulawesi Province experienced an increase in 2010-2019, in 2010 it was 7.65 years and in 2019 it was 8.75 years. South Sulawesi Province experienced an increase in 2010-2018, in 2010 it was 7.29 years and in 2019 it was 8.02 years and it rose again in 2019 to 6.77 years. Southeast Sulawesi Province experienced an increase in 2010-2019 of 7.33 years in 2010 and 11.59 years in 2019. Gorontalo Province experienced an increase in 2010-2017, in 2010 it was 6.13 years and in 2017 it was 7.28 percent, but it fell again in 2018 by 6.83 percent and rose again in 2019 by 7.69 years. West Sulawesi Province in 2010-2019 experienced an increase, in 2010 it was 6.63 years and in 2019 it was 7.73 years.



Maluku Province in 2010-2019 experienced an increase in 2010 of 8.64 years and in 2019 of 9.81 years.

The development of life expectancy in Sulawesi Island and Maluku in the 2010-2019 period has increased. North Sulawesi Province in 2010-2019 experienced an increase in 2010 of 70.4 years and in 2019 of 71.58 years. Central Sulawesi Province in 2010-2019 experienced an increase in 2010 of 66.07 years and in 2019 of 68.23 years. South Sulawesi Province in 2010-2019 experienced an increase in 2010 of 68.93 years and in 2019 of 72.5 years. Southeast Sulawesi Province in 2010-2019 experienced an increase in 2010 of 69.65 years and in 2019 of 71.2 years. Gorontalo Province experienced an increase in 2010-2019, in 2010 it was 66.41 years and in 2019 it was 72.42 years. West Sulawesi Province in 2010-2019 experienced an increase in 2010 of 62.5 years and in 2019 64.82 years. Maluku Province in 2010-2019 experienced an increase, in 2010 it was 64.46 years and in 2019 it was 65.82 years.

The inflation rate for Sulawesi Island and Maluku Province during the 2010-2019 research period fluctuated. North Sulawesi Province in 2010-2011 decreased from 6.28 percent to 0.67 percent then increased in 2012-2013 in 2012 by 6.04 percent and in 2014 by 9.67 percent then decreased again until 2019 by 3.52 percent. Central Sulawesi Province experienced a decline in 2010-2019, in 2010 by 1.73 percent and in 2019 by 0.83 percent. South Sulawesi Province experienced an increase in 2010-2019, in 2010 it was 0.42 percent and in 2019 it was 2.38 percent. Southeast Sulawesi Province in 2010-2019 experienced an increase, in 2010 it was 0.11 percent and in 2019 it was 3.5 percent. Gorontalo Province in 2010-2019 experienced a decline, in 2010 it was 7.43 percent and in 2019 it was 2.87 percent. West Sulawesi Province in 2010-2019 experienced a decline, in 2010 it was 5.12 percent and in 2019 it was 1.43 percent. Maluku Province in 2010-2019 experienced a decline, in 2010 it was 8.27 percent and in 2019 it was 3.24 percent (bps.go.id, 2020).

This research was conducted in the provinces of Sulawesi and Maluku because on the Sulawesi mainland, Gorontalo has the fifth highest poverty rate in Indonesia. Central Sulawesi Province is the area with the second highest poverty rate in Sulawesi after Gorontalo and ninth in Indonesia. Meanwhile, Maluku Province is the province with the third highest poverty rate in Indonesia.

## 2. Literature Review

Development is a multidimensional process that includes fundamental changes in social structure, societal attitudes, and national institutions, while continuing to pursue increased economic growth, handling income inequality, and alleviating poverty. Development must reflect a total change in a society or an adjustment to the social system as a whole, without neglecting the diversity of basic needs and desires of individuals and social groups within them to move forward towards a better living condition, both materially and spiritually. The problem of poverty cannot be solved simply by increasing economic growth simply by expecting a trickle-down effect. Economic growth is indeed a necessary condition, namely that this growth is effective in reducing poverty. This means that growth should spread



across all income groups, including among the poor. Directly, this means that it is necessary to ensure that this growth occurs in sectors of the working poor (agriculture or labor-intensive sectors). Meanwhile, indirectly this means that a government is needed that is effective enough to distribute the benefits of growth that might be obtained from modern sectors such as capital-intensive services and manufacturing. To reduce poverty, economic growth must be increased, because if economic growth in an area increases, then many people also want to invest automatically, many jobs are available, so that the unemployment rate can be reduced which has an impact on the poverty rate (Todaro & Smith, 2014).

The new growth theory emphasizes the important role of government, especially in increasing human capital development and encouraging research and development to increase human productivity. In fact, it can be seen that investing in education will be able to improve the quality of human resources as shown by a person's level of education, then knowledge and skills will also increase so that it will encourage an increase in work productivity. The low productivity of the poor can be caused by their low access to education. Education is a way to save oneself from poverty and education is a fundamental development goal. Education plays a key role in shaping a country's ability to absorb modern technology and to develop capacities for sustainable growth and development. Government interventions to improve health are an important policy tool for reducing poverty. From several factors underlying this policy, better health improvements will increase work performance, reduce non-working days and increase energy output. Good health will negatively affect poverty levels (Todaro & Smith, 2014). The high rate of inflation can increase the size of the poverty line. This is because the price of goods and services is one of the determinants of the poverty line. An increase in inflation will definitely raise the poverty line. When the inflation rate is rolling and the real currency value fluctuates very much, the increased inflation will in turn be followed by an increase in the poverty line as a result of an increase in the inflation rate which will lead to an increase in the number of poor people if it is not followed by an increase in purchasing power or an increase in people's income. especially groups of people with low incomes (Blanchard & Johnson, 2013).

Francois Bourguignon once summarized it in what is called the growth-poverty-inequality triangle. But based on theoretical and empirical literature, the linkages of these three aspects can be summarized as follows. First, economic growth will be followed by poverty reduction if, at least, the income of the poorest groups of people also increases. In other words, changes in the income of the poor contribute to an increase in average income. On the other hand, economic growth may not necessarily reduce poverty if only the rich have increased their income. Economic growth can increase poverty if the increase in the income of the rich is accompanied by a decrease in the income of the poor. Second, economic growth will increase inequality if economic growth is caused more by an increase in the income of the rich than the poor. This will happen even if the poor experience an increase in income. However, because the increase in income for the rich is higher than the increase in income for the poor, inequality will increase, while poverty will continue to decline. Third, economic growth can also be followed by reducing inequality. This happens if the economic activity that supports economic growth is in sectors



that are more profitable for the lower middle class, for example the agricultural sector, or labor-intensive manufacturing. Fourth, inequality can increase economic growth if the inequality that occurs is the result of an incentive system to increase productivity, rewards from entrepreneurship or capital accumulation. Fifth, contrary to fourth, inequality can and is very likely to reduce economic growth through many factors. For example, inequality creates low social cohesion, making the economy vulnerable to conflict. Equal distribution of quality human resources also tends to be more conducive to increasing innovation which is the driving force for high economic growth. Sixth, high inequality can increase poverty if this inequality tends to be caused by a larger population of poor people and not a larger population of rich people. Although we need to understand that inequality can be low because most people are still poor. This is the case, for example, in many African countries where poverty is high but inequality is low. Seventh, high inequality weakens the strength of the relationship between economic growth and poverty. Economic growth in countries with low inequality has more potential to reduce poverty compared to economic growth that occurs in countries with high inequality (Bourgignon, 2004).

Pramesti, Bendesa, and Yuliarmi (2016) published "The Effect of Total Population, Life Expectancy, Average Length of Schooling and Gross Domestic Regional Product (GDRP) Percapita on Economic Growth in Bali Province". The study used three exogenous variables, including population, life expectancy, and the average length of schooling. It also used per capita GDRP and economic growth as intervening and endogenous variables, respectively. Data were collected from 2004-2013, comprising 10 points multiplied by nine districts or cities, and analyzed using descriptive and path analyses with the AMOS program. The results showed that population, life expectancy, the average length of schooling, and per capita GDRP significantly affected economic growth in Bali Province.

Ratih Primandari (2019) conducted "The Effect of Economic Growth, Inflation and Unemployment on Poverty Levels in South Sumatra". The study analyzed the effect of economic growth, inflation, and unemployment on the poverty rate in the province. The findings indicated that partially and simultaneously, economic growth, inflation, and unemployment significantly affected poverty rate. Furthermore, Yacoub (2012) conducted "The Effect of Unemployment Rate on Poverty Levels in Districts/Cities in West Kalimantan Province". It examined the relationship between poverty and the unemployment rate. The results showed that the unemployment rate significantly affected poverty rate in districts and cities in the province.

Amalia (2015) published "The Effect of Economic Growth and Inflation on Opened Unemployment and Poverty in Samarinda City". The study found economic growth and inflation affected open unemployment. This means that the Samarinda City Government should open more job opportunities to reduce unemployment. The results also showed that the independent variable significantly affected the dependent variable. However, inflation did not partially and significantly affect poverty.



Bintang & Woyanti (2018) published "The Effect of GDRP, Education, Health and Unemployment on Poverty Levels in Central Java 2011-2015". The study aimed to identify the factors affecting poverty rate in 35 districts and cities of Central Java Province. The results indicated that the independent variable significantly affected the dependent variable.

Economic growth is an important requirement to alleviate the poverty rate by increasing per capita output in the long run. It is associated with an increase in output per capita based on the total output (GDP) and the number of inhabitants. In this case, output per capita is the total output divided by the population. Economic development is a spontaneous and constant change in a stationary state to replace a previous situation. According to Jhingan (2014), economic growth is a long-term increase in a country's ability to provide more goods to its citizens through technological, institutional, and ideological advances. Law Number 20 of 2003 concerning the National Education System states that education is a conscious and planned effort to create a learning atmosphere and process. It enables students to develop their potential in spiritual strength, self-control, personality, intelligence, and noble character. They also acquire the skills needed by themselves, the community, the nation, and the state. The general state of education is seen from the school enrollment rate, the highest education attained, the literacy rate, the average length of schooling, and the school participation rate. The enrollment rate shows the percentage of the population aged 7-12 years and still involved in the school system. Some people aged 7-12 years have not enjoyed education, but a small proportion has completed primary school education. The low education level could be a barrier to development, meaning the level of education is needed to improve the population's welfare. This situation is consistent with education as a conscious effort to develop personalities and abilities inside and outside school.

Several variables of literacy rate could be used to measure even distribution of social welfare and a nation's progress. The ability to read and write promotes the population to participate actively in the development process. The average length of schooling indicates the higher education attained by the community. In this case, the higher average indicates that the level of education is higher. The average length of schooling is the average number of people aged 15 years and over that have completed formal education. A high level of education could allow someone to get a high income. This enhances access to goods and things that support the increase in health status (Adioetomo & Pardede, 2018).

Law Number 36 the Year 2009 concerning health defines health as a state of physical, mental, spiritual, or social well-being that enables everyone to live productively, socially and economically. The variables used to describe the level of health include 1) Population Morbidity, implying complaints from the population regarding their health. More complaints indicate that the health status in the area is worse. 2) Health facilities illustrate the number of government and private hospitals and their bed capacity. It also refers to the number of community, auxiliary, and medical health centres and *posyandu*. 3) Life Expectancy shows that people living long lives generally have a good health level. Life Expectancy Rate is a tool for evaluating government performance in increasing the population's welfare in



general and the degree of health in particular. 4) Health workers and personnel describe the number of general practitioners, dentists, specialists, midwives, and nurses.

Low Life Expectancy Rate in an area must be followed by health development and other social programs. These include environmental health as well as adequate nutrition and calories, such as poverty eradication programs, cash for work, unemployment insurance, and additional cash transfer. Inflation is a continuous and persistent increase in the general prices of an economy and could be divided into three. First, policy-induced inflation is caused by monetary expansion that may reflect excessive budget deficits and ways of financing. An example of this inflation is the hyperinflation in Germany in 1920. Second, non-policy-induced inflation is caused by exogenous effects, such as drought. Third, cost-push Inflation is caused by rising prices even when the unemployment rate is high, and production capacity is low. The ordinary wage is the most important component in the production cost. Therefore, a wage increases inconsistent with an increase in productivity results in inflation. Cost-push inflation cannot continue in the absence of a monetary policy. This means the wage increase would only increase the unemployment rate, not inflation. Additionally, inflation on the supply side could be caused by rising prices for raw materials, including those from exchange rate depreciation. This imported inflation relates to the market's structural rigidity regarding goods and labor. The rigidity is also caused by the low resource movement between sectors. For instance, price stickiness to fall in a sector weakens demand, meaning a surge in the developing sector increases the general price level to move.

Demand-pull inflation is caused by excessive aggregate demand, which drives the general price level. The aggregate demand could be increased by internal and external shocks, though the main drivers are excessive monetary or fiscal expansion policies. Inertial inflation continues at the same rate, resulting in economic events that cause change. When inflation in financial contracts and wages continues, it results in core inflation. The result could be an economic effect such as encouraging investment speculation, as well as reducing the interest rate and investment. Furthermore, a deficit in the trade balance and an increase in foreign debt impact individuals and society, worsen income distribution and reduces real income and saving.

An increase in Gross Domestic Product shows how economic activity produces added value for society in a certain period. Additional income from economic activities affects poverty when spread across all groups, including the poor. When more poor people benefit from the increase in the economic growth rate, poverty decreases and social welfare increases. Education and life expectancy levels also cause the poverty rate to increase. The real impact of inflation is the increase in the prices of living necessities. Relatively minimum and constant income conditions due to uncontrolled inflation make it difficult to meet the needs of a decent life, contributing to poverty. Therefore, this study linked poverty as a dependent variable to economic growth, education level, health level, and inflation rate as independent variables. The variables were measured by regression analysis tools to determine their significant relationship. The regression results were expected to show how





independent variables significantly influence poverty in line with the existing theory. Furthermore, the results were expected to provide an overview to the government and related parties to formulate a relevant poverty reduction policy.

### **3. Research Methods**

This explanatory study aimed to examine the relationship between economic growth, education level, health status, and inflation rate as independent variables, with the poverty rate in Sulawesi and Maluku Islands as the dependent variable. It used secondary or published data on economic growth, education level, health status, inflation, and poverty rate. The data were obtained from the Central Agency of Statistics (BPS), Bank of Indonesia (BI), and related institutions.

Panel data was divided into balanced and unbalanced. Balanced panel data occurs when the length of time for each unit cross section was the same. An unbalanced panel occurred when the length of time is not the same for each cross-section unit. In panel data method used several approaches, including least squares approximation or pooled least squares, as well as fixed and random effects approach. Poverty is a state of lack of money and goods to ensure survival. The poverty data used in this study is the poverty data for Sulawesi Island and Maluku Province for 2010-2019 in percent units, which are sourced from BPS. This study uses poverty because poverty describes the condition of people in an area that needs to be seen to measure the success of development in an area.

Economic growth means the development of activities in the economy which causes the goods and services produced in society to increase and the prosperity of the people to increase. The economic growth data used in this research is the economic growth on Sulawesi Island and Maluku Province in 2010-2019 in percent units sourced from the Central Agency of Statistics. This study uses economic growth as an independent variable because economic growth is one of the important components used to measure the success of development in an area. Education in this study, the level of education is represented by the average length of schooling (RLS). The average length of schooling is the average number of years spent by residents aged 15 years and over in pursuing all types of formal education that have been undertaken or are currently being undertaken. The average length of schooling used in this study is the average length of schooling on Sulawesi Island and Maluku Province measured in years which is sourced from the Central Agency of Statistics. This study uses education because education is one of several factors that cause poverty.

Health in this study is represented by life expectancy rate. Life expectancy rate is the approximate average number of years that a person can live from birth. Life expectancy on Sulawesi Island and Maluku Province for the 2010-2019 period is measured in years, sourced from the Central Statistics Agency. This study uses health because health is one of several important factors for the success of the nation's welfare if not paid attention to it will lead to poverty levels. Inflation is a symptom that shows a continuous increase in the general price level in percentage terms. The increase does not only occur in one or two goods and services, but extends to the prices of other goods and services. This price increase will tend to



occur in one or two goods and services, but extends to the prices of other goods and services. This price increase will tend to occur sharply and continuously for a relatively long period of time. Statistics. This study uses inflation because inflation has a large effect on the level of consumption, if consumption is less stable it will lead to poverty levels.

#### 4. Results

Data analysis used Economic Growth (PE), Education Level (RRLS), Life Expectancy Rate (AHH), and Inflation (INF) as independent variables, while the dependent variable is Poverty (POV). Hypotheses were tested using panel data, where the independent variable is considered constant when the poverty rate indicates 16.37 points.

$$\begin{aligned} \text{POV} &= 16.37 + 0.20\text{PE} - 0.78\text{RRLS} - 2.95\text{AHH} - 0.01\text{INF} + e \\ &\quad (4.94) \text{***} (4.49) \text{***} (-4.16) \text{***} (-3.28) \text{***} (-1.15) \\ R^2 &= 0.61 \\ R &= 0.59 \\ \text{JB} &= 5.20 \\ \text{F statistic} &= 25.50 \end{aligned}$$

This equation describes the relationship between economic growth, education level, life expectancy rate, inflation, and poverty. Economic growth has a positive effect, while education level and life expectancy rate have a negative effect on poverty, assuming other variables are considered constant. Similarly, the inflation variable negatively and insignificantly affects poverty. This study also conducted normality, multicollinearity, autocorrelation, heteroscedasticity, partial tests, and Fisher tests. The Random Effect Model (REM) regression obtained an  $R^2$  of 0.610760 or 61.07%. This means that 61.07% of poverty rate in Sulawesi and Maluku could be explained by economic growth, the average length of schooling, and life expectancy. The remaining 38.3% could be explained by other variables outside this model. Therefore, a high  $R^2$  value is good for future studies.

Economic growth partially has a positive and significant effect on poverty rate, with a coefficient of 0.200334 and a probability of 0.0000. This means that a 1% increase in economic growth increases the poverty rate by 0.200344%. Inequality in income distribution still occurs, even when economic growth increases. Moreover, Okun's paradox explained why the highest economic growth could not promote employment due to capital intensive that increases poverty. The average length of schooling has partially a negative and significant effect on the poverty rate, as shown by a coefficient of -0.780407 and a probability of 0.0001. This means a 1% increase in the average length of schooling reduces the poverty rate by 0.780407%. A higher education level promotes an increase in income and human resources. When people increase their higher education, they could earn more income. The results of this study indicate that the higher the level of education, the lower the level of poverty in society. And vice versa, the lower the level of education, the higher the poverty of the people of a region. These results indicate that increased education will reduce poverty, namely education is a way to save oneself from poverty. A poor person expects a good job and high income, so he must have a high



level of education. However, higher education can only be achieved by the rich. Meanwhile, the poor do not have sufficient funds to finance education up to a higher level, such as high school and university. Education is the most important factor that can get someone out of poverty. Education will have an impact in the long run in improving the economic life of families to a certain degree, education does not only function as a tool to only get the job needed but also creativity and competitiveness in carrying out their routines. Education can hone abilities and skills in dealing with problems and solving them properly. Someone who has high quality education will be able to produce goods and services optimally so that he will also get optimal income. If the income of the population is high, then all needs will be met and far from the cycle of poverty. This means that the higher a person's education level will encourage an increase in work productivity and reduce poverty.

The results also showed that life expectancy partially negatively and significantly affects poverty rate. This means that a 1% increase in life expectancy reduces the poverty rate by 2.952065%. Government interventions to improve health are also important policy tools for reducing poverty. One factor underlying this policy is that health improvements increase employability, reduce unemployment, and increase energy output. Therefore, good health negatively affects the poverty rate. The results of this study indicate that policies to improve health from the government are also an important policy tool for reducing poverty. One of the factors underlying this policy is that better health improvements will increase work performance, reduce days off and increase energy output. Therefore, good health will negatively affect the level of poverty. The degree of health is a picture of the body condition of a worker, the higher the level of health, the lower the chance for that person to get sick. People who are healthy will have the opportunity to get better jobs and work more productively compared to people who have a low degree of health because these people tend to get sick so that the impact on the person's work productivity decreases. Increasing the productivity of healthy people due to a high degree of health will increase their income thereby increasing their standard of living. Regions that have a high degree of health will improve the lives of their people so as to reduce the poverty rate in the area. This situation occurs on the islands of Sulawesi and Maluku, namely the higher the degree of health, the lower the level of poverty in the area of Sulawesi Island and Maluku Province.

Inflation has partially a negative but insignificant effect on the poverty rate, with a coefficient of -0.013271 and a probability of 0.2528. The results indicated that inflation does not affect the poverty rate because it was mild and below 10% during the observation period. Based on the research results, it can be concluded that inflation has no effect on the poverty rate. This happened because during the observation period the inflation rate was in the mild inflation category because it was below 10 percent, the poor would not be affected by the inflation rate because basically the poor did not have purchasing power, so that even if inflation occurred they would still have no purchasing power. Inflation is one of the economic problems that can slow down economic performance. Inflation will have an impact on the business world and workforce, which can reduce their purchasing power and income. Inflation will result in higher people's spending so that the ability to buy purchasing power decreases. This will have an impact on increasing poverty in a



region. On Sulawesi Island and Maluku Province Inflation did not have an impact on increasing the poverty rate. This was because the inflation rate on Sulawesi Island and Maluku Province was well maintained or stable.

## 5. Conclusion and Suggestion

Based on the results and discussion in the previous sections, the following conclusions were drawn: Estimation REM model showed that economic growth, education, health status, and inflation simultaneously and significantly influenced poverty rate in Sulawesi and Maluku Islands, with  $\alpha = 5\%$  and a probability of  $0.0000 < 0.05$ . The model estimation results partially indicated that economic growth positively and significantly affected the poverty rate. However, the average length of schooling, life expectancy, and inflation had partially negative and significant effects.

Local government must consider education in formulating policies to reduce poverty rate. This is because the average length of schooling negatively affects the poverty rate. The level of education is important in increasing a person's life level. Furthermore, local government must pay attention to health-related matters because life expectancy negatively affects poverty rate. A healthy population and a good health system impact the economic productivity of an area. Local government should also consider the regional inflation rate because it reduces poverty insignificantly. Additionally, economic growth needs to be considered because it could increase poverty when felt only by a few parties. Future studies could add other variables that also affect the poverty rate.

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