

## AN ANALYSIS ON POVERTY INEQUALITY IN SOUTH SULAWESI INDONESIA BY USING IMPORTANCE PERFORMANCE ANALYSIS (IPA)

Abd. Kadir Arno<sup>1)</sup> Fasiha<sup>2)</sup> Muh. Ruslan Abdullah<sup>3)</sup> Ilham<sup>4)</sup>

<sup>1)</sup>Faculty of Economics and Business IAIN Palopo  
abdulkadir.arno@iainpalopo.ac.id

<sup>2)</sup>Faculty of Economics and Business IAIN Palopo  
fasiha@iainpalopo.ac.id

<sup>3)</sup>Faculty of Economics and Business IAIN Palopo  
muh\_ruslan\_abdullah@iainpalopo.ac.id

<sup>4)</sup>Faculty of Economics and Business IAIN Palopo  
ilhampalopo355@gmail.com

### **Abstract:**

*This article provides an overview of economic inequality and the disparity in the level of poverty in the South Sulawesi-Indonesia Province by using variables of economic growth, GDP / capita and the number of poor people between districts in South Sulawesi Province with periodic data types, namely data from 2013-2017. This study uses an Importance-Performance Analysis analysis tool which emphasizes more on quadrant analysis using Cartesian Quadrant. The conclusion of this study is that the disparity of poverty between districts in South Sulawesi Province with determinants of polarized economic growth with high economic growth conditions but the number of poor people is also very high, high economic growth The number of poor people is low, Economic Growth Low the number of poor people is also low , Economic growth is low but the number of poor people is very high, so the determinant of GDP / capita follows the same pattern.*

*Keywords: Poverty, Economic Growth, GDP/capita, South Sulawesi*

### **INTRODUCTION**

The problem of poverty is faced by almost all countries and regions in the world, especially in developing countries or regions such as Indonesia and the regions within it. Poverty has become one of the problems in Indonesia for a long time until now. Therefore reducing poverty requires extra effort from the government because it is the government that has a very important role in fighting poverty. In addition to the community government also has a role, namely by participating in programs implemented by the government, for example through community empowerment programs. Efforts that have been made by the government can be said to be successful because in March 2018 Indonesia then managed to reduce the poverty rate to reach 9.82 percent, down 0.3 percentage points from 10.12 percent with a population of 25.95 million poor compared to September 2017 with a population poor at 26.58 million people. (Badan Pusat Statistik Indonesia, 2018)

Defining poverty using a single definition will lead to bias in other indicators related to poverty. If traced thoroughly, it is possible that other factors have a significant impact on one's poverty. This was criticized Atkinson, (1975) who stated that "it is impossible or misleading if you look at poverty with absolute standards that can be applied to all countries and throughout the world. The poverty line must be defined in certain social standards of certain communities. Therefore Ravallion, (2001) argues that basically, the

problem of poverty relates to various dimensions that are interrelated with one another. One of the causes of poverty is the existence of income inequality between regions and very high per capita income. Jaka Sumanta (2005) argues that poverty has a causal relationship in the sense that the high level of poverty due to low per capita income due to low levels of investment. the low level of investment per capita due to lower domestic demand per capita, as well as domestic demand per capita, is low due to high poverty levels and so on.

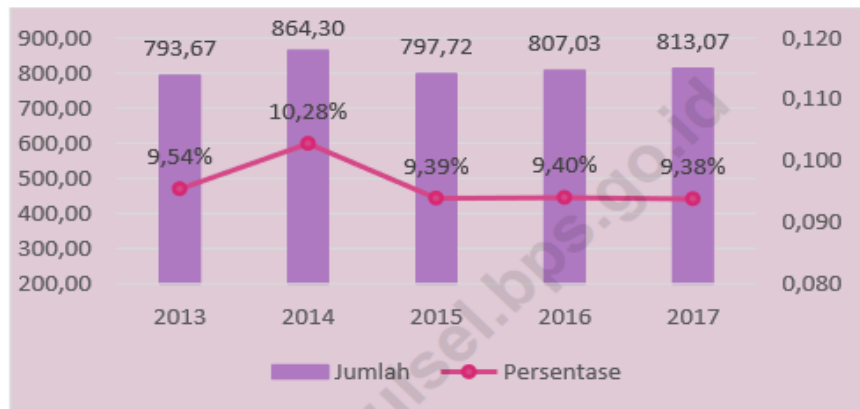
Griebeler, (2015) concluded that the economy is in a poverty trap if the balance of output from production is low. Gruen & Klasen, (2012) provide evidence to support the negative relationship between subjective growth and well-being and the positive relationship between growth and income inequality, other studies have also been conducted by several researchers including (Lokshin, 2009) (Annim, Mariwah, & Sebu, 2012) (Zhang, 2014) (Mihaela Mihai, Emilia Titan, 2015), (Gonçalves & Machado, 2015) (Marinho, Campelo, França, & Araujo, 2017) (Li, 2018) from several studies above the author agrees with (Ravallion, 2001) that basically the problem of poverty is not only a problem in the economic field but also related to various aspects, both socio-cultural aspects, and other aspects.

Basically, the logical consequence of a development process in a phase of change is that there will be an imbalance between regions. Differences in the level of development between regions that are very excessive will have a negative impact on the growth of a region so that the process of economic development in an area ideally aims to reduce poverty, income inequality and unemployment in the area concerned.

South Sulawesi Province is one of the provinces in Indonesia that has a fairly good level of economic growth, according to the Central Bureau of Statistics (BPS) report that South Sulawesi's economic growth in 2017 is 7.23 percent which is slightly lower than 2016 which reached 7, 42 percent. However, it managed to occupy the second highest national ranking after North Maluku Province, with total GDP reaching Rp 418.93 trillion or an increase of 10.35 percent compared to 2016 valued at Rp 379.63 trillion. (BPS Propinsi Sulawesi Selatan, 2017)

Although it is a region that has good economic growth, this is also followed by a high level of inequality with the Gini ratio of 0.429, which exceeds the national figure of 0.391, thus placing the position of South Sulawesi Province at the second highest position for regions with economic inequality. In addition to having high economic inequality, the poverty rate is still quite high. The number of poor people in South Sulawesi Province experiences fluctuations every year. Based on official data released by BPS, the number of poor people in South Sulawesi in March 2017 amounted to 813.07 thousand people or 9.38 percent of the total population of South Sulawesi Province. The number of poor people in South Sulawesi can be seen in the graph number 1.

Graph 1 Poor Population in South Sulawesi-Indonesia March 2013-2017



Source, South Sulawesi BPS, Susenas 2017

If seen the table in the appendix, there are a number of poor people in South Sulawesi-Indonesia Province experiencing a decrease in percentage, which is equal to 0.02 percentage points, but experienced an absolute increase of 6.04 thousand people compared to the condition in March 2016 which was 9.40 percent or 807.03 thousand people. (BPS Propinsi Sulawesi Selatan, 2017)

This article aims to provide an overview of economic inequality and the disparity in the level of poverty among regencies/cities in South Sulawesi Province, using determinants of economic growth and GDP per capita and the number of poor people.

The systematics of writing in this article is divided into several parts, the first contains an introduction and methodological aspects, the second presents several theories and dynamics related to economic inequality and poverty disparities in South Sulawesi-Indonesia districts, and the third will present the results of analysis and findings from research objectives.

## LITERATURE REVIEW

### 1. Inequality Economic

Inequality economic is a gap in economic development that differs between regions and other regions both vertically and horizontally, which causes disparities in development. One of the objectives of economic development is to reduce the gap by increasing income/capita. The increase in income/capita in an area shows that in the region there has been an increase in economic growth. However, an increase in per capita income does not always indicate a more even distribution of income.

Inequality has many dimensions, among the measures of inequality that get the attention of economists is income inequality. However, income inequality cannot be assumed to be the only measure that can be used. There is a measure of non-income or non-economic inequality that can be considered as a step that is as important as a measure of income inequality and other measures of economic inequality that also have a significant impact on socio-economic development, community status and welfare, and even socio-political stability.

Income inequality is a condition of income that is uneven in the community in a region at a time. Income inequality is usually associated with poverty, where there is a pattern of relations that is formed between income and poverty, namely as follows: a) all

members of the community have high income (no poor), but high-income disparities, b) all community members have high income (no poor people), but a low-income gap. (This is the best), c) All members of the low-income community (all poor people) and income inequality among them are high, d) All members of the low-income community (all poor people), but income inequality among them is low, e) Community income varies (Some poor people, some not), but high-income inequality, f) Community income levels vary (Some are poor, some are not), but income inequality is low, and g) Community income varies (Some are poor, some are not), but inequality high income.

## 2. Calculation of Percentage of Poverty

There are various types of formulas in calculating poverty that has been made with all basic theories. The following is a calculation of poverty that is quite often used in Indonesia, namely:

### a. FGT Index

Foster, Greer and Thorbecke, (1984) is the most popular index and is very often used to measure poverty levels. The FGT index is written in the formula:

$$P_{\alpha} = \frac{1}{n} \sum_{i=1}^q \left( \frac{z - y_i}{z} \right)^{\alpha}$$

Where:

- N = Total Population
- Z = Poverty Line
- Y<sub>i</sub> = Poor Population Expenditure to i
- q = Number of Poor Population
- α = parameter where α = 0, 1, 2

### b. Headcount Index (HI)

The Headcount Index is a simple measurement that identifies what percentage of households can be classified as poor. This index only fulfills the principle of anonymity, which does not depend on who is poor. The poverty line greatly affects the value of the Headcount Index. The calculation formula to measure this index is obtained from the FGT Index with a value of α = 0

### c. Poverty Gap (P1).

A more moderate poverty analysis tool is the poverty line used to measure the distance between the average poverty income and the poverty line. In other words, the poverty gap is the difference between the poverty line and the income of poor households. Therefore, the poverty gap is referred to as the measurement of the depth of poverty.

### d. Poverty Severity Index (P2)

Index of poverty severity describes income inequality among poor people. The smaller the poverty severity index, the more equitable distribution of income among the poor. The poverty severity index is a measure of the severity of poverty that has been widely used using the value <math>\alpha = 2</math>

## 3. Calculation of Poverty Indicators in the Regency of the Southern Province

In calculating the poverty line at the Regency level it cannot be done as in calculating poverty in the province. This is due to the limited number of samples for the

reference population at the Regency level and estimates at the Regency level cannot be distinguished based on urban and rural areas. Therefore the approach to calculating regency poverty is as follows:

- a. Determine the Temporary Poverty Line for the Regency level with the formula

$$:GKS_{ij}^t = GK_{ij}^{t-1} \times (1 + E_j \times I_{ij})$$

Where :

$GKS_{ij}^t$  = Poverty Line While regency to me in Province J year t

$GK_{ij}^{t-1}$  = First Regency Poverty Line in Province J years t-1

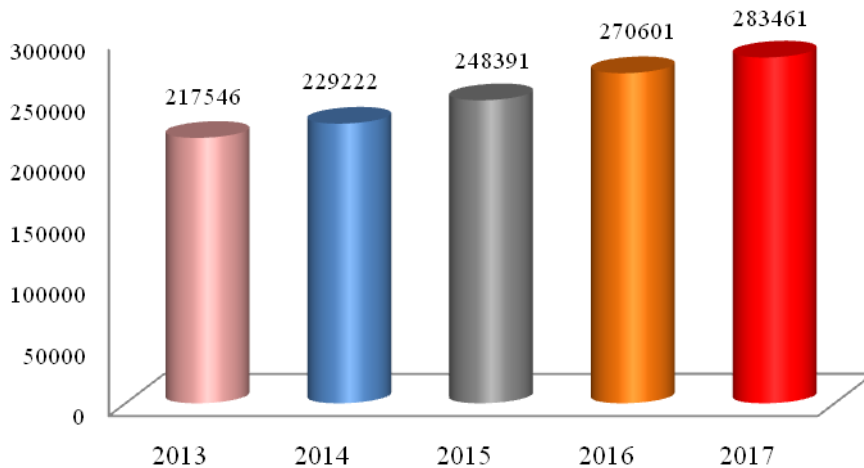
$E_j$  = Elasticity provinces *to-j* (the ratio between the growth of the provincial poverty line *to-j* against inflation provinces to j)

$I_{ij}$  = Inflation regency *to-to-i* in province j

- b. Determine P0 while the regency *to-to-i* in province j is calculated by multiplying the provinces P0 growth *to-j* period t to t-1 with the district P0 *to-i* in year t-1.  
 c. Establishing the poverty line by pulling the intersection between and P0 temporarily.  
 d. Calculate poverty indicators using the FGT formulation.  
 e. Prorate the number of poor people in the Regency to be the same as the Province figures previously released.

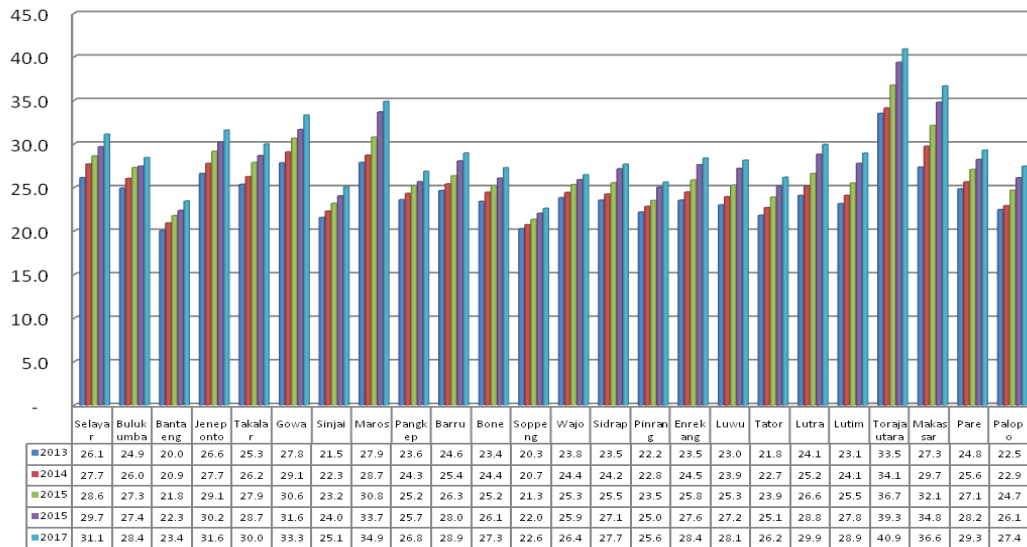
The size of the national poverty line is the amount of food needed per person equivalent to 2,100 kg of calories per day which is referred to like the food poverty line and also the costs of meeting education, housing, clothing, and health needs and others are called non-food poverty lines. The poverty line in South Sulawesi province can be seen in the following in the graph 2 and 3

Graph 2 Poverty Line in South Sulawesi Province 2013-2017



Source: BPS data processed

Graph 3. Poverty Line Regency that is in South Sulawesi Province



Source: BPS data processed

On graph 2 and 3 above are accumulated food poverty lines and non-food poverty lines. The food poverty line is the minimum expenditure for basic food needs which is equivalent to 2,100 calories per person per day. While the Non-Food poverty line is the minimum requirement for clothing and food needs such as housing, clothing, education, and health.

## METHODS

### 1. Data and Types of Data

The data used in this study is secondary data obtained from the Central Statistics Agency. The type of data used is periodic data, namely data from 2013-2017.

### 2. Variable

Variables used in this study are determinants, namely the variables of Economic Growth, Gross Domestic Product/Capita, and the Number of Poor Population in Districts that are in South Sulawesi Province-Indonesia.

### 3. Analysis Tool This

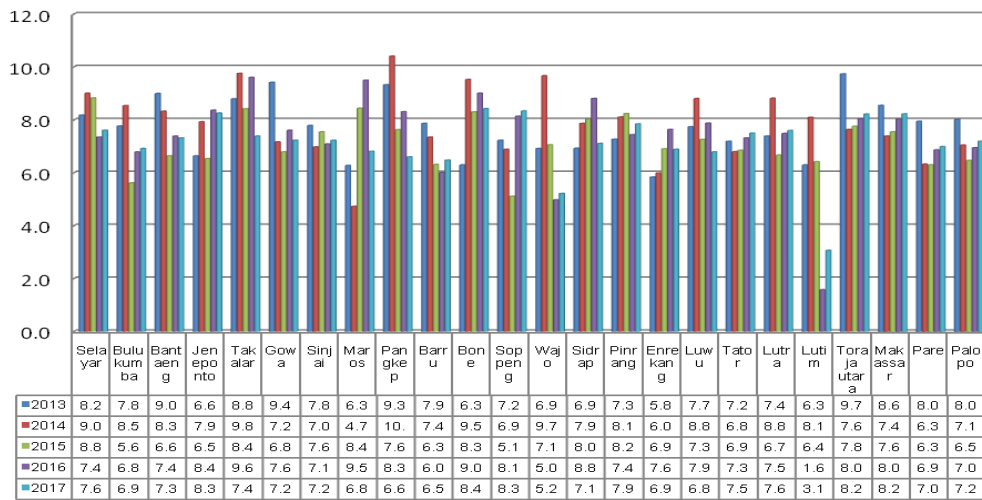
The study uses the analysis tool *Importance-Performance Analysis* which in this study emphasizes more on quadrant analysis with the Cartesian Quadrant.

## RESULT

### 1. Economic Growth

Economic Growth is one indicator commonly used to see the economic conditions of a region based on the value of development results in one year compared to the previous year. The economic growth of a region is reflected in the production process of goods and services produced in the area, which is reflected in the Gross Regional Domestic Product (GRDP). GRDP value is the value of goods and services produced during a certain period of time by utilizing the factors of production owned by the region. The economic growth conditions of regencies/cities in South Sulawesi Province can be seen in the graph number 4

Graph 4 Economic Growth Regency in South Sulawesi Province 2013-2017



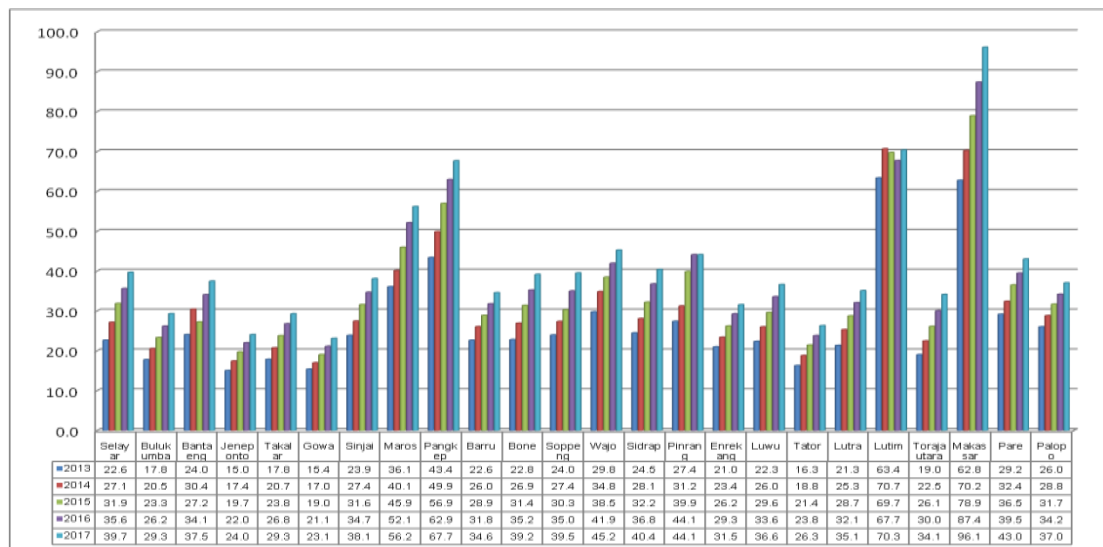
Source: BPS data processed

From graph 4 above the total economic growth regency in South Sulawesi Province in 5 years (2013-2017) is in points 3 - 9 percent. Where the regency that has the highest economic growth in 2017 are Bone Regency at 8.4 percent, while the regions with the lowest economic growth are East Luwu regency by 3.1 percent.

## 2. Gross Regional Domestic Product (GDP)/Capita

Gross Regional Domestic Product/capita is the nominal value of GDP derived from the value-added of goods and services produced by different production units in the region which is distributed to all residents in an area commonly referred to as income per capita. The condition of GDP Regency in South Sulawesi Province can be seen in the graph number 5.

Graph 5 Gross Regional Domestic Product Regency in South Sulawesi Province 2013-2017



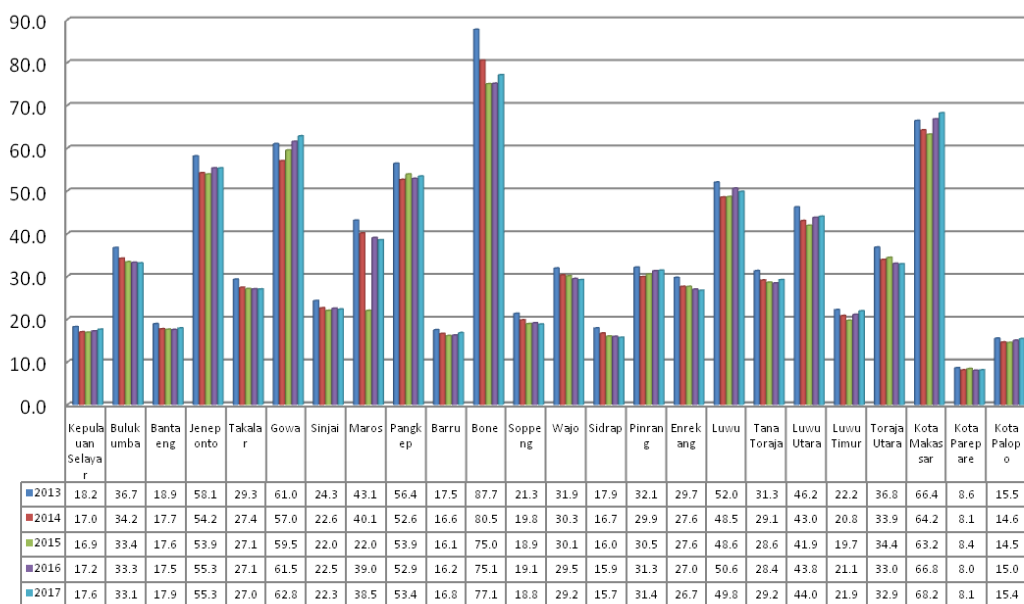
Source, BPS Data processed

From graph 5 above GDP/Capita Regency in South Sulawesi Province in the past 5 years (2013-2017), the lowest GRDP/capita in 2013 was Jeneponto Regency with a value of 15 million and the highest was East Luwu District with 63.5 million. The lowest per capita GRDP in 2017 is Gowa Regency with 23 million and the highest is Makassar City with 96 million.

### 3. Amount and Percentage of Poor

Population Poor population is the population that has an average per capita expenditure per month below the poverty line. The number of poor people in South Sulawesi According to Regency can be seen in the graph number 6

Graph 6 Number of Poor Population According to Regency 2013-2017 (000)

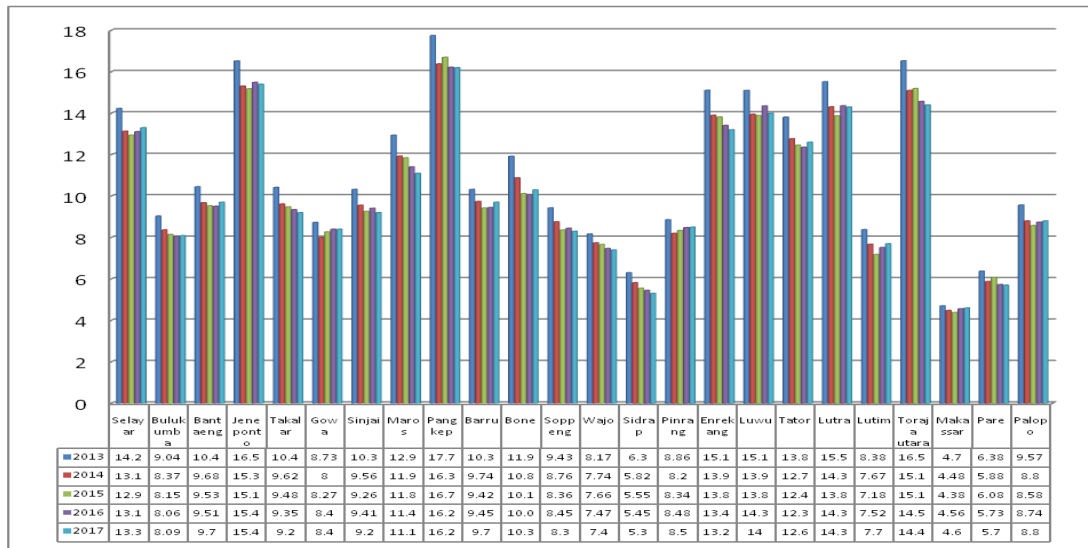


Source, BPS Data processed

From graph 6 above the number of poor population of Regency in South Sulawesi Province in 5 years (2013-2017) did not experience a fantastic decline. The Regency which has the poorest population is Bone Regency, while the area that has the lowest poor population is Pare-Pare City, while the percentage of poor people in the regency in South Sulawesi Province in 5 years can be seen in graph number 7



Graph 7 Percentage of Poor Population According to Regency / City 2013-2017 (000)



Source, BPS data processed

From graph 7 above the percentage of the number of poor people in the Regency in South Sulawesi Province in 5 years (2013-2017) percentage of a population that has the biggest poor is Pangkep Regency, while the area that has the lowest percentage of a poor population is Makassar City

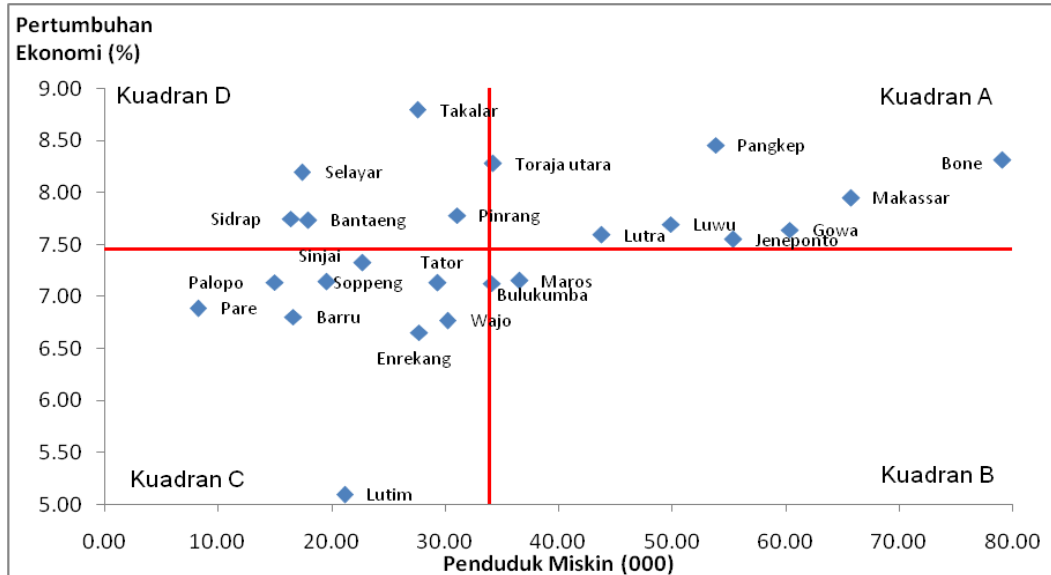
## DISCUSSION

Economic activity in an area is expected to increase significant economic growth so that it can generate additional income for the community in the region in a certain period, which in theory will be able to reduce the poverty rate as we all know about the theory "*trickle-down effect*" which illustrates that a percentage of economic growth can create hundreds of thousands of jobs that contribute to the welfare of society.

However, if the opposite condition occurs, namely the economic growth of a region that is not followed by opportunities for employment opportunities for the community, it will tend to cause inequality in the income distribution, which in turn creates conditions *trickle up effect* where economic growth is followed by an increase in poverty with the meaning that economic growth only benefits the rich community.

The correlation between economic growth and poverty is very strong, because the initial stages of a development process tend to increase poverty levels until the process gradually decreases the number of poor people, but in real poverty will not disappear only with the occurrence of economic growth things apply in the Regency in South Sulawesi Province where the analysis was carried out using quadrants with the following positions: 1) Quadrant A with a position of High Economic Growth but the number of poor people was also high 2) Quadrant B position of High Economic Growth but the number of poor people was also low 3) Quadrant C position of Low Economic Growth but the number of poor people is also low, and 4) Quadrant D position of Economic Growth is low but the number of poor people is high. The conditions referred to are illustrated in the Cartesian Quadrant Diagram below:

### Kartesian Quadrant Performance of Economic Growth and the Number of Poor Population



Source: BPS data processed

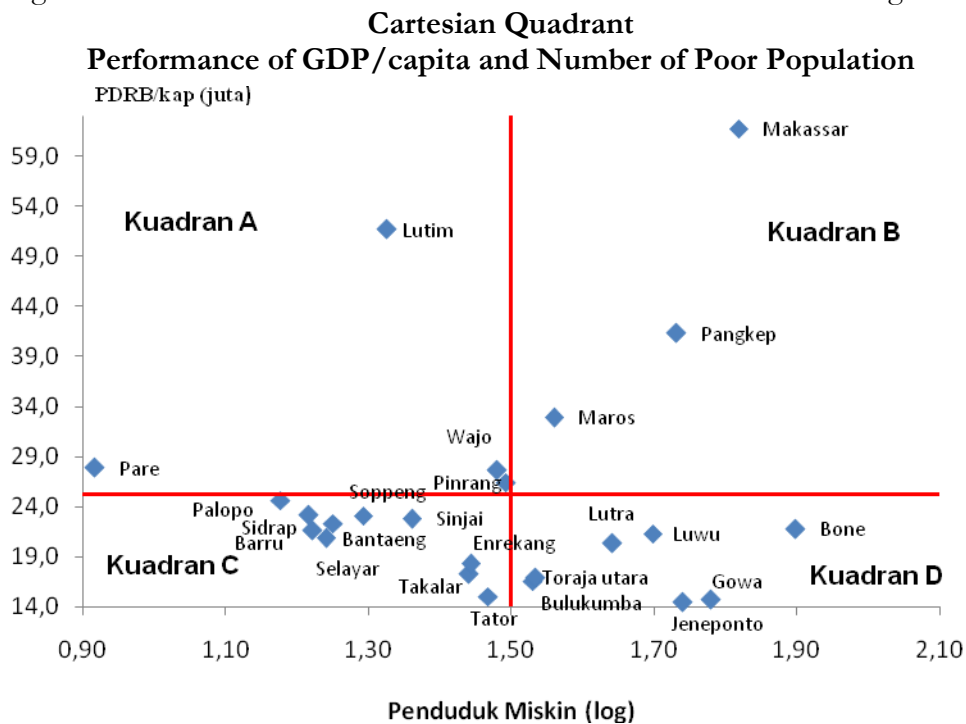
The Cartesian quadrant above shows that there are several Regencies in South Sulawesi Province with positions located in Quadrant A, namely the position of High Economic growth but the number of poor people is also high, the regions included in this quadrant are Bone, Gowa, Jenepono, Pangkep, Luwu, Luwu Utara, Toraja Utara and Makassar City, for Quadrant B with a position of High Economic Growth the low number of poor people includes Takalar, Selayar, Sidrap, Bantaeng, and Pinrang Regencies, while for Quadrant C with a Low Economic Growth position the number of poor people is also low including Sinjai, Tana Toraja, Soppeng, Palopo, Pare-Pare, Baru, Wajo, Enrekang, and East Luwu, and the last is Quadrant D with a position of low Economic Growth but the number of poor people is high, namely Maros and Bulukumba.

From the description of the condition of Quadrant A above, it can provide information that improved economic development has also given birth to a paradox, which is precisely the current rapid economic development can experience the "rising effect" (trickle up effect). The results are not enjoyed equally but only a handful of people are rich. The aim is that economic growth will only benefit rich people, while poverty and unemployment do not diminish and even tend to grow up, this is similar to that produced by (Ika, 2017) (Walida Mustamin & Undai Nurbayani, 2015), (Dewanto, Rujiman, & Suriadi, 2014) that growth the economy has a negative and significant influence on poverty.

For Quadrant D, providing information on the welfare of a region can be seen from high economic growth which directly indicates an increase in income in the concerned area. The increase in income will encourage an increase in people's purchasing power resulting in increased consumption of goods and services. In addition, it also provides information that the condition occurs that economic growth is "trickle-down effect" that economic growth is a percentage, can create jobs several hundred thousand who helped the public welfare within the meaning of the word can overcome poverty, it is in line with the study done by (Suryahadi, Suryadarma, & Sumarto, 2006), which in his research emphasizes the parts of location and sectoral growth. The results of the study indicate that growth in the rural

service sector reduces poverty in all sectors and locations. Another study conducted by (Siregar & Wahyuniarti, 2007) found that economic growth has a negative and significant impact on poverty, so the results of this study imply that the impact of economic growth cannot fully solve the problem of poverty.

While Quadrant C and B provide information that the conditions that occur related to economic growth with the number of poor people become a crucial problem that must be resolved by the government, in this case the question is whether the economic growth problem is resolved or the poverty problem because it will provide an effect on the community, for example, the problem of low economic growth indicates that production in the area concerned is not the maximum that can give the effect of unemployment so difficult for people to flourish and find a decent job to make ends meet is difficult due to work, so the potential increase in poverty can occur, in addition to determinant of Economic Growth, another variable used in the study is GDP/capita which is also often used to measure the level of welfare of the population with the assumption that the high GDP/capita will also increase regional income sources which also improve the welfare of the population of a region or in other words the number of poor people will decrease, but this cannot be generalized, because it turns out ideal conditions like this do not apply in some regencies in South Sulawesi Province as described in The Cartesian Diagram below:



Source: BPS data processed

The Cartesian quadrant above shows that there are several regencies in South Sulawesi Province with positions located in Quadrant A, which is the position of GRDP high per capita but the number of poor people is also high, the areas included in this quadrant are Makassar City, Pangkep Regency, and Maros. For Quadrant B with per capita GRDP position, the high number of poor people is low, including the cities of Pare-Pare, East Luwu, Wajo, and Pinrang. Quadrant C with a low per capita GRDP position of the poor also includes Palopo City, Sidrap, Barru, Selayar, Bantaeng, Soppeng, Sinjai,

Enrekang, Takalar, and Tana Toraja Regencies, and the last is Quadrant D with a low per capita GRDP position high poverty, namely North Luwu, Luwu, North Toraja, Bulukumba, Gowa, Jeneponto, and Bone.

From the description of the condition of Quadrant A above shows that the income received by the community is useful to meet the consumption of their basic needs. Communities that are able to meet the consumption of their basic needs will come out from ensnaring poverty. Norton (2002) notes that if the per capita GRDP growth is high it means that there is a possible job to generate higher income as well, so the potential for collecting taxes is created that allows the government to do more for the poor. In line with this, Wisnu (2011) states that the higher the GRDP, the poverty rate decreases. This is in line with the research (Wiguna Van Indra, 2013), which states that if per capita GRDP increases in an area, the community in the area will prosper or in other words if per capita GDP increases, the poverty rate will decrease.

The quadrant B above can provide information that regions with high levels of GRDP / per capita have not had a significant impact on community welfare, on the contrary, there is a decline in real income of the community, an imbalance in income distribution between the rich and the poor. This situation may be caused by 1) high population growth, causing a decrease in per capita income; 2) inflation that is not accompanied proportionally with the addition of production of goods, and 3) inequality of development between regions. The above conditions also illustrate the occurrence of inequality in income distribution. According to Todaro (2000), income distribution is divided into two main measures, namely size distribution and functional distribution. Size distribution is the size of the income of each person received, while functional distribution is the distribution of ownership of the factors of production.

While Quadrant C and D provide information that the conditions experienced by the Regency/City concerned are problems of income distribution and poverty that occur. The problem of income distribution or poverty is relatively closely related to the problem of absolute poverty because absolute poverty is a result of inequality in income distribution. If the income gap is high, the number of poor people will be high. Relative poverty will always arise as long as there is an imbalance in income distribution. As revealed by Todaro and Smith (2011), the causes of poverty are caused by low-income levels, slow economic growth, and uneven income distribution.

## CONCLUSION

The poverty disparity between regencies in South Sulawesi Province is based on determinants of economic growth with the number of poor people patterned with a quadrant of conditions of high economic growth but the very high number of poor people in the area included in this quadrant is Bone, Gowa, Jeneponto, Pangkep, Luwu, North Luwu, North Toraja and Makassar City, for the Economic Growth Quadrant The high number of poor people includes Takalar, Selayar, Sidrap, Bantaeng and Pinrang Regencies, while for Quadrants with Low Economic Growth positions the number of poor people is also low including Sinjai Regency, Tator, Soppeng, Palopo, Pare-Pare, Baru, Wajo, Enrekang, and East Luwu, and the last is Quadrant with a position of low Economic Growth, but the number of poor people is high, namely Maros and Bulukumba. Whereas the poverty disparity is based on the determinant of income per capita with the number of poor people following the pattern quadrants with a high per capita GRDP position but the number of poor people is also high, the regions included in this quadrant are Makassar

City, Pangkep Regency, and Maros. For quadrants with per capita GRDP positions, the high number of poor people includes the cities of Pare-Pare, East Luwu, Wajo, and Pinrang. Quadrants with a low per capita GRDP position are also low including Palopo City, Sidrap, Barru, Selayar, Bantaeng, Soppeng, Sinjai, Enrekang, Takalar, and Tana Toraja Regencies, and the last is Quadrant with a low per capita GRDP position namely North Luwu, Luwu, North Toraja, Bulukumba, Gowa, Jeneponto, and Bone.

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