

## The Effect of Human Development Index and Economic Growth on Unemployment in Southeast Sulawesi

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**Abstract:** This study was conducted with the aim to know the influence of Human Development Index (HDI) and Economic Growth Against Unemployment Rate in Southeast Sulawesi Province Year 1996-2018. This research is a type of quantitative research using secondary data in the form of time series data from 1996-2018. Data obtained from this study were sourced from the Central Statistics Agency (BPS) of Southeast Sulawesi Province. The analytical tool used is multiple linear regression with ordinary least square method (OLS) and then assisted with the application Eviews. The result of research indicate that (partial) the Human Development Index (IPM) has significant influence to the level of unemployment in Southeast Sulawesi Province. Then Economic Growth has significant influence to the Human Development Index (IPM). Result of F test show value of probability (F-statistic) that is  $0.000034 < 0,05$ . This means that simultaneously Human Development Index (HDI) and Economic Growth have significant effect on Unemployment Rate in Southeast Sulawesi Province 1996-2018.

**Keywords:** Human Development Index, Economic Growth and Unemployment.

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### I. Introduction

The country of Indonesia is a country with low funds that still requires the development process, mostly from countries that have large amounts of funds for the community, in large numbers between any country that needs employment funding in any country, in this country An increase in the amount of money that occurs in an increase the amount of money increases with the amount that increases, this can increase earnings.

According to Putong (2013) in (Darman, 2013) states that if the Gross National Product (GNP) rises by 2.5 percent past the trend that has been generated in one year, then the number of unemployed has decreased by 1 percent. This statement is known as Okun's law, even though it is naïve if it is called a law, because it has no strong reason to be a law. However, the statement is sufficient to provide information or empirical evidence. Based on research results, economic growth causes a decrease in unemployment. Furthermore research examined by (Nurcholis, 2014) found that the effect of the Human Development Index on Unemployment was significant and positive.

Unemployment is still a major problem in various regions in Indonesia, one of which is the Province of Southeast Sulawesi, in the last five (5) years, namely in 2011-2018 there was a fluctuation in the Open Unemployment Rate (TPT), whereas Economic Growth always increased above 5% until 2012 Southeast Sulawesi's economic growth reached 10.41% and its economic growth was always above the national economic growth. In the 2011-2018 period, the human development index figure has always increased every year, for more details, it can be seen in the following table:

**Table 1.1**  
HDI, Economic Growth and Unemployment in Southeast Sulawesi Province  
in 2011-2018

Year	Human Development Index (%)	Economic Growth (%)	Unemployment Rate (%)
2011	66,52	8,96	4,45
2012	67,07	10,41	3,20
2013	67,55	7,28	3,43
2014	68,07	6,26	2,13
2015	68,75	6,88	3,26
2016	69,31	6,51	2,72
2017	69,86	6,76	3,30
2018	76,61	6,20	3,26

Source: BPS of Southeast Sulawesi Province

Based on Table 1.1 Human Development Index (HDI) and Economic Growth above shows an insignificant relationship this is due to fluctuations in economic growth data. In 2011 the value of Economic Growth was 8.96% then in 2012 it rose to 10.41% but the following year it fell again to 7.28. While the Human Development Index (HDI) also always increased in that period, which in 2011 the HDI number of 66.52 then rose to 67.07 the following year and continued to rise until 2018. However, this is not in line with the Unemployment Rate, where the unemployment rate in Southeast Sulawesi Province in the last five (5) years has fluctuated, it should be supported by an increase in economic growth and the value of development index where humans are always increasing, then unemployment can continue to decline.

Based on the background above, where there is a gap between the pace of the Human Development Index (HDI), Economic Growth and Unemployment, the research objective is to find out the Effect of the Human Development Index and Economic Growth on Unemployment in Southeast Sulawesi in 1996-2018".

## **II. Literature Review**

### **Human Development Index (HDI)**

According to the Central Statistics Agency (2007) in (Retnasari&Cahyono, 2015), the Human Development Index (HDI) is defined as a tool to measure human development achievements according to the number of quality of life indicators. There are two indicators of the Human Development Index (Human Development Index), namely physical quality based on life expectancy, and non-physical quality seen by literacy rates and the average length of population attending school, as well as the economic capability of the community based on the value of purchasing power parity (PPP) index (Andaiyani, 2012: 3) in (Retnasari&Cahyono, 2015). The United Nations has determined the level of human development on a scale of 0.0 - 100.0 in the following categories: (a) High: HDI of more than 80.0, (b) Upper Medium: HDI between 66.0 - 79.9, (c) Lower Intermediate: HDI between 50.0 - 65.9, (d) Low: HDI less than 50.0 (Retnasari&Cahyono, 2015).

The new paradigm in development that makes humans the ultimate achievement of development is the key to success in realizing cooperative development that is intensive. Human development can be maximized to fulfill the right to human rights. While economic growth can support the fulfillment of rights, freedoms and social justice between the welfare of society and individuals. Improving human quality and increasing the rate of economic growth is important to do in order to realize development that can guarantee the sustainability of human life (Suparno, 2014).

### **Economic Growth Theory**

The definition of economic growth is an increase in economic activity that results in increased production and a more prosperous society (Sukirno, 2000) in (Rustiono, 2008). Furthermore, economic growth is a benchmark for the achievement of a country's economic improvement. From one period to the next, each country will continue to try to increase the production produced. This capability improvement is due to the increase in production factors in both quality and quantity. The existence of investment causes the technology and fixed assets that are used continue to grow. In addition, the workforce increased due to population growth followed by an increase in the level of education and community skills.

According to Schumpeter, economic growth is more focused on the role of entrepreneurs which is so important. This theory illustrates that entrepreneurs are a group of people who are always innovating in economic activities. The innovations in question are: promoting new products, increasing efficiency in producing goods, expanding sales of goods, developing new raw materials and making changes in the organization with the aim of increasing the efficiency of the company's activities. These various innovation activities require new investment (Anggoro&Soesatyo, 2015)

### **Unemployment Theory**

The term for someone who does not have a job, is looking for work, working hours less than 48 hours / two days for a week, or the person is trying to find a decent workplace usually called unemployed or unempoyed. In general, the cause of unemployment is that there is no balance between the number of labor force and available employment. Unemployment is often a problem in every country because it will reduce people's income and productivity so that it results in poverty and various other problems (Amalia, 2014).

According to SumitroDjojohadikusumo (1994) in (Anggoro&Soesatyo, 2015), the issue of unemployment openly or in vein, became the main problem of developing countries, especially in economic development. The social and political stability of the community and the sustainability of economic development are strongly influenced by the success or failure of efforts to overcome the problem of unemployment, especially in the long run. Knotek (2007) in (Darman, 2013) conducted research on the relationship of real GDP with unemployment in the United States. The results of his research found Okun's law did not have a close relationship. In the Okun Law there are many exceptions, or events where output growth

has decreased does not always cause unemployment to rise. This applies when looking over both the short and long term. This implies that Okun's law is limited to rules, not in the structural form of the economy and contrary to the connotation of the word law.

### III. Research Methods

#### Scope and Research Object

The scope of this research is limited to the influence of the Human Development Index and Economic Growth on Unemployment in the Southeast Sulawesi Province from 1996 to 2018.

#### Research Location

The location or place of research is in Southeast Sulawesi Province precisely in Kendari City.

#### Data collection

The data collection procedures are as follows:

- (1) Secondary data contained in various reports contained in the relevant agency or service namely the Central Statistics Agency
- (2) Complementing supporting data from library studies, namely by studying and taking data from literature books and economic journals in accordance with the problem to be examined;
- (3) Through additional information from various internet media and other information media.

The analysis technique is based on information obtained from various studies and the data collected is reprocessed using a metematic analysis tool that is appropriate to the problem and research objectives. The analysis techniques used are: (1) descriptive analysis; (2) multiple regression analysis.

#### Data analysis method

This study uses multiple linear regression analysis tools with ordinary least square (OLS) method, which is formulated in the following equation:

$$\gamma = \beta_0 + \beta_1 x_1 + \beta_2 x_2 \dots \dots \dots \beta_n x_n \text{ (Equation.....1)}$$

Then modified according to the research variables, that is:

$$\gamma = \beta_0 + \beta_1 x_1 + \beta_2 x_2 \text{ (Equation.....2)}$$

Where:

$\gamma$  = Unemployment (%)

$x_1$  = Human Development Index (%)

$x_2$  = Economic Growth(%)

$\beta_0$  = Constant

$\beta_1 \beta_2$  = Regression Coefficient

In this multiple linear regression analysis using a classic assumption test that is calculated using the Eviews program using:

- (1) normality test;
  - (2) multicollinearity test;
  - (3) heteroskedacity test;
  - (4) autocorrelation test;
  - (5) linearity test.
- (Anggoro&Soesatyo, 2015)

### IV. Results and Discussion

The Development of the Human Development Index (HDI) during the observation period in Southeast Sulawesi Province is presented in the following Table 4.1:

**Table 4.1**  
**Development of the Human Development Index (HDI)**  
**in Southeast Sulawesi Province in 1996-2018**

Years	Human Development Index (HDI)	Growth (HDI)
1996	66,2	-
1997	60,5	-8,61
1998	61,3	1,32
1999	62,9	2,61

2000	63,2	0,48
2001	63,7	0,79
2002	64,1	0,62
2003	65	1,40
2004	66,7	2,61
2005	67,52	1,22
2006	67,8	0,41
2007	68,32	0,76
2008	69	0,99
2009	69,52	0,75
2010	65,99	-5,07
2011	66,52	0,80
2012	67,07	0,82
2013	67,55	0,71
2014	68,07	0,76
2015	68,75	0,99
2016	69,31	0,56
2017	69,86	0,55
2018	70,61	0,75

Source: BPS of Southeast Sulawesi Province

From Table 4.1 shows the Human Development Index in Southeast Sulawesi in 1997 decreased from 66.2 to 60.5, this is caused by the monetary crisis that hit Indonesia that year. Then again increased in 1998 to 61.3 continued to increase until the year 2009 the Human Development Index reached 69.52 and in 2010 again declined to 65.99 then in 2011 again increased and continued to increase until 2015 reaching 68.75 figures . The development of Southeast Sulawesi Economic Growth is presented in Table 4.2 below:

**Table 4.2**  
**Southeast Sulawesi Province Economic Growth in 1996-2018**

Years	Economic Growth (%)
1996	-
1997	5,31
1998	-5,77
1999	2,39
2000	4,63
2001	5,01
2002	6,66
2003	7,57
2004	7,51
2005	7,31
2006	7,68
2007	7,96
2008	7,27
2009	7,57
2010	8,22
2011	8,96
2012	10,41
2013	7,28
2014	6,28
2015	6,88
2016	6,51
2017	6,76
2018	6,20

Source: BPS of Southeast Sulawesi Province

Based on Table 4.2 shows that the economic growth of Southeast Sulawesi Province in the period 1996-2018 experienced fluctuations. The economic crisis in Indonesia in 1997 had an impact on the decline in economic growth that year. This has an impact throughout the region and has a big impact on the poor. The economic crisis that originated from the strengthening of the exchange rate of the US dollar against the rupiah which was followed by a decline in the level of income per capita, in 1998 most of the industry closed causing a surge in unemployment.

Over time the economic growth conditions in Southeast Sulawesi began to show improved conditions, until the peak of economic growth reached 2 digits in 2012 which amounted to 10.41%. This happens because of the increasing mining sector, especially nickel and there is also a gold mine in Bombana district. The following is data on the development of the number of open unemployment in Southeast Sulawesi Province in 1996-2018:

**Table 4.3**  
**Development of Unemployment in Southeast Sulawesi Province In**  
**1996-2018 (In%)**

Years	Unemployment number
1996	3,66
1997	2,48
1998	2,56
1999	4,36
2000	3,10
2001	7,51
2002	8,33
2003	10,30
2004	9,35
2005	8,92
2006	7,42
2007	6,93
2008	6,05
2009	5,38
2010	4,77
2011	4,45
2012	3,20
2013	3,34
2014	2,13
2015	3,62
2016	2,72
2017	3,30
2018	3,26

Source: BPS of Southeast Sulawesi Province

From Table 4.3 above it can be seen that unemployment fluctuates from time to time. In the period 1996-2018 the highest unemployment occurred in 2003 which reached 10.30 percent this tendency may be caused by the economic crisis that occurred in Indonesia in general. This may be the cause is fertility in the past so that resulted in many residents entering the working age in that period. In addition, the provision of inadequate employment has not been able to compensate for the increase in the workforce

**Data Processing Results**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
X1	13.94024	2.008729	6.939833	0.0000
X2	0.666693	0.175366	3.801719	0.0016
C	130.7380	21.05921	6.208115	0.0000
R-squared	0.758355	Mean dependent var		5.506500
Adjusted R-squared	0.713046	S.D. dependent var		2.469855
S.E. of regression	1.323053	Akaike info criterion		3.574618
Sum squared resid	28.00752	Schwarz criterion		3.773764
Log likelihood	-31.74618	Hannan-Quinn criter.		3.613493
F-statistic	16.73758	Durbin-Watson stat		1.028500
Prob(F-statistic)	0.000034			

Based on the results of data processing above, the variable X1 (HDI) has a significance value of 0.0000. In this study alpha used was 5% (0.05). The HDI variable has a value less than the alpha value (0.05 > 0.0000, so it is said the HDI variable has a significant effect on unemployment.

Variable X2 (Economic Growth) has a significance value of 0.0016 in this study using alpha 5% (0.05) then the value (0.05 > 0.0016). Because the significant value of Economic Growth is smaller than the alpha value, then Economic Growth has a significant effect on unemployment in Southeast Sulawesi Province.

**Regression Results:**

$$Y = 130,7380 + 13,94024 x_1 + 0,666693 x_2$$

The coefficient value of the HDI variable variable (X1) of 13.94024 can be interpreted if the HDI rises by 1 point, the Total Unemployment has increased by 13.94024. The regression coefficient of the variable Economic Growth (X2) of 0.666693 can be interpreted if the Economic Growth goes up 1 percent then the Number of Unemployment rises by 0.666693

## V. Discussion

The Human Development Index and economic growth have an important role on unemployment, this can be seen in the results of the previous analysis. An increase in the Human Development Index and Economic Growth, especially in Southeast Sulawesi Province in fact can reduce the unemployment rate. Previous studies have also supported the results of this research including Amalia in 2014 and Nurcholis in the same year. One of the justifications in the field that can support this research is that it can be proven by an increase in the value of the Human Development Index from year to year during the 1996-2018 period. Likewise, Southeast Sulawesi's economic growth which was quite stable experienced an increase from 1996 to 2018, although during that period there were significant fluctuations but on average it was quite good. On the other hand, unemployment continues to decline each year, starting from 2003 to 2018.

The value of economic growth can be used as a reference indicator of a country's economic success. Inflation, unemployment and public welfare are often used as indicators. According to the classic Adam Smith theory high economic growth can reduce unemployment in a country. This means that economic growth will be in the opposite direction to the unemployment rate. That happens because when the economic growth rises, the production process will also increase. And that will increase the workforce to produce the requested output. Absorption of labor will reduce unemployment in the region. The economic development of a country can be reviewed by several economic indicators one of which is the unemployment rate.

## VI. Conclusions And Suggestions

From the results of the discussion that has been stated above, it can be concluded that the simultaneous (simultaneous) and partial Human Development Index (HDI) and Economic Growth have a significant effect on unemployment in Southeast Sulawesi Province. This means that the size of the unemployment rate is largely determined by the Human Development Index (HDI) and Economic Growth.

Some suggestions that can be given are as follows:

1. It is expected that the Government will increase investment by growing investor interest in being able to invest. With this investment it is also hoped that companies will be able to create jobs. The government should continue to maintain the degree of public health and improve the quality of education,
2. It is hoped that the community will further improve their quality of life, increase their level of education and improve their skills through training so that it is easy to find work in the formal sector or open a business in the informal sector.

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