

# Poverty In West Sulawesi; Analysis Of Education Level And Investment Through Economic Growth

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### **Abstract: Poverty in West Sulawesi: Analysis of Education Level and Investment Through Growth Economy.**

Poverty and Economic Growth are important indicators in achieving the success of a country's development. To achieve development, each country and region will try to optimize economic growth and reduce poverty. This study aims to determine the effect of the level of education and investment on poverty through economic growth in West Sulawesi Province. The data used by the authors in this study are secondary data of the time series type from 2012 to 2021 obtained from the West Sulawesi Central Bureau of Statistics. In this study also used quantitative research, using the path analysis method. The results of this study indicate that the level of education has a positive and significant effect on economic growth. While investment has a positive and insignificant effect on economic growth. The level of education and economic growth have a positive but not significant effect on poverty in West Sulawesi Province. Meanwhile, investment has a positive and significant impact on poverty in West Sulawesi Province. The level of education and investment has a negative and not significant indirect effect on poverty through economic growth in West Sulawesi Province. Policy implication of this research are need for better handling related to the allocation of investment both domestic and foreign to encourage economic growth in an effort to reduce poverty in West Sulawesi Province. Efforts are needed to increase and equalize investment in all areas of West Sulawesi Province.

**Keywords:** Level of Education; Investment; Economic Growth; Poverty

## **INTRODUCTION**

Development is a process of change that is carried out consciously, planned and sustainable which aims to improve the well-being of human life or society. In the development process, the country participates, the role and function of the country in development depends on each country in carrying out the development process. In general, development is a partnership between all parties, including the government, the private sector, scholars, the public, various community organizations, various countries, various institutions, international and others (Embong, 2003). This development is multidimensional which includes fundamental changes in social structure, community attitudes, and social institutions, in addition to pursuing economic growth, reducing the income gap, and reducing poverty (Todaro, 2003). From various views on development, it is found that development is a continuous process not only on increasing economic growth but also on social and fundamental changes so that the community can live decently and be freed from the shackles of poverty.

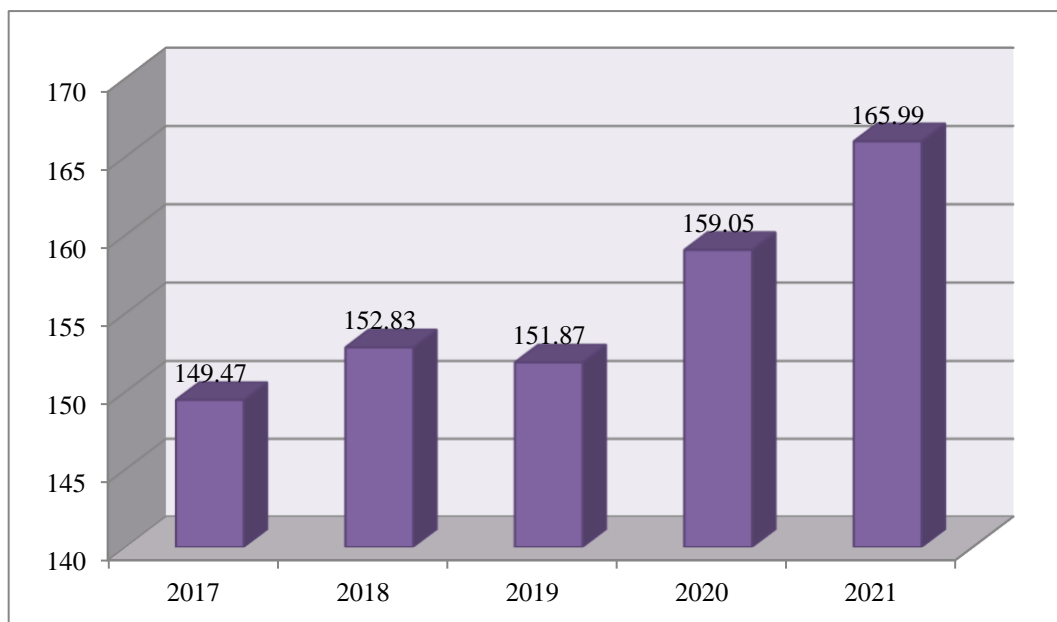
The aim of national development is to realize the prosperity of society through economic development, also then improve economic performance can create a job field and organize a decent life for all people who will ultimately realize the welfare of the Indonesian population. One of the national development goals is to reduce the level of poverty, the problem of poverty is a complex and multidimensional problem. In an effort to eradicate poverty it must be carried out in a comprehensive manner, covering various aspects of people's lives, and carried out in an integrated manner (Marmujiono, 2014). The problem of poverty is one of the main problems in economic development. Economic development in essence aims to improve people's welfare, increase income and economic growth in all development sectors, optimal distribution of development, expansion of the workforce and improvement of people's living standards. In achieving overall development goals, it is necessary to have increased economic growth and an even distribution of income.

The problem of poverty is one of the main problems in economic development. Economic development in essence aims to improve people's welfare, increase income and economic growth in all development sectors, optimal distribution of development, expansion of the workforce and improvement of people's living standards. In achieving overall development goals, it is necessary to have increased economic growth and an even distribution of income.

The ability of each region to develop its own region is different, because it is influenced by differences in the potential of its resources, such as natural resources human resources, natural resources, artificial resources and social resources. In the process of development there are areas that are abundant in natural resources but lacking in human resources, but there are areas that are otherwise lacking in terms of natural resources but are abundant in human resources, both in quality and quantity. This situation then causes differences in development development which results in levels of economic growth and inequality of welfare in each region (Annur, 2013).

The strategic problems in West Sulawesi Province are not much different from the problems at the national level, namely the problem of poverty which is still relatively high. Poverty can be interpreted as a condition of inability both individually, in groups and in families so that this condition is vulnerable to the emergence of other social problems (Rofi'ia & , Dwi Susilowatia, 2021). Overcoming the problem of poverty is primarily the shared responsibility of the government, both local and central government, as a support in the process of improving the standard of living of the poor.

Figure 1. Number of Poor Population (Thousands)  
 of West Sulawesi Province, 2017-2021



Source: West Sulawesi Central Statistics Agency, 2022.

In 2017 the number of poor people was 149.47 people and in 2018 the number of poor people increased by 152.83 people. In 2019 the number of poor people decreased by 151.87 people, and in 2020-2021 the number of poor people experienced a significant increase again, where in 2020 the number of poor people reached 159.05 people and in 2021 it reached 165.99 people . Matter this indicates that the number of poor people has fluctuated and this proves that the problem of poverty in West Sulawesi Province is also experiencing a very serious problem by looking at the number of poor people who have increased quite a lot at the end of that year.

Economic growth is an indicator that is generally used to see the success of the economic situation in a region. One that determines the prosperity of a society and the success of development in an area in terms of its economy, in this case through the Gross Regional Domestic Product (GRDP). Gross Regional Domestic Product (GRDP) is obtained by calculating the total value of products and services produced by economic actors in a region (Lily Leonita, 2019). High growth in Gross Regional Domestic Product (GDP) and high per capita Gross Regional Domestic Product (GRDP) means that there are more, better jobs and higher levels of income (Norton, 2022). Thus, the higher the level of Gross Regional Domestic Product (GRDP) in an area, the poverty tends to decrease (Iqraam, Mohammad, 2018).

Table 1. Gross Regional Domestic Product at Constant Prices  
(billions of Rupiah), 2017-2021

Year	GRDP at Constant Prices (Billion Rupiah)	Percentage (%)
2017	29 282,49	21,9
2018	31 114,14	22,85
2019	38 843,81	24,06
2020	32 054,50	22,55
2021	32 874,63	22,77

Source: West Sulawesi Central Statistics Agency, 2022.

If you look at the welfare indicators of West Sulawesi Province which are reflected in the GRDP, the growth rate of the GRDP of West Sulawesi Province has fluctuated starting in 2017-2021, the GRDP of West Sulawesi Province in 2017 was IDR 29 282.49 billion, in 2018 it was IDR. 31 114.14 billion and in 2019 it reached IDR 38 843.24 billion higher than the GRDP of the previous two years. In 2020 the GRDP of West Sulawesi Province experienced a decrease of IDR

32 054.50 billion and in the following year 2021 it again experienced an increase of IDR 32 874.63 billion.

The problem of poverty can also be caused by a lack of quality human resources. That the availability of qualified human resources is an important requirement for sustainable economic development to take place. The term development relates to Human Resources (HR), namely creating more productive and quality human resources in an effort to increase the population's access to education. Education is one of the factors that influence poverty (Wahyu Azizah & Kusuma, 2018). This can happen because the higher the level of education a person has, the more income he earns so that he is able to meet his needs.

The new growth theory explains the importance of the government's role, especially in increasing the development of human capital or by improving the quality of human resources. High quality human resources will increase skills, mastery of technology and population productivity, which will increase selling points and the ability of residents to get jobs in the business world or open their own businesses, so that unemployment will decrease and income levels will increase (Supratyoningsih & Yuliarmi, 2022). In addition, an increase in education can encourage aggregate economic growth through the creation of a more productive workforce, the availability of wider employment opportunities, and the creation of a group of educated leaders to fill positions in the business world and government so that the poverty rate will decrease (Aswitari, 2016).

Besides being determined by the formation of the quality of human resources, the process of national and regional development can also be determined by investment. Investment is essentially the placement of a number of funds at this time with the hope of obtaining future profits. This is due to the increase in the production process of goods and services which in turn will absorb the labor force. So that the workforce gets wages and the workforce has purchasing power. Increasing employment will reduce the number of people living on the poverty line (Suharlina, 2020).

In the realm of macroeconomics, investment is a component part that determines the level of aggregate spending. Investment plays an important role in economic development (Adnan, 2010). Investment can be interpreted as spending to buy capital goods and equipment to increase the ability to produce goods and services available in the economy. This increase in the number of capital goods is possible the economy produces more goods and services in the future (Pujoalwanto, 2014). The novelty of this research are investigating the nexus unraveling the interplay between education, investment, economic growth, and poverty reduction.

## LITERATURE REVIEW

In theory, the vicious circle views underdevelopment, market imperfections, and lack of capital causing low productivity. The low productivity causes the low income they receive. Low income will have implications for low savings and investment. Low investment results in underdevelopment, etc. This logic of thinking was put forward by Ragnar Rukse, a well-known development economist in 1953, who said "A poor country is poor because it is poor" (a poor country is because it is poor). Low levels of savings and investment can hinder the accumulation of capital, which is essential for economic growth and poverty reduction. Insufficient capital restricts the creation of job opportunities, wage growth, and overall economic development. Insufficient investment in physical and human capital, such as infrastructure, technology, and education, can limit productivity gains and hinder a country's competitiveness in the global market. This can result in slow economic growth, fewer job opportunities, and increased poverty levels. Low savings may indicate a lack of access to financial resources and formal financial institutions. This can hinder individuals and businesses from accessing credit or investment opportunities, limiting their ability to start or expand productive activities that generate income and alleviate poverty (Bresser-Pereira, 2010).

The social democratic theory also views that poverty is not an individual problem, but a structural one. Poverty is caused by injustice and inequality in society due to blockage of group access to social resources. The theory of Social Democracy emphasizes the importance of state management and funding in the provision of basic social services (education, health, housing, and social security) for all citizens who are heavily influenced by this Keynesian style demand-management economics approach. Because even though this theory is not anti-capitalist economic system, it still feels the need for a state system that strives for the welfare of its people.

Neo-classical growth theory, the theory of economic growth developed by Abramovits and Solow sees economic growth from the supply side. They mentioned that economic growth depends on the development of factors of production, and the most important factor in creating economic growth according to Solow is the advancement of technology and the increase in skills and expertise of the workforce, not determined by the increase in capital and the increase in the workforce. In general, the Neo-Classical growth theory is also based on the production function developed by Charles Cobb and Paul Douglas, which is now better known as the Cobb-Douglas production function (Vickery, 1974). Economic growth depends on the factors of production, namely the growth of the capital stock, growth of the workforce, technological progress. Based

on this function, it can be concluded that the Neo-Classical growth theory, the rate of economic growth that can be achieved by a country depends on technological developments, the role of capital in creating state income is multiplied by the level of development of capital stock, and the role of labor multiplied by the rate of increase in labor (Widjajanta, 2010). Human capital is that humans are not just resources but are capital that generates returns and any expenditure made in order to develop the quality and quantity of capital is an investment activity. According to Davenport human capital as all the efforts brought by the workforce to be invested in their work. It also includes ability, behavior, enthusiasm and time (Suaidah & Cahyono, 2013).

The human capital investment model assumes that a person can increase income through increased education and training. According to the data obtained, the perceptions of the participants are significant with the basic theory of human capital, where participants believe that investment in education can improve people's living standards and income. In making an investment, someone will carry out an analysis of the benefits and costs incurred (Black et al., 2019; Odoardi et al., 2020; Rioux et al., 2020; Sehwat, 2021). The cost in this case is the price paid for quality improvement (in this case going to school) and the opportunity cost of the school is the income received if someone decides not to go to school. The hope of someone in investing in Education is a higher rate of return after completing their education than the costs incurred when carrying out Education (Istiqomah, 2020).

## **METHODS**

This type of research is a quantitative research that describes the independent (independent) variable to the dependent (dependent) variable. This research was conducted in West Sulawesi Province. The data collection method used for this research is literature study as data collection to support a theory so that no sampling techniques and questionnaires are needed, as supporting data also obtained in journals, books, articles and browsing on the internet related to the problem of poverty rates. Data related to this study were analyzed using quantitative data analysis methods with path analysis tools. A path analysis model is a statistical technique used to examine the relationships between multiple variables by estimating direct and indirect effects. Path analysis allows researchers to examine multiple direct and indirect relationships among variables simultaneously. This is particularly useful when investigating complex systems or theoretical frameworks with multiple interconnected variables. Path analysis provides a way to test causal hypotheses by estimating direct and indirect effects between variables. Researchers can examine whether a variable has a direct impact on another variable



or if the effect is mediated through other variables. Path analysis helps researchers identify and evaluate the fit of their theoretical models to the observed data. It allows for testing and refining hypotheses, assessing model fit using statistical indices, and providing insights into the overall validity of the proposed model (Du et al., 2021; El Hadri et al., 2023; Song et al., 2021). To facilitate analysis, this study used the help of the Eviews 10 software. The data used in the existing variables is limited to the period 2012-2021. To measure the influence between variables several testing steps are used, namely testing the classical assumptions and testing the hypotheses. This analysis is used to determine the direct relationship between the independent variables and the indirect relationship through the intervening variables. The basic model that will be used in this study is as follows:

$$Y_1 = \alpha_1 X_1 + \alpha_2 X_2 + e_1 \dots\dots\dots (1)$$

$$Y_2 = \beta_1 X_1 + \beta_2 X_2 + \beta_3 Y_1 + e_2 \dots\dots\dots (2)$$

Equations (1) and (2) are not linear, so it is necessary to transform these equations into a logarithmic (Log) model to produce a linear equation as follows:

$$Y_1 = \alpha_1 \text{Log}X_1 + \alpha_2 \text{Log}X_2 + e_1 \dots\dots\dots (3)$$

$$Y_2 = \beta_1 \text{Log}X_1 + \beta_2 \text{Log}X_2 + \beta_3 Y_1 + e_2 \dots\dots\dots (4)$$

with  $Y_1$  is Economic growth,  $Y_2$  is the number of poor people,  $X_1$  is the level of education,  $X_2$  is Investment.  $\alpha_1$   $\alpha_2$  is the regression coefficient of each variable  $X$  on  $Y_1$ .  $b_1$ ,  $b_2$ ,  $b_3$ , is the regression coefficient for each variable  $X$  on  $Y_2$ . It is  $e_1$  It is  $e_2$  is Term Error.

**Research Framework and Hypotheses**

This research was conducted to determine the direct effect of the level of education and investment on economic growth partially; the direct effect of the level of education, investment and economic growth on poverty partially and the indirect effect of the level of education and investment on poverty through economic growth. In this study, the hypotheses were evaluated using path analysis. Figure 2 shows the model in this study.

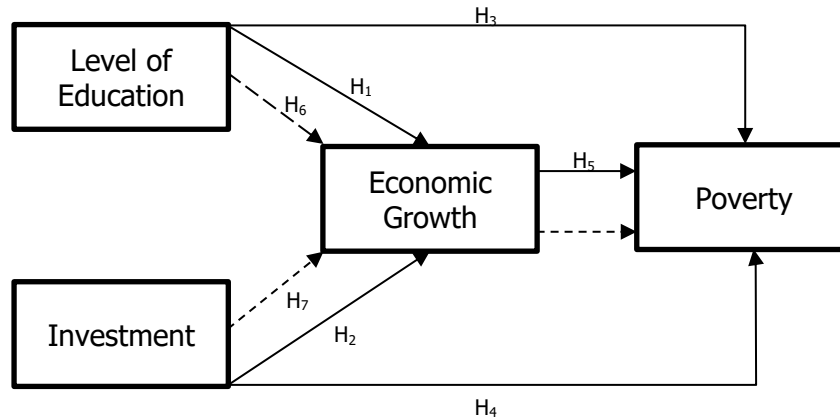
The level of education refers to the stages of education that are determined according to the level of development of students, the goals to be achieved and the abilities developed. The level of education is one of the factors that can directly and significantly affect economic growth and poverty. Investment refers to spending to purchase capital goods and equipment to increase the ability to produce goods and services available in the economy. Investment is one of the factors that can directly and significantly affect economic growth and poverty. Economic growth refers to the development of economic activity which causes the goods and services produced to increase. Economic growth can have a direct and significant impact on poverty. In addition, economic growth can be an intervening variable that makes the level of education and





investment have an indirect effect on poverty.

Figure 2 Research Framework



H1: The level of education has an effect on economic growth

Education is an input for the national production factor and its role as a component of human capital. Education plays an important role in the economic growth of a country. The higher the level of education, the higher the economic life in a country. An increase in education can encourage aggregate economic growth through the creation of a more productive workforce due to their better provision of knowledge and skills, the availability of wider job opportunities, and the creation of a group of educated leaders to fill positions in the business world and government then the poverty rate will decrease (Aswitari, 2016).

H2: Investment has an effect on economic growth

Investment is a component of national income or gross domestic product which is a measure of economic growth. One way to increase economic growth is to increase investment. New investment will increase the capital stock so that it will increase national output. According to Sukirno, investment activities carried out by the community will continuously increase economic activity and employment opportunities, increase national income and increase the level of community prosperity.

H3: Education level has an effect on poverty

Education can play an important role in reducing poverty in the long term, either indirectly through improving productivity and efficiency in general, or directly through training the poor with the skills needed to increase their productivity and in turn increase their income (Arsyad, 2016). The higher a person's level of education, the 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.

H4: Investment has an effect on poverty

Harrod Domar's theory explains investment as a driver of economic development because investment can create additional income and increase production capacity through increasing the capital stock. Investment is needed to meet community needs in the form of a source of livelihood or income. Low income will have implications for increasing poverty. Investment can reduce unemployment through job creation and can increase people's income so that it will reduce the number of people who are below the poverty line (Noor, 2015).

H5: Economic growth has an effect on poverty

One that determines the prosperity of a society and the success of development in an area in terms of economic growth. so the higher the GRDP level of an area, the poverty tends to decrease (Iqraam, Mohammad, 2018). According to Kuznets, growth and poverty have a very strong correlation, because in the early stages of the development process the poverty rate tends to increase and when approaching the final stage of development the number of poor people gradually decreases. According to research by Hermanto S. and Dwi W. (2007) states that when the economy develops in a region (smaller specific countries or regions) there is more income to spend and has a good distribution of income among the region, it will be able to reduce poverty (Permana & Arianti, 2012).

H6: Education level influences poverty through economic growth

According to Kuznets in Todaro (2011) education is a way to save oneself from poverty. Education plays a key role in shaping a country's ability to absorb modern technology and to develop capacity to create sustainable growth and development (Hermawan, Andi Adi, 2022). An increase in education can encourage aggregate economic growth through the creation of a more productive workforce due to their better provision of knowledge and skills, the availability of wider employment opportunities, and the creation of a group of educated leaders to fill positions in the business world and government then the poverty rate will decrease (Aswitari, 2016). Furthermore, when the economy develops in an area there will be more income to spend so that poverty will decrease.

H7: Investment has an effect on poverty through economic growth

Investments are made to meet the various needs and desires of society, starting from the individual, group, to the state level. Increased investment can increase production capacity which creates economic growth. Increased investment that causes production capacity to increase can reduce unemployment through job creation. With increased employment and income for the community, it will reduce the number of people living in poverty. So, when investment increases in an area it will also result in increased economic growth and can reduce the poverty rate in that region.

## RESULT AND DISCUSSION

### Classic Assumption Test

Table 2. Normality Test Results.

Jarque-Bera	Probability
0.271746	0.872953

Source: Primary data output after processing, 2023; (Baso, 2023)

Based on the output results that have been obtained, the calculated JB probability value shows that the Prob. JB count  $0.872 > 0.05$ . Thus, it can be concluded that the assumption of normality has been fulfilled and is feasible to use.

Table 3. Multicollinearity Test Results.

	X1	X2
X1	1.000000	0.170890
X2	0.170890	1.000000

Source: Primary data output after processing, 2023; (Baso, 2023)

In table 3 the multicollinearity results above, the education and investment level variables show a number less than 0.90, so in this study a conclusion can be drawn that the equation is free from multicollinearity symptoms.

Table 4. Autocorrelation Test Results.

Model	Breusch-Godfrey Serial Correlation LM Test:			
1	F-statistic	1.248984	Prob. F(2,4)	0.3631
	Obs*R-squared	3.331526	Prob. Chi-Square(2)	0.1890
2	F-statistic	0.055175	Prob. F(2,5)	0.9470
	Obs*R-squared	0.268470	Prob. Chi-Square(2)	0.8744

Source: Primary data output after processing, 2023; (Baso, 2023)

Based on testing using the Godfrey Serial Correlation LM test shows that Prob. The Chi Square (2) in model 1 is 0.8176 and in model 2 is 0.1143, meaning that there is no autocorrelation because it is greater than 0.05.

Table 5. Heteroscedasticity Test Results.

Heteroskedasticity Test: Glejser			
F-statistic	2.809532	Prob. F(3,6)	0.1303
Obs*R-squared	5.841591	Prob. Chi-Square(3)	0.1196
Scaled explained SS	4.761737	Prob. Chi-Square(3)	0.1901

Source: Primary data output after processing, 2023; (Baso, 2023)

Based on the table above, it shows that the Chi Square probability value of Obs\* R Squared is 0.1196 which is greater than 0.05, this means that there is no heteroscedasticity problem in this study.

Table 6. Simultaneous Test Results (Test f).

Model 1	F-statistic	6.487680
	Prob (F-statistic)	0.025475
Model 2	F-statistic	2.029044
	Prob (F-statistic)	0.211395

Source: Primary data output after processing, 2023; (Baso, 2023)

From the results of the regression model equation 1 shown in the table of the influence of the variable level of education (X1) and investment (X2) on economic growth (Y1), it is obtained not significant value  $0.029 < 0.05$ . Thus, the independent variables jointly have a positive and significant effect on the economic growth variable in West Sulawesi Province.

Whereas in the equation 2 model shown in the table the effect of the variable level of education (X1) and investment (X2) on poverty (Y2) through the intervening variable namely economic growth (Y2), then the obtained value is not significant  $0.211 < 0.05$ . Thus, the independent variable level of education (X1) and investment (X2) together have a positive but not significant effect on the poverty variable in West Sulawesi Province.

Table 7. Partial Test Results (t test) Model Y1 and Summary of Hypothesis

Variable	Coefficient	Std. Error	t-Statistic	Prob.	Significance	Support for Hypothesis
C	-27.79630	42.03575	-0.661254	0.5296		
X1	0.001080	0.000328	3.298067	0.0132	Significance	Yes
X2	3.121443	3.614576	0.863571	0.4164	Significance	Yes

Source: Primary data output after processing, 2023; (Baso, 2023)

Partial testing of each variable in the equation 1 model, namely population (X1) and unemployment (X2) partially on the economic growth variable in South Sulawesi Province can be analyzed. Based on the results of the regression analysis, the variable level of education on economic growth obtained a significance value of 0.012 which is smaller than 0.05 and the t-count is 3.298 which is greater than the t-table (df = 2.44691). So it can be concluded that the variable level of education partially has a positive and significant effect on economic growth in West Sulawesi Province. In the investment variable on economic growth, a significance value of 0.416 is obtained which is greater than 0.05 and the t-count is 0.863 which is smaller than the t-table (df = 2.44691). From these results, it can be concluded that the investment variable partially has a positive and insignificant effect on economic growth in West Sulawesi Province.

Table 8. Partial Test Results (t test) Model Y2 and Summary of Hypothesis

Variable	Coefficient	Std. Error	t-Statistic	Prob.	Significance	Support for Hypothesis
C	-1.899752	2.573823	-0.738105	0.4883		
X1	8.84E-06	3.11E-05	-0.284317	0.7857	Significance	Yes
X2	0.534295	0.225862	2.365586	0.0559	Insignificance	No

Source: Primary data output after processing, 2023; (Baso, 2023)

Partial testing of each variable in the equation 2 model, namely the poverty rate (X1), investment (X2) through the poverty variable (Y1) partially on the economic growth variable in West Sulawesi Province can be analyzed. Based on the results of the regression analysis, the variable level of education on poverty obtained a significance value of 0.785 which is greater than 0.05 and the t-count is -0.284 which is smaller than the t-table (df = 2.44691). From these results, it can be concluded that the variable level of education has a negative and insignificant effect on poverty. From these results, it shows that the level of education has a relationship that is not in the same direction as the increase in poverty in West Sulawesi Province.

Based on the results of the regression analysis, the investment variable on poverty obtained a significance value of 0.055 greater than 0.05 and the t-count was 2.365 less than t table (df = 2.44691). So it can be concluded that the investment variable partially has a positive and insignificant effect on poverty.

Based on the results of the regression analysis of economic growth on poverty, a significance value of 0.660 is greater than 0.05 and the t-count is -0.461 less than the t-table (df = 2.44691). From these results, it can be concluded that the variable economic growth has a negative and insignificant effect on poverty.

## **Discussion**

### **1. The Effect of Education Level on Economic Growth in West Sulawesi Province**

By using multiple regression analysis, the results showed that the level of education had a positive and significant effect on economic growth with a significance value of  $0.013 < 0.05$ . The positive relationship that is owned means that the higher the level of education possessed by the community, the impact on increasing economic growth in West Sulawesi Province. According to human capital theory, developed by economists Gary Becker the theory posits that education is a form of investment in human capital, which enhances an individual's skills, knowledge, and productivity. Education enhances the efficiency of the labor market by matching individuals' skills and qualifications with job requirements. Higher education levels improve individuals' job prospects, earnings potential, and overall employability. This, in turn, reduces unemployment rates, enhances labor market efficiency, and contributes to overall economic growth (Kline et al., 2019; Staveren, 2001).

According to this theory, higher levels of education contribute to economic growth The results of this study are in line with research conducted by I Made Rama Stana Giri & Ni Luh Karmini (2022) in the Province of Bali and Muda et al. (2019) in the Province of North Sulawesi that the level of education has a positive and significant effect on economic growth. However, contrary to research conducted by Widayati et al (2017) that the level of education is not significant effect on economic growth in Magelang regency. The results of this study are reinforced by the New Growth Theory and the Human Capital Theory. The new growth theory (New Growth Theory) reveals that in the long run the development of human resources and technological advances can increase economic growth (Suhendra, 2020). The theory emphasizes the importance of human capital through knowledge which is able to improve capabilities and skills so as to boost labor productivity in all factors of production. This is what has a positive influence on economic growth. Furthermore, the theory of human capital states that knowledge capital that has added value such as intelligence, skills and talents becomes an intangible asset to win the competition with competitors (Djatola & Hilal, 2021). Capital knowledge can be obtained through education.

Basically, education is a means to improve the quality of human resources. Education plays an important role in the progress of a nation. The higher the level of education indicates that the population who have high skills and knowledge is increasing. In this case, the capacity possessed by someone who has an educational background up to the university level will be

different and better than someone who only has an educational background up to the elementary school level. Higher levels of education will encourage and increase productivity which is the engine of economic growth.

## **2. The Effect of Investment on Economic Growth in West Sulawesi Province**

By using multiple regression analysis, the results showed that investment had a positive and insignificant effect on economic growth with a significance value of  $0.416 > 0.05$ . That is, investment cannot affect economic growth. Thus, an increase in investment is not able to have an impact that makes economic growth increase significantly in West Sulawesi Province. The results of this study are in line with research conducted Supratyoningsih & Yuliarmi (2022) which shows that investment has no significant positive effect on economic growth in the Province of Bali. However, this is not in line with the research results of Prasetyawan et al. (2017) which show that investment has a significant effect on economic growth in East Java Province.

The results of this study are in contrast to Harrod-Domar Theory that investment can affect economic growth. Through investment in the form of purchasing capital goods and production equipment, it can increase the ability to produce goods and services needed in the economy so that this can increase economic growth (Gwijangge et al., 2018). In addition, new investment will increase the capital stock so that it will increase national output. The formation of capital stock originating from investment or funding activities in a number of financial markets invested by investors will greatly assist the economy. According to Todaro and Stephen C. Smith, economic growth and employment starts from investment in the industrial sector, and overall capital accumulation which will lead to an expansion of output. Investment has a multiplier effect on the economy. When businesses invest in capital goods and infrastructure, it creates a chain reaction of increased economic activity (Micheal P Todaro, 2006).

The insignificant relationship of the investment variable to economic growth found in West Sulawesi Province can be caused by the fact that most of the economy is supported in terms of consumption. In this case, consumption provides a sizeable contribution compared to investment in the economic structure of West Sulawesi Province. This is in accordance with data from the Central Statistics Agency in 2021 that 64 percent of the total ADHK gross regional domestic product by type of expenditure comes from consumption expenditure. Thus, even though investment continues to increase, the contribution made to the economy is still minimal, so the increase that occurs can significantly increase economic growth. Investment is one important factor in increasing a production. Without investment, the production process will not run smoothly resulting in a decrease in overall output. The increase in investment will increase



production capacity and increase both regional and national output. Therefore, investment needs to be increased so that it can contribute more to increasing economic growth in West Sulawesi Province

### **3. Effect of Education Level on Poverty in West Sulawesi Province**

By using multiple regression analysis, the results showed that education level had a negative and insignificant effect on poverty with a significance value of  $0.785 > 0.05$ . That is, the high or low level of education cannot affect poverty. The results of this study are in line with the results of research conducted by Hermawan et al (2022) in Indonesia in 2016-2020 and Suropto & Subayil (2020) in the Special Region of Yogyakarta showing that education level has a negative and insignificant effect on poverty. However, this is not in line with research conducted by Alwi et al. (2021) which shows that the education has a significant effect on poverty in Jambi Province. The results of this study are in contrast to Sharp's theory and Simmons' theory. Sharp's theory states that the cause of poverty is the result of the low quality of human resources. The low quality of human resources is caused by low education, low quality human resources means low productivity, which in turn makes the income earned also low (Mudrajad Kuncoro, 2006). Furthermore, the theory according to Simmons reveals that in many countries education is a step that can be taken to get out of the problem of poverty (Adawiya & Febriani, 2020). The high number of poor people can be caused by the low access they have to education.

Additionally, theory *human capital* also assumes that a person can increase his income through increased education. Education has an important role to improve human quality, both in terms of intellectual development and professional skills. Someone with a low level of education is less accommodated in the job market that guarantees a decent wage. Low income makes the poor pay less attention or cannot access education and health properly, so that productivity is low which results in low income. This situation passes from one generation to the next, forming a poverty trap.

As the results of this study, the level of education as measured by the last level of education does not affect poverty in West Sulawesi Province because the percentage of the population working in this area is dominated by residents who only have an education level up to Elementary School (SD). The Central Bureau of Statistics for West Sulawesi Province in 2021 revealed that the percentage of the working population in the workforce is dominated by residents with the last elementary school level of education. With details of 48 percent of the total working population are residents who have the last level of elementary school education (SD). Furthermore, 14 percent are residents with the last education level of Junior High School (SMP)

and 25 percent are residents with the last education level of Senior High School (SMA). Meanwhile, the population who work with the last level of education up to university is only 13 percent. Thus, the level of education does not affect poverty in West Sulawesi Province because in this area a low level of education is more able to contribute in terms of improving living welfare by working compared to people with a low level of education higher.

#### **4. The Effect of Investment on Poverty in West Sulawesi Province**

By using multiple regression analysis, the results showed that investment had a positive and insignificant effect on poverty with a significance value of  $0.055 > 0.05$ . That is, high or low investment cannot cause the poverty rate to decrease in West Sulawesi Province. The results of this study are in line with the results of research conducted by Safitri & Effendi (2019) in the Province of South Kalimantan and Pratama & Utama (2019) in the Province of Bali showing that investment has a positive and insignificant effect on poverty. However, this is not in line with research conducted by I Gusti Ngurah Jana Loka Adi Parwa & Yasa (2019) that investment is significant for poverty in the Province of Bali.

The results of this study are in contrast to the vicious circle of poverty theory put forward by Nurkse. According to Nurkse, one of the causes of the vicious circle of poverty is the lack of stimulation in the formation of capital, so that people's productivity is low which causes the income they earn is also low which also has an impact on increasing poverty (I Gusti Ngurah Jana Loka Adi Parwa & Yasa, 2019). The results of this study also do not support the opinion expressed by Jingan that investment through the purchase of production input factors such as factory machines, infrastructure improvements and others will increase community productivity so that it will reduce poverty (Safitri & Effendi, 2019).

The inability of investment to reduce poverty in West Sulawesi Province can be caused by the formation of investment patterns that are not evenly distributed in all regions in West Sulawesi Province which causes differences in terms of income in the economic sector. This difference will lead to disparities between regions in West Sulawesi Province so that it has an impact on the distribution of people's income which in turn causes the poverty rate to increase. In addition, it is not uncommon to find investment projects that are not optimal in providing benefits in the area concerned. The investment created is not able to open jobs that can absorb more workers in West Sulawesi Province so that the poverty rate does not decrease.

In addition, there are several factors that cause investment to be unable to reduce poverty in certain areas area. First, most of the investment was only made by the upper middle class and

the benefits were only felt by them, while the poor did not get any benefits at all. Second, investment is still centered on the central region of the economy and industry. Investors are eyeing only those areas that are getting promising profits, so that increased investment has not been felt evenly across all regions.

#### **5. The Effect of Economic Growth on Poverty in West Sulawesi Province**

By using multiple regression analysis, the results showed that economic growth had a negative and insignificant effect on poverty with a significance value of  $0.660 > 0.05$ . This means that economic growth cannot affect poverty in West Sulawesi Province. The results of this study are in line with the results of research conducted by Laga Priseptian & Wiwin Priana Primandhana (2022) in East Java Province and Muhammad Idris Thahir et al. (2021) in Takalar District showing that economic growth has a negative and insignificant effect on poverty. However, this is not in line with research conducted by Alwi et al. (2021) that economic growth has a significant effect on poverty in Jambi Province.

The results of this study are not in line with the trickle down effect theory put forward by Hirschman (1954). The trickle down effect theory explains that the progress made by a group of people will automatically trickle down to create jobs and various economic opportunities that are evenly distributed (Larasati, 2017). Based on this theory, economic growth that occurs in one sector will provide benefits through a process of spreading to other sectors so that it will create an even distribution of welfare throughout society. Economic growth as measured by Gross Regional Domestic Product (GDP) at constant prices illustrates the ability of regions to manage available resources (Thahir et al., 2021). Gross Regional Domestic Product (GRDP) is one of the macroeconomic indicators that can be used to see the level of development and economic structure in an area (Alhudhori, 2017). The inability of economic growth to have a significant influence on reducing the poverty rate in West Sulawesi Province, according to the results of this study, is due to ignoring one of the important factors in the implementation process of development, namely income distribution. That is, the economic growth that occurred in the province of West Sulawesi was not a rapid growth is inclusive, namely growth whose benefits can be felt by all levels of society without exception. The benefits of economic growth do not spread to all levels of society so that the poverty rate does not experience a significant reduction.

#### **6. Effect of Education Level on Poverty through Economic Growth**

The magnitude of the indirect effect of investment on poverty through economic growth shows a probability value of -0.520. This shows that the variable level of education has a negative

effect on poverty through economic growth in West Sulawesi Province. That is, the high or low level of education possessed by residents in West Sulawesi Province will indirectly reduce the poverty rate in that area if the level of education possessed is able to increase economic growth first. The research results are in line with the results of research conducted by Adhitya et al. (2022) which concluded that the level of education has negative influence on poverty through economic growth. However, on the other hand The results of this study are in contrast to the results of research conducted by I Komang Agus Tri Arjuntara & I Ketut Sudibia (2021) which shows that the level of education has no influence on poverty through economic growth in the Province of Bali.

The theory of the vicious circle of poverty put forward by Nurkse explains that the vicious circle of poverty begins with low productivity, which causes low income. It cannot be denied that education is one of the main keys or the main gate in increasing economic growth and also reducing poverty, this is because education itself makes people have the knowledge and also various skills needed to improve their welfare.

#### **7. The Effect of Investment on Poverty through Economic Growth**

The magnitude of the indirect effect of investment on poverty through economic growth shows a probability value of -0.397. This shows that the investment variable has a negative effect on poverty through economic growth in West Sulawesi Province. That is, an increase or decrease in the investment rate in West Sulawesi Province will indirectly reduce the poverty rate in that area if the investment that occurs is able to increase economic growth first. The results of the research are in line with the results of research conducted by Prasetyawan et al. (2017) who concluded that investment has a negative effect against poverty through economic growth in East Java Province. Investment plays an important role in driving the nation's economic life, because capital formation increases production capacity, increases national income and creates new jobs, in this case it will further expand employment opportunities (Todaro, 2003). Increasing employment will reduce the number of people living on the poverty line (Suharlina, 2020).

### **CONCLUSION**

Based on the results of the research conducted, it can be concluded that the variable level of education directly has a positive and significant effect on economic growth. The investment variable directly has a positive but not significant effect on economic growth. The investment variable directly has a positive and insignificant effect on poverty. The variable level of education and economic growth has a direct negative and insignificant effect on poverty.

Variable levels of education and investment indirectly have a negative and insignificant effect on poverty through economic growth in West Sulawesi Province.

Suggestions for the government, the need for better handling related to the allocation of investment both domestic and foreign to encourage economic growth in an effort to reduce poverty in West Sulawesi Province. Efforts are needed to increase and equalize investment in all areas of West Sulawesi Province. Steps taken could be in the form of providing an investment climate that provides a sense of security for investors through improving supporting facilities and infrastructure as well as facilitating the processing of business permits. When the government succeeds in increasing and making equity of investment in all areas of West Sulawesi Province, it will create more and more open job opportunities so that it can improve people's welfare which in turn is able to reduce the poverty rate to the maximum. In addition, efforts are needed from the government to improve the quality of the workforce so that they can contribute more to improving the economy and reducing the poverty rate in West Sulawesi Province.

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