

Original Article

The Influence of Average Length of Schooling, Life Expectancy and Per Capita Expenditure on Poverty Levels Through Economic Growth in Tanjung Jabung West District

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Abstract: This research aims to analyze the condition of the average length of schooling, life expectancy, per capita expenditure, economic growth and poverty levels in West Tanjung Jabung Regency, then analyze the influence of the average length of schooling, life expectancy and per capita expenditure. On economic growth in West Tanjung Jabung Regency and analyzing the influence of average years of schooling, life expectancy and per capita expenditure on poverty levels through economic growth in West Tanjung Jabung Regency. The research results show that the development of the average length of schooling, life expectancy, per capita expenditure, economic growth and poverty levels in West Tanjung Jabung Regency during the 2001-2023 period has different dynamics. The average length of schooling and life expectancy show an increasing trend every year, while per capita expenditure and economic growth fluctuate up and down. The path analysis results show that the average length of schooling and per capita expenditure do not have a significant effect on economic growth, while life expectancy has a significant effect on poverty levels. In the context of West Tanjung Jabung Regency, factors such as education and health have different impacts on economic growth and poverty levels, highlighting the complexity of poverty alleviation and economic development efforts in the area.

Keywords: Economy, Influence, Poverty.

I. INTRODUCTION

Development is a process of change towards better and continuous achievement of the goal of realizing a just, competitive, advanced, and prosperous Indonesian society within the State of the United Republic of Indonesia [1]–[3]. The development process must be guided in such a way that each stage is closer to the goal. The Constitution of Indonesia, UUD'45, recognizes the human right to a decent life, and the basic duty of the Government of the Republic of Indonesia is to advance the general well-being, enlighten the life of the nation, and realize social justice [4]–[6]. National development aims to promote equitable and equitable general welfare, with poverty eradication as a top priority. Poverty is when individuals or groups are unable to meet basic needs such as food, housing, and education due to a lack of income, employment, and adequate access to health care. Poverty reduction must be cross-sectoral and integrated. Local governments recognize that regional development is an attempt to create a just and prosperous society, focusing on reducing the number of poor as an indicator of national development success.

The government, both at the central and regional levels, has implemented various poverty reduction policies and programs but has not achieved optimal results due to the tendency of programs to be too sectorally oriented. This causes a gap between plans and achieving poverty reduction goals. Therefore, an integrated, synergistic strategy is needed to solve this problem. Poverty in Indonesia is a complex problem that has multidimensional dimensions, so policies to overcome it must be carried out comprehensively. Factors that cause poverty include low levels of employment opportunities, slow economic growth, and low capital accumulation. The measure of poverty is based on consumption, which includes the costs of meeting minimum nutritional standards and other basic needs, as well as the more subjective costs of participation in daily community life.

According to [7], many factors contribute to the variations in poverty that exist in nations that are developing, including but not limited to geographic disparities, population density, income level, colonial history, an abundance of natural resources, the caliber of human resources, the function of the state and the private sector, industrial structure, reliance on the political and economic might of other nations, and the distribution of power within nation-level institutions and political frameworks. From an economic perspective, the causes of poverty are divided into three factors. First, the uneven distribution of money resulting from imbalanced resource ownership arrangements leaves the poor with limited access to low-quality resources from nature. Second, disparities in human resource quality lead to low productivity, which in turn produces low pay, which is the root cause



of poverty. Third, disparities in obtaining capital are the root cause of poverty.

Based on Jambi Province BPS data (2023), West Tanjung Jabung Regency is ranked second after East Tanjung Jabung Regency in terms of poverty level, poverty depth index, and worst poverty index. In 2021, the poverty rate in West Tanjung Jabung Regency increased from 10.29 percent to 10.75 percent, as well as the poverty depth index from 1.56 to 1.96 and the poverty index from 0.42 to 0.44. Even though economic growth in the same year increased from -0.29 percent to 1.36 percent, which states that economic growth can reduce poverty, it does not fully apply in West Tanjung Jabung Regency. Development strategies that prioritize economic growth have not been able to overcome the problem of poverty effectively, indicating that the expected trickle-down effect has not been realized perfectly. Hence, poverty levels remain high [8].

Based on research by [9], significant factors influencing poverty are average years of schooling, life expectancy, and per capita expenditure. It is hoped that improving the quality of education and health can reduce poverty levels by contributing to development and creating jobs. Although the average length of schooling and life expectancy in West Tanjung Jabung Regency have increased over the last five years, the increase is not significant. The average length of schooling increased from 7.56 years in 2018 to 8.18 years in 2022, but it still has not reached the secondary education level. Life expectancy also increased from 67.87 years in 2018 to 68.43 years in 2022 but remains low, indicating that the quality of health still needs to be improved.

The problems that often arise in alleviating poverty, apart from education and health, are per capita expenditures. The level of welfare is said to increase if there is an increase in real per capita consumption; however, the increase in per capita expenditure in West Tanjung Jabung Regency tends to be inconsistent. Data shows that per capita expenditure increased from Rp. 9,395,000 in 2018 to Rp. 9,968,000 in 2022 but experienced a decline in 2020. This shows that there is instability in efforts to improve welfare in the area. [10] research highlights the close relationship between economic growth and poverty, where there is an increase in poverty in the early stages of economic development and a reduction in poverty in the final stages. This emphasizes the importance of policies that support economic growth, which has a positive impact on sustainably reducing poverty. Thus, economic development strategies must pay attention to efforts to increase overall welfare to achieve the goal of sustainable poverty reduction [11]–[13].

Based on data from the Central Statistics Agency (BPS) as of 2022, Attachment to Letter No. B-1447/15000/VS.510/11/2022, West Tanjung Jabung Regency is still in second place with the highest poverty rate in Jambi Province. The percentage of poor people in the regency will be 10.00% in 2022. This figure has decreased compared to the position in March 2021, which reached 10.75%.

Furthermore, to find out the condition of economic growth in West Tanjung Jabung Regency in the last 5 years, it can be seen that economic growth in West Tanjung Jabung Regency during 2018–2022 tends to experience fluctuations. The phenomenon occurred from 2019 to 2020 when economic growth in that year experienced a decline. Even in 2021 and 2022, economic growth will increase, but the increase is very slow. Based on the facts that have been stated, the author is interested in conducting research on poverty, namely with the title “The Influence of Average Years of Schooling, Life Expectancy, and Per Capita Expenditure on Poverty Levels Through Economic Growth in West Tanjung Jabung Regency.” This research aims to conduct a comprehensive analysis of the average length of schooling, life expectancy, per capita expenditure, economic growth, and poverty levels in West Tanjung Jabung Regency. In addition, this research aims to identify the influence of average years of schooling, life expectancy, and per capita expenditure on economic growth in the region. Furthermore, the research will also evaluate the impact of the average length of schooling, life expectancy, and per capita expenditure on poverty levels through economic growth in West Tanjung Jabung Regency.

II. LITERATURE REVIEW

A) The Concept of Poverty

Poverty, according to [14], is invariably linked to vulnerability and inequality, with people who are not originally deemed impoverished having the potential to do so rapidly as a result of occurrences like a financial crisis or a drop in agricultural prices. This sensitivity affects people’s perceptions of the current situation, investment decisions, production patterns, and suitable solutions, all of which are causes for concern. [15] added that poverty is also influenced by the underdevelopment of humans and natural resources, where the management of natural resources is very dependent on human productivity. The poverty of natural resources can be both a consequence and a cause of human poverty, considering that natural resources are a basic human need. Meanwhile, [16] emphasizes that poverty is a global problem that involves meeting basic needs in life and shows that poverty in developing countries is caused by factors such as geographical differences, history, wealth of natural resources, and others. The Central Statistics [17] added that poverty can be measured based on food and non-food consumption, with the poverty line determining adequacy conditions. Economically, poverty is reflected in the lack of resources needed to meet life’s needs and improve welfare.

B) Education

Education plays an important role in improving the quality of life and reducing the level of poverty in society [18], [19]. Through education, humans can develop new ideas and improve their ability to meet their life needs. This approach provides a basis for increasing the level of people's welfare by improving their quality, which is influenced by factors such as income, education, and health. In this context, the implementation of education can occur in various forms, including formal, non-formal, and informal education, all of which contribute to increasing productivity and the quality of human resources. Average years of schooling, as an important indicator of education quality, also shows the education level of the population in an area, as explained. However, factors such as wages, the probability of success in finding a job in the modern sector, and the cost of education, as well as poverty, also play an important role in determining the length of a person's education [20], [21]. Therefore, to overcome poverty and improve the quality of life, it is necessary to pay attention to these aspects in formulating education policies.

C) Health

Health and education are interrelated factors in human life that overall influence health conditions and productivity. Higher levels of education tend to contribute to improved health conditions, including better nutrition [22]. Apart from that, the government's role in economic development also influences improving public education and health. Health itself can be measured by life expectancy, which is the main indicator in measuring the quality of life of a population. The indirect method is used to calculate life expectancy, which involves a calculation process with the Mortpak program. By taking into account factors such as fertility and mortality, the life expectancy index provides a picture of the average life expectancy of local people.

D) Life expectancy

The average number of years that a person is predicted to live is called the life expectancy of the individual, which is an important indicator in measuring public health in an area [23], [24]. Life expectancy is also a main component of the Human Development Index. The calculation of life expectancy is carried out using an indirect approach using data on children born alive and children still alive. UNDP standards refer to an upper limit of life expectancy of 85 years and a lower limit of 25 years. This makes life expectancy a significant indicator in evaluating the quality of health of an individual or population in a particular area.

E) Per capita income

Per capita income is an important indicator in describing community welfare, although it is difficult to obtain accurate income data [25]–[27]. Therefore, in surveys such as SUSENAS, income data is approached through per capita expenditure. Per capita expenditure reflects the amount spent by each household member in one month. This expenditure is influenced by per capita income, where it is assumed that the higher a person's income, the greater the expenditure. The SUSENAS consumption module guidelines state that per capita expenditure only includes expenditure for the household itself and does not include expenditure for household business needs or that given to other people. The general definition of per capita expenditure is household consumption expenditure, which includes purchases of goods and services for daily necessities for household members during a certain period. The relationship between public income and per capita expenditure is positive, where an increase in income will increase expenditure on public consumption, as formulated in the mathematical function $C = a + bY$, where C is household consumption expenditure, a is consumption that does not depend on income, b is the marginal desire for consumption, and Y is the disposable income.

F) Economic growth

Economic growth is a phenomenon that explains how certain factors interact in the long term, resulting in increased production of goods and services and increased prosperity in society [28]. This concept includes a real increase in production activities in the economy from one period to the next. Economic growth is measured by an increase in the value of the Gross Domestic Product (GDP) or real national income of a region. Factors such as investment in capital and technology, an increase in the workforce, and improvements in people's education and skills contribute to economic growth [29], [30]. Decentralization can also play an important role in encouraging regional economic growth by providing greater autonomy, thereby enabling a more efficient allocation of resources for public services. Normatively, high economic growth is often associated with increased human development.

III. RESULTS AND DISCUSSION

A) Result: The Influence of Average Years of Schooling, Life Expectancy and Per Capita Expenditure on Economic Growth in West Tanjung Jabung Regency

a. Structural Equation Statistical Test I

Based on the processed multiple linear regression data for structural equation I using SPSS.22, the results of the multiple linear regression can be seen in the following table:

Table 1: Multiple Regression Results of Structural Equation I

Coefficients ^a							
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	19,908	52,882		,376	,711	
	X1	3,425	,783	,646	4,377	,000	5,052
	X2	-,606	,837	-,171	-,724	,478	12,969
	X3	3,038E-7	,000	,538	3,079	,006	7,075

a. Dependent Variable: Y

b. Structural Equation Statistical Test I After Trimming

Based on the processed simple regression data for structural equation I after using the Trimming model using SPSS.22, the results of the simple linear regression can be seen in the following table:

Table 2: Simple Regression Results for Structural Equation I After Trimming

Coefficients ^a							
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-18,285	3,895		-4,694	,000	
	X1	3,035	,560	,573	5,418	,000	2,651
	X3	2,473E-7	,000	,438	4,144	,001	2,651

a. Dependent Variable: Y

c. Statistical F Test

To test the influence of the independent variable (independent variable) on the dependent variable (dependent variable), the statistical F test tool is simultaneously used, which can be seen in the output results of the SPSS 20 program in the ANNOVA table as follows:

Table 3: Statistical F Test Results for Structural Equation I After Trimming

ANOVA ^a						
Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	110,758	2	55,379	108,634	,000 ^b
	Residual	10,195	20	,510		
	Total	120,953	22			

a. Dependent Variable: Y
b. Predictors: (Constant), X3, X1

d. Determinant Test

Coefficient of determination (KD) analysis is used to see how many independent variables have an influence on the dependent variable expressed in percentages. As shown in the following table:

Table 4: R2 Square Test Results for Structural Equation I After Trimming

Model Summary ^b									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				Durbin-Watson
					R Square Change	F Change	df1	df2	
1	,957a	,916	,907	,71398	,916	108,634	2	20	,448

a. Predictors: (Constant), X3, X1
b. Dependent Variable: Y

e. Test of Classical Assumptions of Structural Equations I After Trimming
i) Structural Equation Normality Test I After Trimming

To test whether the distribution is normal or not, one way is to use graphic analysis as in the following image:

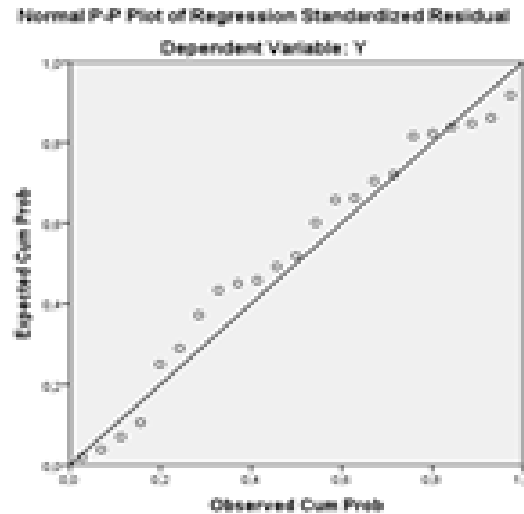


Figure 1: Normality Histogram Graph of Structural Equation I After Trimming

Figure 1 emphasizes that the regression model obtained has a normal distribution, where the data distribution is around the diagonal line. Based on the normal probability histogram graph shows that the regression model is suitable for use in research because it meets the assumptions of normality.

ii) Multicollinearity Test of Structural Equation I After Trimming

Untuk meneliti apakah terdapat multikolinieritas terhadap variabel bebas maka dapat dilihat hasil pada tabel berikut ini :

Table 5: Results of Testing the Multicollinearity Assumption of Structural Equation I After Trimming

No	Variabel	Tolerance	VIF
1	X ₁	,377	2,651
2	X ₃	,377	2,651

Source: Processed Data, 2023

Based on the results of the multicollinearity test in Table 5.5 above, it can be seen that the tolerance value is > 0.050 and the VIF value is < 10 , meaning that the independent variables used in this research model are free from multicollinearity or in other words can be trusted and objective.

iii) Structural Equation Autocorrelation Test I After Trimming

Autocorrelation is defined as the correlation/connection between a series of observations ordered by time and space. To determine whether or not there are symptoms of autocorrelation in the regression calculations for this research, the Durbin-Watson Test of 0.448 was used.

By using a statistical table with a total of 23 observations and a number of independent variables of 2, the figures for $dl = 0.938$ and $du = 1.290$ are obtained, while the values for $4-dl = 3.062$ and $4-du = 2.710$ using the two-tailed Durbin Watson statistical test are the benchmark used are as follows:

- $d < dl$ = means there is positive autocorrelation
- $d > du$ = means there is no positive autocorrelation
- $(4-d) < dl$ = means there is negative autocorrelation
- $(4-d) > du$ = means there is no negative autocorrelation
- $du < d < (4-du)$ = means there is no autocorrelation
- $dl < d < du$ or $(4-du)$ = means it cannot be concluded

The results obtained are that the observed DW value is located in the area $(4-d) > du$, meaning there is no negative autocorrelation in this study.

iv) Heteroscedasticity Test of Structural Equation I After Trimming

Detecting heteroscedasticity can be done by graphically depicting residual values, the Breusch-Godfrey test and the Park test. This research uses the Breusch-Godfrey test.

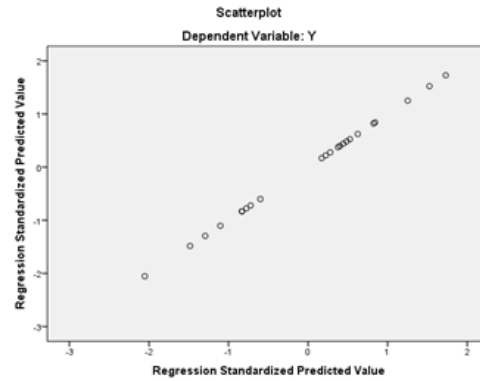


Figure 2: Heteroscedasticity Test of Structural Equation I After Trimming

Source: Processed Data, 2023

By looking at Figure 2, it is known that there is no clear pattern and the points are spread above and below 0 and the Y axis. So, it can be concluded that there is no heteroscedasticity in the structural equation model I.

f. Economic Analysis of Structural Equations I After Trimming

The beta coefficient value for Average Years of Schooling is 0.573, and this figure shows that there is a positive influence between Average Years of Schooling on economic growth. This means that if there is an increase in the Average Years of Schooling by 1 percent, it will increase economic growth by 57.3 percent. This indicates that every increase in Average Years of Schooling will encourage increased economic growth.

The beta coefficient value for Per Capita Expenditure is 0.438, this figure shows that there is a positive influence between Per Capita Expenditure on economic growth. This means that if there is an increase in Per Capita Expenditure of 1 percent, it will increase economic growth by 43.8 percent. This indicates that every increase in per capita expenditure will encourage increased economic growth.

g. Path Analysis of Structural Equations I After Trimming

Find out the value of the γ_{13} path coefficient can see the following correlation table:

Table 6: Correlation Results of Structural Equation I After Trimming

X ₁		X ₃
	Pearson Correlation	,789**
	Sig. (2-tailed)	,000
	N	23

Source: Processed Data, 2023

Based on the correlation results, it can be seen that the Pearson correlation between Average Years of Schooling and Per Capita Expenditure has a correlation value of 0.789, resulting in a path diagram which can be depicted in the following figure:

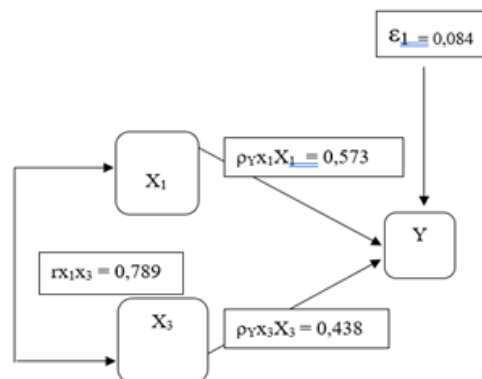


Figure 3: Structural Equation Path Diagram I

From Figure 5.3, the direct influence of exogenous variables on endogenous variables can be calculated as the indirect influence.

i) Effect of Average Years of Schooling on Economic Growth:

1. Direct influence of average length of schooling on economic growth
$$= (\rho_{YX_1})^2 \times 100\%$$

$$= (0,573)^2 \times 100\%$$

$$= 32,8\%$$

The direct influence of the average length of schooling on economic growth through per capita expenditure

$$= (\rho_{YX_1})(r_{X_1X_3})(\rho_{YX_3}) \times 100\%$$

$$= (0,573)(0,789)(0,438) \times 100\%$$

$$= 19,8\%$$

2. The total influence of the average length of schooling on economic growth
$$= 32,8\% + 19,8\%$$

$$= 52,6\%$$

ii) Influence of Per Capita Expenditure on economic growth:

1. Direct influence of Per Capita Expenditure on economic growth
$$= (\rho_{YX_3})^2 \times 100\%$$

$$= (0,438)^2 \times 100\%$$

$$= 19,2\%$$
2. Indirect influence of Per Capita Expenditure on economic growth through Average Years of Schooling
$$= (\rho_{YX_3})(r_{X_1X_3})(\rho_{YX_1}) \times 100\%$$

$$= (0,438)(0,789)(0,573) \times 100\%$$

$$= 19,8\%$$
3. The influence of total Per Capita Expenditure on economic growth
$$= 19,2\% + 19,8\%$$

$$= 39\%$$

The direct influence and indirect influence of exogenous variables, namely Average Years of Schooling and Per Capita Expenditure on Economic Growth, can be seen in the table below:

Table 7: Direct Effect, Indirect Effect and Total Effect of Structural Equation I Variables X1 and X3 on Y

Influence Variable	Causal Influence			Total influence (%)
	Direct (%)	Indirect (%)		
		X ₁ (%)	X ₃ (%)	
X ₁ → Y	32,8	-	19,8	52,6
X ₃ → Y	19,2	19,8	-	39,0
Influence of Variables X1 and X3 on Y = R2				91,6
Influence of External Variables				8,4
Total				100,0

Source: Processed Data, 2024

On the basis of the above calculations, the following can be stated:

- The strength of the Average Years of Schooling, which directly determines changes in Economic Growth, is 32.8 percent, and through its relationship with Per Capita Expenditure, it is 19.8 percent. In total, the average length of schooling determines changes in economic growth by 52.6 percent.
- The strength of per capita expenditure, which directly determines changes in economic growth, is 19.2 percent, and through its relationship with the average length of schooling, it is 19.8 percent. In total, Per Capita Expenditure determines changes in Economic Growth by 39 percent.

B) The Influence of Average Years of Schooling, Life Expectancy and Per Capita Expenditure on Poverty Levels Through Economic Growth in West Tanjung Jabung Regency

a. Structural Equation Statistical Test II

Based on the processed multiple linear regression data for Structural equation II using SPSS.22, the results of the multiple linear regression can be seen in the following table:

Table 8: Multiple Regression Results of Structural Equation II

Coefficients ^a								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	249,180	43,371		5,745	,000		
	X1	-1,376	,906	-,200	-1,518	,146	,099	10,146
	X2	-2,966	,694	-,645	-4,276	,000	,075	13,327
	X3	1,224E-7	,000	,167	1,240	,231	,094	10,604
	Y	-,422	,187	-,325	-2,251	,037	,082	12,191

a. Dependent Variable: Z

b. Statistical Test of Structural Equations II After Trimming

Based on the processed simple regression data for Structural Equation II after using the Trimming model using SPSS.22, the results of the simple linear regression can be seen in the following table:

Table 9: Simple Regression Results for Structural Equation II After Trimming

Coefficients ^a								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	227,418	33,477		6,793	,000		
	X2	-2,779	,501	-,605	-5,550	,000	,187	5,349
	Y	-,515	,142	-,397	-3,641	,002	,187	5,349

a. Dependent Variable: Z

c. Statistical F Test

To test the influence of the independent variable (independent variable) on the dependent variable (dependent variable), the statistical F test tool is simultaneously used, which can be seen in the output results of the SPSS 20 program in the ANNOVA table as follows

Table 10: Statistical F Test Results for Structural Equation II After Trimming

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	194,935	2	97,467	215,272	,000b
	Residual	9,055	20	,453		
	Total	203,990	22			

a. Dependent Variable: Z

b. Predictors: (Constant), Y, X2

Simultaneous testing (F test) shows that the statistical significance value of F is 0.000, which is smaller than 0.05. This means that the variables of life expectancy and economic growth simultaneously have a significant effect on the poverty level of West Tanjung Jabung Regency.

d. Determinant Test

Coefficient of determination (KD) analysis is used to see how many independent variables have an influence on the dependent variable expressed in percentages. As shown in the following table:

Table 11: R2 Square Test Results for Structural Equation II After Trimming

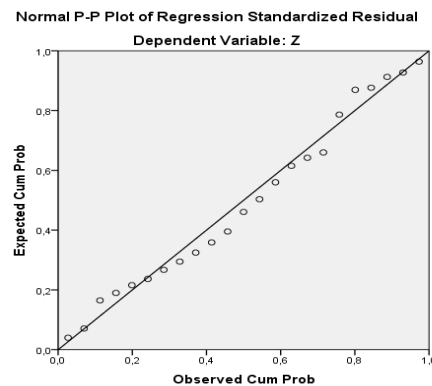
Model Summary ^b										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	,978 ^a	,957	,951	,67288	,957	215,272	2	20	,000	,914
a. Predictors: (Constant), Y, X2										
b. Dependent Variable: Z										

Based on Table 11 above, it can be seen that the R2 value of 0.957 indicates that the variables Life Expectancy and Economic Growth are able to explain their influence on the poverty level variable by 95.7 percent. The remaining 4.3 percent is influenced by other variables outside the model.

e. Test of Classical Assumptions of Structural Equations II After Trimming

i) Structural Equation Normality Test II After Trimming

To test whether the distribution is normal or not, one way is to use graphic analysis as in Figure 4 below:

**Figure 4: Normality Histogram Graph of Structural Equation II After Trimming**

Source: Data processed 2023

Figure 4 emphasizes that the regression model obtained has a normal distribution, where the data distribution is around the diagonal line. Based on the normal probability histogram graph shows that the regression model is suitable for use in research because it meets the assumptions of normality.

ii) Multicollinearity Test of Structural Equations II After Trimming

To examine whether there is multicollinearity in the independent variables, the results can be seen in the following table:

Table 12: Results of Testing the Multicollinearity Assumption of Structural Equation II after Trimming

No	Variable	Tolerance	VIF
1	X2	,187	5,349
2	Y	,187	5,349

Source: Data processed 2024

Based on the results of the multicollinearity test in Table 12 above, it can be seen that the tolerance value is > 0.050 and the VIF value is < 10 , meaning that the independent variables used in this research model are free from multicollinearity or in other words can be trusted and objective.

iii) Trimming Structural Equation Autocorrelation Test II After Trimming

Autocorrelation is defined as the correlation/connection between a series of observations ordered by time and space. To determine whether or not there are symptoms of autocorrelation in the regression calculations for this research, the Durbin-Watson Test of 0.914 was used.

By using a statistical table with a total of 23 observations and a number of independent variables of 2, the figures for $dl = 0.938$ and $du = 1.290$ are obtained, while the values for $4-dl = 3.062$ and $4-du = 2.710$ using the two-tailed Durbin Watson statistical test are the benchmark used are as follows:

$d < dl$ = means there is positive autocorrelation
 $d > dU$ = means there is no positive autocorrelation
 $(4-d) < dl$ = means there is negative autocorrelation
 $(4-d) > dU$ = means there is no negative autocorrelation
 $du < d < (4-du)$ = means there is no autocorrelation
 $dl < d < du$ or $(4-du)$ = means it cannot be concluded

The results obtained are that the observed DW value is located in the area $(4-d) > dU$, meaning there is no negative autocorrelation in this study.

iv) Heteroscedasticity Test of Structural Equations II After Trimming

Detecting heteroscedasticity can be done by graphically depicting residual values, the Breusch-Godfrey test and the Park test. This research uses the Breusch-Godfrey test.

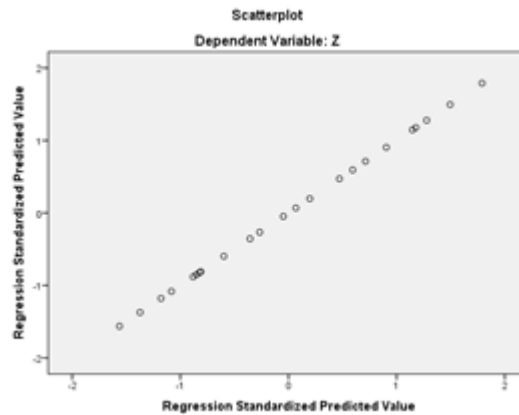


Figure 5: Heteroscedasticity Test of Structural Equation II After Trimming

Source: Processed Data, 2023

By looking at Figure 5, it is known that there is no clear pattern and the points are spread above and below 0 and the Y axis. So, it can be concluded that there is no heteroscedasticity in the Structural Equation II model.

f. Economic Analysis of Structural Equations II After Trimming

The beta coefficient value for life expectancy is -0.605, this figure shows that there is a positive influence between life expectancy and poverty levels. This means that if there is an increase in life expectancy by 1 percent, it will reduce the poverty rate by 60.5 percent. This indicates that every increase in life expectancy will reduce poverty levels.

The beta coefficient value for economic growth is -0.397, this figure shows that there is a positive influence between economic growth and poverty levels. This means that if there is an increase in the economic growth of 1 percent, it will reduce the poverty rate by 39.7 percent. This indicates that every increase in economic growth will encourage a reduction in poverty levels.

g. Path Analysis of Structural Equations II After Trimming

To find out the value of the r_{X2Y} path coefficient, you can see the following correlation table:

Table 13: Correlation Results of Structural Equation II After Trimming

		Y
X2	Pearson Correlation	,902**
	Sig. (2-tailed)	,000
	N	23

Source: Processed Data, 2023

Based on the correlation results, it can be seen that the Pearson correlation between life expectancy and economic growth has a correlation value of 0.902, resulting in a path diagram which can be depicted in Figure 6 below:

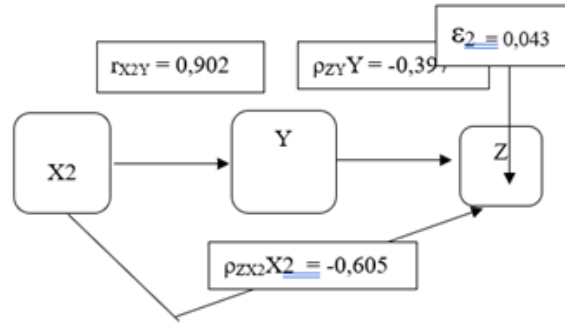


Figure 6: Structural Equation Path Diagram II

From Figure 6, the direct influence of exogenous variables on endogenous variables can be calculated as the indirect influence.

i) Influence of life expectancy on poverty levels:

1. Direct influence of life expectancy on poverty levels

$$\begin{aligned}
 &= (p_{ZX2})^2 \times 100\% \\
 &= (-0,605)^2 \times 100\% \\
 &= 36,6\%
 \end{aligned}$$

Direct influence of life expectancy on poverty levels through economic growth

$$\begin{aligned}
 &= (p_{ZX2})(r_{X2Y})(p_{ZY}) \times 100\% \\
 &= (-0,605)(0,902)(-0,397) \times 100\% \\
 &= 21,7\%
 \end{aligned}$$

ii) The total influence of life expectancy on poverty levels

$$\begin{aligned}
 &= 36,6\% + 21,7\% \\
 &= 58,3\%
 \end{aligned}$$

iii) Effect of economic growth on poverty levels:

1. Direct influence of economic growth on poverty levels

$$\begin{aligned}
 &= (p_{ZY})^2 \times 100\% \\
 &= (-0,397)^2 \times 100\% \\
 &= 15,7\%
 \end{aligned}$$

2. Indirect influence of economic growth and poverty levels through life expectancy

$$\begin{aligned}
 &= (p_{ZY})(r_{X2Y})(p_{ZX2}) \times 100\% \\
 &= (-0,397)(0,902)(-0,605) \times 100\% \\
 &= 21,7\%
 \end{aligned}$$

3. The total effect of economic growth on poverty levels

$$\begin{aligned}
 &= 15,8\% + 21,7\% \\
 &= 37,4\%
 \end{aligned}$$

The direct influence and indirect influence of exogenous variables, namely life expectancy and economic growth on poverty levels, can be seen in the following table:

Table 14: Direct Effect, Indirect Effect and Total Effect of Structural Equation II Variables X2 and Y on Z

Influence Variable	Causal Influence			Total influence (%)
	Dircet (%)	Indirect (%)		
		X2 (%)	Y (%)	
X2 → Z	36,6	-	21,7	58,3
Y → Z	15,8	21,7	-	37,4
Influence of Variables X2 and Y on Z = R2 95.7				95,7
Influence of External Variables				4,3
Total				100,0

Source: Processed Data, 2024

On the basis of the calculations above, the following can be stated:

- The strength of the life expectancy rate, which directly determines changes in the poverty rate, is 36.6 percent, and through its relationship with economic growth is 21.7 percent. In total, the life expectancy rate determines changes in the poverty rate of 58.3 percent.
- The power of economic growth directly determines changes in the poverty rate of 15.8 percent, which, through its relationship with the life expectancy rate, is 21.7 percent. In total, the poverty level determines changes in the life expectancy rate of 37.4 percent.

C) Final Results of the Path Analysis Scheme

Integrating the two structural equation findings allows for the formation of a route analysis scheme after determining the path coefficient on the variable that is independent and affects the variable.

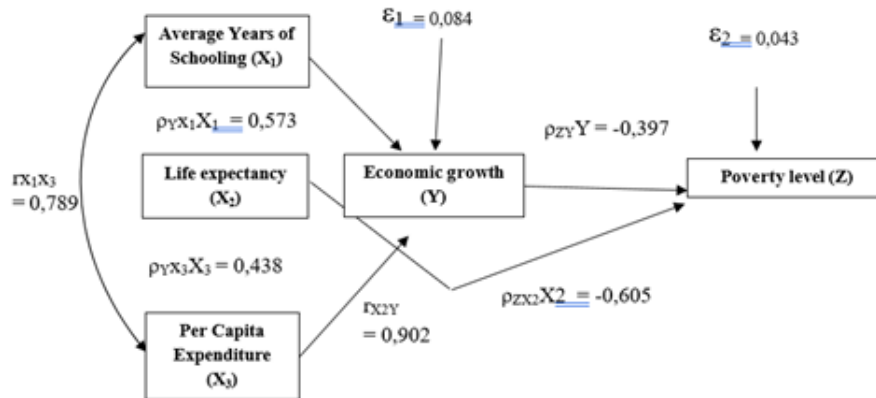


Figure 7: Path diagram of Structural Equation I and Structural Equation II

Based on Figure 7, it can be seen that only the average length of the school variable has an influence on economic growth with a coefficient path value of 0.084. Then, per capita expenditure has an influence on the level of economic growth with a path coefficient of 0.902. Furthermore, life expectancy has an influence on poverty levels with a coefficient path value of -0.605. Meanwhile, economic growth has an influence on the poverty level with a path coefficient of -0.397.

D) Discussion

Analysis of the Effect of Average Years of Schooling, Life Expectancy and Per Capita Expenditure on Economic Growth in West Tanjung Jabung Regency

a. Average Years of Schooling

The results of the research show that the average length of schooling has a positive and significant effect on the economic growth of West Tanjung Jabung Regency. The results of this research agree with research conducted by [31] that the average length of schooling has a significant effect on economic growth. Likewise, research [32] and [33] says that the average length of schooling has a significant effect on economic growth. The average length of schooling has an impact on economic growth because education is a key metric for assessing the caliber of a nation's citizenry. The general public in industrialized nations is highly conscious of the value of education and proficiency in science and technology. The extremely high rates of learning involvement among people living in industrialized nations demonstrate this. Prioritizing different possibilities in the relevant education sector is necessary due to limited funding, and doing so will eventually accelerate economic growth.

b. Life Expectancy

The research results show that life expectancy does not have a significant effect on the economic growth of West Tanjung Jabung Regency. The results of this study do not agree with research conducted by [33]–[36], which stated that life expectancy has a significant effect on Economic growth caused by health has an impact on the entire community (workforce). The life expectancy rate has no effect on economic growth because the quality of health in West Tanjung Jabung Regency is still low; the average life expectancy is only 67 years, so this ratio cannot be a factor that can increase economic growth in West Tanjung Jabung Regency.

c. Per Capita Expenditure

The research results show that Per Capita Expenditure has a positive and significant effect on the economic growth of West Tanjung Jabung Regency. The results of this research agree with research conducted by [35], [36], which states that per capita expenditure has a significant effect on economic growth. The influence of per capita expenditure on economic

growth is because the average per capita in West Tanjung Jabung Regency tends to increase so that it can increase demand in the economy which can encourage economic growth.

Analysis of the Effect of Average Years of Schooling, Life Expectancy and Per Capita Expenditure on Poverty Levels Through Economic Growth in West Tanjung Jabung Regency

a. Average Years of Schooling

The research results show that the average length of schooling does not have a significant effect on the poverty level of West Tanjung Jabung Regency. The results of this study do not agree with research conducted by [37], who said that the average length of schooling can have a significant effect on poverty levels. The average length of schooling does not affect the poverty level because the average length of schooling in West Tanjung Jabung Regency is still low, so there are still many people who have low education, and this means they cannot escape the poverty gap.

b. Life Expectancy

The research results show that Life Expectancy has a negative and significant effect on the poverty level of West Tanjung Jabung Regency. The results of this study agree with research conducted by [38], who say that life expectancy can have a significant effect on poverty levels. The influence of life expectancy on poverty levels is because the health quality improvement programs carried out by the government are more focused on the poor, so increasing life expectancy will affect the poverty level in West Tanjung Jabung Regency.

c. Per Capita Expenditure

The research results show that Per Capita Expenditure does not have a significant effect on the poverty level of West Tanjung Jabung Regency. The results of this research do not agree with research conducted by [39], which said that per capita expenditure has a significant effect on poverty levels. There is no effect of per capita expenditure on poverty levels because per capita expenditure is still low, so there are still many people who have low levels of consumption, which results in people being unable to get out of the poverty gap.

d. Economic Growth

The research results show that economic growth has a negative and significant effect on the poverty level of West Tanjung Jabung Regency. The results of this research agree with research conducted by [32] and [37] say that economic growth has a negative influence on poverty. Economic growth has an impact on the rate of poverty since it has the potential to create wealth, which will eventually filter down to end poverty and all of its related issues.

The poverty alleviation strategy proposed by the World Bank has developed over time, including job creation, increasing income, developing health and education, and protecting and empowering the poor. The approach to poverty alleviation includes short-term strategies, such as increasing income and providing employment opportunities, as well as long-term strategies by encouraging local self-reliance. The government is also implementing a poverty alleviation strategy by protecting community groups experiencing temporary poverty and helping those experiencing chronic poverty. These programs include providing basic needs, developing a social security system, and developing a business culture. Apart from that, poor people also take their own initiatives to overcome their poverty, such as by borrowing from informal institutions or increasing working hours. Evaluation of poverty alleviation programs can be carried out based on the planning approach, development model used, and implementation of the program. Evaluation criteria include target determination, the role of local government and community, as well as program implementation at the government and community level.

IV. CONCLUSION

The research results show that the development of the average length of schooling, life expectancy, per capita expenditure, economic growth and poverty levels in West Tanjung Jabung Regency during the 2001-2023 period has different dynamics. The average length of schooling and life expectancy show an increasing trend every year, while per capita expenditure and economic growth fluctuate up and down. The path analysis results show that the average length of schooling and per capita expenditure do not have a significant effect on economic growth. In contrast, life expectancy has a significant effect on poverty levels. In the context of West Tanjung Jabung Regency, factors such as education and health have different impacts on economic growth and poverty levels, highlighting the complexity of poverty alleviation and economic development efforts in the area.

Interest Conflicts

The authors state that there is not any conflict of interest with this paper's publication.

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