

ANALYSIS OF FACTORS AFFECTING THE HUMAN DEVELOPMENT INDEX IN ACEH PROVINCE

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ABSTRACT

This study aims to complement the factors influencing the Human Development Index (HDI). Using a secondary data approach from 2010 to 2021 in Aceh province. Independent variables in this study include Economic Growth, Poverty Rate, Per capita Expenditure while dependent variables include the Human Development Index (HDI). The selected research model is a multiple linear regression using the Ordinary Least Square (OLS) method. The study found that the economic growth variable had a negative and insignificant effect on the human development index, and that the poverty level variable had a negative and insignificant effect on the human development index, while the per capita expenditure variable has a positive and significant effect on the human development index in Aceh province. Simultaneous test results stated that simultaneously variables of economic growth, poverty level and per capita expenditure had a significant and impact on the human development index in Aceh province.

Keywords: Economic Growth, Poverty Rate, Per capita Expenditure

Doi:

INTRODUCTION

Human development is an important factor in economic development. Human development is an effort to expand the population's opportunities for a decent life and expand more choices through empowerment efforts that prioritize improving basic human abilities. The human development index is a combination of the main elements of human development in the form of length of life, knowledge through adult literacy levels and average years of schooling, and a decent standard of living as measured by GDP per capita after adjusting for purchasing power. The Human Development Index also plays an important role in economic development because good human development will become a production factor.

The Human Development Index (HDI) comprises three universal components. First is sufficiency, which encompasses the basic needs essential for sustaining life, including clothing, food, shelter, health, and security. Second: identity, a component of aspirational needs involving self-motivation for progress, self-appreciation, self-improvement, and the like. Third: freedom from servitude, representing the ability to uphold universal values integral to human development (Widya Herdianti, 2016). It's fascinating how these components reflect material well-being and human life's psychological and existential dimensions.

Based on the table 1, the economic growth of Aceh Province has experienced fluctuations. The highest economic growth occurred in 2010 at 5.91%, while the lowest in 2020 at -0.74%. This is also a result of the impact of COVID-19, which affected all provinces in Indonesia, including Aceh. Then, in 2021, economic growth experienced an increase of 2.56% due to government programs implemented for the community, such as the 3M (wearing masks, washing hands, and maintaining distance) campaign and vaccination efforts.

Table 1. Economic Growth, Poverty Rate, Per Capita Expenditure, and HDI in Aceh Province 2010-2021

Year	EG	PR	PCP	HDI
2010	5,91	20,98	7,933.73	67,09
2011	4,38	19,57	8,043.67	67,45
2012	4,95	19,46	8,134.01	67,81
2013	4,15	17,60	8,288.79	68,30
2014	4,02	18,05	8,297.48	68,81
2015	4,28	17,05	8,533.05	69,45
2016	4,26	16,73	8,768.00	70,00
2017	4,13	16,89	8,957.00	70,60
2018	4,49	15,97	9,186.00	71,19
2019	4,19	15,01	9,603.00	71,90
2020	-0,74	15,43	9,492.00	71,99
2021	2,56	15,53	9,572.00	72,18

The poverty rate in Aceh tends to decrease, with the highest poverty rate in 2010 at 20.98% and the lowest in 2019 at 15.01%. It can be observed that from 2010 to 2013, there was a decrease from 20.98% to 17.60%, but it rose again in 2014 to 18.05%. Subsequently, there was another decline in 2019 to 15.01%, followed by an increase in 2020 to 15.43% due to the COVID-19 pandemic. In 2021, the poverty rate in Aceh experienced a further increase to 15.53%.

Per capita expenditure can be seen in 2010–2021 as fluctuating. A very significant increase occurred in 2019, 9.603 thousand rupiahs, then in 2010, per capita expenditure was 9.492 thousand rupiahs and again increased in 2021 by 9,572 thousand rupiahs.

The Human Development Index (HDI) of Aceh Province has steadily increased from 2010 to 2021. In 2010, the HDI was 67.09%; by 2021, it has shown further improvement, reaching 72.18%. This increase in the HDI aligns with improvements in healthcare, education, and the standard of living index during the same period.

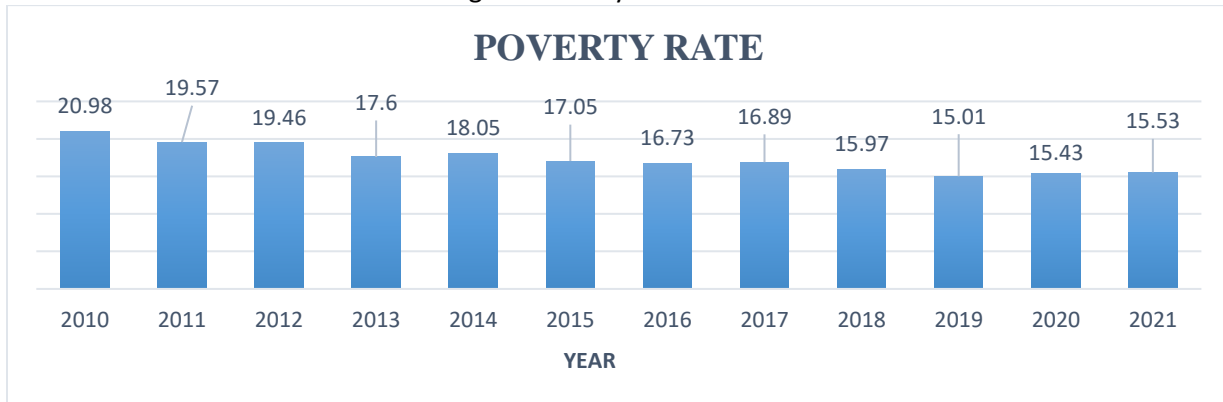
Figure 1.
Percentage of Economic Growth in Aceh Province



Based on the above figure 1, economic growth in Aceh Province has experienced fluctuations. It can be observed from the data that the highest economic growth rate occurred in 2010 at 5.91%, while the lowest economic growth occurred in 2020 at -0.74%. In 2021, there was an increase in economic growth by 2.56%. From this data, it is evident that economic growth fluctuates each year and tends to decrease. However, in 2021, economic growth is expected to improve compared to the previous years.

From the demand side, the increasing economic growth in Aceh is primarily attributed to government consumption, household consumption, and foreign exports. Additionally, several development indicators align with targets, along with the impacts of the COVID-19 pandemic affecting Indonesia, including the province of Aceh.

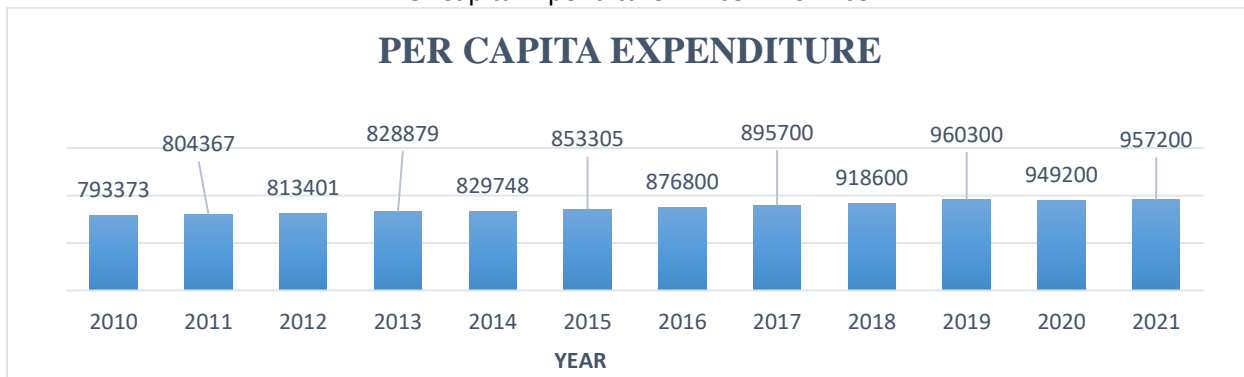
Figure 2.
Percentage of Poverty Rate in Aceh Province.



The above image also indicates that the poverty rate in Aceh tends to decrease. We can see that the highest poverty rate in 2010 was 20.98%, and the lowest was in 2019 at 15.01%. From 2010 to 2013, there was a decrease from 20.98% to 17.60%, but it increased again in 2014 to 18.05%. It then decreased in 2019 to 15.01%. However, in 2020-2021, the poverty rate increased again compared to the previous years, reaching 15.43% and 15.53%.

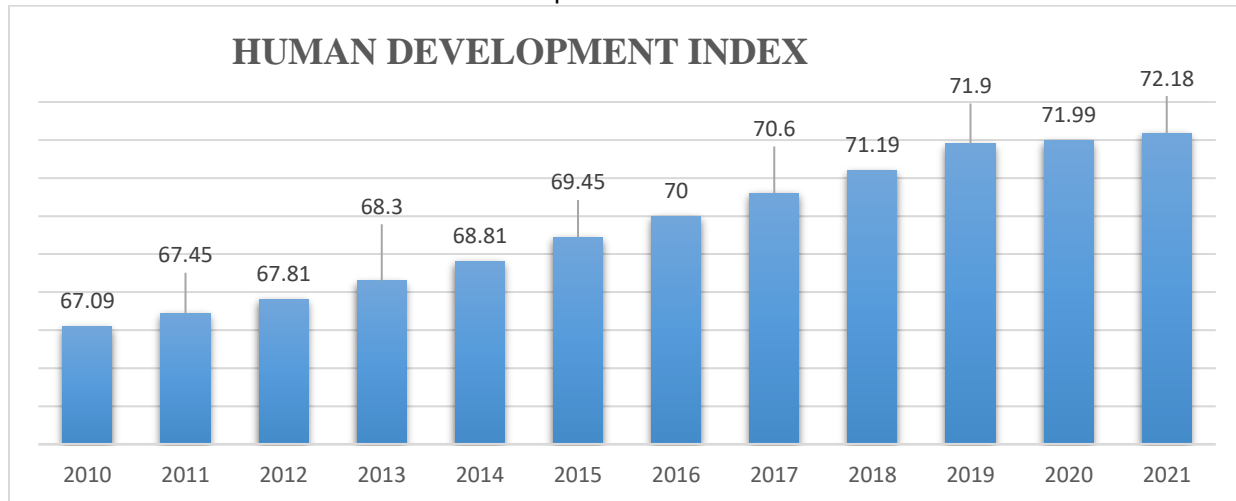
This is because the poverty figures have exceeded the target, accompanied by an increase in unemployment rates. The impact of the COVID-19 pandemic is still felt by the community, especially in the economic sector. Therefore, the government needs to create job opportunities to boost the economic capabilities of the people, such as utilizing labor-intensive programs that can absorb the workforce locally.

Figure 3.
Per Capita Expenditure in Aceh Province



Per capita expenditure in Aceh Province, as shown in the years 2010-2021, has experienced fluctuations. There was a significant increase in 2019, amounting to 9,603.00 thousand Indonesian rupiahs. It then decreased 2010 to 9,492.00 thousand rupiahs and increased again in 2021 to 9,572.00 thousand rupiahs. From this data, it can be observed that each year, per capita expenditure is consistently rising in Aceh Province.

Figure 4.
Human Development in Aceh Province.



The Human Development Index (HDI) in Aceh Province has consistently and steadily increased yearly. This can be observed from the HDI of Aceh Province, which was 67.09 in 2010; by 2021, it has further increased to 72.18. The rise in HDI is supported by the movement of other data and how the population can access development benefits in terms of income, health, education, and other aspects.

The interconnection between economic growth, poverty rates, and the Human Development Index (HDI) was particularly evident in early 2020. The restrictions on community mobility, implemented in response to the spread of COVID-19, underscored the profound link between people and their livelihoods. During this time, communities experienced a loss of economic growth opportunities and setbacks in poverty alleviation efforts.

Meanwhile, the annual increase in per capita expenditure managed rapidly and effectively, played a crucial role. This acceleration positively influenced the Human Development Index. This ongoing yearly improvement contributes positively to the overall Human Development Index.

However, the correlation between the Human Development Index and development has become a benchmark. Development serves as a transformation or change towards a better condition.

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Human Development Index

According to Basuki and Saptutyingsih (2016), the Human Development Index (HDI) has been used by the United Nations Development Programs (UNDP) since 1990 to measure the efforts in achieving human development in a country or region. The HDI serves as a single composite indicator used to gauge the achievement of human development within a UNDP territory (UNDP, 2004). Although it cannot measure all aspects of development, it effectively assesses the essential aspects of human development, reflecting the basic capabilities of the population. The Indonesian Central Statistics Agency outlines three

dimensions constituting the Human Development Index, each with its own indicators: the Health Index, Education Index, and Standard of Living Index.

Economic Growth

According to Sukirno (2016), economic growth can be defined as the development of activities in the economy that leads to an increase in goods and services produced within society. Economic growth explains or measures the economy's performance in a country or region. In actual economic activities, economic growth signifies the fiscal development of the production of goods and services prevailing in a country. This includes the growth and quantity of industrial goods production, infrastructure development, the addition of schools, the increase in the production of the service sector, and the increase in the production of capital goods. To provide a rough overview of the economic growth achieved by a country, the commonly used measure is the rate of real national income growth attained.

The process of economic growth is influenced by two types of factors, namely economic factors and non-economic factors. Economic factors are none other than production factors, the main forces that influence economic growth. Low and high rates of economic growth are a consequence of changes that occur in production factors. According to Sukirno (2011), there are four production factors that influence economic growth as follows:

Natural Resources

The main factor that influences economic growth is natural resources or land. Land used in economic growth includes natural resources such as soil fertility, location and structure, forest wealth, minerals, climate, water resources, and ocean resources. Having abundant natural resources is necessary for economic growth. In areas that lack natural resources, development cannot be done quickly.

Organization

Organization is an important part of the growth process. Organizations have a relationship with production factors in economic activities. Character organizations need capital and labor to help increase productivity.

Capital Accumulation

Capital is the supply of production factors that can physically be reproduced. If the stock of capital increases over a certain time, this is referred to as capital accumulation or capital formation. Capital formation is investment in the form of capital goods which increases capital stock, national output and national income. So capital formation is the main key to increasing economic growth. Capital formation is important to complement the demand of residents in the area. Investment in capital goods does not increase production but also opens up job opportunities. Capital formation which leads to technological progress ultimately leads to savings for wide-scale production and also leads to the extraction of natural resources, industrialization and market expansion which are important for economic progress.

Technology advances

Technological change is a necessary factor in the process of economic growth. This change is related to changes in production methods, which are the result of renewal or the development of new research techniques. Technological changes have increased the productivity of labor, capital, and the production sector.

Division of Labor and Scale of Production

Division of labor and scale of production increase productivity. Both brought the economy towards a large-scale economy that helped industrial development. Work improvements realize changes in workers' production capabilities. Every worker will be more efficient than before. Economic factors are gradually interconnected with non-economic factors in economic progress. Therefore, non-economic factors such as social, cultural, and political factors have an important meaning in economic growth.

Poverty Rate

According to Soerjono Soekanto, poverty is defined as a situation where a person cannot maintain himself according to the group's standard of living and cannot utilize his mental and physical energy within the group. According to BPS, to estimate poverty, BPS uses the concept of the ability to fulfill basic needs (basic needs approach). In this approach, poverty is considered an inability in the economy to fulfill basic food and non-food needs measured by expenditure. The poor population is the population whose average monthly per capita income is below the poverty line that the BPS has determined.

Per Capita Expenditure

According to Yunita (2012), in the research conducted by Pratiwi (2019), Per Capita Expenditure is used to measure the standard of living for humans. It is also influenced by knowledge and opportunities to realize that knowledge in various productive activities, resulting in outputs, be it goods or services, as income. Subsequently, the income generated contributes to expenditures or consumption. Per Capita Expenditure provides an overview of the community's purchasing power parity (PPP). It is one of the components used to assess the human development status in a region.

Conceptual Framework

The intended thought framework is as follows:

Figure 5.

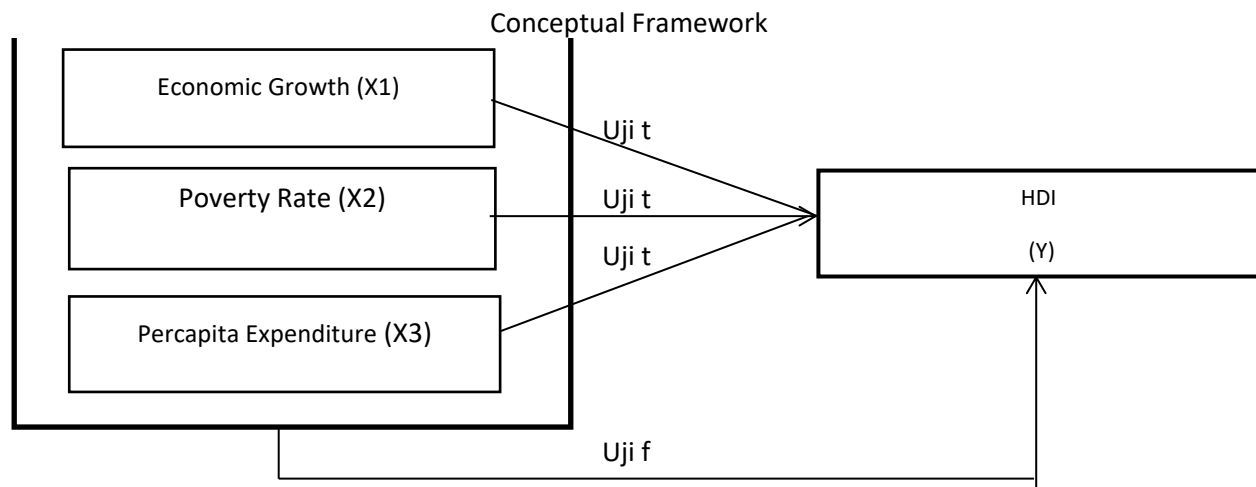


Figure 5. conceptual framework the framework diagram above will be analyzed using a panel data model, which can answer the issues presented in the problem statement in Chapter One.

Hypothesis

The research hypothesis is a tentative answer to the problem that is the object of the study, which still needs to be tested and empirically proven using relevant data. Based on the theory from the above research, the research hypothesis can be summarized as follows:

- H1: Economic growth hurt the Human Development Index in Aceh Province in 2010-2021.
- H2: The poverty rate hurt the Human Development Index in Aceh Province in 2010-2021.
- H3: Per Capita Expenditure positively affected the Human Development Index in Aceh Province in 2010-2021.

H4: Economic Growth, Poverty Level, and Per Capita Expenditure positively affect the Human Development Index in Aceh Province in 2010-2021.

RESEARCH METHODS

This study focuses on the objects used: Economic Growth, Poverty Rate, Per Capita Expenditure, and the Human Development Index. The research location is in the Aceh Province. The type of data used in this research is secondary data covering 2010 to 2021. Secondary data is supportive data that complements primary data obtained through literature sources such as magazines, journals, articles, and various previous research findings related to the discussions in this thesis. For this study, the author extracted data from the Central Statistics Agency. This data includes Economic Growth, Poverty Rate, Per Capita Expenditure, and the Human Development Index in Aceh.

Operational Definition

The explanations for each variable are as follows:

Human Development Index: The variable in this research is expressed in percentage units from 2010-2021.

Economic Growth: The variable in this research is expressed in percentage units from 2010-2021 based on data obtained from the official website of Central Statistics.

Poverty Rate: The variable in this research is expressed in percentage units from 2010-2021 based on data obtained from the official website of the Central Statistics.

Per Capita Expenditure: The variable in this research is expressed in thousand Indonesian Rupiah during the period 2010-2021 based on data obtained from the official website of the Central Statistics Agency

The analytical model used in this research is the Multiple Linear Regression analysis model. Multiple Linear Regression is a linear regression model that includes more than one independent or predictor variable. Multiple Linear Regression is employed when the dependent variable is on an interval or ratio scale (quantitative or numeric). The multiple linear regression analysis model for this study utilizes the Eviews 10 program with the Ordinary Least Squares (OLS) method to determine the extent of the influence of one independent variable on the dependent variable. OLS analysis explains how to achieve estimates that are close to the truth. In this research, Economic Growth, Poverty Rate, and Per Capita Expenditure are treated as dependent variables, while the Human Development Index is the independent variable. Utilizing the Ordinary Least Squares (OLS) model, the regression equation is as follows:

$$\text{HDI} = \beta_0 + \beta_1 \text{EG} + \beta_2 \text{PR} + \beta_3 \text{PCP} + e$$

HDI : Human Development Index

β_0 : Constant

$\beta_1 + \beta_2 + \beta_3$: Regression Coefficients

EG : Economic Growth

PR : Poverty Rate

PCP : Per Capita Expenditure

e : Standard Error/Disturbance Variable

To calculate the multiple linear regression equation using the OLS model, the data must satisfy basic assumptions: the classical assumption tests (normality test, multicollinearity test, autocorrelation test, heteroskedasticity test).

Classic assumption test

Normality Test

The Normality Test aims to assess whether the residual values in the regression model follow a

normal distribution. A regression model is considered good if it has a normal or close-to-normal data distribution. Statistical methods for normality tests include Chi-Square, Kolmogorov-Smirnov, Lilliefors, Shapiro-Wilk, and Jarque-Bera (JB-Test). The researcher used the Jarque-Bera method (JB Test) in this study. This test compares the Jarque-Bera (JB) test probability with a significance level of 0.05 (5%). If the calculated JB probability is greater than 0.05, it can be concluded that the residuals are normally distributed. Conversely, if the value is smaller, there is insufficient evidence to claim that the residuals are normally distributed.

Multikolinieritas Test

The presence of multicollinearity in the regression equation model can lead to unclear estimations, ultimately directing conclusions to accept the null hypothesis. Multicollinearity aims to test whether there is a high or perfect correlation among independent variables in the regression model. Gujarati (2012) states that a good regression model should not have correlations among independent variables. Multicollinearity can be assessed through Variance Inflation Factors (VIF). VIF tries to examine how the variance of an estimator increases if there is multicollinearity in an empirical model. If the VIF of a variable exceeds 10, the variable is considered highly correlated.

Autocorrelation Test

The autocorrelation test aims to examine whether there is a disturbance error at period t correlated with the error at period $t-1$ (previous). If there is a correlation, it is called autocorrelation. The presence of autocorrelation in regression causes the resulting model to be unusable for the dependent variable values from certain independent variables. A good regression model is free from autocorrelation.

Heteroskedasticity Test

The presence of heteroskedasticity estimates regression coefficients inefficiently. A good regression model is free from heteroskedasticity. Testing for heteroskedasticity issues is done using the Glejser Test by D. N. Gujarati (2012). If the probability value of $Obs * R^2$ is greater than 0.05, then there is no heteroskedasticity.

Partial Test (t-test)

The t-test ensures how far the influence of an individual explanatory variable is in explaining the variation of the dependent variable (Kuncoro, 2009). Decision-making is based on whether the p-value < 5% significance level, indicating a significant influence of each independent variable on the dependent variable.

Simultaneous Test (F-test)

The F-test aims to determine whether all independent variables collectively (simultaneously) influence the dependent variable (Kuncoro, 2009). If $F_{hit} > F_{table}$ at a 5% simultaneous level, it can be concluded that, collectively, independent variables significantly affect the dependent variable. Conversely, if $F_{hit} < F_{table}$ at a 5% significance level, it can be concluded that, collectively, independent variables do not affect the dependent variable.

Coefficient of Determination

The coefficient of determination (R-squared) measures how well the model explains the variation in the dependent variable, with values ranging from zero to one.

Correlation Coefficient

The correlation coefficient indicates the strength of the linear relationship between two variables.

It is used to measure the strength of the relationship between variables. The correlation coefficient can vary from -1 to +1. Values of R approaching -1 or +1 indicate a strong relationship between the two variables, while R's close to 0 indicates a weak relationship.

The decision-making basis for the correlation coefficient is as follows (Sari, 2015):

If $R > 0$, there is a positive relationship, meaning that as variable X increases, variable Y also increases.

If $R < 0$, there is a negative relationship, meaning that as the value of variable X decreases, variable Y increases, or vice versa; as variable C increases, variable Y decreases.

If $R = 0$, there is no relationship between variable X and variable Y.

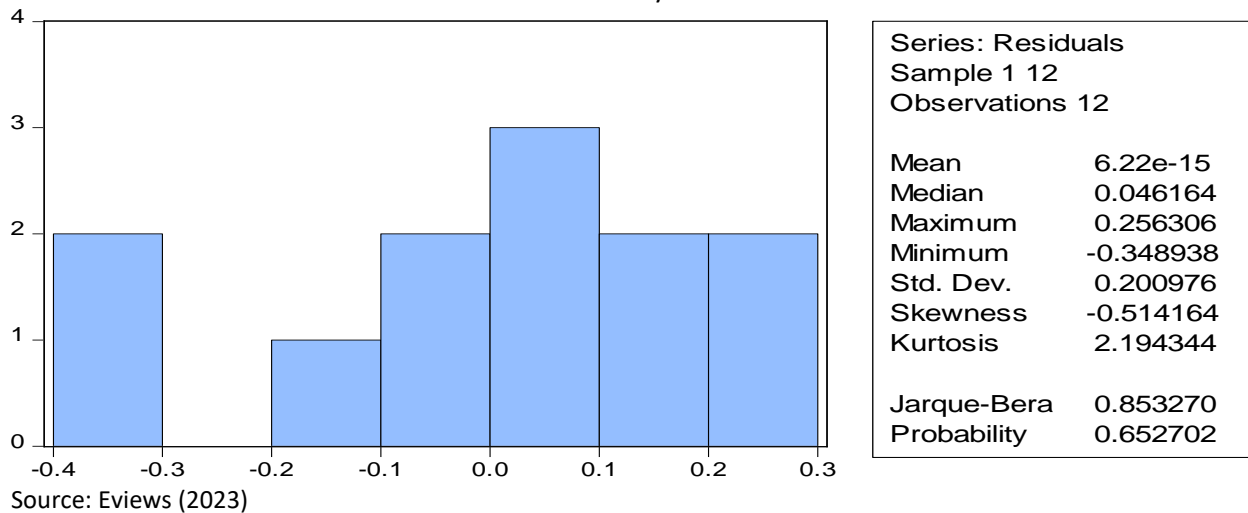
If $R = 1$ or $R = -1$, there is a perfect relationship, represented by a straight line, while R tending towards 0 indicates a lack of linearity.

RESULTS AND DISCUSSION

Normality Test

The normality test aims to determine whether the disturbance or residual variable in the regression model has a normal distribution. The decision-making basis is that if the probability > 0.05 , the population has a normal distribution, and if the probability < 0.05 , the population does not have a normal distribution.

Figure 6.
Normality Test



The Jarque-Bera (JB-Test) method is used in the normality test, as illustrated in the figure above. In addition, the test results show a probability exceeding 0.05 (0.652702). The regression model meets the normality assumption, as can be concluded from these results.

Results Multikolinieritas Test

The multicollinearity test is a component of traditional assumption tests. Its purpose is to determine whether there is a strong correlation between independent and dependent variables in the regression model. Multicollinearity and independent variables should not be correlated in this case. The results of the multicollinearity test are revealed in this investigation:

Table 2.
Multikolinieritas Test

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	21.59339	4665.632	NA
EG	0.003059	11.58364	1.626270
PR	0.011528	758.2045	7.923602
LOG_PCP	0.001085	1797.366	8.194548

Source: Eviews, 2010 (2023)

No independent variable has a VIF value greater than 10, as seen in Table 4.1. It can be said that this study does not indicate multicollinearity.

Results of Autocorrelation

Test This study required an autocorrelation test to determine whether a value at a particular observation correlates with the residual error in the previous period (t-1) in testing the regression model using time series or data series. The Breusch-Godfrey Serial Correlation LM Test for autocorrelation yielded the following output in this research.

Table 3.
Autocorrelation

Breusch-Godfrey Serial Correlation LM Test:			
F-statistic	0.044939	Prob. F (2,6)	0.9564
Obs*R-squared	0.177104	Prob. Chi-Square (2)	0.9153

Source: Eviews, 2010 (2023)

Based on Table 4.3 above shows that the Prob. The value of Chi-Square is 0.88, which is greater than or equal to 0.05, specifically $0.9153 > 0.05$. This indicates that this research does not have an autocorrelation problem.

Results Heteroskedasticity Test

Heteroskedasticity testing is conducted to detect whether there is a non-constant variance of disturbances in this study. Heteroskedasticity is examined by observing the probability values. The presence of heteroskedasticity leads to inefficiency in the estimation of regression coefficients.

Table 4.
Heteroskedasticity Test

Heteroskedasticity Test: White			
F-statistic	2.447996	Prob. F (9,2)	0.3236
Obs*R-squared	11.00133	Prob. Chi-Square(9)	0.2756

Scaled explained SS	2.919860	Prob. Chi-Square (9)	0.9674
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Source: Eviews, 2010 (2023)

The probability value can be observed based on the findings presented in Table 4.3. The Chi-Square value exceeds the significance threshold of 5% or 0.05 ($0.2756 > 0.05$). This indicates that the regression model does not have heteroskedasticity issues.

Multiple Linear Regression Analysis

To find out the results of this research, you can refer to the multiple linear regression output using Eviews 10 as the analysis tool in the following table 5:

Table 5.
Multiple Linear Regression Analysis

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	52.56440	4.646869	11.31179	0.0000
EG	-0.023602	0.055304	-0.426764	0.6808
PR	-0.198516	0.107367	-1.848940	0.1016
LOG_PCP	0.237042	0.032947	7.194679	0.0001

Source: Eviews, 2010 (2023)

From the table above, the results of multiple linear regression analysis can be interpreted as follows:

$$C = 52.56440 - 0.023602 \text{ EG} - 0.198516 \text{ PR} + 0.237042 \text{ PCP}$$

The variable Human Development Index has a value of 52.56440. If the variables of Economic Growth, Poverty Rate, and Per Capita Expenditure are constant, the Human Development Index will increase by 52.56%.

Since the coefficient value of the Economic Growth variable is -0.023602, it indicates a negative connection, suggesting that the Human Development Index will decrease by 0.02%.

The coefficient of the Poverty Rate variable is -0.198516, indicating that the Human Development Index will decrease by 0.19%.

The coefficient of the Per Capita Expenditure variable is 0.237042, showing a positive relationship. It indicates that the Human Development Index will increase by 0.23% if per capita expenditure increases by a thousand rupiah.

Results of Partial Testing (t-Test)

Hypotheses are tested using the t-test, with the following provisions and a significance level of 0.05 or 5%. The null hypothesis (H_0) is rejected, and the alternative hypothesis (H_a) is accepted if the t-value is greater than the t-table value at 5%; the alternative hypothesis (H_a) is rejected, and the null hypothesis (H_0) is accepted if the t-value is smaller than the t-table value at 5%.

Table 6.
Results of Partial Testing (t-Test)

Variable	T-statistic		T-table	Prob	Desc
Economic Growth	-0.531850		1.85955	0.6093	Not significant
Poverty Rate	-1.440942		1.85955	0.1016	Not significant

Per Capita Expenditure	8.036478		1.85955	0.0001	Significant
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Source: Eviews, 2010 (2023)

Based on table 4.6 above shows that the t-value of Economic Growth, which is -0.426764 , is smaller than the t-table value of 1.85955 ($-0.426764 < 1.85955$). This means that Economic Growth has a negative and non-significant effect on the Human Development Index in the province of Aceh. This can be seen from the probability value greater than 0.05 ($0.6808 > 0.05$).

The variable Poverty Rate, which is -1.848940 , is smaller than 1.85955 ($-1.848940 < 1.85955$) with a p-value of $0.1016 > 0.05$. This indicates that the Poverty Rate has a negative and non-significant effect on the Human Development Index in the province of Aceh.

The variable Per Capita Expenditure, which is 7.194679 , is greater than 1.85955 ($7.194679 > 1.85955$) with a p-value of $0.0000 < 0.05$. This indicates that Per Capita Expenditure positively and significantly affects the Human Development Index in the province of Aceh.

Results of Simultaneous Testing (F-Test)

The simultaneous test, or the F-test, determines whether independent variables collectively influence the dependent variable. All independent variables impact the dependent variable if the F-value exceeds the F-table value. The following are the results of the simultaneous F-test:

Table 7.
Results of Simultaneous Testing (F-Test)

F-statistic	F-table	Prob	Description
223.0309	4.07	0.000000	Significant

Source: Eviews, 2010 (2023)

With a significance level of 0.05 , Table 4.7 shows the F-value of 223.0309 and the F-table value of 4.07 . Thus, economic growth, poverty rate, and per capita expenditure contribute simultaneously to Aceh's Human Development Index.

Testing the Coefficient of Determination (R-squared)

The coefficient of determination test, also known as the R-squared test, measures the relationship between independent and dependent variables. The value of the coefficient of determination ranges from 0 to 1 . If the Adjusted R-squared value approaches zero, the relationship between independent and dependent variables is very weak. If the Adjusted R-squared value approaches one, the relationship is very strong.

Table 8.
Testing the Coefficient of Determination (R-squared)

R-squared	0.988185	Mean dependent var	69.73083
Adjusted R-squared	0.983754	S.D. dependent var	1.848943
S.E. of regression	0.235665	Akaike info criterion	0.208394
Sum squared resid	0.444305	Schwarz criterion	0.370030

Log-likelihood	2.749636	Hannan-Quinn criteria.	0.148551
F-statistic	223.0309	Durbin-Watson stat	1.969384
Prob(F-statistic)	0.000000	Mean dependent var	69.73083

Source: Eviews, 2010 (2023)

The Adjusted R-Square value in this study is 0.983754, as shown in the table above. This indicates a strong relationship of 98.37 percent between independent and dependent variables, with the remaining variables contributing 1.34 percent.

Testing the Correlation Coefficient (R)

If the researcher intends to determine the influence or relationship between independent and dependent variables, and one independent variable is controlled (held constant), the correlation coefficient is used for analysis or hypothesis testing. The correlation coefficient value in this study is 0.988185 or 98.81%. This indicates a significant correlation between independent and dependent variables, as demonstrated by the findings of this research.

The Relationship Between Economic Growth and the Human Development Index in Aceh.

The test results indicate that economic growth has a negative and insignificant effect on the human development index. The coefficient of economic growth is -0.426764 due to the probability value of 0.6808, which is greater than 0.05. This is because the decline in economic growth leads to an increase in the human development index. Economic growth reflects the level of community economy and affects various aspects of community life, such as meeting basic needs, education, health, and more. It can be said that there is a one-way causality where the human development index influences economic growth.

The Relationship Between the Poverty Rate and the Human Development Index in Aceh.

Based on the above data, it can be seen that the poverty rate has a negative and insignificant effect on the human development index in the province of Aceh. The poverty rate coefficient is -1.848940, and the probability value is 0.1016, which is less than 0.05. This is due to a low level of health, leading to decreased individual productivity, making it challenging to work optimally, and reducing income. This, in turn, affects a person's inability to meet their needs. Efforts must be made to increase confidence in the human development index by reducing unemployment and poverty rates in the province of Aceh. This will contribute to the continuous development and improvement of the human development index.

The Relationship Between Per Capita Expenditure and the Human Development Index in Aceh.

The test results show that per capita expenditure positively and significantly affects the human development index. The per capita expenditure coefficient is 7.194679 because the probability is 0.0001, which is smaller than 0.05. This reflects that increasing per capita expenditure improves the community's purchasing power to meet daily needs, increasing welfare.

CONCLUSION

Based on the results of the research and discussion, the conclusion that can be drawn from this research includes: Partially, the analysis results indicate that economic growth has a negative and non-significant impact on the Human Development Index in the Aceh Province from 2010 to 2021. Partially, the poverty rate also had a negative and non-significant impact on the Human Development Index in the

Aceh Province from 2010 to 2021, according to the analysis results. Partially, the subsequent analysis results indicate that per capita expenditure positively and significantly impacted the Human Development Index in the Aceh Province from 2010 to 2021. Simultaneously, economic growth, the poverty rate, and per capita expenditure collectively influence the Human Development Index in the Aceh Province from 2010 to 2021.

Based on the presentation of the results and conclusions above, there are several suggestions given by the author, including: To enhance the Human Development Index (HDI) in the Aceh Province, the government needs to achieve equitable economic growth for the entire population. Economic growth should be improved across all sectors to create opportunities, particularly in human resources utilization. This way, economic growth can be balanced with an increase in the Human Development Index. The government is advised to implement policies addressing HDI issues in Aceh by addressing problems such as poverty rates and continuously enhancing factors that positively influence the HDI. It is hoped that the government will pay attention to all aspects to improve the Human Development Index in each region, ensuring annual improvement. Additionally, future researchers are encouraged to consider additional variables that may impact the Human Development Index. Providing references and motivation for future researchers to use in analyzing the Human Development Index in Aceh.

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