

THE RELATIONSHIP BETWEEN ECONOMIC GROWTH AND THE LEVEL OF COMMUNITY WELFARE : EMPIRICAL STUDY IN RIAU

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ABSTRACT

Purpose: Economic growth and public welfare are closely interrelated and play a crucial role in the regional development process. This study aims to analyze the relationship between economic growth and the level of public welfare in Riau Province, with public welfare proxied by the Human Development Index (HDI), which reflects health, education, and income dimensions.

Design/methodology/approach: This study employs a quantitative approach using secondary data obtained from the Central Statistics Agency (BPS) of Riau Province. The data are analyzed using simple linear regression, supported by the EViews 13 application.

Findings: The results indicate that economic growth has a positive and statistically significant effect on public welfare in Riau Province. The coefficient of determination shows a value of 0.5576, implying that economic growth explains 55.76% of the variation in the level of public welfare, while the remaining proportion is influenced by other factors not examined in this study. These findings confirm that higher economic growth contributes to improvements in community welfare.

Research limitations/implications: This study is limited to a single explanatory variable and regional scope. Future research is encouraged to incorporate additional socio-economic variables and employ more comprehensive analytical models to better explain public welfare dynamics.

Practical implications: The findings highlight the importance of formulating regional economic development policies that prioritize sustainable economic growth as a means to enhance public welfare.

Originality/value: This study provides empirical evidence on the relationship between economic growth and public welfare at the provincial level, offering insights that can support policy formulation in regional development planning.

Paper type: Empirical research.

Keyword: Economic Growth; Welfare; Human Development Index; Social; Society.

A. INTRODUCTION

Every economic activity undertaken by a person aims to achieve prosperity. Generally, there are three economic activities in an economy: production, consumption, and distribution. All of these activities are part of a process aimed at creating prosperity. In economics, prosperity is the level of prosperity and overall quality of life. This term is often associated with a person's ability to meet basic needs, such as food, education, health, housing, and security (Sultan et al., 2023). Prosperity is everyone's dream, and various methods are used to achieve it. Some do it the right way, while others do it the wrong way; all of this is done by someone for the sake of achieving prosperity. Community welfare can be seen from how residents can enjoy the results of development in terms of income, health, education, and so on (Krisna et al., 2020). Various

government programs are implemented in order to create economic growth so that community welfare can be improved. One of the various indicators that can be used to measure the level of community welfare as a barometer of success is the Human Development Index.

The Human Development Index (HDI) is a composite index used to measure the level of welfare and quality of life of residents in a region. The Human Development Index was developed by the United Nations Development Program (UNDP) to provide a comprehensive overview of human development. Therefore, the Human Development Index (HDI) is calculated based on three main dimensions: health, education, and income. These dimensions can be explained as follows (Arafat et al., 2020) :

- Health. Measured by life expectancy. The higher the life expectancy, the better the quality of public health.
- Education. Measured by the Average Years of Schooling (RLS), an indicator of education that shows the average number of years of formal education received by residents aged 25 and over.
- Income. The amount of money received by an individual or household during a specific period, usually a month or a year.

The most important aspects of life are seen as a long and healthy life, an adequate level of education, and a decent standard of living. These three essential elements are referred to as the human development index (Setiawan & Hakim, 2008). Human development is one of the primary goals of national development, where the quality of life of the community is a measure of development success. The Human Development Index (HDI) is used as an indicator describing development achievements in health, education, and a decent standard of living (income). Therefore, there are certainly important factors that can influence it, in this study, namely economic growth.

Economic growth is a process, not a snapshot of the economy at a specific time; it involves developments or changes over a specific period. Economic growth is closely related to the process of increasing the production of goods and services within a community's economic activities (Aswanto, 2023). Economic growth will create a multiplier effect on all aspects of life, such as the economic and socio-cultural environment (Asrofillah & Arimurti, 2024). High economic growth will result in vibrant economic activity and stimulate investment growth and greater job opportunities, ultimately creating social welfare. Economic growth is an important indicator in assessing a country's development (Jhingan, 2014). The following data shows economic growth and the human development index (HDI) in Riau Province.

Table 1. Economic Growth and Human Development Index (HDI)

Year	Economic Growth (X)	HDI (Y)
2015	0.22	70.84
2016	2.18	71.20
2017	2.66	71.79
2018	2.35	72.44
2019	2.81	73.00
2020	1.13	72.71
2021	3.36	72.94
2022	4.55	73.52
2023	4.21	74.04

2024	3.52	74.79
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Source: BPS Riau Province

Table 1 shows that the Human Development Index (HDI) has generally shown an upward trend year after year, in line with economic growth, despite a slowdown in 2020 due to the impact of the pandemic. Although many studies have shown that economic growth has a positive effect on public welfare, most of these studies are general in nature (Sari & Santoso, 2024). In Riau Province, relatively high economic growth has not been fully accompanied by an increase in public welfare that is evenly distributed across regions. A study conducted by Hawari, (2019) entitled "The Effect of Economic Growth on the Human Development Index (HDI) in 34 Provinces in Indonesia 2017-2019" found that economic growth has a positive effect on the human development index. A similar study by Rahmat, (2018) showed that economic growth has a positive effect on public welfare. Therefore, there is still a gap in research related to the need for more specific and comprehensive empirical studies on the relationship between economic growth and public welfare in Riau Province.

B. METHODOLOGY

The approach in this research is quantitative research with an associative approach. Associative research is research that seeks the relationship or influence between two or more variables (Sugiyono, 2018). The research method is the best way to determine the objectives and results of a study. In this study, there are steps that need to be taken to obtain good research results, using the analysis tool Eviews 13 (Damayanti, 2013).

a. Data Sources

The data sources in this study use secondary data, namely data obtained indirectly from the source. Data obtained through intermediaries or indirectly in the form of books, records, or archives, as well as data obtained from the official website publication of the Central Statistics Agency (BPS, 2024)

b. Operational Definitions

Operational definitions are the elaboration of each research variable. The variables in this study can be explained as follows:

1. Human Development Index (variable Y), a composite index to measure the achievement of human development quality, which includes health, education, and income. In this study, it is used as an indicator of the level of community welfare.
2. Economic growth (variable X) reflects how far a region/country has developed compared to its previous economic level.
- 3.

c. Data Analysis Technique

The data analysis technique in this study is quantitative descriptive, describing phenomena, events, and incidents that occur factually, and quantitative data in numerical form. An analysis tool using the Eviews 13 application is used. The equation is as follows:

$$Y = \alpha + \beta_1 X_1 + \varepsilon \dots\dots\dots(1)$$

Where:

- Y : Human Development Index (HDI)
- α : Constant
- β : Regression Coefficient
- X : Economic Growth
- ε : Term of Error

C. RESULTS AND DISCUSSION

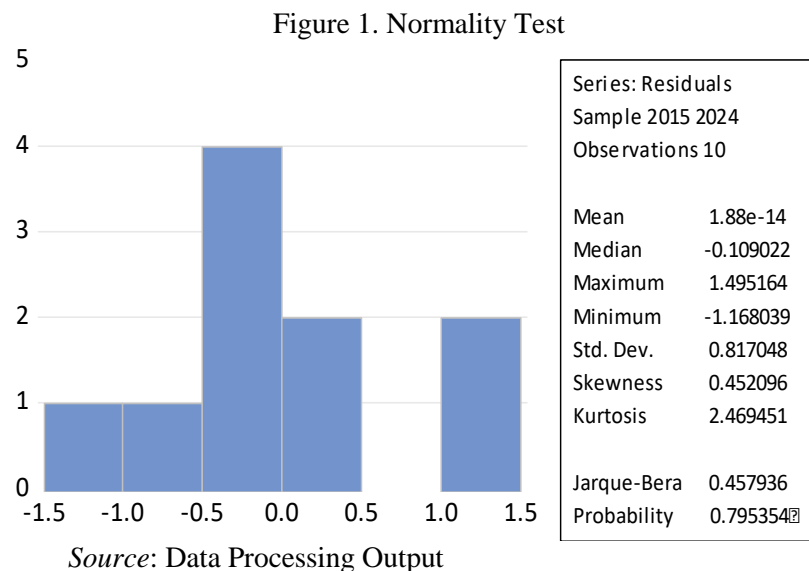
The data analysis in this study analyzed the influence of economic growth on the level of community welfare. The welfare indicator was the Human Development Index (HDI). The results and discussion demonstrate several necessary steps. The steps in this data analysis technique can be explained as follows (Leksono, 2013) :

1. Classical Assumption Test

The Classical Assumption Test in this study used normality and autocorrelation tests. Therefore, the steps can be explained as follows:

a. Normality Test

The normality test is a test conducted to assess the distribution of data, whether it is normally distributed or not. This normality test is the initial step before proceeding to the next steps. If the data is normally distributed, the study can proceed. If not, improvements or solutions need to be found. The normality test in this study was performed by examining the Jurqe-Bera Probability value, with the following conditions: If the Jurqe-Bera Probability value is below 0.05, the data is not normally distributed. If the Jurqe-Bera Probability value is above 0.05, the data is normally distributed.



Based on the processed data, the Jurqe-Bera Probability value is 0.795. This means that the Jurqe-Bera Probability value in this study is greater than 0.05. Therefore, it can be concluded that the data in this study is normally distributed.

b. Autocorrelation Test

The Autocorrelation Test is a test conducted to determine whether there is an influence between confounding variables and each independent variable. In this study, the Autocorrelation Test can be used to determine the LM Test value if: A Chi-Square Prob. (2) value below 0.05 indicates the presence of autocorrelation, while a Chi-Square Prob. (2) value above 0.05 indicates the absence of autocorrelation.

Table 2. Autocorrelation Test

Breusch-Godfrey Serial Correlation LM Test:

Null hypothesis: No serial correlation at up to 2 lags

F-statistic	1.387051	Prob. F(2,6)	0.3198
Obs*R-squared	3.161694	Prob. Chi-Square(2)	0.2058

Source: Data Processing Output

Based on the table, it can be seen that the C-Squared Prob value is 0.206. Therefore, it can be concluded that there is no autocorrelation in this study.

c. Heteroscedasticity Test

The heteroscedasticity test is used to determine whether there are deviations from classical assumptions. A prerequisite for a regression model is the absence of heteroscedasticity (Nurjannah et al., 2022).

Table 3. Heteroscedasticity Test

Heteroskedasticity Test: White

Null hypothesis: Homoskedasticity

F-statistic	0.318575	Prob. F(2,7)	0.7372
Obs*R-squared	0.834277	Prob. Chi-Square(2)	0.6589
Scaled explained SS	0.392297	Prob. Chi-Square(2)	0.8219

Source: Data Processing Output

Based on the results of the heteroscedasticity test, the results obtained were that with a significance value of $\alpha = 5\%$, the Prob.Chi-squared(2) value was $0.659 > 0.05$, so it can be concluded that there is no heteroscedasticity problem.

2. Regression Testing

In this study, regression testing can be explained as follows:

Table 4. Results of Regression testing using Eviews 13

Dependent Variable: Y

Method: Least Squares

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	70.86027	0.648572	109.2558	0.0000
X	0.691639	0.217796	3.175634	0.0131
R-squared	0.557636	Mean dependent var		72.72700
Adjusted R-squared	0.502340	S.D. dependent var		1.228450
S.E. of regression	0.866610	Akaike info criterion		2.728401
Sum squared resid	6.008105	Schwarz criterion		2.788918
Log likelihood	-11.64201	Hannan-Quinn criter.		2.662014
F-statistic	10.08465	Durbin-Watson stat		1.078796
Prob(F-statistic)	0.013083			

Source: Data Processing Output**a. Coefficient of Determination Test**

The coefficient of determination (R^2) is a number that indicates the proportion or percentage of the total variation in the dependent variable (Y) explained by the

independent variable (X). It is also a measure used to measure the influence of the independent variable on the dependent variable.

Table 5. Determination Coefficient Test

R-squared	0.557636
Adjusted R-squared	0.502340

Source: Data Processing Output

The calculation results obtained a coefficient of determination (R²) of 0.5576 or 55.76% in this study, meaning that the influence of economic growth is 55.76% and the remaining 44.24% is influenced by other variables not examined in this study. Economic growth does not necessarily increase the level of community welfare because there are other factors that also influence welfare (Suradi, 2012).

b. Partial Test (T-Test)

The T-test is conducted to show the extent to which an individual explanatory or independent variable influences the variation in the dependent variable.

Table 6. T-test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	70.86027	0.648572	109.2558	0.0000
X	0.691639	0.217796	3.175634	0.0131

Source: Data Processing Output

The results of this data processing show that economic growth has a positive and significant impact on the level of public welfare in Riau Province, with a Prob value of 0.013. This statement aligns with the theory. Therefore, it can be interpreted that when economic growth occurs, there will be an increase in the level of welfare (HDI).

Discussion:

The relationship between economic growth and welfare

The research results show that economic growth has a positive and significant relationship with the level of community welfare, as measured by the Human Development Index (HDI). This is evidenced by a correlation value of 0.5576, indicating that increased economic growth is followed by an improvement in the community's quality of life.

Empirically, the resulting regression equation is:

$$Y = 70,86 + 0,69X$$

Economic growth is an indicator of development success. Therefore, each region strives to develop policies to increase its economic growth (Indrayanti, 2020). Economic growth is a process, not a snapshot of the economy over a specific period; it involves developments or changes over a specific time period (Aswanto, 2020). Economic growth serves as the primary driver of the Human Development Index (HDI) increase. Increased economic growth increases income, improves access to education and healthcare, and expands the standard of living, thus driving sustainable HDI increases (Aisyah et al., 2023). The trickle-down effect theory states that economic growth trickles down to the wider community through increased employment opportunities, income, and the provision of public facilities, ultimately improving public welfare (Dewi, 2017).

Economic growth plays a crucial role in enhancing a country's development. The magnitude of economic growth in development will influence the success or failure of development, which

ultimately creates prosperity. Therefore, it is clear that economic growth impacts public welfare (Anisa, 2024). In order to improve people's welfare, increased economic growth and a more even distribution of income are needed (Aswanto, 2021).

D. CONCLUSION

Economic growth plays a crucial role in improving people's well-being. Economic growth is a process of economic development that results in increased production of goods and services. This study demonstrates a relationship and influence between economic growth and the level of community well-being, which is indicated by the Human Development Index (HDI).

Thus, economic growth serves not only as a macro indicator but also as a strategic instrument in human development. This study confirms that economic growth and community well-being are interrelated and must be a primary focus in formulating development policies oriented towards sustainably improving the quality of human resources. It is hoped that this research can serve as a reference for local governments in formulating more inclusive development policies, oriented towards regional equity, and strengthening the community's productive economic sectors.

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