The Impact of Regional Economic Growth on Community Welfare in Indonesia: An Empirical Analysis and Policy Implications

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Abstract

Economic growth is a key factor in improving community welfare, but its impacts can vary across regions. Community welfare is one of the goals of the Sustainable Development Goals (SDGs), which reflects the government's success in developing a country's economy. This study aims to analyze the effect of regional economic growth on community welfare in Indonesia using an empirical approach based on panel data. The data used in this study comes from the BPS and various relevant agencies over a specific period. The economic growth indicator is measured by Gross Regional Domestic Product (GRDP) per capita, local government expenditure, and income distribution, while community welfare is measured using the Human Development Index (HDI). The analytical method employed is Ordinary Least Squares (OLS) regression with a panel data approach to examine the relationship between economic growth variables and community welfare across different regions. The policy implications of this study emphasize the importance of equitable economic growth across regions, as well as increased investment in the education and social sectors to ensure that the benefits of economic growth can be distributed more evenly. Therefore, the government needs to design more inclusive and evidence-based policies to sustainably enhance community welfare.

Keywords regional economic growth, community welfare, sdgs, human development index, grdp per capita

INTRODUCTION

As an effort to improve the overall welfare of society, both in social and economic aspects, the goal of development is not only to increase gdp or grdp growth, but also to ensure a more equitable income distribution, as this remains one of the major challenges in development (Lala, 2023). Public welfare is one of the goals of the sustainable development goals (sdgs), reflecting the government's success in developing a country's economy (Arini, 2017). A country's success in managing its resources can be seen from the level of income generated, which is reflected in the increasing rate of economic growth each year. The higher the income produced, the better the reflection of the society's welfare (Yuni, 2021).

As a developing country, Indonesia often faces various challenges in its economic growth, including instability that leads to high income inequality among its population. This contributes to rising poverty rates, which ultimately affects the overall level of public welfare (Shavira, 2021). It can be said that per capita GNP growth does not necessarily improve the standard of living for the broader population, as the benefits of economic growth have not resulted in an optimal “trickle-down effect,” especially for the poor (Mokodongan, 2023). Therefore, the implementation of economic development must be carried out properly and sustainably in order to boost economic growth and ensure a more equitable distribution of income among the population (Fitri, 2021).

Indonesia, as a country with vast and diverse regions, experiences uneven economic growth across different areas. This can be seen in Figure 1. The spatial structure of indonesia’s economy in 2023, based on island groups, was still dominated by java island, contributing 57.05 percent; followed by sumatra with 22.01 percent; kalimantan with 8.49 percent; sulawesi with 7.10 percent; bali and nusa tenggara with 2.77 percent; and maluku and papua with 2.58 percent. Meanwhile, economic growth performance in 2023 across all island groups was generally favorable, despite being overshadowed by the global economic slowdown. Cumulatively (c-to-c), the highest growth occurred in the maluku and papua island group, which recorded a growth rate of 6.94 percent; followed by sulawesi at 6.37 percent; kalimantan at 5.43 percent; java at 4.96 percent; and sumatra at 4.69 percent. Furthermore, the provinces in the bali and nusa tenggara island group recorded a growth rate of 4.00 percent (c-to-c). This disparity reflects the presence of economic inequality, which can have a direct impact on the welfare of communities in various regions.

Figure 1.
GRDP Growth and Contribution by Island (Percent)
source: BPS, 2023

Public welfare, which can be measured through various indicators such as income level, access to healthcare and education services, and a decent standard of living, often does not increase in line with economic growth (Lala, 2023). BPS (2024) shows that the proportion of the middle class within indonesia's population structure has declined, from 57.33 million people in 2019 to 47.85 million people in 2024. This indicates that although the economy is growing, its impact on public welfare has not been evenly distributed (Naibaho, 2022). Furthermore, based on data from bps, household spending patterns also indicate a trend that reflects a decline in welfare. The proportion of household expenditure on non-food needs decreased from 51.32% in 2016 to 49.86% in 2022, suggesting financial limitations in fulfilling secondary and tertiary needs.

This situation underlines the need for further study on the relationship between regional economic growth and public welfare. Therefore, this study aims to empirically analyze the impact of regional economic growth on public welfare in indonesia. The research problem is addressed using the ordinary least squares (ols) (Fox, 2015) (Aflakhah, 2017) (Kurniawan, 2022). By understanding these dynamics, it is expected that the research findings will provide more effective policy recommendations to support inclusive and sustainable development.

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

To gain a deeper understanding of the relationship between regional economic growth and public welfare, it is essential to review various theories and empirical findings that have been developed in previous literature. This literature review aims to provide a theoretical foundation and empirical context for the study by discussing key concepts such as economic growth, public welfare, the human development index (hdi), as well as the role of income distribution and regional government expenditure in influencing welfare. Thus, this review is expected to strengthen the analytical framework and support the formulation of hypotheses in this research.

1. Economic growth

Economic growth describes the increase in the production capacity of goods and services in a region over a certain period. In a regional context, economic growth is often measured using gross regional domestic product (grdp), and in this study, the focus is on grdp per capita to capture the economic growth dimension relevant to the average income of the population. Theoretically, economic growth plays an important role in improving societal welfare. Classical and neoclassical economic theories state that increased output and per capita income (as measured by grdp per capita) reflect a region's enhanced capacity to provide goods and services, ultimately improving the population's standard of living (todaro & smith, 2015).

However, various studies show that economic growth does not always directly correlate with improved welfare. For instance, ranis, stewart, and ramirez (2000) demonstrate that non-inclusive economic growth can exacerbate social inequality and may not significantly impact quality of life. Economic growth is a prerequisite for economic development, but it is not sufficient to ensure improved public welfare without equitable distribution of development outcomes.

2. Public welfare and the human development index (hdi)

Public welfare is a multidimensional concept that includes not only economic aspects but also social ones such as education and health. In this context, the human development index (hdi) is considered the most representative indicator because it measures three main dimensions:Health (life expectancy), education (mean years of schooling and expected years of schooling), and decent standard of living (adjusted gdp/grdp per capita).

The concept of public welfare, according to Amartya Sen, can be explained through the capability approach, which focuses on an individual's ability to achieve a life they value. Welfare is not only viewed from a material or income perspective, but also from a person's capability to live according to their choices and needs. A successful economic development policy must be able to expand individual capabilities in achieving well-being—whether through access to education, healthcare, or other economic opportunities. (Sen, 2020).

3. Grdp per capita and hdi

Grdp per capita is a key indicator for measuring a region's wealth. Several studies, such as those by suryahadi et al. (2010) and firdaus & pratomo (2016), have shown a positive correlation between grdp per capita and hdi. However, the effect may be weak if wealth distribution is unequal or if it is not accompanied by improvements in basic services like education and health.

Several studies show a positive relationship between economic growth and public welfare:

Suryahadi et al. (2010) found that increases in grdp per capita are positively correlated with hdi at the provincial level in indonesia. However, these results may vary across regions depending on how the benefits of economic growth are distributed. A study by anand and ravallion (1993) also stated that income growth alone does not guarantee improvements in hdi if not accompanied by social investments.

4. Regional government expenditure and welfare

Regional government spending is a fiscal intervention tool to provide basic services such as education, health, infrastructure, and social protection. The effectiveness of local government spending on public welfare is influenced by: Budget allocation priorities, governance,and institutional capacity of local governments.

Musgrave (1959) and tiebout (1956) emphasized the government's role in resource allocation to create balance and equity in development outcomes.

Empirical studies by nasution (2013) and rasyid & siregar (2021) show that increased local spending in public service sectors significantly improves hdi values, although its effectiveness depends on institutional capacity and local governance.

5. Income distribution and welfare

Unequal income distribution can undermine the positive impact of economic growth on welfare. Kuznets (1955) hypothesized that inequality would increase in the early stages of growth and decline after reaching a certain point. However, in many developing countries, inequality remains high even as economic growth continues.

A study in indonesia by yusuf & sumner (2015) found that high income inequality negatively affects hdi outcomes, as vulnerable groups do not directly benefit from economic growth.

It is necessary to verify whether the selected independent variables have an effect on the dependent variable or not. The influence of grdp per capita, government expenditure, and income distribution on public welfare can be illustrated through the following conceptual framework.

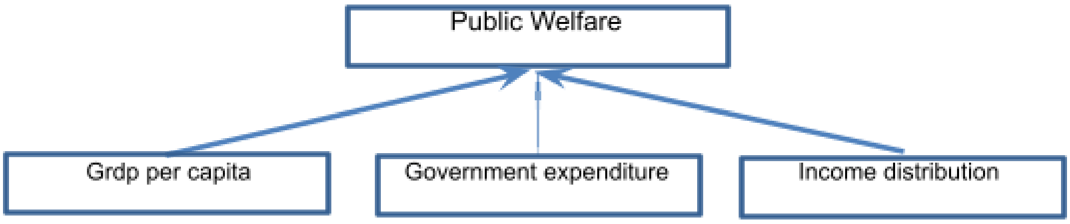

Figure 2.
Conceptual framework

METHODS

In this study, the ordinary least squares (ols) method is used to measure the impact of regional economic growth on public welfare (Priyatno, 2023) (Sarie, 2023). The economic growth indicators are measured through gross regional domestic product (grdp) per capita, regional government expenditure, and income distribution, while public welfare is measured using the human development index (hdi). The regression model used can be expressed in the following equation:

$$Yit = \beta 0 + \beta 1x1it + \beta 2x2it + \beta 3x3it + \varepsilon it$$

Explanation :

Yit	= public welfare in region i at year t (measured by hdi)
B0	= intercept or constant in the regression model
X1it	= regional economic growth (grdp per capita)
X2it	= regional government expenditure in social and economic sectors
X3it	= income distribution
B1,β1,β1	= regression coefficients
Eit	= error term

RESULTS AND DISCUSSION

The regression model used is the multiple linear regression analysis method (ordinary least squares regression analysis) to examine the factors influencing public welfare in indonesia. The researcher employs this cross-sectional data model to assess the effect of gross regional domestic product (grdp) per capita, regional government expenditure, and income distribution on the human development index (hdi) in indonesia. The resulting regression coefficients can be summarized in the following functional equation:

$$IPM = 6{,}73251 + 4{,}25142PDRBK + 3{,}41321GE - 2{,}75125GR + e$$

In the equation, the independent variables that have a statistically significant effect on the Human Development Index (HDI) are Gross Regional Domestic Product (GRDP) per capita, regional government expenditure, and income distribution.

The interpretation of the regression results from the above equation is as follows:

1. Analysis of the effect of grdp per capita on the human development index (hdi)

Based on the results of the multiple linear regression analysis (OLS), the variable GRDP per capita shows a positive and statistically significant coefficient with respect to the Human Development Index (HDI). This indicates that every increase in GRDP per capita—assuming other variables remain constant—will be followed by an increase in HDI. Quantitatively, this positive coefficient implies that the higher the average income of the population in a region, the higher the level of societal well-being, as reflected in the HDI.

GRDP per capita represents the average economic capacity of a region. When average income increases, people gain broader access to essential needs such as education, healthcare, and basic living necessities. These three aspects form the main dimensions of HDI, which consists of:

a. Education: Higher income enables communities to access higher-quality formal and non-formal education.
b. Health: Economic well-being improves access to health facilities, nutrition, and a clean environment, which contributes to a higher life expectancy.
c. Standard of living: Adequate income allows individuals to meet their basic needs properly, including clothing, food, housing, and transportation.

This means that an increase in GRDP per capita not only reflects economic growth but also serves as a foundation for overall human development. It also supports neoclassical economic theory, which states that economic growth is a key driver of improved well-being. Rising incomes allow for greater consumption of goods and services (such as education and healthcare), which are essential components of the HDI.

2. Analysis of the effect of government expenditure on the human development index (hdi)

Based on the results of the multiple linear regression, the variable local government expenditure shows a positive and significant coefficient with respect to the human development index (hdi). This means that every increase in the amount of government spending (for example, in sectors such as education, health, and basic infrastructure) tends to be followed by an increase in the hdi. This positive coefficient indicates that the allocation of public budgets has a tangible impact on the quality of life of the population.

Local government expenditure reflects the state's commitment to providing public services that are fundamental rights of the people. When government spending is appropriately directed—especially toward sectors that directly address people's needs such as education and health—the potential to improve the hdi becomes greater. Substantively, the impact of government spending on the hdi can be explained through:

a. Education: Budget allocations for school construction, teacher recruitment, scholarships, and educational facilities improve school participation rates and the quality of education.
b. Health: Spending on hospitals, community health centers, public health insurance, and medical personnel enhances public health, including increasing life expectancy.
c. Standard of living: The government also plays a role in providing basic infrastructure (clean water, electricity, transportation, and housing), which improves the overall quality of life.

In other words, government budgets serve as a tool for intervention to accelerate the achievement of human development goals. According to the keynesian approach, the government plays a crucial role in driving development and public welfare through fiscal spending. In this context, government expenditure is used to create access to basic services and to promote equitable welfare distribution. Government spending in the education and health sectors is an investment in human resources. The larger this investment, the higher the quality of the workforce produced, which ultimately boosts hdi and long-term economic growth.

3. Analysis of the effect of income distribution on the human development index (hdi)

Based on the results of multiple linear regression (ols), the income distribution variable commonly measured by the gini ratio shows a negative and significant coefficient toward the human development index (hdi). This means that the higher the level of income inequality in a region, the lower its level of human development. Conversely, the more evenly income is distributed in an area, the more likely the hdi is to increase. This negative coefficient indicates that economic inequality contributes to a lower quality of life, as the benefits of economic growth are enjoyed primarily by a small portion of the population, while the poor do not receive sufficient benefits from development.

An equitable income distribution reflects the extent to which the benefits of economic development are shared fairly across all segments of society. When inequality is high (with a gini ratio approaching 1), it means:

a. A large portion of wealth is concentrated in the hands of a few.
b. Access to education and healthcare becomes uneven.
c. Parts of the population are trapped in cycles of poverty and limited capabilities.

Conversely, when income is more evenly distributed:

a. The broader public can access essential public services.
b. Opportunities to improve quality of life increase.
c. Productive participation in economic and social activities grows.

Thus, inequality is not only an economic issue but also a barrier to human development. The undp states that development must be inclusive and human-centered, not solely focused on economic growth. Income inequality narrows individuals' life choices and hinders the expansion of capabilities, such as access to education and healthcare.

CONCLUSION

The findings of this study reveal that economic factors such as GRDP per capita, government expenditure, and income distribution have significant and multidimensional effects on the Human Development Index (HDI) in a region.

First, GRDP per capita has a positive and significant effect on HDI. This indicates that economic growth, reflected in higher average income levels, enables broader access to education, healthcare, and a decent standard of living all of which are key components of human development. This finding aligns with neoclassical economic theory, emphasizing that increased income leads to improved well-being through greater consumption of essential services.

Second, government expenditure also shows a positive and significant impact on HDI. Well-directed public spending especially in the areas of education, health, and infrastructure can effectively enhance the population's quality of life. This supports the Keynesian perspective that government intervention through fiscal policy plays a vital role in promoting human development and ensuring equitable access to basic services. Government investments in human capital serve as a foundation for long-term improvements in both HDI and economic productivity.

Third, income distribution, measured by the Gini ratio, has a negative and significant relationship with HDI. Higher income inequality tends to lower human development outcomes, as it limits access to education, healthcare, and economic opportunities for large segments of the population. Unequal distribution of income concentrates wealth among a small group, while the majority are left behind, weakening social cohesion and reducing the effectiveness of development efforts. This underscores the importance of inclusive growth that benefits all layers of society.

In summary, the study highlights that human development is not solely dependent on economic growth, but also on how equitably the benefits of that growth are distributed and how effectively public resources are allocated. Sustainable improvements in HDI require a combination of increasing economic capacity, strategic government investment, and reducing inequality. Policymakers should therefore adopt a balanced and inclusive approach that not only promotes growth but ensures that its benefits reach all citizens.

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