

## Conference Paper

# Characteristic of Human Development: Socio-economic Dimension

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**Abstract**

This study aims to analyze the impact of economic growth, the percentage of poor people, government spending in education, government spending on health, and the inequality of income distribution to the Human Development Index in Makassar City. This research is quantitative research. The type of data used in this study is secondary data in the form of annual time series starting from 2007 to 2016 which are quantitative data. Data analysis was done using multiple linear regression statistical analysis. The findings show that economic growth, the percentage of the poor, government spending in education, government spending on health, and the inequality of income distribution have a significant influence on the Human Development Index in Makassar City.

**Keywords:** human development, socio-economic dimension

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## 1. Introduction

Studies of human development have been carried out by several experts. Dominant experts observed that inadequate investment in education and health inhibited inclusive growth and inhibited the participation of groups vulnerable to poverty [1, 2]. There are also several other experts who focus on the study of human development in institutional perceptions [3–5] and infrastructure perspectives [6]. This shows that human development cannot be separated from the socio-economic dimension.

The economic development of a region not only looks at the level of Gross Domestic Product but also looks at the extent to which the development can be translated into several aspects so that a prosperous condition emerges. One form of development success can be seen from the level of human development in a region. Human development is a form of investment in human capital in an effort to participate in national development. Therefore the government's seriousness is needed in dealing with the problem of increasing human development.

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There are various factors that can be considered as determining human development. Many studies have identified that social infrastructure, industrialization, population density, economic growth, government expenditure, and inequality in income distribution, can determine human development [7–11].

One of the human development problems in South Sulawesi, namely the achievement of the performance of the HDI of South Sulawesi does have a tendency to increase in absolute terms. However, this increase was not strong enough to raise the relative position of South Sulawesi HDI to the expected level. This achievement seems bad considering that various other regional development dimensions actually show quite impressive performance, such as economic growth and a reduction in poverty rates [12].

With the increase in the rate of economic growth from year to year and the decline in the level of poverty, an increase in the rate of human development should also be able to increase significantly by increasing the rate of growth and decreasing the level of poverty. But in reality the development of the South Sulawesi HDI has increased even though the increase is not too large. Meanwhile government spending on education and health is still relatively low while inequality in income distribution increases each year which will have an impact on human development in South Sulawesi [13].

## 2. Literature Review

### 2.1. Economic growth and human development

Studies conducted to investigate the relationship between economic growth and human development explain that capacity expansion and freedom lead to increased economic performance, and human development will have a significant influence on development. In another perspective, increasing household income will not only improve household capacity, but will also improve the ability of the government, so that in this way economic growth will have an impact on human development [14].

Furthermore [15], emphasizes the importance of empirical connections or reciprocal relationships, from economic growth and human development. Economic growth that makes an important contribution to human development can be simultaneous or priority. Another finding [16] that explores the interrelationship between economic growth and human development, finds that there is a strong positive relationship in both directions between economic growth and human development. Based on this fact, the researcher proposed a hypothesis:

H1: Economic growth positively influences the Human Development Index

## 2.2. Poverty and human development

The number of poor people also influences human development because the population included in this group generally has limited factors in production, so that access to economic activities experiences obstacles. As a result productivity becomes low, in turn the income received is far from enough. As a result, to fulfill their basic needs, such as food, clothing and shelter, they have difficulties. Especially for other needs such as education, health and others to be hampered. The implication is that in areas where there are quite a lot of poor people, there will be difficulties in achieving success in human development [17].

If the poor get higher income or in other words reduce the level of poverty, it will have an effect on increasing human development through increasing the share of household spending spent on more nutritious food and higher education. So that we can see poverty reduction from the number of poor people, or in other words by reducing the poor population, human development will experience an increase [14]. Based on this fact, the researcher proposed a hypothesis:

H2: The poverty level negatively affects the Human Development Index

## 2.3. Government expenditure and human development

Government spending on social services and education is an important connection that determines the relationship between economic growth and human development [16]. Government expenditure policies involve decisions that affect the flow of funds from the government to the private economy with a view to achieving economic stability, job creation and economic growth. It is appropriate to determine the effect of government spending on important sectors that are taken into account in the economy, especially in education, health and administration [18].

Education and population health greatly determine the ability to absorb and manage sources of economic growth both in relation to technology and institutions that are important for economic growth. With good education, the use of technology or technological innovation is possible. Education, or more broadly is human capital, can contribute to development. This is because education is basically a form of savings, causing accumulation of human capital and aggregate output growth if human capital is an input in the aggregate production function [19]. Based on this fact, the researcher proposed a hypothesis:

H3: Government spending in education positively influences the Human Development Index

H4: Government spending on health positively influences the Human Development Index

## 2.4. Income distribution and human development

The tendency of households to spend their net income on goods that have a direct contribution to human development (such as food, water, education and health) depends on a number of factors such as the level and distribution of income between households and who controls the allocation of expenditure in household. It is well known that the poor spend more than the rich population for human development needs. Thus, it can be said that human development is determined not only by the level of income, but also by the distribution of income in society, and the role of government [20–23].

A high level of human development will affect the economy through increasing population capabilities and the consequences are also on their productivity and creativity. Education and population health greatly determine the ability to absorb and manage sources of economic growth both in relation to technology and institutions that are important for economic growth. With good education, the use of technology or technological innovation is possible. Similarly, social capital will increase along with the high level of education. Education, or more broadly is human capital, can contribute to development. This is because education is basically a form of savings, causing accumulation of human capital and aggregate output growth if human capital is an input in the aggregate production function [19].

Of course, in this connection, it is also important for the income distribution. With good income distribution opens up the possibility for achieving high economic growth. This is because with the even distribution of income, the level of health and also education will be better and in turn will also improve the level of productivity of the labor. Uneven income distribution has a negative impact on economic growth which will ultimately have a negative impact on human development in an area [19]. Based on this fact, the researcher proposed a hypothesis:

H5: Inequality in income distribution negatively affects the Human Development Index

### 3. Research Method

This research is a quantitative approach. The type of data used in this study is secondary data in the form of annual time series starting from 2007-2016 which are quantitative data.

The data analysis in this study uses an econometric model by regressing existing variables using the OLS (Ordinary Least Square) method. The independent variables in this study include economic growth, the percentage of the poor, government spending on education, and government health expenditures, while the dependent variable in this study is the Human Development Index. The data used, analyzed quantitatively using statistical analysis, namely multiple linear regression equations. Independent variables that affect the dependent variable are expressed in the following functions:

$$Y = f(X_1, X_2, X_3, X_4, X_5). \tag{1}$$

Then the function is transformed into a multiple regression model with the model specifications as follows:

$$e^y = \beta_0 \cdot e^{\beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \mu} \cdot X_3^{\beta_3} \cdot X_4^{\beta_4} \tag{2}$$

$$Y = \ln \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 \ln X_3 + \beta_4 \ln X_4 + \beta_5 X_5 + \mu \tag{3}$$

### 4. Results and Discussion

In this study, multiple regression models were used with the dependent variable (dependent variable) in the form of human development index (Y) and independent variables (independent variables) in the form of economic growth (GRDP), percentage of poor people, government spending on education, government spending on health, and inequality in income distribution. A summary of the results of data processing is presented in the following table.

Based on the results of processing the data contained in Table 1, the regression equation can be described as follows:

$$Y = 88.513 + 0.408X_1 - 0.216X_2 + 0.021X_3 + 0.018X_4 - 0.852X_5 \tag{4}$$

The constant is 88.513 which is interpreted without an increase in economic growth, the percentage of poor people, government spending in education, government spending on the health sector and inequality of income distribution, the human development index is 88.513%. The direction of regression coefficient  $\beta_1$  is 0.408, meaning that with

TABLE 1: RESEARCH RESULTS.

Variable(s)	$\beta$	t	Sig.	Result
(Constant)	88.513	128.401	0.000	
Economic growth	0.408	8.873	0.000	Sig.
Percentage of the poor	-0.216	-7.190	0.001	Sig.
Government spending in education	0.020	4.983	0.005	Sig.
Government spending on health	0.018	4.298	0.011	Sig.
Inequality of income distribution	-0.852	-10.263	0.003	Sig.

Source: Secondary data analysis, 2017.

an increase in economic growth of 1%, it will be followed by an increase in the human development index of 0.408% with assumptions  $X_2, X_3, X_4,$  and  $X_5$  constant.

The direction coefficient of  $\beta_2$  regression is -0.216 which means that with an increase in the percentage of poor people by 1% it will be followed by a decrease in the human development index of 0.216% by assuming  $X_1, X_3, X_5$  constant The regression coefficient  $\beta_3$  is 0.020 which means an increase 1% of government expenditure in education can be followed by an increase in the human development index of 0.020% assuming  $X_1, X_2, X_4,$  and  $X_5$  constant.

The direction of regression coefficient  $\beta_4$  is 0.018 which means that with an increase in government spending in the health sector by 1% it can be followed by an increase in the human development index of 0.018% assuming  $X_1, X_2, X_3,$  and  $X_5$  constant. The direction of regression coefficient  $\beta_5$  is -0.852 which means that with an increase in inequality in income distribution of 1%, it will be followed by a decrease in the human development index of -0.852% assuming  $X_1, X_2, X_3,$  and  $X_4$  constant.

Based on the hypotheses that have been stated, the hypothesis can be tested by *t*-test. From the results of data processing, it can be seen that the five independent variables namely economic growth, the percentage of poor people, government spending in education, government spending on the health sector, and inequality of income distribution have a significant influence on the human development index.

Based on the results of data processing, the first hypothesis in this study is proven. This is in line with [24] which explains that social development cannot run well without economic development, whereas economic development is not meaningful unless it is followed by an increase in social welfare from the community as a whole. Economic growth is a condition for the achievement of human development because economic growth is guaranteed to increase productivity [25, 26].

Likewise, the second hypothesis is also proven, the number of poor people contributes to human development, if the poor get higher income or in other words a reduction in poverty will affect human development through increasing the share of household expenditure spent on food more nutritious and higher education [14, 15].

The third and fourth hypotheses in this study were also proven. Education or human capital that can contribute to development. This is because education is basically a form of savings, causing accumulation of human capital and aggregate output growth if human capital is an input in the aggregate production function. Likewise with health which is a basic need for every human being, without public health it cannot produce a productivity for the country. The economic activities of a country will run if there is a health guarantee for every citizen [19, 25].

The fifth hypothesis in this study is also proven. A good income distribution opens the possibility for achieving high economic growth. This is because with the even distribution of income, the level of health and also education will be better and in turn will also improve the level of labor productivity [27, 28].

## 5. Conclusion

The findings of this study indicate that economic growth, the percentage of poor people, government expenditure in education, government expenditure in the health sector, and inequality in income distribution have a significant influence on the human development index. Economic growth, government spending in education and government spending in the health sector have a positive and significant effect on the human development index in Makassar City, while the percentage of poor people and inequality in income distribution has a negative and significant effect on the human development index in Makassar City.

The policy implication of the research is that the government needs to pay attention to the problem of economic growth. Economic growth must be combined with equal distribution of results. Equitable opportunities must be available to all people, women and men to be empowered, besides this, the government needs to pay attention to issues related to poverty reduction by increasing community productivity through investments in education and health so that the human development index can be further improved.

In addition to this, the government also needs to pay attention to issues related to government spending in the education sector, namely by budgeting more budgets in the education sector because it is a crucial sector to improve the human development index. Furthermore, the government needs to pay attention to issues related to government

spending in the health sector by continuing to develop public facilities, especially in the health sector, such as the construction of hospitals and health centers, as well as improving the quality of nutrition for the poor and 'posyandu' especially in rural and regional areas left behind. The government also needs to pay attention to issues related to income distribution, where the distribution of income must be evenly distributed in the community to improve labor productivity.

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