

## HUMAN DEVELOPMENT INDEX AS AN EFFORT TO INCREASE ECONOMIC GROWTH

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### ABSTRACT

Human development is the primary goal of the political, social, and economic process for a country. The concept of human development is in line with the concept of human capital. The reasons why human development needs attention are: first, many developing countries including Indonesia have succeeded in achieving economic growth, but have failed to reduce socio-economic inequality and poverty. Second, many developed countries that have high-income levels have not succeeded in reducing social problems. Third, some low-income countries can achieve high levels of human development because they can use all resources wisely to develop basic human abilities. Economic growth is more than just an increase in income and more than just the process of commodity production and capital accumulation. The analytical approach used in this research is quantitative data analysis. The entire data processing and analysis process in this study was carried out with the help of the computer program eViews 10 for Windows. There is a positive and significant influence of the variables of Education Expenditure, Health Expenditure, and Community Income simultaneously on the Human Development Index in Regencies/Cities in Central Java Province. Where the three independent variables are variables that make up the Human Development Index in the Regency/City in Central Java Province. There is a positive and significant influence of each variable of Education Expenditure, Health Expenditure, and Community Income on the Human Development Index in Regencies/Cities in Central Java Province. The variable with the largest influence on the Human Development Index is the Community Income variable, while the variable with the smallest effect on the Human Development Index is Health Expenditure.

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### KEYWORDS

*Health Expenditure, Education Expenditure, Public Expenditure, HDI, Economic Growth*

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## INTRODUCTION

Human development is the main goal of the political, social, and economic process. Human development is defined as a process of expanding more choices to the population through empowerment efforts that prioritize improving basic human abilities so that they can fully participate in all fields of development. Human development creates an environment in which people can develop their full potential, be productive, and live creatively according to their needs and interests.

According to the United Nations Development Program, the human development paradigm consists of 4 (four) main components, namely: (Qasim, 2013)

Productivity, people must be able to increase their productivity and participate fully in the work process and earn income. Therefore, economic growth is one part of the type of human development; (2) Equity, the community must have access to a fair opportunity. All barriers to economic and political opportunities must be removed so that people can participate and benefit from these opportunities; (3) Sustainability and access to opportunities must be ensured not only for the present generation but also for future generations. All forms of physical capital,

human, and environmental, must be equipped; (4) Empowerment and development must be carried out by the community and not only for them. Communities must participate fully in the decisions and processes that affect their lives. With increased ability, creativity, and human productivity will increase so they become effective agents of growth.

The concept of human development is in line with the concept of human capital. The concept of human capital is defined broadly in the economics literature to include education, health, training, migration, and other investments that increase individual productivity. Human capital complements physical capital and increases production productivity (Cohn, 1980). Schultz believes that if investment opportunities in human capital are equal for all walks of life, the poor can increase their productivity through it and achieve higher incomes (Schultz, 1963). As expressed by Meier and Rauch, education, or more broadly human capital, can contribute to development (Meier & Rauch, 1995). With quality human capital, it is believed that economic performance will also be better. For example, the quality of human capital can be seen from the level of education, health, or other indicators. Therefore, in the context of spurring economic growth, it is also necessary to carry out human development, including in the context of the regional economy. Development policies that do not encourage the improvement of human quality will only make the region concerned lag behind other regions, including in terms of economic performance.

The reasons why human development needs attention are: first, many developing countries including Indonesia have succeeded in achieving economic growth, but have failed to reduce socio-economic inequality and poverty. Second, many developed countries that have high-income levels have not succeeded in reducing social problems, such as drug abuse, AIDS, alcohol, homelessness, and domestic violence. Third, some low-income countries can achieve high levels of human development because they can wisely use all resources to develop basic human abilities. Human development is more than just economic growth, more than just income generation, and more than just the process of commodity production and capital accumulation (Rahman, 2018).

To see the extent to which the success of human development in a country, UNDP publishes an index, namely the Human Development Index (HDI) or the Human Development Index (IPM). HDI is a composite index that is measured based on the quality of three socio-economic indicators that reflect the three main dimensions of human development, namely health, education, and public spending.

The government has various roles in economic development, especially human development. According to Guritno, three main roles must be carried out properly by the government, namely : (Guritno, 2001) (1) Stabilization Role: The government plays a role as a stabilizer to keep the economy running normally. Keeping problems that occur in one sector of the economy from spreading to other sectors; (2) Distribution Role: The government must make policies so that the allocation of economic resources is carried out efficiently so that the wealth of a country can be well distributed in society; (3) Role of Allocation: The resources owned by a country are limited. The government must determine how much of its resources will be used to produce public goods, and how much will be used to produce individual goods. The government must determine from the public goods that citizens need, how much the government should provide, and how much corporate households can provide. Along with increasing government activities to carry out these three roles, large funds are also needed as a form of spending on all government activities related to the role of stabilization, distribution, and allocation. This government expenditure is a consequence of various policies taken and implemented in realizing the government's role.

Among the public sector that is the government's priority in achieving human resource development concerning the Human Development Index is an investment in the health and education sectors. Investment in this sector is expected to affect improving the quality of human

resources and encourage increased employment opportunities as well as reduce poverty and income inequality. Health and education development should be viewed as an investment to improve the quality of human resources as measured in the Human Development Index (HDI). Thus, investment in the health and education sectors is an important investment to support human development, as well as economic development, efforts to expand employment opportunities, and reduce poverty and income inequality. According to Mankiw, human resource development can be done by improving the quality of human capital (Mankiw, 2007). Irawan (2009) shows that government spending is a factor that significantly affects the Human Development Index (HDI) in Indonesia (Harahap, 2022).

McDonald and Robert mention that in developing countries, government spending or spending on the formation of human resources, especially in the fields of health and education is still much needed (McDonald & Roberts, 2002). Becker notes that the most valuable of all investments is the investment in people (Gary, 1964). Becker considers that health care and education training are important investments in human capital formation.

Improvements in the quality of human capital in human resource development, as intended by Mankiw, apart from the government expenditure factor, can also be achieved through the community income factor (Mankiw, 2007). Increasing people's incomes provide direct benefits for increasing human development (Ranis, Stewart, & Ramirez, 2000). An increase in people's income will increase the allocation of household spending for more nutritious food and access to health and education services, especially for poor households. During the 2015-2019 period, people's income in Indonesia tends to increase, from Rp 45.11 million per capita to Rp 59.32 million per capita. However, the amount of people's income growth tends to decrease, from 5.96% in 2015 to 5.88% in 2016; 7.62% in 2017; and 7.32% in 2018; and then it decreased to 5.81% in 2019. This shows that people's income did increase in 2015-2019, but the government's performance to increase people's income fluctuated, which was down in 2017-2019.

Based on the Poverty Percentage by Province as of March 2019 (Statistik, 2012), Central Java Province has the highest poverty percentage on the island of Java (10.8%). Although still relatively lower than D.I. Yogyakarta (11.7%), Central Java has more poor people than D.I. Yogyakarta because of its higher population. Compared to DKI Jakarta, West Java, Banten, and East Java; Central Java also has the highest level of income inequality (Gini ratio) (0.361) after D.I. Yogyakarta (0.423). Meanwhile, based on data from the 2018 Province Open Unemployment Rate (BPS (2019)), Central Java has a higher open unemployment rate (4.51) than D.I. Yogyakarta (3.35) and East Java (3.99%), but lower than Banten (8.52%), West Java (8.17%), and DKI Jakarta (6.24%). Similarly, what kind of health and education development in budget strategy is needed to achieve budget policy performance, in line with changes in people's income levels, by the direction of the government's fiscal policy to achieve macroeconomic stability and inclusive economic growth to improve people's welfare?(Kementerian Pemberdayaan Perempuan dan Perlindungan Anak, 2011)

## **METHOD**

The research includes explanatory which refers to the theory or hypothesis to be tested as the cause of a phenomenon. In other terms, this research can also be referred to as associative research because it aims to determine the relationship between two or more variables (Sugiyono, 2008). The type of relationship between variables is a causal relationship, ie the cause variable affects the effect variable (Sugiyono, 2008). The analytical approach used in this research is quantitative data analysis.

The research population is all regencies/cities (35 regencies/cities) in Central Java Province during the entire development period. The sample studied is the development period

during the years 2010-2020 (11 years). The sample was taken by the convenience sampling method, namely sampling based on convenience (convenience) according to data availability.

Variable data in the form of panel data (panel data) or a combination of cross-sectional between districts/cities and time series (inter-years). Thus, the sample size is 35 districts/cities (cross-sectional) multiplied by 10 years (time series) = 350 Data pairs.

The analytical model used is a recursive simultaneous equation model in the form of a recursively dependent regression equation model where the estimation of an effect variable (endogenous variable) generated in a model is re-functioned as a causal variable (exogenous variable) in the next model. The basis for its use is so that the influence of the independent variables can be estimated sequentially until it reaches the dependent variable through the intermediate variables that mediate. Simultaneous equations occur because of the presence of one or more variables that function as exogenous (cause) and endogenous (effect) variables at the same time. In this study, the position is filled by the variables of the Human Development Index, Employment Opportunity, and Poverty. As referred to in Gujarati, the recursive simultaneous equation analysis model is only analyzed using a regression equation model (Damodar, 2003). The entire data processing and analysis process in this study was carried out with the help of the computer program eViews 10 for Windows.

## RESULTS AND DISCUSSION

### Result

Based on the results of statistical calculations through the statistical program Eviews ver. 10.0, namely: Education Expenditure, Health Expenditure, and Community Income on the Human Development Index simultaneously, then the results are obtained as shown in the table below,

Table 1. Equation of Structural Regression of Education Expenditure, Health Expenditure, and Community Income on the Human Development Index

Dependent Variable: IPM				
Method: Panel Least Squares				
Date: 05/10/22 Time: 08:55				
Sample: 2010 2020				
Periods included: 11				
Cross-sections included: 35				
Total panel (balanced) observations: 385				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.665780	0.052920	69.27046	0.0000
BELPEN	0.028339	0.007624	3.717316	0.0002
BELKES	0.007560	0.002991	2.527944	0.0119
PENMAS	0.127244	0.026796	4.748554	0.0000
Effects Specification				
Cross-section fixed (dummy variables)				
R-squared	0.762831	Mean dependent var	4.249038	
Adjusted R-squared	0.737542	S.D. dependent var	0.079168	
S.E. of regression	0.040558	Akaike info criterion	-3.478661	
Sum squared resid	0.570811	Schwarz criterion	-3.088471	
Log likelihood	707.6423	Hannan-Quinn criter.	-3.323910	
F-statistic	30.16465	Durbin-Watson stat	2.249779	
Prob(F-statistic)	0.000000			

From the calculation results of the table above, it can be obtained partial multiple linear regression results as follows:

- 1) For the path coefficient X1 to Y is 0.028339, it means that if Education Expenditure increases, the Human Development Index will increase by 0.028339 units or Education Expenditure contributes to the increase in Human Development Index by 0.028339 units.
- 2) For the X2 to Y path coefficient of 0.007560, it means that if the Health Expenditure increases, the Human Development Index will increase by 0.007560 units or Health Expenditure contributes to the increase in the Human Development Index by 0.007560 units.
- 3) For the path coefficient X3 to Y of 0.127244 means that if people's incomes increase, the Human Development Index will increase by 0.127244 units or community incomes contribute to the increase in the Human Development Index by 0.127244 units.

Table 2. Calculation of the Partial Effect of Education Expenditure Substructure, Health Expenditure, and Community Income on the Human Development Index

	<b>Regression Coefficient</b>	<b>Standardized Beta</b>	<b>Zero-Order</b>	<b>Impact</b>
<b>Education Expenditure (X1)</b>	0,028339	-0,272950	-0,485366	13,25%
<b>Health Expenditure (X2)</b>	0,007560	0,167382	0,210799	3,53%
<b>Community Income (X3)</b>	0,127244	0,746181	0,797224	59,49%
<b>Total</b>				76,26%

Based on the table above, it can be seen that the Human Development Index variable partially influenced by Education Expenditure is 13.25%, partially influenced by Health Expenditure is 3.53%, and partially influenced by Community Income is 59.49%. Based on these results, it can be seen that the variable that has the greatest influence on the Human Development Index is the Community Income variable with an effect of 59.49%.

Table 3 Determinant Test

<b>Simultaneous Influence</b>	<b>R<sup>2</sup></b>	<b>F<sub>hitung</sub></b>	<b>p-Value</b>	<b>Standard Error of Reg</b>
The Effect of Education Expenditure, Health Expenditure, and Community Income on the Human Development Index	0,762831	30,16465	0,000000	0,040558

Based on the table above, the contribution of all independent variables simultaneously to the Human Development Index is  $R^2 = 0.762831$  or 76.2831 percent. It means that Education Expenditure, Health Expenditure, and Community Income on the Human Development Index are 76.2831 percent, and the remaining 23.7169 percent is influenced by other variables outside the research variables.

### **Discussion**

#### **The Effect of Education Expenditure, Health Expenditure, and Community Income on the Human Development Index Simultaneously**

The magnitude of the influence of Education Expenditure, Health Expenditure, and Community Income on the Human Development Index, is 76.2831 percent, and the remaining 23.7169 percent is influenced by other variables outside the research variables.

Thus, the simultaneous influence of the independent variables, namely Education Expenditure, Health Expenditure, and Community Income on the Human Development Index in Regencies/Cities in Central Java Province, has a positive and significant influence. It is understandable, considering that the three variables that affect the Human Development Index in Regencies/Cities in Central Java Province are the dominant variables that can affect the level of the Human Development Index in Indonesia.

However, the total influence of other variables outside the research model that has been determined is still quite large, amounting to 23.7169 percent. As for the other variables that affect the Indonesian Human Development Index but are not examined, including 1). Economic growth; 2). Government policy; 3). Infrastructure; 4). And other supporting factors of the Human Development Index.

The results of this study stated that of the three research variables that were determined, all variables had a significant positive effect on the Human Development Index.

In line with the large potential contribution of the three research variables to the Human Development Index in Regencies/Cities in Central Java Province, especially for the Human Development Index in Regencies/Cities in Central Java Province, it is necessary to start paying attention to these three variables to increase the Human Development Index.

Concerning efforts to increase the Human Development Index, the variable with the largest contribution to increasing the Human Development Index is the Community Income variable. It is because in order to obtain health needs, education needs, and an adequate standard of living economically, requires money resources sourced from Community Income so Community Income becomes the variable that has the greatest influence on the Community Development Index.

#### **Effect of Education Expenditure, Health Expenditure, and Community Income on Human Development Index Partially**

##### **a. Effect of Education Expenditure on Human Development Index**

Based on the results of the verification analysis, it is known that Education Expenditure has a significant influence on the Human Development Index with a value of 0.028339. This also shows that the Education Expenditure variable contributes to the increase in the Human Development Index by 0.028339 units for each increase in Education Expenditure. The magnitude of the effect of Education Expenditure on the Human Development Index is 13.25 percent. This effect has an increasing impact because it has a positive notation value on the regression coefficient. This means that every 1 unit increase in the Education Expenditure variable will contribute to an increase in the Human Development Index by 13.25 percent. Efforts to control the Education Expenditure variable itself can be done by maximizing the identification of educational needs in each Regency/City in Central Java Province. This is expected to create an equal distribution of education in regencies/cities in Central Java province up to the sub-district level so that it is easier for people to get quality education, and by the standards set by the government.

**b. Effect of Health Expenditure on Human Development Index**

Based on the results of the verification analysis, it is known that Education Expenditure has a significant influence on the Human Development Index with a value of 0.007560. It also shows that the Health Expenditure variable contributes to the increase in the Human Development Index by 0.007560 units. The magnitude of the effect of Health Expenditure on the Human Development Index is 3.53 percent. This means that every 1 unit increase in the Health Expenditure variable will contribute to an increase in the Human Development Index by 3.53 percent. The coefficient value of the Health Expenditure variable which is not so large is a reflection that the Regencies/Cities in Central Java Province are not paying attention to the benefits of Health Expenditure as well as possible. The Health Expenditure Variable can provide another perspective on the decision-making process and can have a good impact on the Human Development Index in districts/cities in Central Java Province. Efforts to control the Health Expenditure variable itself can be done by identifying the need for health facilities in all districts/cities in Central Java Province so that the distribution of availability and completeness of health facilities in districts/cities in Central Java province can be met and it will be easier for the community to obtain health services. quality ones.

**c. The Effect of Community Income on the Human Development Index**

Based on the results of the verification analysis, it is known that Education Expenditure has a significant influence on the Human Development Index with a value of 0.127224. This also shows that the community income variable contributes to the increase in the Human Development Index by 0.127224 units. The magnitude of the influence of Community Income on the Human Development Index is 59.49 percent. This effect has an increasing impact because it has a positive notation value on the regression coefficient. This means that every 1 unit increase in the Community Income variable will contribute to an increase in the Human Development Index by 59.49 percent. The regression coefficient value of the Community Income variable is the largest regression coefficient value in this model, so the Community Income variable is a variable that needs to be considered in decision-making. To increase the Human Development Index, Regencies/Cities in Central Java Province must always pay attention to the Community Income variable so that it can continue to be controlled and its benefits can be increased in the future.

The magnitude of the largest regression coefficient of the Community Income variable is caused by the high price of daily necessities of life, both primary, secondary, and tertiary needs. So that the higher the income of the community, the fulfillment of the necessities of life will increase which in turn can increase the Human Development Index.

Efforts to control the community income variable itself can be done by continuously increasing investment both domestically and abroad that can create jobs in districts/cities in Central Java Province. Apart from that, the identification of potential regional income that involves the community can also be a solution to encourage an increase in community income in regencies/cities in Central Java Province.

**CONCLUSION**

There is a positive and significant influence of the variables of Education Expenditure, Health Expenditure, and Community Income simultaneously on the Human Development Index in Regencies/Cities in Central Java Province. Where the three independent variables are variables that make up the Human Development Index in the Regency/City in Central Java Province.

There is a positive and significant influence of each variable of Education Expenditure, Health Expenditure, and Community Income on the Human Development Index in

Regencies/Cities in Central Java Province. The variable with the largest influence on the Human Development Index is the Community Income variable, while the variable with the smallest effect on the Human Development Index is Health Expenditure.

To control the variables of Education Expenditure, Health Expenditure, and Community Income, it can be done by maximizing the identification of needs for Education Expenditure, Health Expenditure, and Community Income in each Regency/City in Central Java Province. It is expected to create an equal distribution of education in regencies/cities in Central Java province up to the sub-district level so that it is easier for people to get quality education by the standards set by the government.

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