



## THE EFFECT OF LOCAL GOVERNMENT SPENDING ON EDUCATION SECTOR AND GDP ON HDI IN INDONESIA IN 2015- 2018

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### Abstract

Human resource-based economic development is one of the priorities implemented in Indonesia because Indonesia has a significant population potential. Indonesia ranks among the five lowest countries in its human development index in ASEAN. This study aims to determine the influence of government spending in the education sector and GDP Regional in increasing HDI in Indonesia in 2015-2018. This study used multiple regression analysis panel data with a total sample of 26 provinces in Indonesia with 104 observation units. This study found that local government spending in the education sector had a positive and significant effect on HDI and GDP Regional also had a positive and significant influence in increasing HDI in Indonesia in 2015-2018.

**Keywords:** HDI, Government Expenditure, Education, Regional GDP

### INTRODUCTION

Human resource-based economic development is one of the priorities implemented in Indonesia because Indonesia has a significant population potential. According to BPS (2020), Indonesia has 269 million inhabitants and in 2030 Indonesia is expected to reach the peak of the demographic bonus. Economic development initially only views high economic growth as the success of development in a country without paying attention to other aspects such as human resources, income inequality, poverty, and others. Human resources are still seen as factors of production only, just like land, capital and technology even though human resources have human values and potentials that can be actualized to support the development of a country (Mongan, 2019). Therefore, the Human Development Index (HDI) is one of the essential indicators to see the other side of the success of economic development.

Research on the Human Development Index (HDI) is not the first time it has been conducted. Based on research conducted by (, the Human Development Index (HDI) is influenced by socioeconomic indicators and the orientation of economic development policies applicable in a country through regional and national policies. Furthermore, according to research conducted by (Çağlayan-akay & Van, 2017) that success in the formation of the Human Development Index (HDI) is not only represented through economic growth but also through the quality of human resources and skills which are the main criteria in assessing the success of development in a country.

Another study that also discusses the Human Development Index (HDI) was conducted by (Danu & Zuhdi, 2013) which states that government spending, especially in the education and health sectors, does make a positive contribution to shared goals, these results are also supported by previous research conducted by

Gupta et. al. (1998) which states that government spending on the health and education sector can have a positive effect on human resources which, in turn, increase economic growth to an increase in the Human Development Index (HDI). In addition to government spending, another essential factor in increasing the Human Development Index is the value of GDP as a representation of economic growth. GRDP determines the prosperity of a community from the success of regional development in terms of its economy, Economic growth represented by GRDP is one of the indicators to assess the level of development progress and is one of the real impacts on the success of several economic policies implemented in the past. This is supported by research conducted by (Ariwuni & Kartika, 2018) that GRDP influences the human development index.

Indonesia is currently ranked sixth out of ten countries in the Southeast Asia region until 2018 data and has an index value of 0.712 below other Southeast Asian countries such as Singapore, Brunei Darussalam, Malaysia, Thailand, and the Philippines. Indonesia's ranking in the five lowest countries in its human development index is an irony that the government must give special attention. Therefore, central and local government contributions are needed to increase competitive human capital and become a country with a better level of HDI category while increasing economic development (Arfiyansyah, 2018).

Table 1.1 Comparison of HDI indicators of Indonesia and the Philippines 2015-2018

<b>Countr y</b>	<b>Indicat ors</b>	<b>201 5</b>	<b>201 6</b>	<b>201 7</b>	<b>201 8</b>	<b>Countr y</b>	<b>Indicat ors</b>	<b>201 5</b>	<b>201 6</b>	<b>201 7</b>	<b>201 8</b>
<b>Philipp ines</b>	<b>UHH (years )</b>	0.7 79	0.7 82	0.7 84	0.7 86	<b>Indone sian</b>	<b>UHH (years )</b>	0.7 81	0.7 85	0.7 89	0.7 92
	<b>HLS (years )</b>	12. 8	12. 7	12. 7	12. 7		<b>HLS (years )</b>	12. 9	13. 3	13. 4	13. 5
	<b>RLS (years )</b>	9.3	9.3	9.4	9.4		<b>RLS (years )</b>	7.9	7.9	8	8.1 7
	<b>PPP (US\$)</b>	814 4	856 4	901 7	941 4		<b>PPP (US\$)</b>	981 5	101 97	105 89	110 42
	<b>HDI</b>	0.7 01	0.7 04	0.7 08	0.7 11		<b>HDI</b>	0.6 95	0.7 03	0.7 07	0.7 12

Source: UNDP, 2022

Based on data released by UNDP with data updates reaching 2020, if you compare Indonesia with the Philippines which is ranked fifth and sixth in the Southeast Asia region and is ranked the same in the world ranking, which is 107, it will be found that Indonesia has a lower RLS than the Philippines. The Philippines' RLS 2018 was 9.4 years while Indonesia's RLS was 8.17 years (UNDP, 2020). The RLS Indonesia figure indicates that most Indonesians still have not completed their school period by the compulsory education expectations launched by the government, which is 12 years. So that the problem space of the Human Development Index (HDI) in Indonesia is in the quality of human resources which is still below other countries in Southeast Asia. The low quality of human resources in a multiplier manner will have an impact on the success of development through the Human Development Index (HDI), because in addition to economic growth, the quality of human resources and skills are part of the HDI which is the main criterion

in assessing the success of development in a country (Çağlayan-akay & Van, 2017).

In addition to government spending on the education sector, economic growth represented by GDP on a constant price basis is also related to human development. According to Putra and Ulupui (2015: 864) in (A. O. F. Diba et al., 2018) stated that increasing the Human Development Index does not only rely on improving the economy but also needs development in all aspects. This is done so that economic growth is in line with human development accompanied by equitable development. Based on the table above, from 34 provinces in Indonesia until 2018 have different HDI values. DKI Jakarta, DIY and East Kalimantan occupy the three provinces with the largest HDI.

Meanwhile, the three provinces with the smallest HDI are occupied by Papua, West Papua and East Nusa Tenggara. On the other hand, the three provinces with the largest GRDP are occupied by DKI Jakarta, East Java and West Java. Meanwhile, the four provinces with the smallest GRDP are occupied by North Maluku, Gorontalo, Maluku and West Sulawesi. One of the different HDI values is due to differences in each Provincial GRDP value. The GRDP obtained by each of these provinces will make a difference in the results of its development. Provinces with relatively lower GDP will make these provinces lag compared to other regions (A. O. F. Diba et al., 2018). Based on GRDP data released by BPS 2022, indications were found that GDP accumulated nationally has a more significant percentage of value increase than the percentage increase in the human development index, namely  $\pm 0.05\%$  to  $1\%$  for an increase in GDP each year and  $\pm 0.009\%$  for an increase in HDI. This aligns with previous research (A. Fahmi & Dalimunthe, 2018; Mahendra, 2020). Low HDI will impact the low work productivity of the population (Danu & Zuhdi, 2013). Therefore, this study is important to be conducted which aims to determine the effect of government spending in the education sector in increasing the human development index in Indonesia in 2015-2018 and knowing the influence of GRDP in increasing the human development index in Indonesia in 2015-2018.

## LITERATURE REVIEW

### Human Development Index Theory

Human Development Theory is a theory initiated by UNDP (1990) to improve the concept of human resource analysis which was previously only based on gross domestic product into a broader analysis concept from the socio-economic side with the establishment of three leading indicators as a measuring tool, namely the health index, education index, and decent living index. Then another theory that supports Human Development Theory is the Theory of Community Welfare. According to Pigou, the theory of public welfare is the aggregate satisfaction of all individuals in society. According to Skousen (2005), public welfare is shown by the satisfaction obtained by the community for the consumption of goods and services in both public and non-public sectors and regional income. As an index representing well-being, the Human Development Index (HDI) was formed to emphasize that human resources and skills should be a key criterion in a country's development assessment. The Human Development Index (HDI) is an index that measures long-term progress on the scope of three basic dimensions of human development, namely a long and healthy life, access to information, and decent living conditions (Çağlayan-akay & Van, 2017 ). Therefore, according to UNDP, (1990) the human development index is a statistical tool used to generally assess a country's social

and economic achievements from several dimensions. The social and economic dimensions of a country center on the health of people, their educational achievements and standard of living. HDI becomes one of the best tools to track a country's development level, as it combines all the leading social and economic indicators that contribute to the economic development of a nation (Omodero, 2019).

### **Theory of Government Spending**

Adolf Wagner's Government Expenditure Theory states that government spending will increase due to an increase in public welfare and development function (Sholekhah, 2018). Another theory that supports government spending, especially in the education sector, is the Human Capital Theory which emphasizes that education can increase worker productivity and efficiency by increasing the cognitive stock of economically productive human worker abilities that are the product of the innate ability of investment in humans. The provision of formal education is seen as an investment in human capital that is considered equal to or even more valuable than physical capital, so that it increases aspects of productivity economically and aspects of human development (Nurkholis, 2018). The provision of education is a public interest that every country must accommodate, because education is a basic need. Government spending in the education sector is a fulfillment of demand for public needs in the form of capital investment in human resources in the long run. Education is essential to get special attention especially in developing countries because spending on the education sector is critical for governments that try to prioritize improvements in education (Sena & Fontenele, 2012). Wanjiru (2013) in (Omodero, 2019) said that government spending on the education and health sectors leads to the development of human resources that will be more qualified to increase the human development index. Based on the theory above, if the optimization of the role of local government spending in the education sector, the quality of Indonesian education has improved, then the quality of human resources produced has also increased. Government spending on the education, health, and employment sectors is essential for the economic development of a nation, because it can and increase the capacity of the quality of human resources that affect the increase in the human development index (Omodero, 2019).

### **Theory of Gross Regional Domestic Product (GDP)**

The Kuznet Growth Theory popularized by Simon Kuznet suggests the long-term ability of a country's economic growth to provide economic goods to its people. Kuznet's growth theory in his analysis adds characteristics of a country's economic growth, namely:

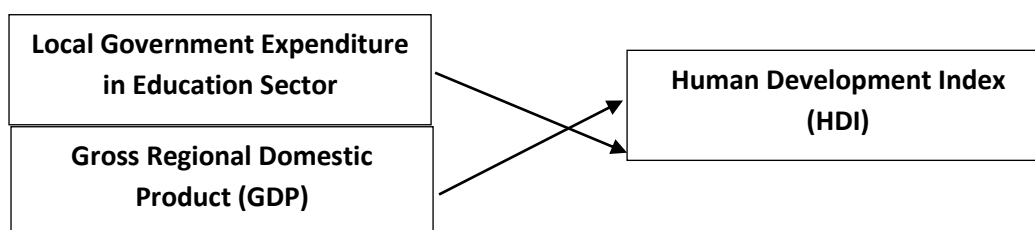
- 1) High level of per capita income
- 2) High labor productivity
- 3) High factors of transformation of economic structure
- 4) High factors of socio-ideological transformation
- 5) The ability of the economy to expand the market
- 6) There is an awareness that economic growth is limited

In theory, Professor Kuznet stated that where one of the characteristics of economic growth, modern economic growth is high output, economic growth in question is GDP, high output growth makes consumption changes in terms of people's purchasing power levels (Ariwuni & Kartika, 2018). The high purchasing power of the people will increase the Human Development Index because the

purchasing power of the people is one of the composite indices in the decent living indicator.

### Frame of Mind

Based on the above framework theoretically and supported by several previous research results, a research structure can be formulated between the variables of government spending in the education sector, Gross Regional Domestic Product (GDP) and Human Development Index (HDI) as seen in the figure below:



**Figure 1**  
**Frame of Mind**  
Source: Author (20 22)

### METHOD

In this study they are using secondary data as the primary data with data retrieval techniques in the form of data panel techniques. This data is obtained from the publication of statistics released by the Central Statistics Agency and the Directorate General of Financial Balance of the Ministry of Finance of the Republic of Indonesia with the period of data used from 2015 to 2018. Data management analysis in this study uses Microsoft Excel and Eviews 10 software to calculate methods, models, classical assumption tests, and hypothesis tests. Using Eviews 10 can help researchers process research data available from BPS and DGT of the Ministry of Finance of the Republic of Indonesia. The model used is a panel data regression model. Multiple regression model is a model that is generally used in research that uses more than one dependent variable. This study used two independent variables: local government expenditure on the education function and GRDP. Several methods can be used in estimating multiple regression models of panel data, namely the Common Effect, Fixed Effect and Random Effect methods (Widarjono, 2018). The regression model can be written as follows:

$$\ln Y_{IPM} = \beta_0 + \beta_1 \ln X_{1PP} + \beta_2 \ln X_{2PDRB} + e$$

Information:

Y: Human Development Index (HDI)

X<sub>1</sub>: Local Government Expenditure on Education Function (PP)

X<sub>2</sub>: GRDP

$\beta_0$  : Constant

$\beta_1 \beta_2$  : Regression coefficient

e: error term

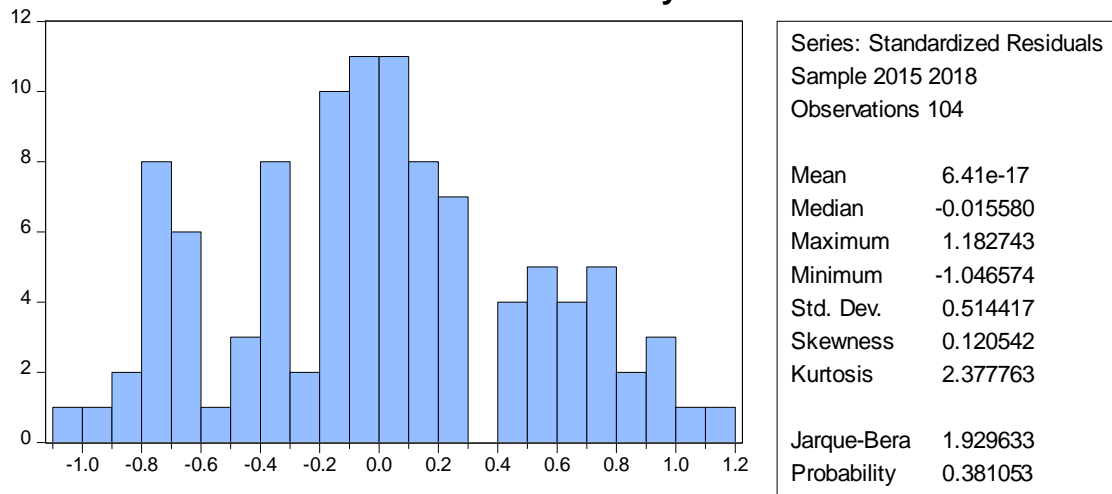
## RESULTS AND DISCUSSION

### Classical Assumption Test

### A. Normality Test

The Normality Test is used to determine the normal residual distribution or not. Decision-making criteria are determined with normally distributed data. If the Jarque-Bera probability value > 0.05, the data is usually distributed. Here are the results of the Normality Test in this study.

**Table 1. Normality Test**



Source: *Output Eviews 10*

The decision of the results of the Normality Test can be seen from the comparison of the Jarque-Bera probability value with the alpha level ( $\alpha$ ) used, which is 0.05 (5%). The decision-making hypothesis in this normality test is:

- $H_0$ : If the Jarque-Bera probability value is more significant than 0.05 it means that the residuals are normally distributed
- $H_1$ : If the Jarque-Bera probability value is more significant than 0.05 that the residuals are abnormally distributed

Based on the results of the Normality Test in this study, the Jarque-Bera probability value is calculated at 0.381058, the result is more significant than 0.05 which means  $H_0$  is accepted. So the conclusion is that the residuals are normally distributed.

### B. Multicollinearity Test

The Multicollinearity Test aims to determine whether in the regression model there is a high or perfect correlation between independent variables (Ghozali, 2018). The following are the results of the Multicollinearity Test in this study:

**Table 2. Multicollinearity Test**

Variance Inflation Factors  
 Date: 07/11/22 Time: 16:03  
 Sample: 1 104  
 Included observations: 104

	Coefficient	Uncentere d	Centered
Variable	Variance	VIF	VIF

C	0.177274	1.633695	NA
X1	5.13E-26	2.232511	1.507184
X2	1.77E-18	2.289509	1.507184

**Source: Output Eviews 10**

Based on the results of the Multicollinearity Test in this study, the value of Variance Inflation Factor (VIF) in the two variables used is < 10, worth 1.507184. Thus, it can be concluded that there is no multicollinearity.

**C. Heteroscedasticity Test**

The Heteroskedasticity test is intended to determine whether there is an inequality of variation in the regression model from the residual value of one observation to another. A good testing criterion is that there are no symptoms of heterokedasticity (Ghozali, 2018). The criteria for the results of the Heteroscedasticity Test are if the variation from one observation's residual to another is fixed. It is called homokedasticity; if the variation from the residual value of one observation to another is different, then it is called heterokedasticity. The following are the results of the Hteroskedasticity Test from this study:

**Table 3. Heteroscedasticity Test**

Dependent Variable: RESABS  
 Method: Panel Least Squares  
 Date: 07/11/22 Time: 16:07  
 Sample: 2015 2018  
 Periods included: 4  
 Cross-sections included: 26  
 Total panel (balanced) observations: 104

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-7.310101	5.351382	-1.366021	0.1760
X1	-0.019531	0.012614	-1.548382	0.1257
X2	0.427596	0.300617	1.422393	0.1590

**Source: Output Eviews 10**

The decision criteria for the Heteroscedasticity Test are by looking at the *independent variable's t-Statistic probability value (t-calculate)*. If the probability value > 0.05 then H<sub>0</sub> is accepted, which means there are no heterokedasticity symptoms. Conversely, if the Probability value < 0.05, then H<sub>0</sub> is rejected, which means heterokedasticity symptoms occur. Based on the test results produced in this study, the probability value of the independent variable > from 0.05, namely 0.1257 and 0.1590 which means H<sub>0</sub> is accepted. So it can be concluded that there are no symptoms of heterokedasticity.

#### D. Autocorrelation Test

Autocorrelation Test is performed to test the assumption of the interference variable of one observation with another observation. The following is a table of autocorrelation test results in this study:

Breusch-Godfrey Serial Correlation LM Test:

	55.255		0.000
F-statistic	13	Prob. F(2.99)	0
	54.856		0.290
Obs*R-squared	82	Prob. Chi-Square(2)	1

**Table 4. Autocorrelation Test**  
**Source: Output Eviews 10**

Autocorrelation test used using Breusch Godfrey Test. The Breusch Godfrey Test was selected because it is more appropriate to be used for observation of data above 100. Based on the results of the autocorrelation test above, it was found that the value of prob. Chi-Square  $0.2901 > 0.05$  which means there is no autocorrelation problem.

#### Test the hypothesis

##### A. Panel Data Regression Equation

The Panel Data Regression Equation used in this study aims to estimate the dependent variable against each independent variable if it is increased or lowered. The following are the results of regression of *Fixed Effect Model (FEM)* panel data in this study:

Dependent Variable: Y  
 Method: Panel Least Squares  
 Date: 07/11/22 Time: 13:56  
 Sample: 2015 2018  
 Periods included: 4  
 Cross-sections included: 26  
 Total panel (balanced) observations: 104

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	85.27409	10.19578	8.363663	0.0000
X1	0.104505	0.024032	4.348504	0.0000
X2	0.813379	0.572754	14.20121	0.0000

**Table 5. FEM Test**  
**Source: Output Eviews 10**

Based on the results of data processing, the following results are obtained:

$$Y = 85.27409 + 0.104505 (PPDSP) + 8.133799 (GRDP)$$

Based on the regression equation, it can be concluded that:



- a. If the Local Government Expenditure in the Education Sector and GRDP is fixed (constant), then the constant value of 0 will cause Y (Human Development Index) to be 85.27409
- b. If X1 (Local Government Expenditure in Education Sector) increases by 1%, then Y (Human Development Index) will increase by 10.45%
- c. If X2 (GRDP) value increases by 1%, then the value of Y (Human Development Index) will increase by 81.33%

### B. T Test

The t test aims to show how significant one independent variable is to the dependent variable by assuming the other independent variable is constant (Ghozali, 2018). The test was performed by comparing the t-count prob with the alpha error rate (0.05). If the value of prob t- calculate  $< \alpha$  0.05 then it can be concluded that the independent variable has a significant effect on the dependent variable, while if the value of prob t-calculate  $> \alpha$  0.05 then it can be concluded that the independent variable has no significant effect on the dependent variable. The following are the results of the T Test from this study:

**Table 6. T Test Results**

Dependent Variable: Y  
 Method: Panel Least Squares  
 Date: 07/11/22 Time: 13:56  
 Sample: 2015 2018  
 Periods included: 4  
 Cross-sections included: 26  
 Total panel (balanced) observations: 104

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	85.27409	10.19578	8.363663	0.0000
X1	0.104505	0.024032	4.348504	0.0000
X2	0.813379	0.572754	14.20121	0.0000

**Source: Output Eviews 10**

Based on the results of the data processing above, the probability value of the variability of Local Government Expenditure in the Education Sector (X1) and GRDP (X2) is  $< 0.05$ , which shows that the independent variables in this study, namely Local Government Expenditure, the Education Sector and GRDP have a significant effect on the dependent variable of the Human Development Index (HDI)

### C. Test F

Test F is carried out to test all independent variables in the model have an influence together or simultaneously on the dependent variable (Ghozali, 2018).

Test F's calculation is seen from comparing the calculated F prob value with the alpha error rate (0.05). If the Fcalculate prob value is < of 0.05 then the regression model is estimated to be feasible, while if the Fcalculate prob value is > from 0.05 then the regression model is estimated to be infeasible. Here are the results of the f test:

**Table 7. F Test Results**

R-squared	0.996495	Mean dependent var	69.2528
Adjusted R-squared	0.995249	S.D. dependent var	3.40193
S.E. of regression	0.234483	Akaike info criterion	0.16194
Sum squared resid	4.178665	Schwarz criterion	0
Log likelihood	19.57914	Hannan-Quinn criter.	0.87389
F-statistic	800.1603	Durbin-Watson stat	1
Prob(F-statistic)	0.000000		2
			1.98970
			4

**Source: Output Eviews 10**

Based on the test results, it can be seen that the probability value f is calculated at 0.000000. Calculated with a confidence level of 95% and ALPA = 0.05, the probability value is < 0.05 so that both independent variables simultaneously affect the dependent variable. As a comparison for Fhitung, the F value of the table in this study is known through the value of *degrees of freedom* (df) 1 and 2. df 1 with the formula  $k-1$ , k is the number of variables. So we get df1, which is  $3-1 = 2$ . While df2 with the formula  $n-k$ , n is the number of observation samples obtained df 2 results, namely  $104-3 = 101$ . Based on these known degrees of freedom, the result obtained for the F table is 3.086. It can be concluded that Fcalculate (800.1603) is more significant than F table (3.086) so that it can be concluded that this model test is feasible for use in research.

#### D. Test Coefficient of Determination ( $R^2$ )

The coefficient of determination ( $R^2$ ) is a test used to measure the model's ability to explain variance in the dependent variable. The value of the coefficient of determination ( $R^2$ ) is in the range between zero and one. If the value of the coefficient of determination is small, the ability to vary the independent variable is very limited in explaining the dependent variable. However, if the coefficient of determination is close to one, the independent variable provides almost all the information needed to estimate the variation of the dependent variable (Ghozali, 2018). The following are the test results on the coefficient of determination:

R-squared	0.996495	Mean dependent var	69.2528
			8

Adjusted R-squared	0.995249	S.D. dependent var	3.40193
S.E. of regression	0.234483	Akaike info criterion	7
Sum squared resid	4.178665	Schwarz criterion	0.16194
Log likelihood	19.57914	Hannan-Quinn criter.	0
F-statistic	800.1603	Durbin-Watson stat	0.87389
Prob(F-statistic)	0.000000		1
			0.45037
			2
			1.98970
			4

**Table 8. Coefficient of Determination Test**  
**Source: *Output Eviews 10***

Based on the R-square value is 0.996495 which means that the independent variable can explain the dependent variable by 99.64 while other factors influence 0.36%. While the adjusted R-square value is 0.995249, which means that the dependent variable, namely the Human Development Index, can be explained by independent variables, local government expenditures, education sector, and GDP of 99.52%, while factors outside the model influence the other 0.48%.

**1. The Effect of Local Government Expenditure in the Education Sector on the Human Development Index in Indonesia in 2015-2018**

The testing results using the panel data method found that Local Government Expenditure in the Education Sector positively influences the Human Development Index (HDI). Based on the results of the t test on Government Expenditure in the Education Sector, it resulted in a t count of 4.348504 > from t table of 1.66008. Probability values of 0.0000 < 0.05 are used as significance level limits. The positive value seen in the t-count means a positive relationship exists between the variables of this study. Relationships between positive variables. Therefore, it is implied that partially Local Government Expenditure in the Education Sector has a positive and significant influence on the Human Development Index in Indonesia in 2015 – 2018. Then, based on the processing of t-test data, the hypothesis stating that Local Government Expenditure in the Education Sector influences the Human Development Index (HDI) is acceptable. Local government spending in the education sector can increase the human development index (HDI), by Adolf Wagner's Government Expenditure Theory which states that government spending will increase due to the improvement of the function of public welfare and the function of development. According to the neoclassical school, the provision of public goods will be better and more efficient if done by the state because if done by private parties, these public goods will not be available efficiently (Sholekhah, 2018).

The same thing is also said in the results of research conducted by (Tjodi et al., 2019) Government expenditure in the education sector in each province in Indonesia is used to provide primary education aimed at the community because basic education is the most fundamental level of education which is the beginning of the formation of unique human resource character applied. In line with research conducted by (Mongan, 2019) Allocating government spending on education is an investment to increase community productivity. Investment in the education sector is

a means to improve human development so that the goal is to achieve improved community welfare. Then from the results of research conducted by (S. P. S. Diba et al., 2018) The allocation of funds from local governments in the education sector can increase the capabilities of each individual in the community, regarding the ability to understand science and skills. The increased capability is formed from the existence of more accessible opportunities to access free and quality education for at least 12 years per the government's compulsory education recommendations. With this, the Average Length of School (RLS) and Expected Length of School (HLS) can converge simultaneously. The higher the number of people who complete their education at least by the expectations of compulsory education, will create a society that has the ability both intellectually and skillfully. This ability will later be able to create creativity and various innovations.

## **2. The Effect of Gross Regional Domestic Product (GRDP) on the Human Development Index in Indonesia in 2015-2018**

The test results using the panel data method found that the Gross Regional Domestic Product (GRDP) positively influences the Human Development Index (HDI). Based on the results of the t test on Gross Regional Domestic Product (GDP) they have resulted in a t count of  $14.20121 >$  from t table of 1.66008. Probability values of  $0.0000 < 0.05$  are used as significance level limits. The positive value seen in the t-count means a positive relationship exists between the variables of this study. Relationships between positive variables. Therefore, it is implied that partially the Gross Regional Domestic Product (GRDP) has a positive and significant influence on the Human Development Index in Indonesia in 2015 – 2018. Then, based on the processing of t-test data, the hypothesis stating that the Gross Regional Domestic Product (GDP) influences the Human Development Index (HDI) is acceptable.

The Gross Regional Domestic Product (GDP) influences the Human Development Index (HDI) by the Kuznet Growth Theory popularized by Simon Kuznet showing the long-term ability of a country's economic growth to provide economic goods to its people. In his theory, Professor Kuznet states that one of the characteristics of economic growth is that modern economic growth is high output. Similar to research conducted by (Ariwuni & Kartika, 2018) which states that GRDP has a positive and significant effect on HDI in Bali Province by the theoretical basis put forward by Professor Kuznet in (Todaro, 1997) that one characteristic of economic growth is high output. Economic growth in question is GDP, high output growth changes consumption in terms of the level of people's purchasing power which will increase the Human Development Index because people's purchasing power is one of the composite indices in decent living indicators.

Relating to the positive and significant influence of GRDP on the Human Development Index (HDI) whose causes are similar to causing changes in people's consumption patterns and increasing people's purchasing power so that HDI in East Java has increased is said in research conducted by (A. O. F. Diba et al., 2018) . In this study, the GRDP used is GRDP with a spending approach. GRDP with a expenditure approach is the overall value of final domestic production goods or services consumed by the community, consisting of household economic units, non-profit companies, government, business and foreign sectors (Sutomo, 2009, p. 17). Therefore, when GRDP increases, it is inevitable that the value of consumption of goods/services carried out by the community is also increasing. When the community can increase consumption, the purchasing power of the community

increases and there is an influence on the increase in the Human Development Index (HDI).

### **3. The Effect of Local Government Expenditure in the Education Sector and Gross Regional Domestic Product (GRDP) on the Human Development Index in Indonesia in 2015-2018**

Based on the test results, it can be seen that the probability value  $f$  is calculated at 0.000000. calculated with a confidence level of 95% and ALPA = 0.05, the probability value is  $< 0.05$  so that local government spending in the education sector and GRDP simultaneously affect the Human Development Index in Indonesia in 2015-2018.

These results align with the Theory of Public Well-being. The Theory of Public Welfare says that the aggregate satisfaction of all individuals in society is shown by the satisfaction obtained by the community for the consumption of goods and services both public and non-public sectors and also regional income obtained.

### **CONCLUSION**

Based on the results of research conducted by researchers on the effect of local government spending in the education sector and GRDP on the Human Development Index in Indonesia in 2015-2018 based on the results of the  $t$  test get results that can be concluded, namely:

1. Partially, local government spending in the education sector has a positive and significant effect on the human development index in Indonesia in 2015 - 2018.
2. Partially, gross regional domestic product has a positive and significant effect on the human development index in Indonesia in 2015 - 2018.
3. Simultaneously, local government spending on education and gross regional domestic product have a positive and significant effect on the human development index in Indonesia in 2015 - 2018.

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