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Research Article

The Effect of Government Expenditures in Education and Health against Human Development Index in Jambi Province

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Abstract: The increase and decrease in the index of human development and spawning the government is very influential because if the big government expenditure then the possibility of human development we also become better. Moreover, government expenditure in the field of education and health can also help the community for human development in our country especially in Jambi Province to be better. In this study using time series data government expenditure data in the field of education and health and public welfare data that is seen from the human development index in Jambi province in 2001 until 2015. then in this study using the model of multiple regression equation is see the influence between independent variables against The dependent variable and also to see how the two variables influence each other then used a classical assumption analysis tool with SPSS data processing tool. From the analysis of simultaneous statistical test (F), it can be concluded that the value of F arithmetic is greater than the F table value (4.824> 3.89), then there is a positive influence between the independent variables (Government expenditure in education and government expenditure in health sector) To the dependent variable (Human Development Index in Jambi Province) with significance level of 0.029. From the result of Partial Statistic Test (t), it can be concluded that the value of t count is smaller than the value of t table on the variable of government expenditure in the field of education (0,431 <2,179), with significance level 0,674 so there is no influence between government expenditure in field Education on the human development index in Jambi Province. While the government expenditure variable in the health of t value is bigger than t table equal to (3,057> 2,179) with significance level 0,010 hence government expenditure in health sector there is positive and significant influence to index of human development in Jambi province. The coefficient value of regression variable of government expenditure in the field of Health (X2) of 0,042 can be interpreted if government expenditures in the field of Health rose 1 percent then the human development index will rise by 0.042

Keywords:government spending on education, health and human development index

INTRODUCTION

In Jambi Province the Human Development Index can also develop well if balanced with good education and health. More government spending on education and health can also help the community to earn a decent living and a high education. The Human Development Index is a composite index covering three areas of human development that are considered to be very basic in terms of physical and non-physical quality of the population. The three indicators are: 1) Health indicators, 2) Education level, and 3) Economic indicators. Human in its role is subject and object of development which means human besides as perpetrator of development also a target of development. In this case required various facilities and infrastructure to encourage the role of human in development (Rudi Badrudin, 2012: 5). HDI is calculated based on data that can describe the four components, namely life expectancy that measures success in the field of health, literacy rate and average length of school that measures success in the field of education, and the ability of people's purchasing power against a number of basic needs viewed from the average The amount of per capita spending as an income approach that measures success in the field of development for decent living (Rudi Badrudin, 2012: 7).

The calculation of HDI as an indicator of human development has an important goal, namely to build indicators that measure the basic dimensions of human development and the extension of freedom of choice, utilize a number of indicators to keep the size simple, form a composite index rather than using a number of basic indexes, and create a measure that covers aspects Social and economic. HDI is used to measure the success of human development as a whole and become a standard measure that can be compared between regions or between countries (BPS, 2009: 3-5).

LITERATURE REVIEW

Human Development Index

UNDP (United Nations Development Program) defines human development as a process to expand the choices for the population. In this concept the population is placed as the ultimate end (ultimate end) while the development effort is seen as seen as a means (principal means) to achieve that goal. To ensure the achievement of human development objectives, four key points to note are productivity, equity, sustainability, empowerment (UNDP, 1995).In Human Development Report (UNESCO, 2007) explained that Human Development Index

(HDI) is a construction measurement of the concept of right based approach to human development. HDI performs an average measurement of the achievements of individual individuals of the three basic dimensions of the human quality development process. This measurement is done by setting some basic assumptions that a qualified human is. According to BPS (2009: 9), Human Development Index (HDI) is a measure of human development achievement based on a number of basic components of quality of life. HDI is calculated based on data that can describe the four components, namely life expectancy that measures success in the field of health, literacy rate and average length of school that measures success in the field of education, and the ability of people's purchasing power against a number of basic needs viewed from the average The amount of per capita spending as an income approach that measures success in the field of development for decent living.

Expenditure by the government shows its role in the economy In order to achieve the condition of a prosperous society. According to Dumairy (1999: 56) Government has 4 roles: A. The role of allocation, namely the role of government in allocating existing economic resources for optimum utilization and supporting production efficiency. B. The distributive role of the government's role in distributing resources, opportunities and economic outcomes fairly and fairly. C. The stabilitative role, namely the role of the government in maintaining economic stability and restoring it if it is in a state of equilibrium. D. Dynamic role, namely the role of government in moving the process of economic development in order to more quickly grow, develop and progress.

1. Adolf Wagner's Theory Adolf Wagner stated that government spending and government activities are increasingly increasing. This tendency by Wagner is called by law always increasing the role of government. The essence of his theory is the increasing role of government in the activities and economic life of society as a whole. Wagner states that in an economy if per-capita income increases then the relative expenditure of government will increase mainly due to the government must regulate the relationships that arise in society, law, education, recreation, culture and so on.
2. Peacock and Wiseman Theory Peacock and Wiseman based their theory on a theory that society has a level of tax tolerance, a level at which people can understand the amount of tax levy required by governments to finance government spending. Taxes received by the government will be used to finance various government activities. In highly developed countries the tax is the main source of government shopping. Part of the government's expenditure is to finance government administration and the other part is to finance development activities. Paying the salaries of government officials, financing the education system and public health, financing the armed forces, and financing various types of infrastructure that are important in development are some of the key areas that will be financed by the government. These expenditures will increase aggregate spending and increase the level of economic activity of the country. The amount of government expenditure to be made in a given period depends on many factors. Of particular importance are the amount of taxes to be received, the objectives of short-term economic activity and long-term economic development, and political and security considerations.
3. Government Expenditure Function National income does not play an important role in determining government spending. In other words, government spending over a certain period and its change from one period to another is not based on the level of national income and the growth of national income. In times of economic decline, for example, tax revenues decrease. But to cope with unemployment the government needs to do more development programs, so government spending needs to be added. Conversely, at the time of inflation and high levels of prosperity, the government should be more careful in its shopping. It must be maintained that government spending does not worsen the prevailing inflationary conditions.
4. Government Expenditures on the Education Sector Human resources for a nation is one of the factors that determine the economic and social development of the nation. For that formal education is an absolute necessity for the society that must be provided by the State. Not only to gain knowledge, norms, noble values and ideals can be simultaneously embedded, which contribute to the development of the nation. Government spending in the education sector is the allocation of APBN / APBD funds issued by the government in education. Government education expenditure data used in this research is realization of government expenditure data of education sector of Jambi Province period 2001-2015 period. Government education expenditure data used obtained by BAPPEDA Jambi Province. The unit of measurement of government expenditure data in the field of education used is hundreds of billions of rupiah.
5. Government Expenditure on the Health Sector Health is a fundamental need for human beings. Humans will not be able to move well if they have health problems. Health services is one of the public services provided by the government. Government health expenditure is the allocation of APBN / APBD funds issued by the government in the health sector. Government education expenditure data used in this research is data realization of government expenditure health sector Jambi Province period 2001-2015. Government health expenditure data used is obtained from BAPPEDA Jambi Province. The unit of measurement of government health expenditure data used is hundreds of billions of rupiah.

According to Michael P. Todaro (2000) there are two costs of education, namely: the costs of individual dedication and the

costs of indirect education. The cost of individual direct education is then directly related to the per capita income of the community. Individual direct tuition fees are all monetary costs or money that students and their families should bear to finance education.

According to Mahmudi (2007), public service is all service activities organized by public service providers as an effort to fulfill public needs and the implementation of the provisions of legislation. In this case, what is meant by public service providers is government agencies, both central government and local government.

Tri Maryani, (2012) government spending on education sector, health sector government expenditure and the number of poor people have a positive effect on HDI. Although positively influential, government spending on the education and health sectors still has little effect on HDI this indicates that expenditures for the sector have not been optimally either from its use and its allocation.7. Classification of government expenditures according .

Suparmoko (1994: 78) Government expenditure can be assessed from various aspects as follows: a. Government spending is an investment to add strength and economic resilience in the future. . b. Direct government spending provides welfare for the community. c. Government spending is an upcoming expense. d. Government spending is a means of providing more employment opportunities and wider purchasing power.

The Human Development Indenks Theory

UNDP (United Nations Development Program) defines human development as a process to expand the choices for the population. In this concept the population is placed as the ultimate end (ultimate end) while the development effort is seen as seen as a means (principal means) to achieve that goal. To ensure the achievement of human development objectives, four key points to note are productivity, equity, sustainability, empowerment (UNDP, 1995). In Human Development Report (UNESCO, 2007) explained that Human Development Index (HDI) is a construction measurement of the concept of right based approach to human development. HDI performs an average measurement of the achievements of individual individuals of the three basic dimensions of the human quality development process. This measurement is done by establishing some basic assumptions that qualified human beings are:

A. Humans who can live healthy and long life, as measured by Life Expectancy at birth (life expectancy at birth).B. The man who has the necessary skills and education for his life, as measured by an adult literacy rate indicator with a weight of two-thirds assessment, and a combination indicator of RAP Pertium Rate 9APK) primary, middle and high education with a weight of one-third Calculation of educational index C. Humans who can achieve a decent standard of living, as measured by the logarithm of gross domestic income (GDP) per capita using purchasing power parity (PPP) indicators calculated in US dollars. According to BPS (2009: 9), Human Development Index (HDI) is a measure of human development achievement based on a number of basic components of quality of life. HDI is calculated based on data that can describe the four components, namely life expectancy that measures success in the field of health, literacy rate and average length of school that measures success in the field of education, and the ability of people's purchasing power against a number of basic needs viewed from the average The amount of per capita spending as an income approach that measures success in the field of development for decent living. The components of HDI are life, longevity, knowledge, and decent living standards. Life span was measured by life expectancy calculated using the indirect method (Brass method, Trussel variant) based on mean variables of live birth and average child survival. The knowledge component is measured by the literacy rate and the average length of school calculated based on *Susenas* data. The standard component of decent living is measured by the average indicator of real consumption adjusted (Rudi Badrudin, 2012: 5). Aripin (2015), the title of this research is the influence of government expenditure on the health sector, government spending on education sector and economic growth on East java human development index 2006-2013. The result of this research is government expenditure of health sector and government expenditure of educational sector have a positive and significant effect to East Java province's human development index 2006-2013.

he following illustration shows the calculation of HDI. The formula for calculating HDI is presented as follows:

IPM = 1/3 [X (1) + X (2) + X (3)]

Information: X (1): Life Expectancy Index X (2): Education Index2/3 (literacy index) + 1/3 (school mean average index) X (3): A viable standard of living index

Relationship Between Government Expenditure on Human Development Index

Rostow and Musgrave Theory is a view arising from the observation of the economic development experience experienced by many countries but not based on a particular theory. In addition it is not clear whether the stage of economic growth occurs in stages or stages can occur simultaneously. Good education and health will enhance the capacity and freedom of life called intrinsic benefits. Education and health play a greater opportunity to earn higher income called instrumental benefits (Lanjouw, et al. 2001: 112). Education and population health determine the ability to absorb and manage sources of economic growth both in relation to technology to Institutions that are important for economic growth. With good education, the use of technology or technological innovation becomes possible to occur. As expressed by Meier and Rauch it is said that education, or more broadly, is human capital, can contribute to development.

Relation of Government Expenditure on Education to Human Development Index

Meier, et al (Winarti, 2014: 41), a nation must increase investment in education and health to achieve development. The issue of human capital as the input of economic development has actually been raised by Adam Smith in 1776 who tried to explain the cause of the welfare of a country by giving two factors namely; The importance of economies of scale and the formation of skills and human qualities (Khusaini in Sham, 2014: 21). According to Hasibuan (1996: 31) increased efficiency, especially the efficiency of society by increasing investment in the education sector, so there is a more harmonious balance between investment for human resources and investment for physical capital. Expenditures on Health Expenditure on Human Development Index According to Suparmoko quoted by Desi in (Patta, 2012: 31) that government spending can be distinguished as follows: 1. Expenditure is an investment that adds strength and economic resilience in the future. 2. Expenditures that directly provide prosperity and joy for the community. 3. It is an expenditure savings that will come. 4. Provide more job opportunities and wider purchasing power. Schultz in Jhinghan (2002: 414) argues that health facilities and services, generally defined include all expenditures that affect life expectancy, strength and stamina of energy and the vitality of the people. Meier, et al (Winarti, 2014: 41), a nation should increase investment in education and health to achieve development.

Muksalmina (2011) conducted a study on the effect of education sector financing, health and purchasing power on changes in human development index in Aceh Province. In this research, the method used is descriptive and quantitative by using multiple linier regression analysis method. The results of the analysis of this study stated that the allocation of education budget, health budget, public purchasing power have a positive effect on human development index.

Danu and Zuhdi (2013) conducted research on per capita government expenditures on health, education and transfer of subsidies to human development using the Data Envelopment Analysis (DEA) approach during 2006-2010.Results of Education, Health, HDI. Muliza ,T. Zulham,Chenny Seftarita JOURNAL OF DARUSSALAM ECONOMICAL PERSPECTIVE Volume 3 No. 1, March 2011 ISSN. 2502-697657 this study finds that government spending on health and education has a positive effect on human development.

Laisina et al (2015) in the study titled the effect of government expenditure on education and health sector to PDRB through human development index in North Sulawesi in 2002-2013. This research uses path analisys method. Based on the results of research, government spending in the education sector has an influence on human development index while in the health sector has no influence. The effect of government spending on the education sector to economic growth through the human development index is positive. While in the health sector is negative to the index of human development. Researchers argue that there is no effect of government spending on the health sector on improving the human development index because during the study period the North Sulawesi provincial government allocated more budget in infrastructure development in the health sector.

Habeahan (2015) with the title analysis of the influence of government expenditure and economic growth on human development index in Pakpak Bharat regency (North Sumatra) Period 2004-2013. The results showed that government expenditure in the education sector had a negative effect on HDI. Researchers argue that there is no significant effect of government expenditures on education on IPM due to the lack of optimal implementation of educational programs such as free education for primary and junior high schools, scholarship programs for underprivileged students who require enormous fees, Continues to grow each year into a separate burden for the government to provide education services in large numbers. In addition, government spending on education is not focused on improving the quality of education and training for teachers and students (only physical school construction). While Government expenditure in health sector have positive effect to HDI

RESEARCH METHODS

The research method used in this study is a research method oriented on the analysis of secondary data obtained from various literature and sources that have a relationship with the object of research.

Analysis Tool

To know the effect of Government Expenditure on Education and Health on Human Development Index in Jambi Province, the following analysis tools are used: Classic assumption test The classical assumption test in this study used four tests, including multicollinearity test, heteroscedasticity test, autocorrelation test and normality test. Multicollinearity Test Multicollinearity test is done with the aim to test whether in the regression model found the presence or absence of correlation between independent variables (independent).

According to Gujarati (2012: 251) the indication of the occurrence of multicollinearity is a relatively high simple correlation (0.8 or more) between one or more pairs of independent variables. If the correlation coefficient of less than 0.8 means no multicollinearity occurs.

Heteroscedasticity Test

To test the symptoms of heteroscedasticity in this study was conducted using Park Test. Park test is a two-step procedure, in the first stage we do OLS regression by ignoring heteroscedasticity, then obtained residual value. In the second stage the regression is done by transforming the residual values into logarithms, using the test criteria, If $\beta \leq 0.05$, the heteroskedastic occurs in the data and if $\beta \geq 0.05$, the heteroscedastycity does not occur in the data.

Test Autocorrelation

Autocorrelation test is used to test whether there is correlation between members in the observation. The autocorrelation test

in this study used Durbin-Watson with the test criteria. Ariefianto (2012: 27) also gave his opinion about the causes of autocorrelation, namely; Inertia one of the common characteristics of time series data is the presence of inertia (sluggishness). Adjustment due to a shock to macroeconomic variables Is gradual and lasts all the time. This also happens to a group of variables, so we can observe the existence of mutual movement, for example; GDP, unemployment, and actual price levels are due to shocks to these variables and they are currently in adjustment to equilibrium. In this condition, of course, the regression model using these variables will experience autocorrelation.

Normality test

Normality test aims to test whether in the regression model there are confounding variables that have a normal distribution or not. In this study, for Test whether the data distribution is normal or not used the Jarque-Bera test (J-B test). The Jarque-Bera test criteria (J-B test), among others:
1. If the value of JB arithmetic ≥ value X2 Table or probability value J-B calculate ≤ probability value (α = 5%), then the hypothesis that residual, error term is normal distribution is rejected;
2. If JB value arithmetic ≤ value X2 Table value of probability J-B calculate ≥ probability value (α = 5%), then the hypothesis stating that residual error term is normal distribution accepted.

To know the influence of independent variable to dependent variable, this research uses multiple linear regression model with the least squares method or Ordinary Least Square (OLS). Regression analysis is the study of dependence of the dependent variable on one or more independent variables, with the aim of estimating and / or predicting the average population and the mean value of the dependent variable based on the value of the independent variable known (Gujarati, 2010). According Ghozali (2006) in the regression analysis, in addition to measuring the strength of the relationship between two or more variables, also shows the direction of the relationship between the dependent variable with the independent variable.

$Y = \alpha + \beta1X1 + \beta2X2 + e$
Where: Y = Human Development Index
X1 = Government spending on education
X2 = Government spending on health
α = Constants
β1 = Government expenditure coefficient in education
β2 = Coefficient of government expenditure on health
ε = Standard error

Statistic test

The statistical tests consisted of determination coefficient test (R2), simultaneous significance test (F test), and test of individual significance (t test).

Coefficient of Determination (R2)

The coefficient of determination (R2) measures the extent of the model's ability to explain the variation of the dependent variable. The coefficient of determination is between zero and one. The small value of R2 means that the ability of the independent variables to explain the variation of the dependent variable is very limited. A value close to one means the independent variables provide almost all the information needed to predict the variation of the dependent variable. For time series (time series) usually has a high coefficient of determination (Ghozali, 2006).

Simultaneous Significance Test (F Test)

The F statistic test basically shows whether all independent or independent variables included in the model have a mutual influence on the dependent or dependent variable. For this test hypotheses are as follows: H0: β1, β2, β3 = 0, meaning that all independent variables are not a significant explanation of the dependent variable. H1: β1, β2, β3> 0, meaning that all independent variables are simultaneously a significant explanation of the dependent variable. This test is performed to compare the F-count with F-table. The value of F arithmetic can be obtained by the formula: F-arithmetic = R2 / (K-1) (1-R2) / (N-K) (3.2) Where : R2 = Coefficient of determination K = number of parameters estimated including constants N = Number of observations Criteria for decision making: 1. H0 is accepted and H1 is rejected if F arithmetic <F table, which means the explanatory variable together does not affect the variables described significantly. 2. H0 is rejected and H1 accepted if F arithmetic> F table, which means explanatory variables simultaneously and together affect the variables described significantly.

Individual Significance Test (t test)

The statistical test t basically indicates how far the influence of an individual explanatory or independent variable in explaining the variation of the dependent variable (Ghozali, 2006). The hypothesis used is as follows: A) H0: β1 ≤ 0 (there is no influence between government spending on education and human development index in Jambi Province) B) H1: β1> 0 (there is a positive influence between government spending on education and human development index in Jambi Province) A) H0: β2 ≥ 0 (there is no influence between public health expenditure and human development index in Jambi Province) B) H1: β2 <0 (there is a positive influence between government health expenditure and human development index in Jambi Province)

RESULT OF RESEARCH AND CONCLUSION

The Effect of Government Expenditure on Education and Health on Human Development Index

Regression Analysis

Multiple linear regression analysis is a linear relationship between two or more independent variables (X) with dependent variable (Y). This analysis to know the direction of the relationship between independent variables with dependent variable whether positive or negative and to predict the value of dependent variable if independent experience Increase or

decrease. The following regression test results using SPSS program.

Table 01. Results of Multiple Linear Regression Analysis

Coefficients[a]								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1,810	,138		13,077	,000		
	Log_X1	-,002	,004	-,098	-,431	,674	,902	1,108
	Log_X2	,042	,014	,692	3,057	,010	,902	1,108
a. Dependent Variable: Log_Y								

From the regression results based on table 01 obtained the regression equation as follows:Y = 1,810-002X1 + 0.042, X2 From the linear regression equation can be interpreted as follows:

1. Constant value of 1.810 gives the meaning that if Government Expenditures in Education (X1), Government Expenditures in Health (X2). Assumed = 0, the Jambi Province Human Development Index is constantly worth 1.810. 2. The value of regression coefficient variable of Government expenditure in Education (X1) of -0.002 can be interpreted if Government Expenditures in Education rose 1 percent then the index of human development will decrease by -0.002.3. The value of regression coefficient of government expenditure variable in the field of Health (X2) of 0,042 can be interpreted if Government Expenditures in the field of Health rose 1 percent then the human development index will rise by 0.042.

Table 02. Anova

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	,000	2	,000	4,824	,029[b]
	Residual	,000	12	,000		
	Total	,001	14			
a. Dependent Variable: Log_Y						
b. Predictors: (Constant), Log_X2, Log_X1						

From table 02 it can be seen that the value of F arithmetic of 4.824 with p-value of 0.000. Because F value is bigger than F table value (4,824> 3,89), there is positive influence between independent variable (Government Expenditure in Education and Government Expenditure in Health field) simultaneously to dependent variable (Jambi Province Human Development Index). These results indicate that the hypothesis of this study is Government Expenditure in the field of Education and Government Expenditures in the field of Health, Simultaneously influence on Human Development Index in Jambi Province

Table 03. Coefficients

Coefficients[a]								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1,810	,138		13,077	,000		
	Log_X1	-,002	,004	-,098	-,431	,674	,902	1,108
	Log_X2	,042	,014	,692	3,057	,010	,902	1,108
a. Dependent Variable: Log_Y								

From table 03 can be explained as follows: 1. Tests of variable regression coefficients Government expenditures in education (X1) Value t arithmetic variable Government expenditure in education (X1) is 0.431 when compared with t table of 2.179 then 0.431 <2.179. Level significant variable Government expenditure in education (X1) is equal to 0.674> (0.05), thus Ho accepted and Ha rejected. From these results it can be concluded that partially there is no significant influence between government spending in the field of education with index of human development in Jambi Province. 2. Tests of variable regression coefficients Government expenditures in health (X2) Value t arithmetic variable Government

expenditure in the field of health (X2) is 3.057 when compared with t table of 2.179 then 3.057> 2.179. Level significant variable Government expenditure in the field of health (X2) is equal to 0.010> (0.05) thus Ho is rejected and Ha accepted. From these results it can be concluded that partially there is a significant influence between government spending in the health sector with the Human Development Index in Jambi Province.

Table 04. Model Summary

Model Summary[b]										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	,668[a]	,446	,353	,00485	,446	4,824	2	12	,029	,766
a. Predictors: (Constant), Log_X2, Log_X1										
b.Dependent Variable: Log_Y										

From table 04 above obtained the coefficient of determination (R2) of independent variables (Government expenditures in the field of education and government expenditures in the health sector) together have no contribution to the dependent variable (Human Development Index) of 0.446 or 44.6%. This shows that the percentage of contribution of independent variables (Government Expenditure in Education and Government Expenditure in health sector) to dependent variable (Human Development Index in Jambi Province) is 44.6% while 55.4% is influenced or explained by other variables not included In this research model.

Table 05. Coefficients

Coefficients								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1,810	,138		13,077	,000		
	Log_X1	-,002	,004	-,098	-,431	,674	,902	1,108
	Log_X2	,042	,014	,692	3,057	,010	,902	1,108
a. Dependent Variable: Log_Y								

In accordance with the provisions of multicollinearity test, if the VIF value is less than 10 then there is no correlation. Based on the above table it can be seen that the VIF value is 1.108 for the variable (X1) and the VIF value for (X2) is 1.108 less than 10. So it can be concluded that there is no multicollinearity in this research data. This means that between the independent variables of Government Expenditure on Education (X1), and Government Expenditure on Health (X2) do not interfere with or affect each other.

Test Autocorrelation

Autocorrelation test is a test conducted to test whether there is influence between intruder variables in each independent variable. In this study autocorrelation test using Durbin Watso test with the following conditions: dW < dL, means there is a positive autocorrelation (+) dL < dW < dU, can not be concluded dU < dW < 4-dU, meaning there is no autocorrelation. 4-dL, can not be deduced dW > 4-dL, there is a negative autocorrelation (-) With the number of samples n = 15, $\alpha = 0.05$ and the number of independent variables k = 2, Critical dL = 0.9455 and dU = 1.5432. Test results auto correlation test in this study used to Spss 23 with the following results

Table 06. Model Summary

Model Summary										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	,668[a]	,446	,353	,00485	,446	4,824	2	12	,029	,766
a. Predictors: (Constant), Log_X2, Log_X1										
b. Dependent Variable: Log_Y										

Based on the table can be known value Durbin Watson of 0.766. So the DW value is between dU (1.5432)> DW (0.766) <4 - dU (4 - 1.5432 = 2.4568). So it can be concluded that in this study there is no autocorrelation. It means the material of independent variable in this research is not disturbed or influenced by variable based on the result of multiple linear regression estimation, indicating that governmental expenditure of education issued by districts / cities in Jambi Province did not have a positive and significant effect on the Human Development Index in Jambi Province in 2001-2015. Value t arithmetic variable Government expenditure in education (X1) is 0.431 when compared with t table of 2.179 then 0.431 <2.179. Level significant variable Government expenditure in education (X1) is equal to 0.674> (0.05), thus Ho accepted and Ha rejected. Empirically Government spending on education increased while the index of human development declined this contradicted the theory, theoretically if government spending in education increased should the index of human development also increased. While public health expenditures issued by districts / cities in Jambi Province have a positive and significant effect on the human development index in Jambi Province in 2001-2015. This is certainly in accordance with the hypothesis that the government expenditure variable in health affects positively and significantly to HDI. Value t arithmetic variable Government expenditure in the field of health (X2) is 3.057 when compared with t table of 2.179 then 3.057> 2.179. Level significant variable Government expenditure in the field of health (X2) is equal to 0.010> (0.05) thus Ho is rejected and Ha accepted. Empirically the government's expenditure on health increases while the human development index also increases. Theoretically, if government spending in the health sector increases then the human development index also increases significantly in this case theoretically and empirically equivalent. This has been in accordance with the hypothesis that the government expenditure variable in health affects positively and significantly to HDI

Reference

Arifin, Yuli, 2015. Effect of Government Expenditures on Health Sector, Government Expenditures on Education Sector and Economic Growth on Human Development Index in East

Java Province 2006-2013. Scientific Articles Department of Economics and Development Studies, Faculty of Economics, University of Jember (UNEJ).

Arsyad, Licolin, 2010. Development Economics. SYIM YKPN, Yogyakarta.

Badrudin, Rudy, 2012. Economics of Regional Autonomy. UPP STIM YKPN, Yogyakarta. Central Bureau of Statistics. Jambi In Figures. Various Editions From 2005-2014.

Jambi. Bappeda. Government Expenditure Data. Year 2005-2014. Jambi.

Deny, Mirza, 2012. The Influence of Poverty, Economic Growth, Capital Expenditure on Human Development Index in Central Java Province 2006-2009. Work,

Detri, 2016. Macro Economics. PT. RajaGrafindo Persada, Jakarta.

Sukirno, Sadono, 2012. Introduction to Macro Economics Theory. PT. Raja Grafindo Persada, Jakarta.

Muksalmina (2011). Analysis of the Effect of Education Sector Financing, Community Health and Purchasing Power on the Changes of Human Development Index in Aceh Province. University of Syiah Kuala.

Laisina, C., etal. (2015). The Effect of Government Expenditures on the Education Sector and Health Sector on GRDP Through the Human Development Index in North Sulawesi. Periodical Journal of Efficiency, Vol. 15. No.4 ISSN: 2302-2663.

Habeahan. (2015). Analysis of the Effect of Government Expenditure and Economic Growth on Human Development Index in Pakpak Bharat Regency (North Sumatera) Period 2004-2013.University of National Development VeteranYogyakarta.

Danu and Zuhdi, (2013). The Government Expenditure Efficiency towards the Human Development. International Conference on Applied Economics (ICOAE) 2013. Procedia Economics and Finance Journal, Page. 615 -622.