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# **Determination Analysis of Regional Government Expenditure of Agriculture, Education, Health, and Tourism on Economic Growth in Lumajang District**

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**ABSTRACT:** Regional development is an integral part of national development which is carried out based on the principles of regional autonomy and national resource regulation which provide opportunities for enhancing democracy and regional performance to improve people's welfare towards an independent and dignified society. The development of a region's economic growth is driven by government spending. Government spending has a strategic position in increasing the rate of national economic growth. The purpose of this study was to see the effect of local government spending on the education, health, and tourism sectors on economic growth in the Lumajang Regency. The use of linear regression analysis techniques with secondary data in this study aims to determine the effect of local government spending on the education, health, and tourism sectors on economic growth. The results obtained in this study are government spending in the education sector has a significant positive effect on economic growth. However, government spending on health, agriculture, and tourism do not affect economic growth. the government's role in increasing economic growth through government spending needs to be optimized.

**KEY WORDS:** Government expenditure, Economic growth, Regression analysis.

## **I.INTRODUCTION**

Regional development is an integral part of national development which is implemented based on the principles of regional autonomy and national resource management. The principle of regional autonomy in development provides opportunities for regional performance to improve community welfare towards an independent and dignified society free from collusion, corruption, and nepotism. The implementation of regional government as a state sub-system is intended to increase the effectiveness and results for the administration of government and public services. Provinces and Regencies / Cities act as autonomous regions that carry out various activities and regional management policies both in terms of financial management and authority and responsibility in the development of principles of openness, public participation, and accountability to the community. To achieve development efforts, capital is needed both in the form of physical and non-physical capital. Physical capital is in the form of regional expenditure budgets directed for development purposes. This government expenditure also contains a regulatory authority and policy in the management of a region to carry out governance, public services, and development. Government expenditure is in the form of government spending, both in the form of routine and for development. Government spending aims to meet the needs of running the wheels of government and development. In this case, routine expenses (Mangkoesobroto, 1994) are expenditures to finance routine activities such as employee salaries. Meanwhile, development expenditure is expenditure to finance development that is being carried out in an effort to improve the welfare of the community, such as regional infrastructure development to achieve good services and access to the community (Azwar, 2016).

The form of government expenditure which has a direct role in encouraging economic activity will have a significant impact on job creation, the increase in productivity that will ultimately have an effect on increasing growth and improving services. Landau (1986) classifies government spending as consumption expenditure, education expenditure, capital development expenditure, military expenditure, and transfer expenditure. The findings also show that this type of government spending has a negative impact on economic growth. In this study (Barro, 1991) used growth in GDP per capita as a proxy for economic growth. The results of the analysis found that the size of government spending has a negative relationship with economic growth. Meanwhile, research conducted by (Kormendi&Meguire, 1985; Ram,



1986) uses the growth rate of real GDP as a proxy for economic growth. The results of the analysis show that there is a significant positive effect between government spending on economic growth. From a different point of view, it highlights the demand side hypothesis that is associated with high marginal productivity of government spending. The results show that additional productivity in government spending will have a large multiplier effect on economic development and improvement.

Government spending has a strategic position in increasing the rate of national economic growth. It is often said that government spending can play a role as the prime mover of the economy so that when the economy is experiencing a downturn due to an economic recession due to the low ability of the community to carry out consumption, investment, and export activities, the government through fiscal policy instruments with instruments government spending can provide alternative policy solutions. The principle of regional autonomy that applies can also be a strategic step for the central government in managing regional development. One area that has the potential to accelerate development in East Java is Lumajang district. The potential for natural wealth, especially in the agricultural sector, which is in line with the majority of the Lumajang region which is dominated by mountainous areas, provides great opportunities in the development of the agricultural sector and the natural tourism sector. In addition, several other sectors that can be developed are the education and health sectors which are elements in creating human resources.

Lumajang Regency in implementing development takes place comprehensively and sustainably. The achievement of development results that are deeply felt by the community cannot be separated from the synergy between the government and the community. However, on the other hand, various obstacles in maximizing the potential of human resources and capital sources are still faced by policy makers. When compared with the surrounding areas, the economic growth of Lumajang Regency tends to be still slow so that the problem in this study is that the economic growth of Lumajang Regency is relatively growing below the national / regional economic growth rate and is relatively slow compared to other Regencies / Cities in East Java. Several factors have a major impact on the economic growth of the Lumajang Regency, one of which is the realization of the value of government spending. If we look further, the contribution per sector to the amount of GRDP of Lumajang Regency based on the current price (ADHB) in 2011, the agricultural sector contributed around 34.54% of the total value of the Regency's GRDP, followed by the trade, hotel and restaurant sector at 25, 41% while the smallest sector is electricity, gas and clean water (0.59%). GRDP at constant 2000 prices in Lumajang Regency was recorded at 6,768 billion rupiah or experienced an economic growth of 6.26 percent compared to the previous year. (Central Statistics Agency of Lumajang Regency, 2012). This figure is lower than the economic growth of East Java, namely in 2010 at 6.68%, in 2011 to 7.22%, and in 2012 at 7.26%.

Some of the Lumajang Regency government expenditure posts are more emphasized on the Lumajang district base sector which has the potential and opportunities to encourage economic growth, including the agriculture and tourism sectors. In addition, other main sectors that form the foundation for building the increasing quality of human resources are focused on spending on the education and health sectors. So based on the problems described above, this study aims to determine the effect of government spending in the agriculture, tourism, education, and education sectors on economic growth in the Lumajang Regency. In addition, it is also aimed at seeing which expenditure from which sector is dominant in influencing economic growth in the Lumajang Regency.

## II. METHODOLOGY

Data used in this study were 2009-2013 with secondary data from the Central Statistics Agency. The research object used was Lumajang Regency, East Java Province, Indonesia. The variables used in this study are economic growth and government spending in the education, health and tourism sectors.

The model specification used in this study is to use the equation model as follows:

$$y_t = a_0 + a_1X1_t + a_2X2_t + a_3X3_t + a_4X4_t + e_t \quad (1)$$

where:

Y	=	growth economy
X1	=	agricultural sector
X2	=	education sector
X3	=	health sector
X4	=	tourism sector
e	=	error term

the analysis technique used in this study is multiple regression analysis. Multiple regression analysis is a statistical technique that is useful for examining and modeling the relationship between variables. Multiple regression is often used to solve regression analysis problems that result in the relationship of two or more independent variables. Thus,

the use of multiple regression analysis can determine the role of local government spending in the education, health and tourism sectors on economic growth in the Lumajang Regency.

**III. RESULTS AND DISCUSSION**

Based on the results of the analysis using the multiple regression analysis method, it can be seen in equation 2 below:

$$Y = 5,621 + 0.230X_1 + 1.498X_2 + (-0.870)X_3 + 0.146X_4 \tag{2}$$

$Y = 5,621$  means that if the agriculture, education, health and tourism sectors have a zero value or are deemed non-existent, the economic growth of Lumajang district is 5,621 with the assumption that the other variables are permanent. A value of 0.230 indicates a positive influence of agricultural sector variables on economic growth. This means that if there is an increase in the agricultural sector by one percent, it will have an impact on economic growth by 0.230. The positive value of education is 1.498, meaning that if there is no economic growth, the education sector will experience a growth of 1.498.

A negative health sector value -0,870 means that if there is no economic growth, the health sector will experience a negative growth of (-0,870). The tourism sector value of 0.146 shows a positive effect on economic growth. This means that if the tourism sector experiences growth or increase, the economic growth of Lumajang Regency will also increase by 0.146. Furthermore, the t test results are to determine the independent variables that have a significant and dominant effect on the dependent variable. The hypothesis prediction is:

Ho:  $b = 0$ , meaning that there is no significant influence between variable x on economic growth

Ha:  $b \neq 0$ , meaning that there is a significant influence between variable x on economic growth

Acceptance or rejection of the hypothesis on a significant basis at level 5 % (95% confidence level) using the t test. The test criteria are as follows:

If  $t_{count} > t_{table}$  or  $t_{count} < -t_{table}$ , then Ho is rejected and Ha is accepted

If  $-t_{table} < t_{count} < t_{table}$ , then Ho is accepted and Ha is rejected

The t test is used to test the significance of the constants and the dependent variable partially.

Table 1 Calculation Results T Test

No	Variable	t <sub>table</sub>	t <sub>Calculate</sub>	Significant
1	X <sub>1</sub>	2,0860	0,145	0.855
2	X <sub>2</sub>	2,0860	4,607	0.000
3	X <sub>3</sub>	2,0860	-1,032	0.411
4	X <sub>4</sub>	2,0860	0,265	0.816

Data Source: Data Processed Primary

From the results of the above analysis shows that the agricultural variable (X<sub>1</sub>), health variable (X<sub>3</sub>), and tourism variable (X<sub>4</sub>) do not have a significant effect on economic growth in Lumajang district, but the education variable (X<sub>2</sub>) has a significant effect on the variable Y (economic growth) with a significant level of 0.000.

Furthermore, the F test, which compares the F<sub>count</sub> with F<sub>table</sub> at the 95% confidence level ( $\alpha = 0.05$ ) if F<sub>count</sub> is greater than F<sub>table</sub> then Ho is rejected and Ha accepted, if F<sub>count</sub> is smaller than F<sub>table</sub> then Ho is accepted and Ha was rejected. Based on the hypothesis testing results obtained calculation results F<sub>value<sub>calculated</sub></sub> of 21.222 and F<sub>table</sub> with a significance level of 95% amounting to 10.1280 so that F<sub>count</sub> larger than F<sub>table</sub> means together (simultaneously) the independent variables are: X<sub>1</sub>, X<sub>2</sub>, X<sub>3</sub>, X<sub>4</sub> have a significant effect on economic growth (Y). Then by looking at the coefficient of determination (R<sup>2</sup>) it can be seen the influence of the dependent variable to the independent variables. R<sup>2</sup> has a value between zero to one. The higher the R<sup>2</sup> or closer to one, the greater the influence of the independent variables on the dependent variable and vice versa. The results of the coefficient of determination R<sup>2</sup> (RSquare) of the study were as follows:

Table 2 Coefficient of Determination

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.936 <sup>a</sup>	0.876	0.835	0.835

a. Predictors: (Constant), Internet Usage



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Meanwhile, to find out how much influence the variables of the agriculture, education, health and tourism sectors on economic growth are calculated by squaring the coefficients found or the determination of  $R^2$  (*R-Square*) while looking for  $R^2$  (*R-Square*) are as follows:

$$\begin{aligned}\text{Det} &= r^2 \times 100\% \\ &= 0.876 \times 100\% \\ &= 87.6\%\end{aligned}$$

This means that variable Y is influenced by 87.6% by the variables of agriculture, education, health, and tourism (X), while the rest are influenced by other variables outside this study.

The results showed that there was a positive and significant influence of the variables of agriculture, education, health, and tourism on economic growth in Lumajang district which was shown through multiple linear regression test with a regression coefficient of 0.936 while the determinant coefficient was the magnitude of the contribution of the variables of agriculture, education, health, and tourism to the economic growth is 0.876 or 87.6%. Thus it can be said that the variables of agriculture, education, health, and tourism have an effect on economic growth in Lumajang district.

One of the benchmarks for economic development is economic growth in an area, which is a dynamic measure used to see the economic performance in a region (Ascani et al., 2012; Capello, 2011). Therefore, economic growth is a macro indicator that is used as a strategic tool in economic policy for a region. The results of the regression analysis show that the value of the variable is  $Y = 5,621$ , meaning that if the agricultural, education, health and tourism sectors have a zero value or are considered non-existent, the economic growth of Lumajang district is 5,621 with the assumption that the other variables are constant. The economic growth of a region is an economic problem in the long runlength and is influenced by various factors. The results of the above analysis indicate that the factors under study have an influence on economic growth except for health factors.

Government spending on the health sector in general in Indonesia is experiencing an intermediate stage of development, it should have a positive influence in Lumajang District. However, this did not happen because the government was deemed insufficient in providing more quality health facilities to increase productivity economic. The development of facilities and infrastructure health insurance for all residents of Lumajang Regency through expenditures by the government cannot be directly felt. This requires a longer grace period when the Lumajang Regency government spends a number of budgets for health so that the quality of public health improves and ultimately contributes to increased economic growth. This means that Lumajang District government spending on health takes longer to be able to directly affect the quality of human resources which in turn can increase economic growth.

The results show that there is no influence of the Lumajang Regency government expenditure variable on health can also mean the low effectiveness of the government budget in its realization of economic growth. Economic growth is closely related to people's welfare. The higher the economic growth, the higher the ability of a person to meet the needs of the community, so that the ability to prosper the community will also be higher (Ascani et al., 2012; Breinlich et al., 2013). This is because the government, with its fiscal power and various authorities, plays an important role in influencing economic growth in a region.

Furthermore, a constant value of 0.230 indicates a positive influence of agricultural sector variables on economic growth. This value from the existing regression equation is the greatest value so that it can be said that the agricultural sector has the greatest influence on economic growth in Lumajang district. This positive direction of the coefficient shows that higher government consumption in the agricultural sector will cause economic growth to increase. The agricultural sector in Lumajang Regency is still the biggest contributor in driving economic growth during the research period. The development of the agricultural sector generally uses labor-intensive technology and uses relatively little capital, although it involves investing in the construction of roads, canals and irrigation facilities (irrigation), and the development of their technology. The increase in the productivity of the agricultural sector allows the economy by using labor to produce an increase in productivity and the total output of the agricultural sector will increase income in that sector so that it affects the economic growth of the Lumajang Regency.

The population of Lumajang Regency continues to increase from time to time. This population growth certainly brings consequences to the provision of adequate public facilities, one of which is education. The Lumajang Regency Government must be able to guarantee the continuity of root education to improve the welfare of its population. The positive education constant value is 1.498, meaning that if there is no economic growth, the education sector will experience a growth of 1.498. This shows the influence of the education variable on economic growth. One of the factors that influence economic growth is human resources. An increasing population from time to time can be both a driving force and a barrier to economic growth. One of the determining factors whether the increasing population growth will become a burden or vice versa is development in the field of education.



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An increasing population will increase the production factor because the number of workers increases and this addition allows an area to increase production. But on the other hand, the bad result of increasing population which is not matched by good quality education means that job opportunities are not qualified so that economic growth is not in line with increased welfare (Breinlich et al., 2013; KhairulAmriKamarudin et al. , 2018). The availability of qualified workers is a very important production factor and needs to be taken into account in the production process. A large workforce will be formed from a large population. A sufficient population with a high level of education and capable abilities will be able to drive the rate of economic growth.

Then, the constant value of the health sector is negative -0.870, meaning that if there is no economic growth, the health sector will experience a growth of -0.870. In addition, there is an insignificant relationship between the health sector and economic growth. This is because, although the health sector is increasing, this increase has not been accompanied by increased economic growth. One of the reasons is that the population increase will result in an increase in the need for health services, as well as an increase in public awareness of health that requires more and better health services.

On the other hand, the tourism sector constant value of 0.146 shows a positive effect on economic growth. The contribution of tourism to economic growth is because the tourism sector can increase local government revenue where this income can be divided into two, namely: direct and indirect contributions. Direct contributions come from income taxes collected from tourism workers and tourism businesses in tourist areas that are received directly by the revenue office of a destination. Meanwhile, the indirect contribution of tourism to government revenue comes from taxes or customs duties on goods that are taxed on visiting tourists.

According to Joyosuharto (1995: 46) that tourism development has three functions, namely: 1) promoting the economy, 2) maintaining the national personality and preserving the functions and quality of the environment, 3) fostering a sense of love for the homeland and the nation. To carry out these three functions, it is necessary to develop tourism objects and tourist attractions, increase and develop promotion and marketing, and improve tourism education and training. Two essential things must be done to achieve economic growth, especially those related to tourism. First, the resources must be used more efficiently. This means that there should be no idle resources and the allocation of their use is less efficient. Second, the supply or quantity of the sources or elements of growth must be endeavored to grow.

## IV.CONCLUSION

The results of the analysis in this study using multiple regression analysis can be concluded as follows.

1. Simultaneous testing using the F test obtained the results of the calculation of the F-count value of 21.222 and the F-table with a 95% significance level of 10.1280 so that the F-count is greater than the F-table means that together (simultaneously) the independent variables are : X1, X2, X3, X4 have a significant effect on economic growth (Y).
2. Testing partially determines that government spending on the education sector has a significant positive effect on economic growth with a significant level of 0.000. On the other hand, government spending on health, agriculture and tourism has no effect on economic growth.

The suggestion that needs to be done in increasing economic growth through government spending is to optimize government spending, so as to create effectiveness and efficiency. On the other hand, for the continuity of economic growth, the dependence of the Lumajang Regency government must pay attention to sectors that affect economic growth as the sectors examined in this study

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