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Investment, Man Power and Government Expenditure on Economic Growth in Development of Three Area in South Kalimantan

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Abstract---The economic growth has not increased, decreased, and even the same every year. For this reason, a deeper analysis of the effect of these three factors on economic growth is necessary to know. This quantitative research used secondary data in the form of a panel from the Central Statistics Agency of the three regional governments. Namely, the 2014 to 2019 data for economic growth, workforce, and government spending. Meanwhile, the investment data used data from 2013 to 2018. Then the data obtained was tested with classical assumptions. After fulfilling the requirements of the classical assumptions, data analysis, and hypotheses were drawn from multiple linear regression equations using: the coefficient of determination test, simultaneous effect test, and ttest. The results of the F test state that the independent variable simultaneously affects the dependent variable. The test results obtained that the investment and labor variables partially have a significant effect on the economic growth. But overall simultaneously investment, labor, and government spending affect economic growth. This means that if investment and labor experience an increase, it will affect the increase in economic growth. **Keywords---**economic growth, government spending, investment, labor.

Introduction

Economic growth can be used as a measure of development performance in a country or region by comparing the first period to the next (Gaspar *et al.*, 2017). The theory of economic growth according to Neo Classics, states that GRDP is a measure of economic growth in the regions. This depends on the development and changes in production input factors which include; labor, capital, and technology (Sukirno, 2016). Apart from investment and labor, the implementation and performance of local governments are part of a country's system. Likewise, development in South Kalimantan Province where equitable development has been carried out using a development area (WP) approach. Based on the South Kalimantan Provincial Regulation No. 9 of 2000, the development area in South Kalimantan is divided into 3 regions. Tanah Laut, Tanah Bumbu, and Kotabaru are development areas 3. Then in 2016 the Regional Regulation No. 7 was issued which states that development areas based on strategic areas from an economic point of view are divided into 3 areas:

- 1) The urban area of Banjarbakula which covers parts of Banjarmasin, Banjarbaru, Banjar, Barito Kuala and Tanah Laut areas.
- 2) The Batang Banyu Swamp area, which covers parts of the Barito Kuala, Banjar, Hulu Sungai Selatan, Hulu Sungai Tengah areas, Hulu Sungai Utara and Tabalong.
- 3) Industrial and Service Trade Zone covering the districts of Kotabaru, Tanah Bumbu and Tanah Laut.



The economic growth of Tanah Laut, Tanah Bumbu and Kotabaru Regencies from 2014-2019 in percentage was below the economic growth of South Kalimantan Province. This can be seen in Figure 1.

Figure 1. Graph of Economic Growth Data Growth in South Kalimantan, Tanah Laut, Kota Baru and Tanah Bumbu Districts in 2014-2019 in Percent

Source: BPS South Kalimantan, Kab. Tanah Laut, Tanah Bumbu and Kotabaru 2015-2020

In the macroeconomy, when viewed from the expenditure side, to calculate GRDP, several components include investment and government spending. Investment is a way that people/institutions can do so that economic growth can increase, which in the end, in a long-term situation, can increase the standard of living of the community (Mankiw, 2013; Psacharopoulos, 1994; Mani, 2004; Akinlo, 2004). This will then have an impact on expanding productive employment opportunities. In the end, the investment will be able to make economic growth rise.

Based on the above, the research questions to be raised can be seen as follows: 1) Do investment, labor force, and government expenditure simultaneously influence the economic growth of Tanah Laut, Tanah Bumbu and Kotabaru Districts?. 2) What are an investment, the workforce and government spending has a partial effect on the economic growth of Tanah Laut, Tanah Bumbu, and Kotabaru districts?. Therefore, the objectives of this study are as follows: 1) Analyze the investment effect. labor force and government spending simultaneously on economic growth in Tanah Laut, Tanah Bumbu, and Kotabaru Districts. 2) Analyze the effect of the labor force and government spending partially on investment on economic growth in Tanah Laut, Tanah Bumbu, and Kotabaru Districts.

Conceptual framework and hypotheses

In this study, the economic growth of Tanah Laut, Tanah Bumbu, and Kotabaru districts is denoted as (Y); growth in capital stock or investment is denoted by (I) and regional government spending is symbolized by (RPD). Labor is the amount of labor absorbed (TK) then the equation is obtained:

Y = f(I, TK, RPD)

Based on the previous equation, it is obtained:

 $Y = I\beta 1$ TK $\beta 2$ RPD $\beta 3$

Information: A: constant

β1. β2. β3 = coefficient

The relationship between the variables of economic growth and the variables that influence it can be described in the following scheme:



Note: Investment, the realization of regional expenditure (RPD) workforce, economic development Figure 2. Schematic relationship between economic growth variables and variables that influence it partially and simultaneously.

The hypothesis or also called the provisional conjecture of this study are:

- 1) The variables of investment, labor, and government expenditure simultaneously have a significant effect on economic growth in Tanah Laut, Tanah Bumbu, and Kotabaru Districts.
- 2) The investment, labor, and government expenditure variables partially have a significant effect on economic growth in Kab. Tanah Laut, Tanah Bumbu, and Kotabaru.

Method

The purpose of this study is to analyze investment, labor, government spending, and economic growth in the three development areas of South Kalimantan (Tanah Laut, Tanah Bumbu, and Kotabaru). Investments, labor, and government spending as well as economic growth analyzed are data from 2013 to 2019. For data using constant prices for 2010. This quantitative research uses a positivism paradigm approach because this study focuses on empirical data on the philosophy of positivism. With a quantitative approach, this study can provide information or data that is realized in the form of numbers and then analyzed based on statistical analysis (Sugiyono, 2006).

The operational definition of the variables in this study has several limitations as follows:

1) Economic growth (Y): is the relative change in the real value of Gross Regional Domestic Product (GRDP) in Tanah Laut, Tanah Bumbu, and Kotabaru Districts based on constant 2010 prices expressed in percent units. The rate of economic growth in a year (year t) is formulated using the following formula:

2)

 $g_{t} = \frac{Y_{t}^{r} - Y_{t-1}^{r}}{Y_{t-1}^{r}} \times 100$

Information:

a.Gt: percentage (%) of economic growth for year t

b.Y^rt: real GRDP in year t (IDR)

c. Y^rt-1: Real GRDP in the previous year (IDR).

- 3) Labor (TK) is a population of working age (aged 15-64 years) who is working or is said to be carrying out economic activities that are capable of producing goods/services sustainably and for at least one hour a week (BPS, 2019) Tanah District Sea, Tanah Bumbu and Kotabaru, expressed in soul units.
- 4) Investment (I) is a gross regional domestic fixed capital formation. What is taken from BPS data is that one of the components of the GRDP with the expenditure approach is expressed in units of million rupiah.

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5) Local government expenditure (RPD) is the total realization of local government consumption. What is taken from BPS data, namely one of the components forming the GRDP with the expenditure approach is expressed in units of million rupiah.

The analysis technique used to answer the problems/hypotheses in this study is descriptive analysis and multiple linear regression analysis.

1) Quantitative Analysis

This analysis is a study of the dependence between the dependent variable (dependent) and one or more independent variables (explanatory/independent variables), which aims to estimate or predict the population mean and/or the mean value of the dependent variable based on the value of independent variables that have been known (Goetz & Gupta, 1996; Benveniste & Spindt, 1989; Gujarati, 2012). The estimation technique of the dependent variable uses Ordinary Least Square (OLS), namely by estimating the regression line by minimizing the number of squares of the error for each observation on the line (Ghozali, 2016).

2) Model of Eq

The model specification used in this study is to use the Neo-Classical Solow (Neoclassical Growth Model) economic growth model, with the standard aggregate production function:

$$\begin{split} Y &= A e^{\mu t} \cdot K^{\alpha} \cdot L^{1 \cdot \alpha}(7) \\ Y &= f (I, TK, RPD)(8) \end{split}$$

Econometric model (Gujarati, 2012):

 $Y = \beta 1 + \beta 2 I + \beta 4 TK + \beta 5 RPD + e$ (9)

From equations (4) and (5), it is obtained:

To obtain the linear form of equation (6), the equation is rectified using logs, so that:

 $Y = \beta_0 + \beta_1 L_I + \beta_2 L_T K + \beta_3 L_R P D + e.....(11)$

To provide an overview of the economic conditions that occurred during the observation period, dummy variables were used.

3) Testing Panel Data Estimation Model Determination

Before the regression is carried out, the steps that must be taken are to test the model estimate. Which aims to obtain the accuracy of the estimation of the model used. According to Imam Ghozali (2016) the steps to determine which model to use, it is necessary to test the chow, the Hausman test, and the large multiplier test.

- Model Testing with Classical Assumptions. Model testing against classical assumptions is applied to structural equations which include multi co-linearity, heteroscedasticity, and autocorrelation tests.
- 5) Research Hypothesis Testing

In estimating the actual value for sample accuracy the goodness of fit regression function of a model equation is the correct measuring tool. Through the t statistical value, the coefficient of determination and the statistical value of F. Ghozali (2016) said that statistically if it is in a critical area, where the H0 area is rejected, it is called significant. And conversely, if the statistical test value is in the H0 area it is accepted that it is not significant.

Research Result

Research Overview

The formation of the economic structure of South Kalimantan Province is influenced by the respective contributions of the added value of the production of goods and services. Based on the PDRB analysis, there are 17 categories of business fields that form the macro and micro economy which are the keys to success in increasing regional economic development. The GRDP of South Kalimantan Province is mostly influenced by the mining and quarrying

sector. This is because South Kalimantan Province is one of the production centers for the mining and excavation sector. Through analysis of economic growth by sector, there was a significant decline in economic growth in the mining and quarrying sector. Meanwhile, this is the dominant sector in economic development in South Kalimantan. Mining and quarrying sectoral growth has decreased since 2014.

Following the development and regional development carried out, in regional administration, South Kalimantan Province is divided into 13 districts/cities, all of which consist of 2 cities and 11 regencies. 2 cities which are divided into Banjarmasin and Banjarbaru. 11 districts consisting of Barito Kuala, Tapin, Hulu Sungai Tengah, Tanah Laut, Kotabaru, Hulu Sungai Utara, Banjar, and Hulu Sungai Selatan. With the provincial capital namely Banjarmasin City (South Kalimantan Provincial Government, 2016).

Tanah Laut, Tanah Bumbu, and Kotabaru are three of the 13 districts in South Kalimantan Province. For a clearer picture of the research areas of the three districts, please see the sub-chapters below.

The population of Tanah Laut Regency based on the projection of the Central Statistics Agency for Tanah Laut Regency in 2019 is 350,007 people. The economy of Tanah Laut Regency is dominated by the mining and quarrying sector with an average contribution of 29.07% per year. In this sector, the largest contribution is given by coal production, followed by the production of iron ore, manganese, nickel ore, and chromite. Although the contribution of this sector has decreased, this sector remains a mainstay sector in Tanah Laut Regency. Then the second mainstay sector in Tanah Laut Regency is the agriculture, forestry, and fisheries sectors. In 2013-2019, the agriculture, forestry, and fisheries sector trends tended to increase from year to year. However, in 2017, the contribution of the agriculture, forestry, and fisheries sectors have decreased. Another industry that needs to be taken into account because of its contribution to GRDP is the manufacturing sector. During the last five years, this industry has experienced an increase (Pemba Tanah Laut, 2019).

Tanah Bumbu District is one of the districts that has a relatively high population growth rate compared to other districts/cities in South Kalimantan Province. From the aspect of ethnicity, the inhabitants of Tanah Bumbu Regency are quite diverse. However, it can be said that the three largest ethnic groups whose inhabitants are the Banjar, Bugis, and Javanese tribes.

The economic structure is dominated by the Mining and Quarrying business sector or field. The dominance of the mining and quarrying sector is even very high, followed by the agriculture, forestry, and fisheries sectors. Meanwhile, the contribution of other sectors in contributing to GRDP was much smaller. The developments during this period indicated a favorable direction in which the role of the Manufacturing Industry Sector increased. The manufacturing sector is a sector that basically can provide great benefits by creating production chains that generate added value for the economy (Local Government Tanah Bumbu, 2018).

The projected population of Kotabaru Regency in 2015 is 320,208 people, consisting of a male population of 166,634 and a female population of 153,574. The population that is so large and continues to increase every year is not matched by the distribution of the population. The sector that contributes the most to GRDP is the manufacturing/processing industry, especially large-scale industries such as crude palm oil/CPO companies, which are widely available in this area. The mining sector with the mainstay of coal products contributed an average of 21.2 percent to the total GRDP. Local governments are moving slowly but surely transforming into other sectors (Pemda Kotabaru, 2016).

Results and Analysis

1) Descriptive Data Statistics Panel

All data for each district are combined into one, then 18 data will be analyzed for each variable. Then obtained descriptive statistical analysis for economic growth (Y) obtained an average of 3.9083 with a standard deviation of 0.68866. The investment variable (I) obtained an average of 2,344,339,159 with a standard deviation of 852,564,4065. The labor variable (TK) obtained an average of 149,038,3889 and a standard deviation of 9,799,72975. As for the government expenditure variable, it was obtained an average of 1,163,948,028 and a standard deviation of 469,630,0206.

2) Testing Panel Data Estimation Model Determination

The Chow test result shows that the Chi-square probability of cross-section is 0.0000, which means that it is less than the significance level of 0.05. Then it can be decided that Ho is rejected and Ha is accepted so that the selected model is the fixed effect model. Based on the results of the Hausman test, it is known that the probability value Cross-section random is equal to 0.0026 smaller than alpha 0.05, so it can be concluded that Ho is rejected and the best model that can be used in this study is the Fixed Effect Model. Because the results

of the Cow test and the Hausman test show that the best model used is the Fixed Effect Model. So that the Lagrange multiplier test does not need to be done again.

3) Assumption Testing

This classical assumption test is carried out because in the regression model it is necessary to pay attention to deviations from the classical assumptions. After all, in effect, if the classical assumptions are not met, the explaining variables will be inefficient. In this study, several classical assumption tests were carried out on the regression model that had been processed using the Eviews 10 program (Ghozali, 2016).

Based on the results of data processing, it was found that the data were normally distributed because probability = 0.838498, probability> 0.05. According to (Gujarati, (2012), if the correlation coefficient between independent variables is more than 0.8, it can be concluded that the model has multicollinearity problems. Conversely, the correlation coefficient is less than 0.8 so the model is free from multicollinearity. Based on the test results in appendix 9, it shows that the correlation value between the independent variables is smaller than 0.8, so it can be concluded that the model is free from multicollinearity problems.

According to Imam Ghozali (2016) there is no autocorrelation symptom if the Durbin Watson value (dw) lies between du to (4-du). From the analysis using Eviews 10, it is found that the Durbin Watson value shows the number 1.885473. The dl and du values are obtained by looking at Durbin Watson's table with n = 18 and k = 3. The dl value is 0.9331 and the du value is 1.6961. Therefore the value is 1.885473 while the value 4 -1.6961 is 2.3039. So that 1.6961 < 1.885473 < 2.3039, it can be concluded that there is no positive or negative autocorrelation or it can be concluded that there is no autocorrelation.

The results of the analysis using Eviews 10		
Variable	Prob.	Description
X1	0.5808	Heteroscedasticity does not occur
X2	0.5387	Heteroscedasticity does not occur
X3	0 5375	Heteroscedasticity does not occur

Table 1

Source: Output data processing using E-Views 10

0.5375

4) Data Analysis

Data analysis uses the Eviews 10 application with the results of the analysis can be seen in attachment 12. The explanation of the results of the data analysis test can be seen as follows:

a. Determination Coefficient Test

Table 2 The R Square value

R-squared	0.595136	
Adjusted R-		
squared	0.522665	
Same Output data and accine with Environment		

Source: Output data processing with Eviews 10

This means that 59.5% of economic growth in the districts of Tanah Laut, Tanah Bumbu, and Kotabaru can be explained by the three independent variables. While the remaining 40.5% is explained by other reasons. Simultaneous Effect Test (F-Test)

The results of this test can be seen in the F test value of 46,95462 and the significance at 0,000 which means the independent variables X1, X2, and X3 simultaneously affect variable Y.

T-test c.

h

If it is seen from the significance value, the variables X1 and X2 respectively are 0.0008 and 0.0086 < 0.05, it means that the independent variable partially has a significant effect on the dependent variable (Y). For the X3 variable the amount of 0.0975 > 0.05 means that the independent variable partially does not have a significant effect on the dependent variable (Y).

Hypothesis testing results

The results of the data analysis test were then compared with the research hypothesis. The explanation can be seen below:

- 1) Simultaneously investment, labor, and government spending have a significant effect on economic growth in Tanah Laut, Tanah Bumbu, and Kotabaru Districts, the hypothesis is accepted.
- 2) Partially, investment and labor influence economic growth in Tanah Laut, Tanah Bumbu, and Kotabaru Districts, the hypothesis is accepted. The results of this analysis indicate that local government spending has no significant effect on economic growth. This shows that the hypothesis is rejected.

Discussion

In previous research Rustiono (2008) stated that investment and labor have a significant effect on economic growth in Central Java. Research conducted by Muzdalifah *et al.* (2019) states that private investment has a significant effect on economic growth in a negative direction in South Kalimantan Province. This is certainly in line with the results of research where investment and energy have a significant influence on economic growth in the districts of Tanah Laut, Tanah Bumbu, and Kotabaru. This is a challenge for bureaucrats to optimize increased investment by providing a more conducive investment climate.

With an increase in investment, it will certainly open up opportunities for the establishment of factories/industries, intensification, and intensification of production households or companies (Mokyr, 2001). Then this will be accompanied by an increase in exports and the quality and quality of goods/services production. And all of that will certainly create new job opportunities.

The results of this analysis indicate that labor has a significant positive effect on economic growth. For the workforce, if there is an increase of 1%, it will affect the increase in economic growth by 2.630166%.

Chetty et al. (2011) suggested that cost for adjustment, responding firm, as well as both micro and macro manpower supply to elasticities. The labor elasticity figure in this study provides a signal that the contribution of labor in TanahLaut, Tanah Bumbu, and Kotabaru districts to economic growth is quite significant. This is due to a large number of industries in these three districts that are labor-intensive and the large number of people working in the mining and quarrying sector, the agricultural and forestry sector, and the manufacturing sector, which are mostly found in the three districts in this study. Meanwhile, government spending is not able to affect increasing economic growth.

A study was done by Wang & Liu, (2011) noted that there is an influence on spatial spillover from the community spending to the regional government to local economic improvement. The above research has relevancy to the absence of the influence of local government spending on economic growth in the districts of Tanah Laut, Tanah Bumbu and Kotabaru is due to several reasons. Based on the data on the realization of local government expenditure in the three districts, it can be seen that the amount of regional government expenditure in the three districts is dominated by personnel expenditure. This means that the largest regional government expenditure is personnel expenditure. Where these two expenses are not directly related to an increase in GRDP. The existence of a sizable gap in the budget ceiling in Tanah Laut district can also cause slow economic growth. Also, this shows that the three districts are independent in their economic growth not dependent on funds from local governments.

However, overall simultaneously investment, labor, and government spending affect economic growth in the districts of Tanah Laut, Tanah spices, and Koatabaru. This is supported by the opinion of Arndt (1994) that the argument regarding public policy concerning government spending policies is based on the situation that the market cannot play its role in activating the mobilization of economic activity, especially to achieve efficiency. Although some affect directly and some indirectly.

Conclusion

Several conclusions can be drawn following the research data analysis, namely:

- 1. Overall (simultaneously) investment, labor, and government spending affect economic growth in the three districts (Tanah Laut, Tanah Bumbu, and Kotabaru).
- 2. Partially concludes that investment and labor have a significant positive effect on economic growth. Meanwhile, local government spending does not have a significant effect on economic growth (Y).

Following the conclusions from the results of this study, several things need to be considered in driving development. Investment plays a significant role in increasing economic growth, therefore the government and local communities must work together to create bureaucratic ease and security in investing. In terms of the number (quantity) of labor, it makes a high contribution to economic growth, although efforts are also needed to improve the quality of labor. These efforts can be done by increasing the delivery of education and training through formal and non-formal channels. One of them is by increasing the capacity of vocational training centers and establishing formal schools that support the existing economic sector Local governments are expected to allocate regional expenditures proportionally. To reduce personnel spending, the information system approach must be increased. Also, the allocation of development spending in the form of productive capital expenditures needs to be increased, such as the development of supporting industries in the agricultural sector.

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