

The Effect of Regional Government Expenditure on Economic Growth: Case Study of Sumatera Island - Dynamic Panel Approach

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Keywords: Government Expenditure, Economic Growth, General Allocation Funds, Fiscal Policy

Abstract: The purpose of this study is to see the effect of fiscal variables that affect the economic growth of several provinces in Sumatra. The model used in seeing the effect of government spending on GRDP growth is the dynamic panel model. Based on data from 7 provinces of 10 provinces on the island of Sumatra and using data from 2008 to 2017, in the short term BPK's opinion on regional financial statements has a negative relationship, meaning that if opinion is good or there are no findings of poor performance on regional financial statements it will reduce economic growth. In the long run, few case findings in financial reporting will encourage economic growth. Local government spending on education both in the long term and in the short term affects economic growth. While spending on health, maritime and agriculture in the short term has not been able to encourage economic growth. Whereas in the long run, health and marine expenditures encourage economic growth. While general allocation funds in the short term affect economic growth, but in the long run it does not affect economic growth.

1 INTRODUCTION

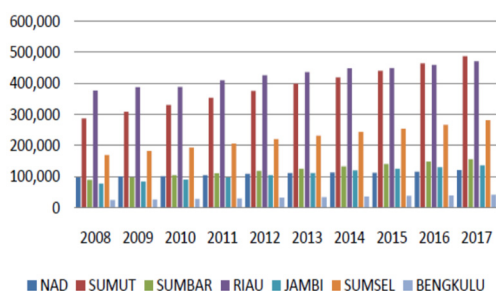
Economic growth is one indicator in looking at a country's economic development. Although economic growth has limitations, until now economic growth is still very important because: (1) growth does not always reduce poverty, but without economic growth it is very difficult to make meaningful and sustainable reductions in poverty, especially in developing the economy; (2) economic growth is always measured by increasing output, with increasing output expected to increase employment, so that with the growth of the economy of an area it is expected to reduce unemployment; (3) the economic recession that occurs in many countries has caused a significant increase in the budget deficit, so that economic growth is one of the important alternatives to overcome the government budget deficit; (4) economic growth enables increased resources for public services such as education and health, so that economic growth enables increased social spending without increasing tax rates (Todaro, 1999).



Figure 1: Sumatra Island by Province

Sumatra Island is one of the islands in Indonesia which is located in the west, Sumatra Island has 10 provinces out of 34 provinces in Indonesia. The figure 1 describes the location of 10 provinces on the island of Sumatra. Of the 10 provinces in Indonesia 7 provinces were used as samples of research from

2008 to 2017. The reasons for using 7 provinces in Sumatera Island were because they had complete data.

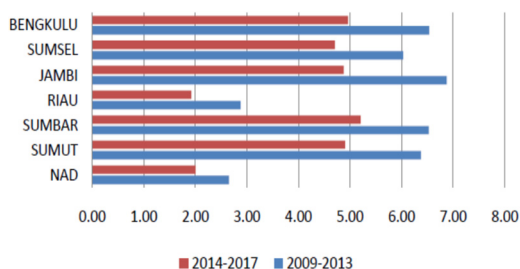


Source : Central Bureau of Statistics (Province in Figures 2008-2018)

Figure 2: Gross Regional Domestic Product in Some Province in Sumatera Island

Figure 2 shows the highest Gross Regional Domestic Product (GRDP) on Sumatera Island in 2008-2015, which was occupied by Riau Province, followed by North Sumatra and South Sumatra Provinces, and in 2016-2017 the highest GRDP was occupied by North Sumatra Province, Riau Province and South Sumatra Province. While the lowest GRDP is occupied by Bengkulu Province, Jambi Province and West Sumatra Province.

Figure 3 shows that the highest economic growth in 2009-2013 was occupied by Jambi Province, Bengkulu Province and West Sumatra Province and the lowest was NAD Province, Riau Province and South Sumatra Province. While the economic growth in 2013-2017 the highest economic growth was occupied by West Sumatra, Bengkulu Province and Jambi Province and the lowest was occupied by Riau Province, NAD Province and South Sumatra Province. Based on figures 2 and 3, the highest GRDP can be predicted, not necessarily the economic growth achieved will be high too, whereas the low GRDP is not necessarily the economic growth achieved will be low.



Source : Central Bureau of Statistics (Province in Figures 2008-2018)

Figure 3: Economic Growth in several Province in Sumatera Island period 2009-2013 until 2014-2017

Factors that can influence economic growth are fiscal policy. Fiscal policy is an economic policy carried out by the government in the management of state finances (through government expenditures such as government spending on education, health, agriculture and maritime affairs) with the aim of directing economic conditions for the better. The fiscal policy commonly used by regional governments is the preparation of the Regional Budget (APBD). APBD is the annual financial plan of the regional government approved by the Regional People's Representative Council (Law No. 17, 2003). The Regional Revenue and Expenditure Budget (APBD) is prepared in accordance with the needs of government administration and regional income capabilities. The preparation of this Regional Budget is guided by the Regional Government Work Plan (RKPD) in order to realize services to the community to achieve the goal of the state. APBD has the function of authorization, planning, supervision, allocation, distribution, and stabilization (Bastian, 2006). The authorization function means that the regional budget becomes the basis for implementing income and expenditure in the year concerned. The planning function means that the regional budget becomes a guideline for regional management in planning activities in the year concerned. The supervisory function means that the regional budget is a guideline to assess whether the activities of the local government organizers are in accordance with the provisions of the applicable law. The allocation function means that regional budgets must be directed at creating employment and waste of resources, as well as increasing efficiency, and the effectiveness of the economy. The distribution function means that the regional budget functions in order to improve income distribution, so that it will avoid gaps. The stabilization function means that the regional government budget is a tool to maintain and strive to balance the fundamentals of the regional economy. Fiscal policy occupies a strategic position in macroeconomic policy. fiscal policy through government expenditure can influence the rate of economic growth (Basri, 1995). The purpose of this study is to look at the role of local governments in playing the role of fiscal policy in influencing economic growth in several provinces of Sumatera.

2 LITERATURE REVIEW

Research conducted by Dada (2013), Idrees and Siddiqi (2013) concluded that government spending

on education has a positive influence on economic growth. Grabova's (2014) study concluded that government spending on education had a negative influence on economic growth, while Gisore, Kiprop, Kalio, Ochieng and Kibet (2014) and Al-Shatti's (2014) study concluded that government spending on education had no influence on economic growth.

Research on the relationship between government spending on health and economic growth is carried out by Al-Shatti (2014) and Dada (2013). The study concluded that government spending on health had a positive influence on economic growth in several countries.

Research on the relationship between government spending on agriculture on economic growth was carried out by Oyinbo, Zakari and Rekwot (2013). The results of the study concluded that spending on agriculture had no effect on economic growth. Furthermore, the results of the research by Shuaib, Igbinosun and Ahmed (2015) and Mursidah, Effendi and Zaini (2017) concluded that government spending on agriculture promoted economic growth.

Research on the relationship between government spending on fisheries and maritime affairs on economic growth was carried out by Huda, Purnamadewi and Firdaus (2015), Novianti, Rifin, Panjaitan and Sri (2014), and Agustine (2014). The results of the study concluded that government expenditures for fisheries and maritime affairs could encourage economic growth.

Research on the relationship between the General Allocation Fund (DAU) on economic growth was carried out by Manik and Hidayat (2010), Ahmad (2011), Tajuddin, Hasanuddin and Rahmatia (2014). The results of the study concluded that the General Allocation Fund can encourage economic growth. Furthermore, the research of Mutiah (2017) concluded that balancing funds in the form of General Allocation Funds had no influence on economic growth.

Mauro's (1995) study concluded that the practice of corruption (measured through an index of corruption), in the form of giving money to speed up matters that allow economic actors to avoid delays in their affairs, can support growth if the country's bureaucratic rules are very bad. The results of the study of Nawatmi (2014), Gyimah-Brempong (2002), and Mo (2001) concluded that the corruption index slows or decreases economic growth, while also causing inequality and disparity in people's income.

3 RESEARCH METHODOLOGY

3.1 Data

The data used for the study are secondary data taken from the Regional Statistics Agency, Ministry of Finance of the Republic of Indonesia and the Supreme Audit Agency's Opinion on Regional Government Financial Reports of various publications from 2008 to 2017.

Government expenditures for the allocation of education, health, agriculture and maritime affairs are obtained from the APBD based on the government expenditure function for the education sector allocation, expressed in rupiah and taken from the Data on Regional Expenditures published by the Ministry of Finance.

General allocation funds are funds whose amount is determined based on a presidential decree, expressed in rupiah and taken from a Presidential Decree concerning the Provincial General Allocation Fund.

The Supreme Audit Board's opinion on the Regional Financial Accountability Report is an opinion on the fairness of the financial information presented in the financial statements, expressed in scale and taken from an overview of the results of the first semester of the Supreme Audit Board. Fair Without Exception (WTP) (5), Fair Without Exception With Explanatory Paragraphs (WTP-DPP) (4), Fair With Exceptions (WDP) (3), Unqualified (TW) (2), and Not Giving Opinion (TMP) (1).

3.2 Estimation Procedure

The model used is the Dynamic Panel Method (Panel Error Correction Model). Before estimating the ECM Panel, it is necessary to take steps such as data stationary test, cointegration degree test and then use ECM for short-term analysis. The steps in formulating the ECM model are as follows:
 Conduct expected relationship specifications in the model under study.

$$PDRB_t = \alpha_0 + \alpha_1 Educ_t + \alpha_2 Health_t + \alpha_3 Agric_t + \alpha_4 Marine_t + \alpha_5 DAU_t + u_t \dots\dots\dots (1)$$

- Information:
- PDRBt: Gross Regional Domestic Product per year in period t
 - Educt : Expenditures for education period t
 - Healtht : Expenditures for health period t
 - Agrict : Expenditures for agriculture period t
 - Marinet: Expenditures for maritime period t
 - DAUt : Funds for general allocation period t

α : Long-term coefficient
 t : Time
 I : Province

While short-term relationships are expressed as follows:

$$DLnPDRB_{it} = \alpha_0 + \alpha_1 DlnEduc_{it} + \alpha_2 LnHealth_{it} + \alpha_3 DLnAgric_{it} + \alpha_4 DLnMarine_{it} + \alpha_5 DLnMarine_{it} + \alpha_6 (LnPDRB_{t-1} - b_1 LnEduc_{t-1} + b_2 LnHealth_{t-1} + b_3 LnAgric_{t-1} + b_4 LnMarine_{t-1} + b_5 LnDAU_{t-1}) + u_t \dots\dots\dots (2)$$

From the results of parameterization of short-term equations can produce new equations, the equation is developed from the previous equation to measure long-term parameters using econometric regression using the ECM model (Domowitz and Elbadawi, 1987) :

$$DLnPDRB_{it} = \beta_0 + \beta_1 DlnEduc_{it} + \beta_2 LnHealth_{it} + \beta_3 DLnAgric_{it} + \beta_4 DLnMarine_{it} + \beta_5 DLnMarine_{it} + ECT(-1) + \mu_t \dots\dots\dots (3)$$

$$ECT(-1) = LnPDRB_{t-1} - b_1 LnEduc_{t-1} + b_2 LnHealth_{t-1} + b_3 LnAgric_{t-1} + b_4 LnMarine_{t-1} + b_5 LnDAU_{t-1} \dots\dots\dots (4)$$

Information:
 DLnPDRB_t is a period t Gross Regional Domestic Product, DLnEduct is government expenditure for education period t, DLnHealth_t is government expenditure for health period t, DLnAgric_t is Government Expenditures for Agriculture period t, DLnMarinet is Government Expenditures for Marine period t, DLnDAU is General Alignment Fund , μ_t is Residual, D is Change, t is Time period, i is Province and ECT is Error Correction Term.

4 FINDINGS AND DISCUSSION

4.1 Data Stationarity Test Results

Before conducting a regression with the ECM test, it is first tested whether the variable used is stationary or not. If the data is not stationary then a spurious regression will be obtained, an autocorrelation phenomenon arises and also cannot generalize the regression results for different times. In addition, if the data to be used is stationary, OLS regression can be used, but if it is not stationary, the data needs to be seen as stationary through the degree of integration test. And furthermore, data that is not

stationary at the level level has the possibility of being cointegrated so that cointegration tests are needed. Then if the data has been cointegrated, ECM testing can be done.

Table 1: Unit Root Test Result

| Variable | Unit Root Test | | | | | | | |
|-------------|---------------------|-------|---------|-------|----------------------------|-------|---------|-------|
| | Level | | | | 1 st Difference | | | |
| | Levin, Lin & Chu t* | Prob | ADF | Prob | Levin, Lin & Chu t* | Prob | ADF | Prob |
| Log(PDRB) | -23.197 | 0.000 | 78.8104 | 0.000 | -5.816 | 0.000 | 26.0513 | 0.025 |
| Log(Educ) | 3.027 | 0.998 | 2.221 | 0.999 | -5.845 | 0.000 | 26.941 | 0.019 |
| Log(Health) | 0.555 | 0.716 | 6.303 | 0.958 | -10.24 | 0.000 | 56.904 | 0.000 |
| Log(Agric) | -2.487 | 0.006 | 16.587 | 0.278 | -9.999 | 0.000 | 50.872 | 0.000 |
| Log(Marine) | -0.317 | 0.375 | 4.462 | 0.99 | -6.8117 | 0.000 | 36.59 | 0.000 |
| Log(DAU) | 3.407 | 0.992 | 0.967 | 1.00 | -2.62 | 0.004 | 22.147 | 0.075 |

Source: Data processed

The results of the unit root test all the variables passed in the 1st Difference test, this can be seen from the probability of Levin, Lin & Chu * which is less than 0.01 and the probability of ADF being less than 0.05 (except DAU).

4.2 Cointegration Test

After knowing that the data is stationary at 1st Difference, then the next step is to identify whether the data is cointegrated. For that we need a cointegration test. Cointegration test is used to give an initial indication that the model used has a cointegration relation.

The cointegration test results obtained by forming residuals are obtained by expressing the independent variable on the dependent variable in OLS. The residual must be stationary at the level to be said to have cointegration.

Table 2: Result of Long Run Coefficient

| Dependent Variable | Model 1 | Model 2 |
|--------------------|---------------------------|-----------------------|
| :LOG(PDRB) | | 0.0333*** |
| LOG(EDUC) | 0.0328** (0.0130) | (0.0124) |
| LOG(HEALTH) | 0.0687* (0.0385) | 0.0733* (0.0366) |
| LOG(MARINE) | 0.1377** * (0.0281) | 0.1410*** (0.0273) |
| LOG(AGRIC) | 0.0064 (0.0300) | 0.0073 (0.0300) |
| LOG(DAU) | 0.0142 (0.0316) | |
| OPINI | 0.0272** (0.0130) | 0.0283** 0.0127 |
| R-squared | 0.9952 | 0.9952 |

Source: Data processed

(***), (**) and (*) indicate significant at 1%, 5% and 10% significance level respectively. Numbers in parentheses are standart errors

Table 3: Cointegration Test Results

| Method | Model 1 | | Model 2 | |
|-----------------------------|-----------|-------|-----------|-------|
| | Statistic | Prob. | Statistic | Prob. |
| Levin, Lin & Chu t* | -5.026*** | 0.000 | -5.064*** | 0.00 |
| Im, Pesaran and Shin W-stat | -2.428*** | 0.007 | -1.639* | 0.05 |
| ADF - Fisher Chi-square | 28.85** | 0.010 | 26.81** | 0.02 |
| PP - Fisher Chi-square | 32.18*** | 0.003 | 22.57* | 0.06 |

Source: Data processed (***), (**) and (*) indicate significant at 1%, 5% and 10% significance level respectively. Numbers in parentheses are standart errors
 After testing Levin, Lin & Chu *, Im, Pesaran and Shin W-stat, ADF and PP to test the resulting residuals, it was found that the stationary residuals in the data level were seen from the t-statistic value which was significant at the critical value of 5% . Thus it can be said that the data is cointegrated (Engle & Granger, 1987).

4.3 Short -Term Test

The regression produced through the ECM Panel equation is a short-term regression result. The results of the short-term regression equation can be seen in table 4.

Table 4:Result of Short Run Panel ECM Model

| Dependent Variable : | Model 1 | Model 2 |
|----------------------|------------------------|------------------------|
| D(LOG(PDRB)) | 0.0041** (0.0015) | 0.0031** (0.0015) |
| D(LOG(EDUC)) | -0.0016 (0.0035) | -0.0011 (0.0038) |
| D(LOG(HEALTH)) | -0.0008 (0.0041) | 0.0050 (0.0036) |
| D(LOG(MARINE)) | 0.0036 (0.0033) | 0.0011 (0.0042) |
| D(LOG(DAU)) | 0.0183*** (0.0034) | |
| OPINI | -0.0081*** (0.0012) | -0.0058*** (0.0013) |
| ECT(-1) | -0.0645*** (0.0170) | -0.0750*** (0.0186) |
| R-squared | 0.860118 | 0.768501 |

Source: Data processed (***), (**) and (*) indicate significant at 1%, 5% and 10% significance level respectively. Numbers in parentheses are standart errors

Results Table 4 shows that the ECT coefficient value in the model is significant and is negative for estimating economic growth (LOG (GRDP)). The ECM panel estimation results above show that in the short and long term the variables used in this study significantly influence economic growth. R2 Model 1 value is around 0.86 or 86%. It can be said that the types of independent variables included in the model are very good, because only about 14% of the diversity of dependent variables is influenced by independent variables outside the model. While the value of R2 Model 2 is around 0.768 or 76.8% it can be said that the types of independent variables included in the model are very good, because only about 23.2% of the diversity of the dependent variable is influenced by the independent variables outside the model

The estimation results of Model 1 illustrate that in the short term changes in the education budget and the General Allocation Fund have a positive influence on economic growth, ceteris paribus. While the opinion of the Supreme Audit Board on the Local Government Financial Statements has a significant and negative influence on economic growth. And Model 2 estimates illustrate that in the short term changes in the education budget have a positive influence on economic growth, ceteris paribus. While the opinion of the Supreme Audit Board on the Local Government Financial Statements has a significant and negative influence on economic growth.

Based on these short-term equations using the ECM panel method produces the ECT coefficient. This coefficient measures the response rate of each period which deviates from balance. According to Widarjono (2007) the ECT imbalance correction coefficient model 1 in the form of absolute values explains how fast time is needed to get a balance value. The ECT coefficient value of 0.0645 means that the difference between economic growth and its equilibrium value is 6.45 percent which will be adjusted within 1 year. While the ECT coefficient value of 0.075 means that the difference between economic growth with a balance of 7.5 percent will be adjusted within 1 year. ECT shows how quickly equilibrium is reached back into long-term balance, which shows a long-term and short-term adjustment to return to the equilibrium position has a slow rate of speed because the ECT coefficient is negative.

The ECM Panel model for model 1 and model 2 needs to be tested for classical assumptions, namely: normality test, heteroscedasticity test and multicollinearity test.

This normality test is used to determine whether the residual is normally distributed or not. To test whether the data distribution is normal or not can be done by using the Jarque-Berra test (J-B test).

Table 5: Normality Test Results

| | Model 1 | Model 2 |
|-------------|----------|---------|
| Jarque-Bera | 1.715439 | 2.4854 |
| Prob. | 0.424125 | 0.2886 |

Source: Data processed (***), (**) and (*) indicate significant at 1%, 5% and 10% significance level respectively.

Based on the normality test it can be seen that the p-value Model 1 is $0.424 > \alpha = 5\%$ and the Model 2-value Model 1 is $0.2886 > \alpha = 5\%$. So, it can be concluded that the data used in the ECM panel model 1 and model 2 are normally distributed.

Heteroscedasticity is a regression problem in which the interference factor does not have the same variance or the variance is not constant. This will give rise to various problems, namely OLS estimators that are biased, variants of OLS coefficients will be wrong. In this study we will use the method with the Breusch-Pagan test to detect the presence or absence of heteroscedasticity in the regression model.

Table 6: Heteroscedasticity Test Results

| Variable | Model 1 | Model 2 |
|-----------------------------|-------------------------|-------------------------|
| LOG(Residual ²) | | |
| LOG(EDUC) | 0.000144 (0.000757) | -0.002263 (0.001695) |
| LOG(HEALTH) | 0.002456 (0.001787) | 0.001571 (0.003357) |
| LOG(MARINE) | 0.000715 (0.001910) | -0.003321 (0.002653) |
| LOG(AGRIC) | -0.003072 (0.001675) | -0.004008 (0.003415) |
| LOG(DAU) | 0.001377 (0.002146) | |
| OPINI | 7.45E-05 (0.000615) | -0.000192 (0.000952) |

Source: Data processed (***), (**) and (*) indicate significant at 1%, 5% and 10% significance level respectively. Numbers in parentheses are standart errors

Multicollinearity is the existence of a linear relationship between the independent variables in

the regression model. To test the presence or absence of multicollinearity in the model, researchers used a partial method between independent variables. The rule of thumb of this method is if the correlation coefficient is high enough above 0.85 then there is multicollinearity in the model. Conversely, if the correlation coefficient is relatively low, the model does not contain elements of multicollinearity (Gujarati, 2003).

Based on testing with the partial correlation method between independent variables, it was found that there was no multicollinearity problem in the model. That is because the correlation matrix value is less than 0.85.

Table 7: Serial Correlation Results

| | LOG(PDRB) | LOG(EDUC) | LOG(HEALTH) | LOG(MARINE) | LOG(AGRIC) | LOG(DAU) |
|-------------|-----------|-----------|-------------|-------------|------------|----------|
| LOG(PDRB) | 1.000000 | 0.422095 | 0.260078 | 0.363480 | 0.429585 | 0.017344 |
| LOG(EDUC) | 0.422095 | 1.000000 | 0.805298 | 0.743524 | 0.583202 | 0.314990 |
| LOG(HEALTH) | 0.260078 | 0.805298 | 1.000000 | 0.859621 | 0.717836 | 0.433323 |
| LOG(MARINE) | 0.363480 | 0.743524 | 0.859621 | 1.000000 | 0.864240 | 0.391915 |
| LOG(AGRIC) | 0.429585 | 0.583202 | 0.717836 | 0.864240 | 1.000000 | 0.190217 |
| LOG(DAU) | 0.017344 | 0.314990 | 0.433323 | 0.391915 | 0.190217 | 1.000000 |

Source: Data processed

5 CONCLUSIONS

Local government spending on education both in the long term and in the short term affects economic growth. Education occupies an important role in increasing GRDP. Improving education both in the short term and in the long term will encourage increased productivity and competitiveness of regions in Sumatera. Local governments must implement the National Education System Law No. 20 of 2003 in a democratic and non-discriminatory manner by developing students creatively and encouraging a culture of reading and writing.

Expenditures for health, marine and agriculture in the short term have not been able to encourage economic growth. Whereas in the long run, health and marine expenditures encourage economic growth. Health is an indirect investment, and increased expenditure on marine infrastructure is direct investment (Todaro and Smith, 2012; 151) so that health requires a very large investment and can be achieved in the long term. Increased government spending on health will increase the health of the people and increase worker productivity. While the potential of the waters around the island of Sumatera requires a very large budget and will only be achieved in the long term.

Agricultural expenditure does not encourage economic growth on the island of Sumatera in the long term, this is due to agricultural programs

financed by regional government spending not yet effective and not on target, especially assistance with agricultural production tools (Alsintan), so that local governments need to reevaluate programs that are needed by farmers in the area.

General allocation funds in the short term affect economic growth, but in the long run do not affect economic growth. General allocation funds from the central government, it is mandatory for local governments to manage them properly, because it will be beneficial to the development and progress of the region. In the short term, the lack of funding for regional development can be covered by the transfer of general allocation funds from the central government so as to encourage economic growth, but for most regions in the long run the lack of personnel expenditure due to increases in salaries and employee welfare costs is funded by general allocation funds has an impact on reducing regional development programs, and ultimately inhibits regional economic development.

BPK's opinion on short-term regional financial reports has a negative relationship with economic growth. Local governments in any way will do so that financial statements are categorized as unqualified, in the short term these financial statements will burden development targets because indicators that are not yet commonly done by the behavior of local government employees. In the long term, all activities that use the government budget must be transparent and accountable and the targets set can be achieved. So that the BPK's opinion in the long run will encourage economic growth in the Sumatra region.

This study has limitations, especially not all provinces can be used as studies because of limited data, and secondly there are still many macroeconomic variables that can be used as a determinant variable in economic growth in the provinces in Sumatra.

REFERENCES

- Agustine, A.D., (2014). Pengembangan Sektor Kelautan dan Perikanan Untuk Meningkatkan Pendapatan Asli Daerah (Studi di Dinas Kelautan dan Perikanan Kabupaten Banyuwangi). *Jurnal Administrasi Publik*, 2(2), pp.276-280.
- Ahmad, I., (2011). Regional Fiscal Independence In East Java Province Post Regional Autonomy. *Economic Journal of Emerging Markets*, 3(2), pp.189-198.
- Al-Shatti, A.S., (2014). The Impact of Public Expenditures on Economic Growth in Jordan. *International Journal of economics and Finance*, 6(10), p.157
- Basri, F (1995). *Perekonomian Indonesia Menjelang Abad XXI*, Penerbit Erlangga.
- Bastian, I., (2006). *Sistem Perencanaan dan Penganggaran Pemerintahan Daerah di Indonesia*, Salemba Empat, Jakarta.
- Dada, MA. (2013). Composition Effect of Government Expenditure on Private Consumption and Output Growth in Nigeria: a Single Equation Error correction Modelling. *Rumanian Journal of fiscal polic*. Vol. 4. issue 2(7). July-Des 2013.
- Domowitz, I. and Elbadawi, I., (1987). An error-correction approach to money demand: the case of Sudan. *Journal of Development Economics*, 26(2), pp.257-275.
- Engle, R.F. and Granger, C.W., (1987). Co-integration and error correction: representation, estimation, and testing. *Econometrica: journal of the Econometric Society*, pp.251-276.
- Gisore, N., Kiprop, S., Kalio, A., Ochieng, J. and Kibet, L., (2014). Effect of government expenditure on economic growth in East Africa: A disaggregated model. *European Journal of Business and Social Sciences*, 3(8), pp.289-304.
- Grabova, P., (2014). Corruption impact on Economic Growth: An empirical analysis. *Journal of Economic Development, Management, IT, Finance, and Marketing*, 6(2), p.57.
- Gujarati, D.N. (2003), *Basic Econometrics*. New York: Mc.Graw-Hill.
- Gyimah-Brempong, K., (2002). Corruption, economic growth, and income inequality in Africa. *Economics of Governance*, 3(3), pp.183-209
- Huda, H.M., Purnamadewi, Y.L. and Firdaus, M., (2015). Industrialisasi Perikanan Dalam Pengembangan Wilayah di Jawa Timur. *Tataloka*, 17(2), pp.99-112.
- Idrees, A.S. and Siddiqi, M.W., (2013). Does public education expenditure cause economic growth? Comparison of developed and developing countries. *Pakistan Journal of Commerce and Social Sciences*, 7(1), p.174.
- Manik, R.E. and Hidayat, P., (2010). Analisis kausalitas antara pengeluaran pemerintah dan pertumbuhan ekonomi Sumatera utara (Metode Cointegration Test dan Granger causality Test). *Jurnal Keuangan & Bisnis Program Studi Magister Manajemen Sekolah Tinggi Ilmu Ekonomi Harapan*, 2(1), pp.46-56.
- Mauro, P., (1995). Corruption and growth. *The quarterly journal of economics*, 110(3), pp.681-712.
- Mo, P.H., (2001). Corruption and economic growth. *Journal of comparative economics*, 29(1), pp.66-79.

- Mursidah, M., Effendi, M. and Zaini, A., (2017). Analisis Dampak Penggunaan Anggaran Sektor Pertanian Terhadap Pertumbuhan Ekonomi Sektor Pertanian di Provinsi Kalimantan Timur. *Jurnal Pertanian Terpadu*, pp.58-69.
- Muti'ah, (2017), The Effect of Regional Revenue, Revenue Sharing Fund, General Allocation Fund and Special Allocation Fund on Regional Economic Growth (Empirical Study In the 33 provinces in Indonesia Year 2011-2014), *Research Journal of Finance and Accounting*, vol. 8, no. 8, pp.102-111.
- Nawatmi, S., (2014). Korupsi Dan Pertumbuhan Ekonomi Negara-Negara Asia Pasifik. *Jurnal Bisnis dan Ekonomi*, 21(1). hh. 73-82.
- Novianti, T, Rifin, A, Panjaitan, DV & Sri, R WN., (2014), The Infrastructure's Influence on the Asean Countries Economic Growth, *Journal of Economics and Development Studies*, vol. 2, no. 4, pp. 243-254.
- Oyinbo, O., Zakari, A. and Rekwot, G.Z., (2013). Agricultural budgetary allocation and economic growth in Nigeria: implications for agricultural transformation in Nigeria. *Journal of Sustainable Development*, 10(1), pp.16-27.
- Shuaib, I.M., Igbinosun, F.E. and Ahmed, A.E., (2015). Impact of Government agricultural expenditure on the growth of the Nigerian economy. *Asian Journal of Agricultural Extension, Economics and Sociology*, 6(1), pp.23-33.
- Tajuddin, I., Hasanuddin, B. and Rahmatia, P.U., (2014). The Effects Of General Allocation Funds, Special Allocation Funds And Revenue-Sharing Funds On Investment, Economic Growth, Economic Structure, And Employment. *Journal of Research in Business and Management* vol. 2, Issue 10 pp. 54-61.
- Todaro, MP., (1999). *Economics Development in the Third World*, The Longman Inc, New York.
- Todaro, MP., and Smith, SC., (2012), *Economic development*, Boston, Mass, Addison-Wesley.
- Widarjono, A., (2007). *Ekonometrika Teori dan Aplikasi*,. Yogyakarta, Ekonisia FE. UII.