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HUMAN RESOURCES INVESTMENT AND ECONOMIC GROWTH IN INDONESIA

Hismendi[1]*, Maulizar[2], Safaruddin[3]
[1,2,3]Lecturer at Department of Economics, Politeknik Negeri Lhokseumawe
Correspondence E-mail: hismendi@pnl.ac.id

Abstract

Increasing government spending on education is closely related to efforts to strengthen human resources in order to encourage national economic growth. Which of the magnitude of the government event for education every year. Many studies prove that there is a relationship between government and education on economic growth. Education has a role in economic development, through the availability of reliable human resources. This study examines the study of the relationship of education to growth. Granger's Causality Model explains the relationship between education spending and economic growth. The results of the study indicate that there is a relationship between education spending on economic growth in Indonesia. demands maximum education expenditure efforts, especially direct challenges to improving human resources. so that an increase in economic growth can be realized in the future.

Keywords: *Human resources, Education expenditure, Economic growth*

1. INTRODUCTION

Improving human resources as a process and goal in national development, with human development indicators as a measure of development success. Improving the quality of human resources as an effort to realize human development. In the development approach, it will shape attitudes, behavior and personality. Improving the quality of human resources capable of utilizing, developing, and mastering science and technology. Increasing the capacity and quality of superior human resource development is a collaborative effort. Through superior human resources, it will have a positive impact on increasing competitiveness and supporting national development. In this context, the most important priority is to improve the quality of human education. In the context of the quality of education, the government's role is needed, especially in the provision of the budget. The availability of funds will be used to support government spending on education. Several researchers have found that the quality of human life is related to economic growth, whether in theory or in practice. In practice, the relationship between the government's spending and economic growth is interrelated, which are related to the government's spending and the public's financial stability. Furthermore, relationship between economic development and government policy can identify factor that influence it. Chu et al (2020) emphasizes the importance of government policy in national development. The government's spending can significantly increase growth, the government's policy is aimed at increasing economic growth in Indonesia. Subsidies for energy have been increasing each year, causing the government's spending increase, and the economy's growth to slow. In order to do so, it is necessary to increase subsidies in order to provide APBN with more space while managing funds. Economic growth in a macroeconomic perspective is one of the important measures that can encourage changes in the social structure of society (Romi & Umiyati, 2018).

Increased government spending has the potential to boost the growth rate of GDP. Increase in taxes is constantly rising earnings and consumption. However, government spending is slowing economic growth. But even so, a number of studies have shown varied results. Increased government spending has an impact on economic growth. However, some results were shown to be different. Different results continue to raise questions about the validity of theory. In Keynes' research, government policy has a significant relationship with economic growth. According to Wagnerian theory, government spending is a component of national brute output and has a positive

relationship with economic development. Increased government spending can lead to increased aggregate demand and have an effect on economic growth. However, some argue that increasing national output has little bearing on economic growth. In terms of expanding the education sector in order to increase human capital, there are also implications for economic development. A large number of people are concerned about the government's decision-making process. Numerous empirical studies have concluded that human-centered design is an important factor in long-term development. However, the results of the study revealed a weak relationship between human capital and economic growth. The weak relationship shows the importance of increasing government spending on human resources (Nguyen, 2019). Prior research has focused on expanding the definition of education as a human-centered activity and impact of education on economic growth. According to the findings of the empiris study, human behavior is an important factor in long-term development. Through education can increase human capital, thereby increasing economic productivity. Indonesia has made a significant commitment to improving the quality of human resourches. This is due to the fact that the APBN's educational needs exceed 20 percent of the overall APBN. This is a type of human capital investment that has a significant role as a factor influencing economic growth.

LITERATURE REVIEW

A number of studies have revealed the importance of government spending in improving economic growth. Despite the fact that the results of the study are different. This might be due to the use of different variables and the length of the study period. Barro (1991) emphasizes the existence of a positive relationship between government policy and economic growth. The study discovered additional factors that contribute to PDB growth, like as inflation and government expenditures. This study also discovered an increase in the rate of government spending in the long term, which might lead to an economic decline. This is because the government has increased the amount of tax. As a result, output suffers from a decrease. Government spending is also closely related to the amount of expenditure for each activity. Government policy has a positive impact on Indonesia's growth (Syahrini et al, 2021). According to Musgrave-theory, Rostow's public funding must begin at the beginning of economic growth. Peacock effect indicates that government policy is becoming more diverse and complex in light of current socioeconomic conditions. Research examining the relationship between government spending and economic growth in many countries have discovered a link between government spending and economic growth. However, in the long term, this relationship has a negative impact.

In a relationship that shows a positive relationship between economic growth and government debt in the long term. Government debt is positively related to GDP growth based on the ratio of total debt. Ivantia et al (2019) found, the high deficit as a result of high government spending, so that it had a negative impact on economic growth in Indonesia. Also, another study found a causal relationship between economic growth and government debt in the long term. Higher expenditure leads to increased corruption. Corruption has a negative impact on GDP growth. Government expenditure stimulates economic growth, whereas corruption reduces GDP indirectly. As a result of ineffective governance, the negative link is tied to government expenditure and economic growth. Various EU nations' government expenditure and financial performance. Long-term resilience is unsustainable and tends to deteriorate dramatically in highly indebted and inefficient economies. Tang's (2009) research discovered that government spending on education is positively associated to national wealth. Murphy's (2015) analysis discovered that changes in government expenditure have resulted in changes in people's overall consumption. It will stimulate economic growth if spending is reduced. According to Bose et al. (2007), government expenditure deficits in emerging nations have a detrimental impact on economic growth. Government expenditure decreases during periods of economic growth and expansion will result in GDP growth that is equal to or greater than development. Bosma et al. (2018) discovered a favorable association between government expenditure and economic growth in their study. High elasticity indicates that government spending is proportionate to economic performance in the long run.

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Several research on government expenditure and economic growth in emerging nations have produced contradictory findings. The study carried out in Indonesia is no exception. It is analyzed based on the effect of education spending on economic growth. Government expenditure is also directly tied to educational quality, which influences economic growth. A positive association between the research variables demonstrates this relationship. A variety of research have implications for various countries' education funding plans. Afonso and Jalles (2014) investigated the link between government expenditure and economic development in 14 European nations, including Austria, France, the Netherlands, and Portugal. GDP rises as government expenditure rises. Government expenditure has a negative relationship with economic growth in wealthy nations and a positive relationship with economic growth in developing countries. This is connected to government expenditure, which affects GDP growth.

2. IMPLEMENTATION METHOD

This research investigates the impact of education sector expenditure on Indonesian economic growth. The formulation method developed in this investigation is as follows:

$$PDB_t = \alpha + \sum_{i=1}^{k} \beta PPd_{t-1} + \sum_{i=1}^{q-1} \beta PPm_{t-j+} \varepsilon_t$$

Where in:

GDP : Indonesia's economic growth

PPd : Education sector government expenditure

PPm : Total Government Expenditure

This research uses VAR regression analysis model and Granger causality test. This model is used to examine the interaction (effect) of GDP growth, education sector spending (PPd) and government spending. The VAR model is a good method to see causality interactions between research variables. This model considers a time series (lag) simultaneously and considers variables that can interact with one another (all variables can be endogenous variables). The VAR model considers the dynamic effects of shock on other variables. This model serves as the basis for conducting the Granger causality test.

The VAR model has (p) as the optimal lag of each variable. The model is in the form of:

$$Y_t = + \phi_t y_{t-1} + \dots \phi_t y_{t-p} + u_t$$

VAR general model with lag 1:

$$Yt = \alpha_{1i} + \sum \beta Y_{1i\,t-1} + \sum \beta Y_{1i} X_{t-1+} \varepsilon_t$$

VAR general model with lag 2:

$$Yt = \alpha_{1i} + \sum \beta Y_{2i\,t-1} + \sum \beta Y_{2i} X_{t-1+} \varepsilon_t$$

3. RESULTS AND DISCUSSION

To ensure that all tested data are free from self-influence, it is necessary to carry out a unit root test. The Augmented Dickey-Fuller unit root test was used. This test's results give information about the stationarity of research data. The results of the unit root test are as shown in table 1.

Table 1. Unit Root Test Results - Augmented Dickey-Fuller (ADF) Test.

Variables	*t*-statistic	Prob.*
DPDB	–6.004123	0,0013
DPPd,2	–3.398977	0,0281
DPPm,2	–5.467126	0,0023

Cointegration test is intended to see the relationship in the long-term balance between the independent variable and the dependent variable. The results of the cointegration test through the Trace test and the Max-Eigen test are as shown in Table 2.

Table 2. Cointegration Test Results

No. of CE(s)	**Eigenvalue**	**Statistic**	**Critical**	
Hypothesized		**Trace**	**0,05**	**Prob.****
None*	0.896456	4.726.307	2.879.707	0,0001
At most 1*	0,75381	1.986.950	14,49471	0,0105
At Most 2	0,089414	1.401.528	3.781.466	0.2826

Trace test indicates 2 cointegrating eqn(s) at the 0.05 level; *denotes rejection of the hypothesis at the 0.05 level.

Hypothesized		Max-Eigen	
None*	0.786366	27.25337	0.0045
At most 1*	0,773920	18.66507	0.0085
At Most 2	0,089124	2.303038	0.2626

Max-eigenvalue test indicates 2 cointegrating eqn(s) at the 0.05 level; *denotes rejection of the hypothesis at the 0.05 level; **MacKinnon-Haug-Michelis (1999) p-values.

The results of this test reflect that the variables in the model meet the conditions of the VAR model when there is a long-term correlation. The optimal lag test of the model as shown in Table 3 and Table 4 shows the results of the Granger causality test.

Table 3. Optimal Lag of Model

Lag	**LogL**	**LR**	**FPE**	**AIC**	**SC**	**HQ besar**
0	–485.1372	Nol	2.73e+38	75.43625	77.54642	75.45535
1	–453.5536	47.92852*	2.67e+36	73.53162	73.23333	73.43476
2	–445.2435	17.15242	1.12e+37*	72.43715*	72.35182*	71.25468*

*indicates lag order selected by the criterion; LR: sequential modified LR test statistic (eac`h test at 5% level); FPE: Final prediction error; AIC: Akaike information criterion; SC: Schwarz information criterion; HQ: Hannan-Quinn information criterion.

Table 4. VAR Granger Causality/Bloc Exsogenity Wald Tests

Variable Dependent: PPd			
Excluded	**Chi-sq**	**Df**	**Prob.**
PDB	7.488.716	2	0,0143
PPm	8.873.504	2	0,0118
All	5.507.805	4	0
Variabel Dependent: PDB			
PPd	1.983.274	2	0.3710
PPm	0.381829	2	0,8262
All	2.178.786	4	0,7029
Variabel Dependent: PPm			

PPd	0,451191	2	0,798
PDB	2.749.596	2	0
All	3.604.558	4	0

The causality test findings in Table 4 reveal a causal association between the variables GDP and PPm, PPd and PPm, and PPd and GDP. When the Prob value is 0 it entails rejecting the H0 hypothesis and accepting the H1. Because PPm has a probability of zero, the hypothesis is accepted. The model also indicates a favorable relationship between PPd and GDP. An increase in government education spending has a beneficial effect on GDP growth.

4. CONCLUSION

The education issue in Indonesia is still fraught with complexities. Starting with the usage of non-targeted expenditures and moving on to the quality of expenditures that are less than ideal. As a result, the problem grows lengthy and never ends. According to the findings of data analysis, the amount of education spending and GDP growth have a favorable two-way relationship (causality). The findings of the research period's cointegration analysis reveal that there is a long-term association between economic growth (GDP) and government spending on education (PPd). This finding demonstrates that PPd and GDP have a dynamic interaction. The study findings become inputs for attempts to boost investment, particularly those connected to education. This is a long-term government investment, particularly in an endeavor to boost GDP. To maximize the use value of education sector expenditures, State Budget management must prioritize efficiency and effectiveness. The government must increase both the quality and capability of education providers, as well as education infrastructure. Improving quality and efficiency is a pressing issue that must be addressed. Thus far, the education sector budget has been used mostly for the payment of wages and allowances, which account for 70% of overall education expenditure. This circumstance makes efforts to increase educational quality sluggish. Budget management in the education sector requires innovation. The findings of this study provide information to the government on the government's attempts to boost GDP through education investment.

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