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Education Equality and Economic Growth in Indonesia

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Abstract

Last decade, Indonesia's economic growth experienced a downward trend. The study examines the role of investment, equality in education, poverty, income inequality, and regime to economic growth in Indonesia. We used time-series data between 1970-2017. It was obtained from BPS and World Bank (Indodapur) publications. The model used is the Weighted Least Square Regression (WLS). The results showed the factors that contributed significantly to increasing Indonesia's economic growth were education equality, poverty, and income inequality. While investment/capital, economic transparency, and the regime did not significantly contribute to increasing economic growth. Expanding access to education for high school or equivalent is important by the Government, including the development of school infrastructure in remote areas and teacher distribution. The Government should maintain the poverty trend that continues to decline. The future study dynamic models look at the long-term relationships related to education equality, distribution of income, and poverty on economic growth.

 Keywords: Economic Growth, Education Equality, Income Inequality

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INTRODUCTION

Last decade (2007 – 2017), Indonesia's economic growth experienced a downward trend. It reflects the extent to which economic activity (Henderson, Storeygard, & Weil, 2012) also declined. Economic activity will generate additional income for the community in a given period. Economic activity is a production factor capable of producing outputs, including human capital, physical capital, labor, and so on. Increasing economic growth was one of the final economic development goals (Safira, Khusaini, & Ramdani, 2020). The Indonesian Central Bureau of Statistics noted that in 2012, economic growth was slowing down by 0.03% or 6.2%. Indonesia's economic growth slowdown occurred in 2013 - 2015; in 2016, Indonesia's economic growth increased by 0.75%, and in 2017 also increased to 5.07% (BPS, 2018).

The previous study found that physical and capital factors determine economic growth by 80%, and the remaining 20% is caused by other factors (Mankiw, Romer, & Weil, 1992). Other studies in the United States economy with the time series of 1948-79 showed that economic growth was due to capital formation, labor growth, human capital, and technology progress (Jorgenson & Fraumeni, 1989, 1992). The amount of output was determined by the physical capital contribution. If it was smaller, the human capital contribution was more significant in the production function, so the output produced was higher (Barro & Xavier, 2004).

The economists (Solow, 1956; Swan, 1957) developed the economic growth theory mentioned as the Solow-Swan theory. Since the Solow model ignored the role of education in economic growth (Mankiw et al., 1992) modified the model by combining human capital, which is to add human capital as an input factor of the growth of the total factor productivity. The findings of the empirical study showed that residual values were 1.5% and 2.0%, respectively. It meant that a substantial part of the aggregate output rate of growth did not account for the growth rate of measured input or their quality, assigning them to technology's progress in the primary source of growth in the United States. Human capital investment had made a significant contribution to economic growth in the US and would dominate investment needs for faster growth (Jorgenson & Fraumeni, 1993).

The prvious study the role of education in increasing of the growth of economic in Mauritius (Odit, Dokhan, & Fauzel, 2010), in China (Hu, 2010), and across countries (de la Fuente & Doménech, 2006; Michaelowa, 2000; Pritchett, 1996). An identical study was conducted by (Cohen & Soto, 2007; Giuliano & Ruiz-Arranz, 2009; Hanushek & Woessmann, 2012; Krueger & Lindahl, 2001; OECD, 2012). Other previous study about the correlation between education and economic growth (Abbas & Foreman-Peck, 2012; Amassoma & Nwosa, 2011; Fleisher, Hu, Li, & Kim, 2011; T. S. Islam, Wadud, & Islam, 2007; Robertson & Xu, 2010).

Human factors become essential to economic growth, indicating that the impact of human capital on economic growth was significant (Barro & Lee, 2000; Nelson & Phelps, 1966; Romer, 2006). While education is measured by enrollment rate ratio (Bils & Klenow, 2000; Gemmell, 2009; Mankiw et al., 1992; Tsamadias & Prontzas, 2012), cognitive skill (Hanushek, 2020; Hanushek & Woessmann, 2012), years of schooling (Hanushek & Kimko, 2000; Middendorf, 2005) proved that education equality (length of schooling) and labor quality positively influenced economic growth.

Determinants of economic growth are not only enough to boost the physical and nonphysical capital in the form of the quantity

and quality of human resources. Education equality as part of human capital development can increase productivity and growth and influence the distribution of income in an economy (Cameron & Heckman, 2002; Hanushek, 2013; Heckman & Mosso, 2014; Retno, 2013; Schultz, 1972). Another study found that the increase in education impacted accelerating economic growth because the population could absorb technology and increase competitiveness (Nuraini, 2017).

However, not all economists agree that education factors determine economic growth. Disciples of the argument maintain that economic growth did not significantly determine education in the country (Murphy, Shleifer, & Vishny, 2008; Murphy & Topel, 2016). Similar findings also showed that education negatively correlated with economic growth and was not significant (Benhabib & Spiegel, 1994; Pritchett, 1996). Researchers' issues are generally the same, namely, a country's economic growth as a dependent variable.

The size of the population's poverty is another determinant of economic development. Considerable research does indicate that the existence of a poor population hampers economic growth. Studies about the relationship poverty and economic growth had been conducted by economists (Kakwani, 1993; Kakwani & Son, 2008). Indonesia's strong economic growth correlated with poverty reduction, although an increase followed the distribution of income achievement. The poor's contribution to the labor market nationally reduced poverty levels because increasing their income levels encourages national economic development (Dewi, Majid, Aliasuddin, & Kassim, 2018). Moreover, the previous study found that poverty affected

economic growth in Gorontalo Province (Novriansyah, 2018).

The income per capita is also one of the important concepts in a country's economy. According to (Todaro & Smith, 2015), Gross National Product per capita is the concept that is often used as a benchmark for the level of the country's economic welfare. The relationship between income distribution and the development process based on data from 60 countries showed that a high growth rate does not necessarily give an imbalance in the income distribution at a level of development that has been achieved (Ahluwalia, 1976).

Another study conducted in Southeast Asian countries showed that after being down and stable during the 1970s and 1980s when those countries experienced a high average rate of economic growth each year, in the early 1990s, inequality in income distribution in these countries began to enlarge again (Ahuja, Bidani, Ferreira, & Walton, 1997). Other empirical evidence of increasing inequality is the research result, which showed that the Gini index increased from 0.30 in 2000 and 0.41 in 2014 (Dewi et al., 2018). Previous research has found a connection significantly between income inequality and economic growth (Halter, Oechslin, & Zweimüller, 2014).

The current study examines the role of investment, education equality, poverty, income inequality, economic openness, and regime to economic growth in Indonesia. Since there is a research gap between education, income inequality, and economic growth, this study was conducted. The researcher uses the weighted regression analysis model (WLS model) to investigate these variables' contribution towards economic growth. The research results are expected to contribute not only to add to the previous literature, but to contribute to the acceleration of economic growth through policies to increase educational equity, poverty reduction, and income distribution.

METHOD

The authors have selected a quantitative research methodology to measure the above factors' role, contributing to economic growth. So, the causal research design was deemed appropriate to tackle our research question. A causal relationship is cause-effect research or related to finding out the answer to the problem faced (Sekaran, 2003). The dependent variable was economic growth, and the GDP logarithm measures it. While the independent variables in this study were capital as measured by gross domestic fixed capital formation (GDFCF = LOG_K). Education equality was measured by the gross enrollment ratio's age 16-18 (APS_16_18). The poverty was measured by the percentage of the number of poor people (POV). The income inequality was measured by Gini ratio (GR). The openness was measured by the difference between exports minus imports (NX). The order of reform (REGIME) = 1 measured the regime, others = 0.

Research data in the form of secondary data published by the Central Bureau of Statistics (www.bps.go.id) and Indodapur (www.worldbank.org). Research samples from 1970 - 2017. Data collected in the form of report documentation and other literature. The regression weighted least squares (WLS) approach was used to examine the effect of education equality, income inequality, poverty, and openness economic on economic growth. This analysis model's use was because it can isolate or treat one of the classic assumptions of heteroscedasticity. This model was more efficient than the usual ordinary least square (OLS) model of multiple regression analysis. While the econometrics model specifications used are adapted from (Loening, 2004; Tallman & Wang, 1994; Tsamadias & Prontzas, 2012).

RESULTS AND DISCUSSION

The statistical description includes the number of observations, minimum values, maximum values, and standard deviations. The statistical description was presented for each variable which is consisted of capital variable (LOG_K), school participation rates 16-18 years of age (APS_16_18), net exports (NX), poverty (POVER), new and reform order (REGIME), income inequality (GR) were as the independent variables. Economic growth (LOG_Y) was the dependent variable. The results of the statistical description can be seen in the table below:

Table-1. Statistical Description

Variable	Obs.	Mean	Max	Min	Std. Dev.
LOG_Y_	48	11.5329	12.0376	10.9476	0.3107
LOG_K_	48	11.3472	12.0878	10.0957	0.5720
APS_16_18_	48	43.2100	71.2000	19.2200	14.6241
NX	48	2.5022	10.5177	-3.9182	3.3987
POVER	48	23.6813	60.0000	10.6000	13.1048
GR	48	0.3442	0.4130	0.2700	0.0318
REGIME	48	0.4167	1.0000	0.0000	0.4982

Source: data processed (2018), Eviews 9

The calculation results in Table-1 show that the value of the mean and standard deviation of the LOG_Y variable is 11.53 and 0.31. It meant that during the study period, the average gross domestic product was IDR. 39 trillion, and the lowest was IDR 89 trillion. Economic growth was relatively slow due to the limited variation in growth. The mean and standard deviation of the LOG_K variable are 11.34 and 0.57. It can be interpreted that the average of gross domestic fixed capital formation (GDFCF) during the study period was IDR 219 trillion. It also showed that capital variation was relatively low.

The statistical calculations showed that the mean value of school participation rates aged 16-18 years (APS_16_18) was 43.21%, and the standard deviation value is 14.62 (see table 1). The higher the APS value indicated that many

children aged 16-18 had been enrolled in primary school, which meant the primary education was equitable. The calculation results illustrated that many school-age students had not been to the school in senior high school/ equivalent. Meanwhile, the mean and standard deviation of the poverty variable (POV) were 23.68 and 13.11. It meant that the average number of poor people was 23.68% during the study period. The variation of the poor people in Indonesia is still relatively high.

The mean and standard deviation of income inequality variables was 0.34 and 0.03. The average income inequality during the study period was 34%, which was classified as low because < 35%. The variation in income inequality was relatively small. Whereas the variable economic openness (NX) was 2.5 and 3.39. It meant that the average net export value was positive at 2.5. The variation in income inequality was relatively high. The regime variable was measured by the dummy variable, obtained the mean, and the REGIME variable's standard deviation was 0.41 and 0.49. It meant that the mean value of 0.41 as 41% of the study period was the reformation era which began in 1998. While the value of 1 was a symbol of the reform order, and 0 was other than the reform order.

Before the authors analyzed the study results, they did the traditional assumption tests, which include residual normality, multicollinearity, heteroscedasticity, and autocorrelation tests. It can be seen at table 2.

The result of the standardized residual normality test in Table-2 showed that from observation number 48, between 1970 - 2017 obtained a statistical value of Jarque-Bera of 0.1353 with ρ_{-value} significance of 0.9346 > 0.05. It concluded that the data of the research was normally distributed. The

multicollinearity test used the linear correlation Pearson test. The result showed that the coefficient value of Pearson correlation < 0.85 in the analysis model. There were no problems with multicollinearity in the independent variables (LOG K, APS 16_18, NX, POVER, REGIME, and GR).

Table-2. Results of Traditional Assumption Tests

Test Types	Significance Value	Conclusion
Jarque-Bera	0.13526	The residual is normally distributed
Correlation	$r_{Xi Xj} < 0.85$	There is no multicollinearity problem
Breusch-Pagan-Godfrey	0.016	There is a heteroscedasticity problem
Durbin-Watson	DW=0.576 dL=1.317	There is no autocorrelation problem

Source: data processed (2018), Eviews 9

Table-2 showed that the heteroscedasticity test using the Breusch-Pagan model indicated a heteroscedasticity problem if using a value [Prob> chi2] of 0.0016 < 0.05. It concluded that the model had a heteroscedasticity problem. While the autocorrelation problem has occurred because the data used was time-series data. Estimation results show that the Durbin-Watson value = 0.5765 < dL = 1.3167. If the DW value < dL, so there was no positive autocorrelation problem.

Considering that the heteroscedasticity problem can disrupt the model to be estimated statistically and even mislead the conclusions drawn, the methods are needed to resolve these problems. Weighted Least Square (WLS) method was an alternative method that could resolve heteroscedasticity. The WLS method was the same as the OLS method by minimizing the number of residuals, but the WLS method was weighted by an appropriate factor and then using the OLS method for the weighted data. The heteroscedasticity test results after using the WLS method could be shown in the table 3.

The heteroscedasticity test result using the White-Heteroscedasticity test obtained the value [Prob > chi²] of 0.1373 > 0.05. It concluded that the model had no heteroscedasticity problem.

Table-3. The heteroscedasticity test by WLS Method

Heteroscedasticity Test: White			Sig
F-statistic	1.943914	Prob. F(26,21)	0.0620
Obs*R-squared	33.91033	Prob. Chi-Square(26)	0.1373
Scaled explained SS	23.30509	Prob. Chi-Square(26)	0.6156

Source: data processed (2018), Eviews 9

The WLS regression model was used to estimate the impact of capital, educational inequality, poverty, and regime on economic growth in Indonesia. The results are shown in Table-4, which was the WLS model that was feasible. The capital coefficient value was 0.021, indicating that a 1% rise in the capital would result in 0.21% economic growth in Indonesia under the assumption of ceteris paribus. At the 5% significance level, the impact of this variable was not statistically significant. It means the capital did not contribute to increasing economic growth.

The value of the Gini coefficient ratio was 0.521, and the significance value was 0.0174. It concluded that it was significant at the 5% level. This result could be interpreted that a 1% increase in Gini ratio or income inequality would increase 5.21% economic growth in Indonesia with the assumption of ceteris paribus or otherwise.

Table-4 explained that the poverty coefficient (POV) value was minus 0.005 and the significance value was 0.0001. It meant that there was 1% significance. It interpreted that every 1% reduction in poverty increases Indonesia's economic growth by 0.5% with the assumption that ceteris paribus, or otherwise. The coefficient of school participation rates for the age group 16-18

years is 0.014, and the significance value = 0.0000, which means that it is 1% significant. It means that a 1% enhancement in the school participation rate aged 16-18 years will increase Indonesia's economic growth by 0.14% with the assumption of ceteris paribus.

Table-4 The Estimation Results of OLS and WLS Model with Dependent Variable: Economic Growth (LOG_Y)

Variable	OLS Model	WLS Model
LOG_K_	0.021(0.019)	0.021(0.020)
GR	0.521(0.283)*	0.521(0.210)**
POVER	-0.005(0.001)***	-0.005(0.001)***
APS_16_18_	0.015(0.002)***	0.014(0.002)***
NX	-0.002(0.002)	-0.002(0.001)
REGIME	0.049(0.029)*	0.049(0.035)
Constanta	10.596(0.271)***	10.597(0.268)***
Adjusted R²	0.9753	0.9753
Obs	48	48
F-stat	546.79	546.79
Prob (F-stat)	0.0000	0.0000
Prob(Wald F-statistic)	-	0.0000

Note: *$p < 0.1$, **$p < 0.05$, ***$p < 0.01$
Source: data processed (2018), Eviews 9

The estimation results showed that the coefficient value of economic openness (NX) was minus 0.002 and the significance value = 0.1594. It meant that it was not significant at a significance level of either 1%, 5%, or 10%. This result could be interpreted that every 1% reduction in economic openness will increase economic growth by 0.02% with the assumption of ceteris paribus, but it was not statistically significant. Moreover, the government regime's coefficient value (REGIME) was 0.049, and the significance value was 0.1663, which means there was no significance either 1%, 5%, or 10%. This result can be interpreted that the reform order will increase the economic growth by 0.49% compared to the pre-reform order, with the assumption of ceteris paribus.

Table-4 also showed that the value (F_{stat}) was 546.79, and probability (F_{wald}) was 0.000. It meant that there was at least interaction between income inequality, poverty, and education equality have a significant effect on economic

growth simultaneously. The model got an Adjusted R^2 of 0.9753. It stated that Indonesia's economic growth variability could be explained by capital variability, income inequality, poverty, education equality, economic openness, and regime by 97.76%. In comparison, other variables explained the residual 2.24%.

The impact of physical capital investment on Indonesia's economic growth was positive but not statistically important. Since the relationship between capital and GDP was positive, it could be concluded that the higher the gross domestic fixed capital, the higher the economic growth, even if this was not the reality in the study. In theory, however, the crucial role of physical capital investment in economic growth has been proven and has become a trigger.

The study's findings, however, contrast from those of a previous study by (Li, Miranti, & Vidyattama, 2017; Nizar, Hamzah, & Syahnur, 2013; Yasa & Suwandika, 2015), the theories stated by (Solow, 1956), and proving empirical in Indonesian region by a study conducted (Resosudarmo & Vidyattama, 2006) and the Central Java Pantura region (Sarwono, 2016). The measuring of the capital with gross domestic capital formation is probably less accurate, so other measures are needed; for instance, the gross domestic capital formation is reduced by depreciation. The study results explain that a country's economic growth will grow positively when the amount of physical investment that has done exceeds the amount of depreciated capital. Otherwise, economic growth will encounter stagnation and negative growth when the amount of investment cannot cover depreciated capital.

Income inequality between groups of people that accompany the growth of gross domestic product (GDP) had only been oriented towards growth rates. Growth was still considered unable to create a strong foundation for sustainable development and reduce income inequality. If income gaps between groups tend to widen, the number of poor people was predicted to rise. Adjustments to welfare and tax criteria had been in line with, or slightly ahead with, income growth over the long term. It had benefited in ensuring that the fiscal policy implemented did not affect workers' wages, thus reducing their welfare substantially (Callan, Bercholz, & Walsh, 2018).

In recent decades, the effect of high-income disparity was 40% of the population in several countries. It was at the lower income levels distribution but got little gain from economic growth (OECD, 2015). Therefore, studies are needed which focus on the living standard of ordinary workers to generate prosperity for worker's families in rich countries (Nolan, 2018).

However, this study's findings showed that the greater the income gap, the faster the economy would grow. This situation is consistent with (Kuznet, 1955), who stated that there was a significant correlation between inequality of income and economic growth when a country or region is developing. In other words, it was stated that economic development in Indonesia was not evenly distributed in all regions, and economic power is still centred on the owners of capital.

The researchers also disputed the argument that the lower the inequality, the rapidly the economy would increase. The negative association of income inequality occurred in poorer groups of the population, while the positive correlation is for high-income groups (van der Weide & Milanovic, 2018). An ambiguous result was also stated by (Forbes, 2000), who found that inequality was negatively correlated in the time series about 5 years, but positively correlated with economic growth for a more extended period (10 years or more). Similar research was also carried out by (Halter et al., 2014).

Research finding the correlation between income inequality with less convincing economic growth was also carried out (Barro, 2000). The findings indicated a negative correlation between low-income countries and a positively in high-income. However it was due to the imperfections of credit markets which had a prominent role in high-income countries than in developing countries. While other researchers stated that income inequality could be bad for growth and be suitable for growth (Marrero & Rodríguez, 2013; Voitchovsky, 2005).

Low inequality would increase the rate of GDP growth per capita in the short term, resulting in better economic performance. However, in the long term, high inequality is affected by a decrease in GDP per capita (Halter et al., 2014). On the other hand, wealth inequality was not linked to politics, as shown by the lack of a significant association between income inequality and poverty variables.

Poverty is characterized as a situation in which a household's basic needs, such as clothing, food, shelter, education, and health, are not achieved. The results of this study proved that the higher the poverty, the economic growth is lower. If there is a poverty reduction of 1%, the number of goods and services will increase by 0.5%. The low productivity level of the population in producing goods and services could be identified by an increase in the number of poor people. The low productivity level affects the value of goods and services produced is little, so economic growth will stagnate or even decline.

Our results on the correlation between poverty and economic growth were consistent with economists' research (Kakwani, 1993; Kakwani & Son, 2008). Indonesia's economic growth was correlated with poverty reduction. Also, Dewi et al. (2018) concluded that the poor people's contribution to the national

labor market reduced poverty levels because increasing their income levels will encourage national economic development. Novriansyah (2018) also emphasized that poverty affects economic growth in Gorontalo Province. However, in Indonesia, Yunan & Andini (2018) found that poverty did not correlate with economic growth.

However, this research contradicted a previous study that found that reducing poverty did not increase economic growth in Indonesia (Retno, 2013). It was caused by the number of poor people who had low-income levels. In one case, the Government had to increase the population income because increased income could reduce poverty. Fosu (2015) stated that increasing income is a good engine for reducing poverty in Sub-Saharan Africa. The researcher hopes that poverty reduction can increase the population's productivity, so economic growth has increased.

The factor of human capital as an education measurement is an essential factor in increasing economic growth. As a result, the Government should ensure better equality of education across all levels and types of education so that society can benefit from a more extended school experience. Through education, human development increases productivity and growth and plays an important role in income distribution (Purnomo & Istiqomah, 2019). Education equality, as part of human capital development, not only boosted productivity and growth, but it also had a significant impact on how income was distributed in a country (Cameron & Heckman, 2002; Hanushek, 2013; Heckman & Mosso, 2014; Retno, 2013).

Schultz (1961) stated that human capital investment was made through education and training to improve production methods, increasing economic output. Wang & Liu (2016) concluded that higher education was significantly correlated to economic growth, but it does not significantly increase primary and secondary   education.

However, this research differed from Amassoma & I (2011), who proved the causal effect of human capital investment on economic growth. The authors could not prove a correlation between human resource development and economic growth. Even though there were many human resources available in the economy, there was a possibility that the quality was not good enough, so the available resources were less productive. As a result, human resources contribute less in encouraging higher economic growth.

The current study did not offer enough evidence to state that economic openness contributes to an increase in Indonesia's GDP. In theory, the increase of net exports will increase economic growth, but previous theories prove this study. Additionally, this study supports previous research (Asbiantari, Hutagaol, & Asmara, 2016), which found that exports had no significant impact on short and long-term economic development. On the other hand, imports had only a short-term effect on economic growth and were not significant in the long run.

Furthermore, this study's findings contradict those of Quaicoe, Aboagye, & Bokpin (2017), who found that export-free zones had a significant negative relationship with economic growth and economic openness, which had a significant negative correlation with economic growth. However, the study in China obtained the conversely study, namely the marginal impact of export trade and import trade on GDP was positive. When export and import variables are separated, export trade influences economic growth rather than import trade (Chen & Dong, 2012). Meanwhile, Dedeoğlu & Kaya (2013) also found the same result: exports (the energy sector) significantly increase the GDP of OECD countries.

This study's results support the study conducted by Aliman & Purnomo (2001), which stated that during the study period, the export sector as a whole was still inefficient in encouraging economic growth. It is caused by the lack of support from the domestic economic structure in establishing export policy strategies. A different finding was made by Suliswanto (2016), which stated that since Indonesia's openness rating is ranked fourth, domestic factors were able to help economic growth in Indonesia. In other words, the degree of dependence in Indonesia was lower as compared to other ASEAN-5 countries. The average of exports in 2015 - 2018 showed that export growth was lower than import growth; those are 1.23% and 2.77% (BPS, 2018). As a result, exports have been unable to contribute to Indonesia's economic development substantially.

The study implies that capital, as calculated by Gross Domestic Fixed Capital Formation (GDFCF), has not proved to be a significant contributor to Indonesia's economic growth. Empirically, the calculation of GDP according to expenditure showed the increasing conditions, but on the other hand, economic growth has fluctuated. As a result, GDFCF is unable to encourage economic growth. For that reason, the Government must provide incentives for investors to invest their money in the real sector economy (long term), not short term, such as in SBI, Reksadana, hot money, deposits, and so on. Though poverty is an issue, the Government must work to decrease it. The efforts could be to stabilize food prices, reduce the burden on the poor people, provide social security in the form of health assistance, facilitate access to education at higher levels, and provide special work skills for the poor people.

Another implication is that the Indonesian economy still has a high dependence on investors, which restricts the benefit of development to be enjoyed by most of the population in Indonesia. The effort of inequality

reduction is not affected by increasing economic growth but affects poverty reduction. As a result, raising the wealth of the low-income population is a policy for decreasing income inequality, reducing unemployment by increasing vocational graduates' absorption, certification and internship programs, and partnerships with industry. Also, the provision of MSME soft loans in agriculture and fishery, utilizing tourism's economic potential at the village level.

Education plays a role in economic growth in Indonesia, as this study indicates. The Government increases the number of secondary school participation by building educational infrastructure in remote areas, hiring PNS teachers, building roads, and increasing the 12-year compulsory. As education graduates provide the output of a professional and trained workforce, rising school participation rates affect increasing human capital accumulation. Productivity enhancement is undoubtedly being one of the triggers in increasing economic growth in Indonesia.

Net exports calculate economic openness has not been shown to increase economic growth significantly. The implication of this study is to increase exports and reduce imports. Empirical data for the past 5 years showed that export growth was still lower than imports. Export entrepreneurs are encouraged to increase exports by providing tax incentives for leading export commodities and providing barriers to high import tariffs for commodity importers of goods that disturb domestic entrepreneurs.

Several studies have provided findings that are inconsistent with researchers' expectations and theories that have persisted. Future research could use the capital and net exports variables. The use of capital as a variable measured by Gross Domestic Fixed Capital has not been proven to be able to prove to significantly contribute to the increase in Gross Domestic Product. It happens because the writer ignores the depreciation of fixed capital, so the capital enhancement every year is not reflected in the actual enhancement. The difficulty of writers in this regard is less able to identify the period of replacement of capital goods in the economy. Another disadvantage in this analysis is that the author neglects important factors that foster the economy's growth.

CONCLUSION

The study results concluded that the capital contribution on increasing economic growth in Indonesia could not be proven because the gross domestic capital formation measures the capital. However, available capital in the economy has a very large role in producing goods and services in practice. The depreciation of assets doesn't still reduce it.

The reduction in the number of poor people has proven to contribute to increasing economic growth in Indonesia. The smaller the number of poor people, the number of goods and services will increase. Poverty reduction can be used as a trigger in encouraging economic growth.

The inequality of income is proven in increasing economic growth. It indicated that investors are proven to dominate the economy in Indonesia. Education is the most contributing variable in encouraging economic growth. A more equitable education will increasingly be able to produce higher economic productivity. These results proved that education could produce educated and skilled resources to make changes and technological innovations in the economy. Meanwhile, export fluctuations have proven to be an obstacle in the economy, because an import reduction does not offset the export enhancement. As a result, rising imports would not be able to contribute to Indonesia's economic growth sufficiently.

The authors suggest that, based on the results of this study, the Government should increase the number of secondary school participation by building educational infrastructure in remote areas, building roads, increasing the 12-year compulsory education movement program, and improving the management quality of Independent Learning Activities Central (ILAC). The central Government can coordinate with the Provincial Government as a secondary education stakeholder to synergize the APS improvement program for 16-18 years. Also, the Government can stabilize food prices, reduce the burden of the poor people, provide social security in the form of health assistance, facilitate access to secondary education for the poor people.

Furthermore, the central Government coordinates with provincial and district or city governments to avoid overlapping poverty alleviation programs established by each government level. Another important thing that the Government must do is to commit the apparatus in running the program to be right on target, poverty reduction efforts can be adequately achieved.

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