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GENDER DEVELOPMENT AND EMPOWERMENT EFFECT ON INCOME INEQUALITY AND POVERTY

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Abstract:
This research aims to know the impact of development and gender empowerment on the condition of income inequality and poverty in Indonesia. This study uses data on the gender development index (IPG), gender empowerment index (IDG), income inequality or Gini ratio/GR), and the number of poor people (POV) according to data from 34 provinces in Indonesia for the period 2015-2020. The analytical method used is the Granger causality test and panel regression model (common effect model/CEM, fixed effect model/FEM), random effect model/REM). The analysis results found that the gender development index (GIP) had a positive and significant effect on the number of poor people (POV) in Indonesia.

Keywords: Gender Development (IPG), Gender Empowerment (IDG), Inequality, Poverty

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INTRODUCTION

Poverty is a universal phenomenon that has been recognized throughout the world, and several studies on various aspects of poverty have been carried out. Poverty can be seen from various angles (Saboor et al., 2014). One of them is the impact of gender disparity on the economy (economic growth and poverty) has emerged as an important field of research in the last two decades. Several empirical pieces of evidence show that gender inequality in education has caused significant obstacles to economic growth. (Dollar and Gatti, 1999; Klasen, 1999; Klasen and Lamanna, 2008; 2009; Luci 2009; Mitra et al, 2015). Where, gender and development issues focus on inequality, reflecting rapid income growth, Many studies have been conducted to understand the impact of gender inequality or inequality on economic growth. In general, previous research measured inequality in gender in three events: education, labor market and culture. In addition, many studies have been conducted in the field of economics on the implications of growth on gender inequality in education. In general, this research has shown that the economic impact of unequal education for girls and boys is worse for girls (Dollar and Gatti, 1999; Klassen, 1999; Klasen and Lamanna, 2008, 2009).).

Several studies examining the relationship between economic development, growth and gender equality can be determined simultaneously (Klasen and Lamanna 2009; Luci 2009; Gaddis and Klasen 2014), but some studies explicitly explore this aspect of gender equality (Kabeer and Natali, 2013). The only exception to this research was Dollar and Gatti (1999), who found that increased economic development led to improvements in various measures of gender equality and, in turn, high gender equality measures in education contributed to high economic growth. This study, however, does not consider gender equality in labor force participation. The results of a study by Klasen and Lamanna (2008, 2009) found that the difference in the ratio of the activities of women and men had a significant impact on Gross Domestic Product (GDP) through a decrease in growth. Furthermore, this research also found that gender disparities in education lead to gender disparities in employment, and less opportunity is given to women to play an important role in economic activity.

Bandiera and Natraj (2013) suggest that gender inequality has been at the core of policy debates on development over the past few decades. Many studies have shown that reducing gender inequality or gender inequality reduction policies, directly and indirectly, promote more effective development. Based on the theoretical model built by Agenor (2016), Agenor and Canuto (2015), and Kim et al. (2016). It shows that increasing gender equality can significantly contribute to economic growth by changing the allocation of women's working time and encouraging human capital accumulation.

The study results by Ruiters and Charteris (2020) examine gender equality through labor force participation, economic growth and development in South Africa. The results of this study found two important things, namely. First, economic development has a positive and significant effect on gender equality on labor force participation in South Africa during the 2008-2018 period. Second, there is no evidence that changes in gender equality in labor force participation affect economic growth in South Africa. This latest finding contrasts with the notion of a gender program being developed, where gender equality will increase economic growth. Based on the findings of this study, policymakers should focus on promoting economic development, and over time, it will provide labor market opportunities for women in South Africa. In addition, as progress has been slow in South Africa and gender equality in labor force participation has not been achieved, the government should also look to intervene directly to support greater participation of women in the labor market.

The research results by Ghaida and Klasen (2004) empirically find a direct and negative relationship between the gender gap (in education investment) and the country's per capita income. They conclude that per capita income declines at a rate of 0.1-0.3 percent if the government fails to address the gender gap in education investment. This gap is also very deep at the household level. Inequality (gender inequality) has recently become an urgent issue in Korean society. Many Korean researchers have studied various aspects of women's labor supply and domestic work, most of them using a Microeconomic perspective. The study was conducted by Kim and Sung (2007), Woo (2008), Cho (2009), Choi (2011), Kim et al. (2016) to estimate the supply of female labor in Korea empirically or by using a calibration model in research on the impact of from various government policies such as subsidies for childcare and obtaining income tax credits. The results of the study of Fatima (2013) confirm that the gender gap in education has had an adverse impact on economic growth, both directly and indirectly, through rapid population growth and low investment. These results also show that although there are gender inequalities in the accumulation of human capital in both countries, the intensity is higher in Pakistan, compared to Sri Lanka. This study explores opportunities to promote the role of women in development activities in these countries. Given the fact that gender inequality in education is critical to growth, this study also recommends that instead of trimming public sector development programs.

Based on data from the study of the gender inequality index from the Central Statistics Agency (BPS), it was found that gender equality in Indonesia is getting better. In 2000 the value of the gender inequality index (GII) was 0.561 and continued to improve and was getting smaller until, in 2018, it was 0.451. However, compared to the world average and the East Asia and Pacific region, Indonesia's GII is still higher, indicating that Indonesia's development achievements have not been optimal compared to other countries (BPS, 2020). Meanwhile, the number of poor people in Indonesia in March 2020 was recorded at 26.42 million people. Compared to March 2019, the number of poor people increased by 1.28 million people. The percentage of poor people in March 2020 was recorded at 9.78 percent. This figure increased by 0.37 percent compared to March 2019, which was 9.41 percent.

The main factor influencing the increase in poverty rates in March 2020 was the Covid-19 pandemic, which impacted people's economic activities and behavior. During the 1999-2020 period, the poor population decreased. In 1999 the number of poor people was recorded at 47.97 million people or 23.34 percent, and decreased to 26.42 million people or 9.78 percent in March

2020. One of the characteristics of poverty in Indonesia is the high poverty disparity between regions Urban and rural areas. In March 2020, it was recorded that the poverty rate in urban areas was 11.16 million people or 7.38 percent, while in rural areas, there were 15.26 million people or 12.82 percent (BPS, 2020). 37 percent against March 2019, which was 9.41 percent. The main factor influencing the increase in poverty rates in March 2020 was the Covid-19 pandemic, which impacted people's economic activities and behavior. During the 1999-2020 period, the poor population decreased.

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Furthermore, the inequality of expenditure in Indonesia based on the development of the Gini ratio in the 2010-2010 period experienced fluctuations. For example, in the 2010-2015 period, the Gini ratio increased, but in 2016, the Gini ratio decreased. This condition indicates that the distribution of population expenditure continues to improve until 2020. For example, in March 2020, the Gini ratio was 0.381 when compared to conditions in September 2019 which were 0.380 (BPS, 2020).

METHODS

This study uses panel data (pooling data) of the provinces in Indonesia for the period 2015-2020. The secondary data source comes from the Central Statistics Agency (BPS). The data used in this study are as follows:

1. The Gender Development Index (GPI) shows the Human Development Index (HDI) ratio of women to men. GPA can be interpreted as the closer to 100, the smaller the inequality between women and men;
2. The Gender Empowerment Index (IDG) shows whether women can actively participate in economic and political life. IDG focuses or focuses on participation by measuring gender inequality in the fields of economy, political participation, and decision making;
3. The Income Inequality Index (Gini Ratio/GR) is the Gini ratio number measured using expenditure data as a proxy for income. The Gini ratio is one of the measures of expenditure inequality used. The Gini ratio value ranges between 0 (zero) and 1 (one). The Gini ratio value that is closer to 1 (one) indicates a higher level of inequality, or vice versa, a Gini ratio value that is closer to 0 (zero) indicates a lower level of inequality;
4. The number of poor people (Poverty/POV) is the number of people who are below the poverty line. BPS (2020) uses the concept of the ability to meet basic needs (basic needs approach). With this approach, poverty is seen as an economic inability to meet basic food and non-food needs as measured from the expenditure side. A population is categorized as poor if it has an average monthly per capita expenditure below poverty.

RESULT AND DISCUSSION

Table 1. Granger Causality Test

Null Hypothesis:	Obs	F-Statistics	Prob.
IDG does not Granger Cause POV	136	0.48787	0.6150
POV does not Granger Cause IDG		1.98098	0.1420
IPG does not Granger Cause POV	136	0.35448	0.7022
POV does not Granger Cause IPG		5.17313	0.0069
IDG does not Granger Cause GR	136	0.70318	0.4969
GR does not Granger Cause IDG		0.56450	0.5700
IPG does not Granger Cause GR	136	3.63896	0.0290
GR does not Granger Cause IPG		0.44922	0.6391
IPG does not Granger Cause IDG	136	1.69917	0.1868
IDG does not Granger Cause IPG		0.48908	0.6143

Source: Estimation Results

Referring to the Granger causality test results in Table 4.1 above, several variables have a 1 (one) way relationship, and there are no variables based on estimates that have a 2 (two) way relationship. In fact, some variables do not have a direct relationship at all. The causality test results of variables that have a 1 (one) direction relationship are as follows.

1. The Gender Development Index (GIP) variable directly relates to the variable number of poor people (POV). It means that the IPG variable affects the POV variable, and not vice versa;
2. The Gini Ratio (GR) variable directly relates to the Gender Development Index (GIP) variable. Therefore, it means that the GR variable affects the GPA variable, and not vice versa.

Based on the estimation results in Table 4.1 above, it continues with the yak panel regression analysis model.

Table 2. Panel Regression Model

Model	Form
1. Model 1	$POV_{it} = \varphi_i + \varphi_1 \, IPG_{it} + e_{it}$
2. Model 2	$IPG_{it} = \varphi_i + \varphi_1 \, GR_{it} + e_{it}$

Based on Table 4.2 above, there are 2 (two) panel regression models used to analyze the effect of each variable in the model.

Table 3. Panel Regression Results Model 1

Independent Variable	Dependent variable: POV		
	Common Effect Model	*Fixed Effect Model*	*Random Effect Model*
C	-14283.68	585.5643	551.2959
GPA	0.020853***	0.000281	0.000843
R-squared	0.036514	0.992351	0.000730
Adjusted R-Square	0.031745	0.990812	-0.004217
F-statistics	7.655456	644.8880	0.147624

Source: Estimation results

Note: ***) significant at = 1%; **) Significant at = 5%; *) Significant at = 10%.ααα

Referring to the results of panel regression model 1 above, it can be concluded that only the common effect model (CEM) can predict the relationship between the variables of the gender development index (GIP) and the number of poor people (POV). Nevertheless, these results indicate that the IPG variable has a positive and significant effect on Indonesia's number of poor people (POV).

Table 4 Panel Regression Results Model 2

Independent Variable	Dependent variable: IPG		
	Common Effect Model	*Fixed Effect Model*	*Random Effect Model*
C	724306.9	733220.3	724859.6
GR	-4260,494	-29358.68	-5816.778
R-squared	0.000239	0.242282	0.000313
Adjusted R-Square	-0.004711	0.089842	-0.004636
F-statistics	0.048202	1.589360	0.063164

Source: Estimation results

Note: ***) significant at = 1%; **) Significant at = 5%; *) Significant at = 10%.ααα

Referring to the results of panel regression model 2 above, it can be stated that the three-panel regression models, namely the common effect model (CEM), fixed effect model (FEM) and

random effect model (REM), cannot predict the relationship between the Gini ratio variables (GR) and gender development index (GIP) in Indonesia.

CONCLUSION

Based on the results and discussion above, it can be stated that the variable gender development index (GIP) has a positive and significant effect on the variable number of poor people (POV) in Indonesia.

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