



## Analysis of Gender Inequality in Poverty Reduction Program

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### Abstract

This study will focus on developing research in descriptive and inferential analysis of gender equality in poverty alleviation in the province of Central Java. This analysis is expected to provide input for advocacy on poverty alleviation programs, look at gender equality factors, provide input for monitoring the implementation of poverty alleviation programs, especially in Central Java, which can be used as a reference in national level policy making. This type of research uses a combination of descriptive and inferential research that uses secondary data from BPS and other sources. The technique used in collecting data in this study is the documentation study conducted by collecting secondary data, recording and processing data related to this research. The data analysis technique used is the panel data regression model and correlation analysis. The result obtained is that poverty alleviation programs in Central Java still contain the influence of gender disparity. The gender gap referred to is contained in the variables IPG, IDG, HDI, TKWP and SPP whose influence and relationship with poverty levels in Central Java in the past five years.

**INTRODUCTION**

Poverty is the condition in which people could not afford to fulfill their needs, especially in their consumption and earning (Jacobus et al, 2018). Poverty issues have been experienced, even until now, by the all the country in the world, followed by every effort to be done, ranging from local scope, regional, national and international. Indonesia, which is also no exception for poverty, has experienced an heavy poverty until now. The government has launched some regulations to reduce the poverty rate, but those could not avoid the problem of poverty in Indonesia society (Puspita, 2015). As below is the table of unemployment rate both male and female in Central Java.

**Table 1.** Total Percentage of Unemployment in Central Java Based on Gender

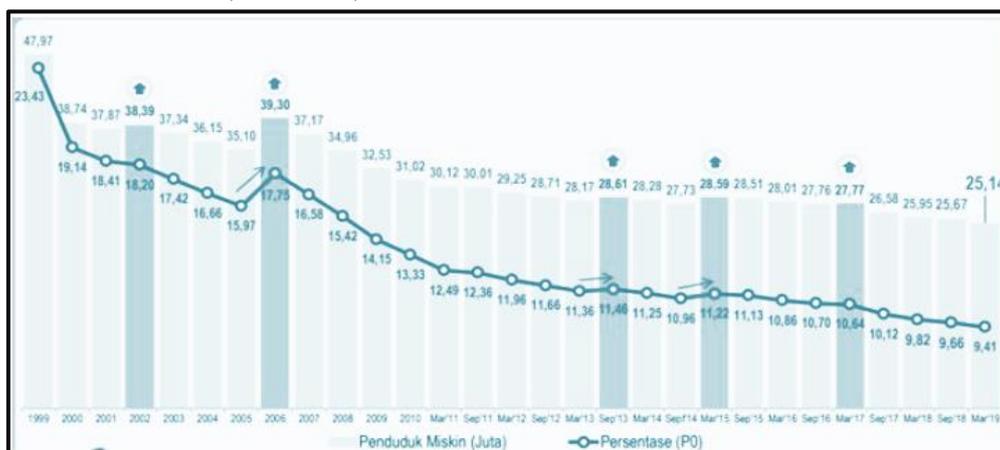
Gender	Unemployment Rate			
	2015	2016	2017	2018
Male	6.07	0.25694	5.53	5.4
Female	6.37	5.45	5.44	5.26

Source: BPS, 2019.

As above data, it could be seen that the unemployment rate both female and male has some differences. In 2015, it was not significant difference which was just 0.30% which means the female has more unemplymnt rate than the male and this number was more than 50% in Central Java. However, in 2016, the male

unemployment rate has been decreased significantly for about 0.26%, compared to female also decreased into 05.45%. Meanwhile at 2017, the male unemployment rate was going up to be 05.53%, but the female has another decrease as much as 0.01%. This means that the male unemplymnt rate is bigger than the female. Finally in 2018, both unemployment rates have been deducted, with male was to be 05.40% which was reduced only 0.13% from previous year. Otherwise, the female was reduced to be 05.26% which was as much as 0.18% than previous year.

According to that data, it showed that both male and female unemployment rate indicated more than 50%, so that it could be stated the people who include in the poverty rate, should be having a solution from government. The percentage of poverty in Indonesia on March 2019 was about 9.41% which meant there were 25,14 millions people of Indonesia has been experienced the poverty, as depicted on figure 1. Based on Rejekiingsih (2011), there were some characteristics about poverty, which were (1) low of income or non-income (2) non-employment, (3) low education or non-education, (4) non-resident, and finally (5) having less nutrient or food standard. While based on Jacobus et al (2018), there were 3 factors which made the poverty; (1) education level, (2) health rate, and (3) level of assets ownership.



**Figure 1.** The Development of Poverty Rate in Indonesia, 1999- March 2019.

Source: BPS (2019)

Central Java Province is one of the provinces which has a high rate of poverty on the national scale. The poverty level of Central Java is about 3.74 millions people equal to 11% of total citizen in Central Java. Although the trend of poverty rate is reduced for more than 1 million during last 5 years. However, Central Java still becomes the province with high rate of poverty in national scale.

The factors causing the high level of poverty rate in Central Java, compared to another province, is about economic structure and geographic condition. The majority case of poverty is due to cultural or non-production factors to create a job opportunity. The other causes are to due (1) the dependence on primer sector and agriculture at most the regions, especially in north and south regions of Central Java Province, such as Brebes District.

The independent research agency, Smeru Institute (2019) stated that the people borned in a poor family, will be earned around 83% lower than the people with a better-income family. This fact brings an insight that the poverty is something that derived from a generation to another generation. Moreover, in the society norm, there is an inequality between male and female, which is called gender inequality. The female traditionally could not work to earn money and just handle the domestic works such as family works or home works (Haryati, 2014). In the Webster New World Dictionary, gender defined as the role or behaviour which is constructed based on the social norm that commonly associated with male and female. The world bank stated that the gender equality is the solution for a country to reduce the poverty rate, growing economics, especially for developing countries to have more effective governance. Thus, every government has to consider about gender equality to establish the economy to be developed countries (World Bank, 2001).

As table below, showed that during 2014-2015 IPG value has increased to 0.32% which means during this period, the development of society, by 3 dimension; (1) long-life periode and health rate, (2) education, and (3) good life

standard were going better as much as 0.32%. However, in 2017, it was about 0.27, which means the development of society was reduced as much as 0.27. Finally in 2018, there was 0.01% reduction. From all these data, it could be concluded that the IPG rate is always reduced in Central Java Province. Referring to the concept of gender, both men and women, in the role of behavior activities and attributes construed socially. Hence gender equality is the right by them and get equal opportunities to participate and participate in every aspect of life. But based on the average working hours in 2014, showed that injustice was happened, where the average working hours for male have been much greater than the female, around 43 compared to 35 working hours.

**Table 2.** Index of Gender Development (IPG) in Central Java, 2014-2018

Area	Gender Development Index (IPG)			
	2015	2016	2017	2018
Central Java Province	91.89	92.21	91.94	91.95

Source: BPS, 2019.

Related to gender empowerment index (IDG) demonstrated in Central Java as 46,97 in 2017 to be 47,57 in 2018. This suggests that the probability of women work as professionals has experienced in the province of Central Java. As for IDG income contribution women are also experiencing a rose, albeit a little as much as 34,13 on 2017 be 34,28 on 2018. But the involvement of women in parliament to be down from 24 in 2017 to 22 on 2018. From this indicator, showed that the role of women in the life of economic and political still less than 50%. Many indicators, although those had the increasing rate, but many of those showed the decline in or an imbalance. So that we can conclude that gender equality is not completed in the Central Java. When we look at human development index (HDI) of Central Java, it can

be argued that female was having lower HDI than male. The following table served HDI of Central Java.

The table below showed that females have HDI/IPM index lower than male. Some

reasons are an opportunity women to get access to education, worthy work relatively has been delayed. Culture the patriarch is still becoming the obstacles, instead, the opportunity has not yet been showed the gender equality.

**Table 3.** Human Development Index (HDI) based on Gender in Central Java, 2014-2018.

Area	Human Development Index (HDI/IPM)					
	Male			Female		
	2014	2015	2017	2018	2014	2015
Central Java Province	73	73.39	74.48	75.13	76.08	67.67

Source: BPS, 2019.

**RESEARCH METHODS**

The kind of research it uses a combination of research descriptive and inferential using secondary data derived from BPS and other sources. Descriptive method used is to answer the questions in poverty and gender inequality in Central Java Province. Types of data on used in this research is taken from secondary data obtained in the shape of the numeral and the analysis uses statistics. Data obtained from related institution problems research as BPS (statistics www.bps.go.id). Classifications data made on a period in this study such as in 2015 until 2018. A technique used in collecting the data in this research is with the study the documentation by collecting secondary data, noted, and processing the data pertaining to this research. Secondary data was the data obtained from the second source or secondary sources (Bungin, 2013).

To answer these questions, the technique analysis used is poverty rate, data regression paneling and variable dummy, which is supported with quantitative. Data processed with spss use software. The model used the is as follows. Regression data panel in this study was using analysis data panel where data panel involved combinations of time series and cross section data (basuki, 2016). Data cross section is the data collected from time to time for many

individuals, while time series of the data collected from time to time against an individual. Regression analysis panel data is an regression analysis where data collected individually (cross section) and followed at certain times (time series). On the model this did not overlooked dimensions time or individual, so that it is assumed that behavior in various corporate files from the span of the same. This method can used the ordinary least square (OLS) or technique of the square smallest to estimate the model panel data. With a model that is as follows.

$$Y_{it} = \alpha + X^1_{it}\beta_{it} + \varepsilon_{it} \dots \dots \dots (1)$$

Where; Y= Dependent Variable (Poverty level); e = Error Term; α= Constant; t = Periode waktu/Tahun; β = Cooficient beta; i = Cross Section; X<sup>1</sup> = Gender Dev. Index (IPG); X<sup>2</sup> = Gender Empowerment Index (IDG); X<sup>3</sup> = Human Dev. Index (HDI/IPM); X<sup>4</sup> = Level of Professional Female Worker (TKWP); X<sup>5</sup> = Female Worker Income (SPP).

Moreover, a fixed effect model, this model assumes that the differences between individuals can be accommodated in intercept. The data for estimating a variable effect fixed used the technique dummy intercept to catch the difference between companies. However, the slop is same across observation. The estimation

is often also called least squares of variable (LDSV) dummy. With the model as follows.

$$Y_{it} = \alpha + i\alpha_i + X_{it}^1 \beta_{it} + \epsilon_{it} \dots \dots \dots (2)$$

The next is about random effect model, which will estimate data panel where variable disorder maybe interconnected between time and between individual. On the model random effect intercepts were accommodated by error terms each observation. The benefit used this is deprived heteroskedasticities. This model also called by error component model (ECM) or technique of generalized least square (GLS) (rosadi, 2012).

$$Y_{it} = X_{it}^1 \beta_{it} + \epsilon_{it} \dots \dots \dots (3)$$

Note:

$c_i$  : Constant with respect to  $i$

$d_t$  : Constant with respect to  $t$

Correlation analysis using the koefisiensi correlation intended to know the relationship between variable degree: X (HDI, IDG, IPG, the number of labor women, his ) with variable (y). levels of poverty Looking for a correlation coefficient between variables x with variable y by using a formula correlation product: moment as follows.

$$r_{xy} = \frac{n \sum xi yi - (\sum xi)(\sum yi)}{\sqrt{n \sum xi^2 - (xi)^2} \sqrt{n \sum yi^2 - (yi)^2}} \dots \dots \dots (4)$$

Significant test, this model used to test the significance in the correlation between variable x by variable y as the price r obtained, then substituted into formula put forward by nana sudjana (2001).

$$T_{hitung} = \frac{r \sqrt{n-2}}{\sqrt{1-r^2}} \dots \dots \dots (5)$$

Where;  $t$ . Value = the value of  $t$ ;  $r$  = coefecient correlation;  $N$  = criteria of test in two side test with  $dk = (n-3)$  with level of significant 95%.

**RESULTS AND DISCUSSION**

Poverty is a state of being someone inability to daily needs, especially from the

consumption and income (Jacobus at all, 2018). Poverty is still a serious problems in indonesia especially in the province of Central Java. As below is the data about the number of poor people in the province of Central Java taken from BPS.

**Table 4.** The poverty in Central Java

Area	2017	2018
Central Java Province	4450.72	3897.2

Source: BPS, 2019.

Central Java province is one of provinces which has contributed to high poverty rate at national scale. Based on data from the central bureau of statistics (BPS), the number of poor people in Central Java in 2018 3,89 reached million people or more than 11% of the population. Central Java although the trend in poverty fell as many as one million people over the past five years. But still, Central Java Province is the largest contributor of poverty in indonesia.

**Table 5.** Gender Development Index (IGP)

Area	2014	2015	2017	2018
Central Java Province	91.89	92.11	91.94	91.95

Source: BPS, 2019.

Table IPG above Central Java showed that in 2014-2015 gender development index in Central Java increased by 0,32%, the human development in Central Java covering 3 dimensions these basic human dimensions so of the healthy life, knowledge, the better of live as much as 0,32%. While in 2015 to 2017, IPG Central Java is reduced around 0,27%, which means that human development of the year is reduced around 0,27%. In 2017 to 2018 increased only 0,01%, thus it can be seen from year until 2015 2018 stated that IPG in Central Java decline.

**Table 6.** Index of Gender Empowerment (IGD)

Area	2012	2013	2014	2015	2017	2018
Central Java Province	69.06	71.22	74.46	74.8	75.1	74.03

Source: BPS, 2019.

Gender empowerment index indicates whether women can actively participate in the economic and political. IDG emphasized, participation by means of measuring gender disparities in the field of political participation,

decision-making (social), and accessibility to the economic resources. It can be seen in table IDG of Central Java in 2017 about 1,07% decreased. That means an active role women less from 2017 to 2018.

**Table 7.** Human Development Index (IPM) based on gender

Area	Gender							
	Male				Female			
	2014	2015	2017	2018	2014	2015	2017	2018
Central Java Province	73	73.39	74.48	75.13	67.08	67.67	68.48	69.08

Source: BPS, 2019.

IPM explained how people can access the results of development in earn, health, education, and so on. When we look at index HDI for Central Java Province, so it can be concluded that females have IPM lower than men. The following served table IPM of Central Java province. The table above showed that

females have the HDI lower than males. Some the reason is an opportunity women to get access to education, work worthy of relatively has been delayed. It has not indicated gender equality seen from human development in Central Java.

**Table 8.** Index of Gender Empowerment (IDG)

Area	2017	2018
Central Java Province	46.97	47.57

Source: BPS, 2019.

Through table IDG women as professionals can be seen the percentage of women being professionals as much as 47.57%. This means, the female is lower than a half as a professional worker. Thus, it could be concluded that the gender equality is not being

established yet which could be seen at the percentage of female professional workers.

An analysis in this study was using a method of the panel least squares (PLS) by the tools eviews program. The results are as follows:

**Table 9.** The Fixed Effect of Panel Least Square (PLS)

Variable	Coefficient	Std. Error	t-Statistics	Prob.
C	176830.3	65705.28	2.691264	0.0115
IPG	3.854028	8.442587	0.456498	0.6513
IDG	0.782759	1.082456	0.723132	0.4752
IPM	-25.51458	4.745892	-5.397211	0.0000
IDG_TKWP	-0.285641	0.495494	-0.576476	0.5686
IDG_SPP	-8.044757	12.32916	-0.652499	0.5190
Cross-Section fixed (dummy variables)				
R-Squared	0.993013		F-statistic	109.3219
Adjusted R-Squared	0.983929			

Source: Data analysis, 2020.

As above result was the fixed effect of data analysis where only one variable was significant. The human development index (HDI) become the only significant variable to influence poverty reduction by negative influence. When the HDI is increasing, the poverty will reduce by some points. Otherwise, the other variables showed no impact to poverty reduction. Column variable is variable list analyzed, where in example regression data panel used Y as variable response. While variable predictors were IPG, IDG, HDI, IDG\_TKWP, IDG\_SPP and C as residual or error or constant of the regression equation. Based on table, it can be obtained the regression equation of cross section data as follows:

$$Y = 176830.3 + 3.854028 \text{ IPG} + 0.782759 \text{ IDG} - 25.61458 \text{ IPM} - 0.285641 \text{ IDG\_TKWP} - 8.044757 \text{ IDG\_SPP}$$

The estimation could be explained as below: C= 176830,3 which means if all the independent variables considered equal to 0 and the poverty in Central Java is about 176830.3. Thus, the value of IPG (X1) is 3.854028. which means, the increase of IPG by 1 point, it will increase the number poverty rate about 3.854028. The value of IDG (X2) 0.782759, thus, by 1 point increase of IDG, it will increase the number of poverty by 0.782759. The value of IPM (X3) as much as 25.61458, meaning that when IPM as many as 1 point, it will reduce poverty about 25.61458. The coefficient IDG\_TKWP (X4) 0.285641, so when IDG \_

TKWP is about 1 point, it will reduce poverty as much as 0.285641. The koefesien IDG\_SPP (X5) is about 8.044757, means when IDG\_SPP is about 1 point, it will reduce poverty as much as 8.044757.

The significant partial (test t) also called as a test of significant individually. This shows how far the independent variable influence the IDG IPG, IPM, TKWP, and SPP to dependent variable of poverty levels. From the output of table 10, we looked at p-value from t IPG as much as 0,456498 > 0,05 (alpha), so that H0 is accepted which means IPG has not significant partially in the model Y. While p-value from t IDG as much as 0,723132 > 0,05, so that H0 is accepted which means IDG has not significant partially in the model Y. Moreover, p-value of t IPM is about -5,397211 < 0,05, thus, H1 is accepted which means IPM has a significant influence partially to the model Y. p-value of t IDG\_TKWP as much as -0,576476 < 0,05, thus H1 is accepted which means this variable has influence partially to the model Y. Then, finally, p-value IDG\_SPP is as much as -0,652499 < 0,05, thus, H1 is accepted which means IDG\_SPP has an influence partially to the model Y.

The significant simultaneous test (f test) basically showed the independent variable included in this model have leverage simultaneously to the dependent variable. To estimated the significant test, the t value > t table and sig. value < α = 0,05, thus, it can be

concluded that the independent variables have significant influence simultaneously to dependent variable Y. Simultaneous test in eviews shown the value of f as much as 109,3219 with p-value as much as 0,00000 where it is < 0.05, so that it can be concluded to accept H1. Accepted H1 in the test simultaneous means that the variable X in a simultaneously affect variable Y.

Based on the analysis result, it was found that only variable human development index (HDI)/IPM, that had been influenced significantly to the poverty reduction in Central Java Province. The HDI index was broadly known to reduce the poverty since it is comprised the indicator such as education level and other welfare indicators which represent the

people quality. Amaluddin *et al* (2018), stated that HDI performance has very significant role to tackle the poverty by improving the level of people welfares in the villages. While Sudarlan (2015), observed that this HDI index become the strong point to reduce the poverty line because it had some impact on the level of people's education. The more increase on the level of education, this will allow people to access the better opportunities of job vaccancies, where generally job vaccancies will need the minimum level of education.

To identify further the relation between independent variables which influenced the Y (poverty reduction), as below it is explained the discussion with interrelation among the variables.

**Table 10.** The correlation result

		JPM	IPG	IDG	HDI/IPM	IDG_TKWP	IDG_SPP
JPM	Pearson Correlation	1	-.137	-.242*	-.295*	-.211	-.432**
	Sig. (2-tailed)		.258	.044	.013	.080	.000
	N	70	70	70	70	70	70

Source: Data analysis, 2020.

The relationship between total poor people (JPM) and IPG from the table with the results of the correlation showing that the sig value as much as 0,258 0,05 resulting in accepting H0. So this means, there is not a relationship between gender development index (IPG) with a population of poor (JPM). The pearson correlation is about -0,137, which means if IPG has a reduction value, so IPM value or level of poverty rate will be increase. While the correlation value is as much as 0.137 which is indicated it has a significant correlation. The correlation between JPM and IDG based on the table showed the sig. value is as much as 0.044 less than 0.05, which caused H0 rejected. It means there is a correlation between IDG and JPM. Pearson correlation is about -0.242, meaning that if IDG having a reduction value, so that JPM or poverty rate will be increase. While the correlation value showed as much as 0.242 which is indicated there is a correlation between both variables.

The correlation between JPM and IPM based on the table showed the sig. value is as much as 0.013 less than 0.05, which caused H0 rejected. It means there is a correlation between IPM and JPM. Pearson correlation is about -0.295, meaning that if IPM having a reduction value, so that JPM or poverty rate will be increase. While the correlation value showed as much as 0.295 which is indicated there is a correlation between both variables. The correlation between JPM and TKWP based on the table showed the sig. value is as much as 0.080 less than 0.05, which caused H0 accepted. It means there is no correlation between TKWP and JPM. Pearson correlation is about -0.211, meaning that if TKWP having a reduction value, so that JPM or poverty rate will be increase. While the correlation value showed as much as 0.211 which is indicated there is a correlation between both variables. The correlation between JPM and SPP based on the table showed the sig. value is as much as 0.000

less than 0.05, which caused H0 rejected. It means there is a correlation between SPP and JPM. Pearson correlation is about -0.432, meaning that if SPP having a reduction value, so that JPM or poverty rate will be increase. While the correlation value showed as much as

0.432 which is indicated there is a correlation between both variables. Thus, the percentage of poverty rate in Central Java in few years, indicated a reduction both from the number or percentage, which could be shown on figure 2.

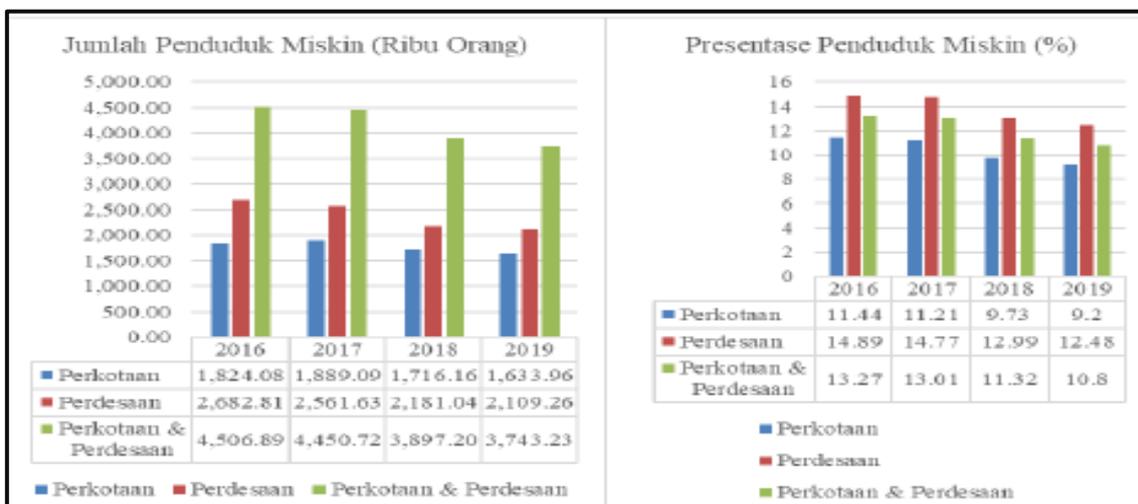


Figure 2. The Development of Poor People in Central Java Province, 2016-2019.

Source: BPS, 2019.

As above figure, the poor people in Central Java during 2016 to 2019 have a reduction trend, from around 4 millions to be around 3 million in 2019. The group of poor people could be declared by region, which showed that the rural area becomes the majority of poverty rate compared to the urban area. This indicated that the government should have a proper solution to the rural to improve the economy. Moreover, if it is seen by the percentage, so the percentage of poverty rate in Central Java Province during 2016 to 2019 had a reduction trend as well. In 2016, the poverty was about 13.27%, but in the next years was going to reduce until 10.8% in 2019. Although the percentage of poor people in Central Java show a downward trend, but efforts to eradicate poverty in Central Java must be improved especially in rural areas where there are poor people more than in urban areas. The government Central Java itself has sparked some poverty reduction, which one of them is a program to provide rice poor (raskin) or rice for prosperous family (rastra). Raskin/rastra program is one of poverty reduction programs and social protection in the

food sector held by the central government included the assistance subsidized rice to low income households (poor households and vulnerable). On march 2017, listed as much as 65,04% of low income households received the raskin program, which means, there were a lot of low income households have not received yet the program. In addition, the average support to the family from the program was about 5.82 kg of rice where each Kg of rice paid as much as Rp 2.035,-.

In addition to the program/rastra raskin, other poverty reduction programs is about one government officer (department), one poor village, under the jurisdiction of the main priority in 745 among 14 districts. This program in very simple terms worked by moving the local organization (OPD) and the state-owned enterprises (BUMD) of Central Java province. In this program, there were about 745 assisted villages where each of them has various potential of commodity. From a nature potential, local indigenous, and voluntary action. Through the one department, one village, it is expected there will be an assistance

for village to building a system which may be still less fit, such as a village often complained about infrastructure has been built, but often broken. OPD could support to give directions, if there is a miss-match in program planning.

The next program of poverty reduction programs in Central Java is about "bureaucracy reform" to facilitate the entry of investment. The government efforts to bring investment continues to be done, one approach is with the bureaucracy reform, so that public services more easily and be more friendly to be able to draw the entry of investment. The entry of these investments are expected will create new work or production, which could absorb greater employments and it may ultimately reduce poverty in Central Java. By these numbers of poverty reduction programs, it was proven that it can reduce poverty in Central Java until 22,47% during the period of 2016-2019. Although poverty in Central Java continued to decline, the government of Central Java still continue to prioritise the construction of poverty in RPJMD during 2018-2023, where inside RPJMD explained that there are some programs to be conceived as the formation of poverty task force to support village and a standard housing program which is livable. It functionally is attempting to strengthen the tasks and functions of the team coordination regional poverty reduction (TKPKD), to ensure, policy, program and activities can be done, poverty reduction especially in data management, the formulation of the problem and policy formulation, social complaints service as well as reporting.

Assistance the village is the financial assistance to the village administration to improve infrastructure and village infrastructure, development rural areas. Moreover, it is also to increase the village community security, and operational cadres of rural community empowerment (KPMD). A flagship program such as "simple house habitable" seen as an effort of house renovation especially for poor households to reduce the expenditure burden, with the help of a stimulant house renovation for poor households in 7.809 village and 750 urban villages in Central Java with the support

of voluntary action of the community. In addition, provision of simple house habitable is also for workers to improve welfare, increase productivity, improving the access to and affordability house habitable in order to increase conducive climate for the development of industry. The influence of gender empowerment on poverty reduction based on the results showed that the variable IPG has coefficient 3,854028. It means IPG increased as 1, the number of poverty also increased by 3,854028, assuming other variables are constant. Based on the results, the variable IPG has probability as much as 0,6513 (<5%). Thus, H0 is accepted. This result showed that variable IPG has influence positively but not significant to the poverty rate. This correlation is different than the hypothesis and not significant.

Gender development index is one of the major indicators in the representation of gender and empowerment in Central Java. From the analysis of data provide a summary that there are random pattern of IPG with poverty rate. Some districts which have high IPG is not determined having low levels of poverty rate. So far, economic productivity and effort of poverty alleviation is certain to target only the male due to the reason of higher productivity. Job opportunities and processing production factors are also higher. So that the pattern that the high random development of gender has not been significant on poverty reduction. It means that poverty is still a problem which need a direct touch by the production improvement. The influence of gender empowerment index to poverty based on the results showed that the variable IDG has the regression coefficient about 0,782759. It means when IDG has seen an increase of 1, the number of poverty also increased by 0,782759 assuming other variables constant. Based on the results of regression, having the probability value of the variable IDG for more than 5% which is 0,4752, then it means that the H0 accepted. Variable testing shows IDG have a positive influence on the number of poverty, but the correlation is not in accordance with the hypothesis and insignificant.

Gender empowerment index also show random pattern. Out of 35 district in Central Java, there is a tendency that the higher gender empowerment index is not necessarily to have a significant impact on poverty reduction, even the trend is different. Thus, it is confirmed the findings in variable which is previously stating that when poverty exist so gender empowerment approach are still have not been able to significantly reduce poverty in the short run.

The impact of human development index on poverty based on the results showed that the variable IPM regression coefficient -25,61458. It means that when IPM increased by 1, the number of poverty also decreased by 25,61458 with assuming a constant on other variables. Based on the results of regression, IPM have a probability <5% which represented the H0 is rejected. The test showed that the variable IPM having influence negatively on poverty level, having a correlation to the hypothesis and significant. IPM has a negative and significant influence to poverty level in Central Java, so the higher IPM, the lower number of poor people in Central Java. IPM variable was having influence significantly to poverty reduction in Central Java. Basically, IPM is a derivative of education

and health that currently become one measurement of teritorial development. This study also showed that the increase of IPM by 1 will reduce the poverty as many as 256.145 people. The pattern formed is an area that has high IPM will have low poverty rates. It means the more advanced the quality of development in the region will affect to the low poverty rate.

IPM index became one of indicators and efforts to be spurred further to reduce poverty. When generally Central Java wants to reduce 1 million poor people, then, at least a score IPM must be up around 3-3,5 points. When associated with the role of gender, thus, the role of women can be increased to improve IPM score that shows the quality of education and health. A number of things that can be done to improve the IPM is to reduce the risk of maternal mortality, increase the average lifespan of a newborn, a reduced risk of stunting and malnutrition especially for infants and pregnant women and lactation. Increasing the awareness of health life for family. For poor people category, this will be obstacles. But, in fact the government could be taking a role in the provision of basic health facilities.

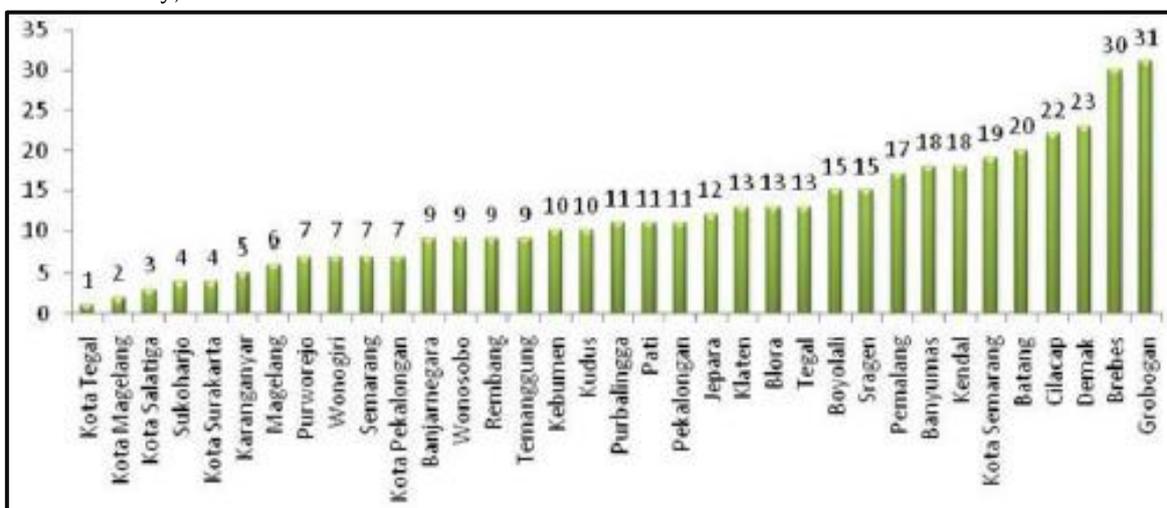


Figure 3. The number of Maternal Mortality in Central Java, 2018

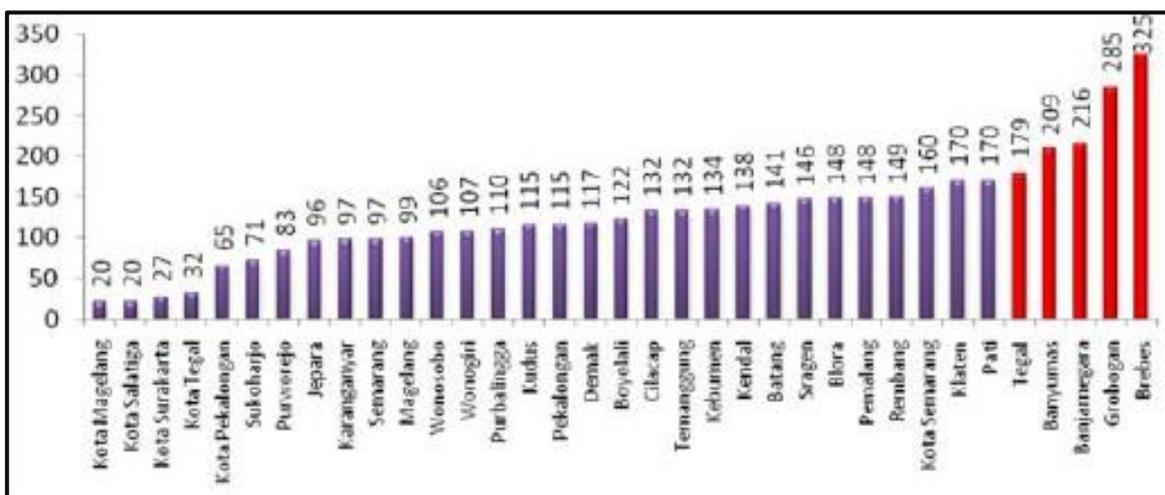
Source: Dinas Kesehatan Jawa Tengah, 2019.

Based on data from Central Java health department, the average maternal mortality per district in the Central Java in 2018 as many as 12 people. The town such as Batang, Cilacap,

Demak, Brebes and Grobogan have the most cases, around 20, 22, 23, 30, and 31 respectively. When viewed from the area/district, those which have maternal mortality are placed on the

agricultural-based area, such as Brebes, Demak, Cilacap, and Batang with having a middle to low value of IPM. While in the death of a baby in the Central Java in 2018. Some are having an average 128 baby died in each district/city. Tegal, Banyumas, Banjarnegara, Grobogan, and Brebes are regions to become the biggest district of having infant mortality rates in Central Java, 179, 209, 216, 285, and 325 baby respectively. The region which has mass infant mortality rate having the upper middle to low class IPM score. It can be seen that the areas

need more attention to the handling of health especially maternal health, childbirth, and for newborn infants. Thus, the female, in this case, can be protected in terms of health. As well as becoming the frontline in the effort to improve the quality of family health. The empowerment of women in poverty reduction through improving the human development index can be prefixed to make woman having awareness of family health. Nutritional escort family for the prevention of stunting and an infectious disease.



**Figure 4.** Infant Mortality in Central Java, 2018  
Source: Dinas Kesehatan Jawa Tengah, 2019.

On the side of education, there is a need to increase the role of women to gain access a good education. So far, female does not have a good opportunity to have good education, especially in the patriarkis culture phenomenon where the female just only has the domestic works, only at home. The female has not been given the opportunity to share the process and empower the family economic production factor. It can be seen in the poor workers are generally males which become the only head of the household economy. Education is effective steps to cut a chain of poverty, because education will provide broader access to leave inescapable poverty. Hence, people are really needed an access to education which is not looked at the gender. In other words, there will be needs to support more female in getting access to the economic empowerment, especially in the agricultural-based regions.

Based on BPS data of gross participation number, it can be seen that the large cities are having very high percentage value, such as Salatiga, Semarang, and Magelang. While Wonosobo, Pekalongan, Banjarnegara, Pemalang, and rembang district are being the lowest ones. There are still many children dropping out, seen in BPS data about school dropout rate in 2017 which was about 73,3% of students dropping out on high school. Klaten district was the highest number had school dropout rate in Central Java in 2017 which was about 91,82%. Followed by Sragen and Pemalang with each 90,92% and 86,72%.

In addition, there is a need for education about the importance of marriage mature. The need for better work movement and demanded of education, compared to an early marriage. The goal is to lower the risk of premature birth, increasing the number of the birth of a family

which have not established in terms of economy. As of early marriages usually occurs in rural and poor communities. Thus, the curb of population growth in the poorest groups at least the poor conditions could be pressed. The influence of professional female labor to poverty, based on the results showed that the variable TKWP regression coefficient -0,285641. It means when TKWP has an increase by 1, so the number of poverty also fell by 0,285641, assuming other variables are constant. Based on the results of regression, IPM has probability <5% which is about 0,5686. By this result, it means the H0 is accepted. The test showed that the variable TKWP is having influence, negatively on poverty level correlation in accordance with hypothesis, but insignificant. It means, a rise of 1000 professional female labor, so the level of poverty will be reduced 285 people. It indicates that the increase female workers, it impacted on the decline in poverty in general. But, the figure is insignificant TKWP have a negative influence on the number of poverty in Central Java, it means the higher TKWP, then, it would be more declined in number of poor people in Central Java.

Based on the study, it is known that it was the amount of labor woman working on poverty reduction, which means more women have roles in the family income will have contribution to a reduction in poverty. So far women in some areas especially in agraris tend to only served in the only in this case child care, household work. Apparently these groups are the ones that tend to close to poverty. Research shows that women who had the opportunity to employed professionally turn out to have a chance to get out from the inescapable poverty. The number of female workers turn out to have much less poverty.

The key here is access to employment and the preparation of women for being in professional labor. A source of information will be needed for a clear and orderly for information regarding the needs in terms of professional female workers. As there are some textile factories need thousands of female workers which must be responded to the

demand for labor. Thus, it will be met by the availability of female workers' readiness. Because in poorer areas there are a surplus of female, but they are not yet ready as a professional workers. Table 12, 13, and 14 which is inclosed is the sum job vacancies in the province of Central Java by 2016. Recently, the female source in several regions especially in agricultural area tended to be only done work on the house, such as household domestic works. It turns out that these groups are tended to be close to poverty. It can be noted that from the data above obtained about average job opportunities for women provided in the the Salatiga district become the lowest work opportunity compared to the other cities in Central Jaca province, about 597 vacancies which means that the number of female professional workers are in small percentage. The second work opportunity is provided by Pekalongan about 698 for female which means that the number of female workers are just small percentage. The third lowest average for vacancies are tegal with 716 vacancy, followed Rembang district which has an average vacancy for women about 896.

Out of four regions which have lowest job opportunity (less than 1000) are included as the regions based on the agricultural, plantation, or fishery economic growth. This shows that an active role of female professional workers has not been optimal yet to empower in reducing poverty. Thus, it is proved that agricultural-based regions have high level of poverty. In other side, the region that has huge number of female professional workers will have a little level of poverty. It can be seen from table above that the city of semarang has an average job vacancy as the highest for women as many as 13.877 opportunity. It means that the huge number of female professional workers will impact to the low level of poverty rate in a region, followed by the average number of the second highest which is on grobogan. It possesses the job opportunities for women as many as the average 10.763 opportunities.

District Semarang possesses the third highest average job vacancy to women about

10.760 opportunities and district Boyolali has 10.323 opportunities as the fourth highest job vacancy for women, and Wonogiri has 10.018 job opportunities as the fifth highest job vacancy for women. Out of five regions, those have a high rate of job opportunities about more than 1000 vacancies for female professional workers. In case, there are 1000 additional job opportunities, it will impact to a reduction for about 2856 people. Thus, the female workers contribution have a direct impact to the reduction on poverty.

It can be concluded that only five districts which provided more than 10,000 vacancy and four districts which have the number of vacancies less than 1000 for female professional workers from 35 districts in Central Java and there are still 26 districts have the average number of more than 1000 people but less than 10,000 job vacancy for professional women, so that needs to be increased more female job vacancy to reduce the level of poverty in the agricultural area. Thus, the second important point is the preparation of female workers to be ready for work. This means skills training and education are really needed to be given to provide a wide opportunity for women to seek a job training as the preparation of professional labor. This will be the duty of government labor agency especially department of labor and education. It needs a mapping of the working age population especially for woman in the area which is still low economic development, but has an excess supply of female labor. The solution is by providing the opportunity get a good education and training. The city-owned job training and professional training institutions are essential to make training programs for prospective female labor. Training that can be given as preparation to enter the textile and garment industries which basically need a huge number of female professional workers.

In addition, there will be needs for training in other industries which need large numbers of female workers such as food-processing industry, pharmacy and handicrafts. Through the training, so the female worker

excess in an area that generally has a surplus will be able to be distributed to other regions which are requiring female labor. So that women would capable of having competitiveness and high productivity power. Moreover, related official department can also give women empowerment trainings which in this case is given by department of industry and trade, agricultural department, communication and information department, BKKBN, university and cooperatives and SME (small and medium enterprise) department. The training could be technical training to run production activities and the formation of joint business group which consists of women or homemakers. The target was a woman to have empowerment derived from the poor regions like the family farm or family of fishermen. Training pattern and assistance is needed due to the fact that the percentage of poverty can be reduced by an increase in professional female workers. Table 15 enclosed capacity is table of classrooms and workshops on central training centers in Central Java 2017. The whole classrooms of BLK (training provider) are 95 classes by the total number of their capacity is 1470 people and the total BLK workshops are only 174 by the total number of capacity are 2492 people. This means that BLK in Central Java by 2017 was not sufficient to provide a training because there are some regions which do not have a class for training and workshops.

The influence of women income contribution to poverty based on the results showed that the variable SPP regression coefficient  $-8,044757$ . This means, when SPP has increased 1 point, so that the number of poverty is decreased by  $8,044757$ , assuming other variables constant. Based on the regression, SPP has probability value about  $>5\%$  which is  $0,5190$ , accepted  $H_0$ . The test showed that the variable SPP having influence negatively on poverty level, in which the correlation is in accordance with the hypothesis, but insignificant.

The results gives information that any increase of woman income  $1\%$ , it would impact on reducing poverty level. Mahmood et al

(2014), reflected that the increase on female workers' income by additional program, such as having a job or entrepreneurship program, could reduce the poverty rate, where the female could work as an additional earning in the family. This means that the female has a partial contribution as her additional income to fulfill their family needs, where this also could be used as the source of income to pay the better education among the family members. Thus, the means to increase the female income to fulfill her livelihood is about to try empowering the female, such as (1) giving the training by government skill training or non government, and (2) assisting to the entrepreneurial program. Based on Nadim et al (2017), woman empowerment could be considered as a weapon on alleviation poverty, where women could act importantly to the family, such as (1) improve the economic status, (2) improve social status, and (3) improve role in family. However, this previous study is reflected differently compared to the finding in this research where the empowerment program has no influence to the poverty. The women who have experienced the empowerment program were less power where they could not afford to learn and conduct thoroughly the program. Thus, the empowerment programs were mostly not maximum which gave the less impact to the poverty reduction.

The important factor that significant to empowering women is about to have a work which could directly increase an income, rather than the empowerment program which is not directly give the income to the woman. The work does not need only on formal works as a labor, but it could be empowered to innovative ideas by building capability to join in business group. The government could create the job opportunity by cluster system, so the movement of effort will run together and it will improve the competitiveness. Chrisinger et al (2012) were divided the job opportunity programs by cluster which was purposed to pinpoint the skill-based job for the society. The cluster system could be used to define the labour pools where they could select based on similar interest and abilities. As

long as the female workers have the competencies, they have to be equal in having opportunities to work in the formal vacancies without considering about the gender, but the professionalism of workers.

The results should be consistent with previous variable stated that the increase in the women in work will reduce poverty. SPP variable can have negative effects but insignificant to the number of poverty in Central Java, that is the higher SPP, the lower the number of poor people in Central Java. The women should be given access and a chance to work due to a great impact on poverty reduction. It can be simulated that the poor is mostly born and grown up with just only one source of income. The result of this research showed the condition of being contradictory which means, if the woman has an increase in revenue, so directly poverty will be down.

## CONCLUSION

Based on research analysis, it was concluded that in poverty reduction programs from Central Java Province Government were containing gender disparity. To reduce the poverty rate, the government of Central Java has to conduct the proper program which regards to the people development. The analysis resulted only HDI index which could impact to reduce the poverty rate, while the other independent variables have no impact to the poverty reduction. The impact of human development index (HDI/IPM) on poverty based on the results showed that the variable IPM regression coefficient -25,61458. It means that when IPM increased by 1, the number of poverty also decreased by 25,61458 with assuming a constant on other variables. Thus, the government must put a concern to increase the program on improving HDI for Central Java Province society, such as education level improvement, social welfare increase, and better life quality for male and female. Especially the level of education (HDI), the government have to facilitate both male and female to enrol in higher education level, where this could be used

to apply for a job, so that it could open the job opportunities for both male and female workers.

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