



Analysis of Women's Role in Poverty Alleviation (Case Study of Province in Indonesia 2018-2022)

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<http://dx.doi.org/10.18415/ijmmu.v11i8.5850>

Abstract

This research aims to analyze the mapping of the distribution of poverty and the female labor force participation rate between provinces in Indonesia using the Klassen typology and to analyze the influence of the female labor force participation rate (TPAKP), women's income contribution (SPP), gender development index (IPG), and the rate of economic growth against poverty in Indonesia. The analysis used in this research is Klassen typology analysis and multiple linear regression analysis of panel data. The results of the research simultaneously show that the variables TPAKP, SPP, IPG and the rate of economic growth have an effect on the poverty rate in Indonesia. So, in efforts to eradicate poverty in Indonesia, it is necessary to have the role of women who are actively involved in economic activities in Indonesia.

Keywords: *Female Labor Force Participation Rate; Women's Income Contribution; Gender Development Index; Economic Growth Rate; Poverty*

Introduction

One of the problems that Indonesia is still facing is the problem of poverty. The problem of poverty is a complex and multidimensional problem so it is a development priority. The majority of poor people in the world are women. They are the ones who suffer the most from poverty, malnutrition, and receive the least health services, clean water, sanitation, and various other forms of social services. (Todaro, 2004). The United Nation Development Program (UNDP) stated in its Human Development Report (HDR) that one of the important things in development is equitable economic growth between generations, between ethnicities, between genders, and between regions, where one of the dimensions emphasized by UNDP is gender equality (Widayanti, 2019).

According to data from the Central Statistics Agency, in all provinces in Indonesia the female labor force participation rate is still quite far behind the male labor force participation rate in 2020-2022. For example, in DKI Jakarta Province in 2022, women's TPAK will be 46.62% and men's TPAK will be 80.02%. Likewise, in other provinces such as East Kalimantan Province, in 2022 women's TPAK will be 45.17% and men's TPAK will be 82.74%. From these data we can conclude that the level of women's participation in work is still less than the level of male labor force participation, the percentage shows quite different figures in all provinces in Indonesia.

The gender pay gap is a real thing that harms women by suppressing their income. Efforts to address the wage gap between the two genders must be able to examine where a region's economy provides unequal opportunities for women at every level of education and career choice. (Schieder & Gould, 2016). Data from the Central Statistics Agency explains that the contribution of women's income in Indonesia in 2022 will still be at 37.17%. However, in several provinces, women's income contribution still has not reached 37.17%. For example, in East Kalimantan Province in 2016 the contribution of women's income was only 23% and continued to increase until in 2022 it was at 24.02%. This illustrates that the economy is not evenly distributed and there is still income inequality between men and women in Indonesia.

Therefore, the involvement of women in the economy is very important in poverty alleviation programs in Indonesia.

Research Methods

• Klassen Typology

The aim of using the Klassen Typology is to map the role of women's labor force participation levels in poverty alleviation in Indonesia. To determine the distribution of poverty compared to the female labor force participation rate between provinces in Indonesia, Klassen Typology analysis is used with the following criteria:

- | | |
|---------------|-------------------------------|
| 1. Quadrant 1 | :Poverty Low TPAK Women High |
| 2. Quadrant 2 | :Low Poverty Low Female TPAK |
| 3. Quadrant 3 | :High Poverty TPAK Women High |
| 4. Quadrant 4 | :High Poverty Low Female TPAK |

• Multiple Linear Regression

The second aim of this research is to analyze the role of women's labor force participation rates, women's income contribution, the gender development index (GPI), and the rate of economic growth in poverty alleviation.

$$Kemiskinan_{it} = \beta_0 + \beta_1 TPAK_{it} + \beta_2 SPP_{it} + \beta_3 IPG_{it} + \beta_4 RATE_{it} + \varepsilon_{it}$$

Poverty = Poor Population (%)

β_0 = Constant

$\beta_1, \beta_2, \beta_3, \beta_4$ = Intercept and slope coefficient

TPAK = Level Female Labor Force Participation (%)

SPP = Women's Income Contribution (%)

IPG = Gender Development Index (%)

RATE = GDP rate (%)

ε = Element of population disturbance

it = Place (Province) and Time (Year)

Results and Discussion

Klassen Typology

Based on the Klassen typology, the mapping of the distribution between poverty variables and the female labor force participation rate between provinces in Indonesia is classified as dynamic and heterogeneous, because all quadrants are filled. There are 5 provinces in quadrant I (low poverty, high TPAKP), namely Bali, North Sumatra, West Sumatra, West Kalimantan and South Kalimantan; 13 provinces are in quadrant II (low TPAKP low poverty), namely Riau, Jambi, Kep. Bangka Belitung, Kep. Riau, DKI Jakarta, West Java, Banten, Central Kalimantan, East Kalimantan, North Kalimantan, North Sulawesi, South Sulawesi and North Maluku; 11 provinces are in quadrant III (high TPAKP high poverty), namely the provinces of South Sumatra, Bengkulu, Central Java, DI Yogyakarta, East Java, East Nusa Tenggara, West Nusa Tenggara, Southeast Sulawesi, West Sulawesi, West Papua and Papua; and there are 5 provinces in quadrant IV (low TPAKP high poverty) namely Aceh, Lampung, Central Sulawesi, Gorontalo and Maluku Provinces.

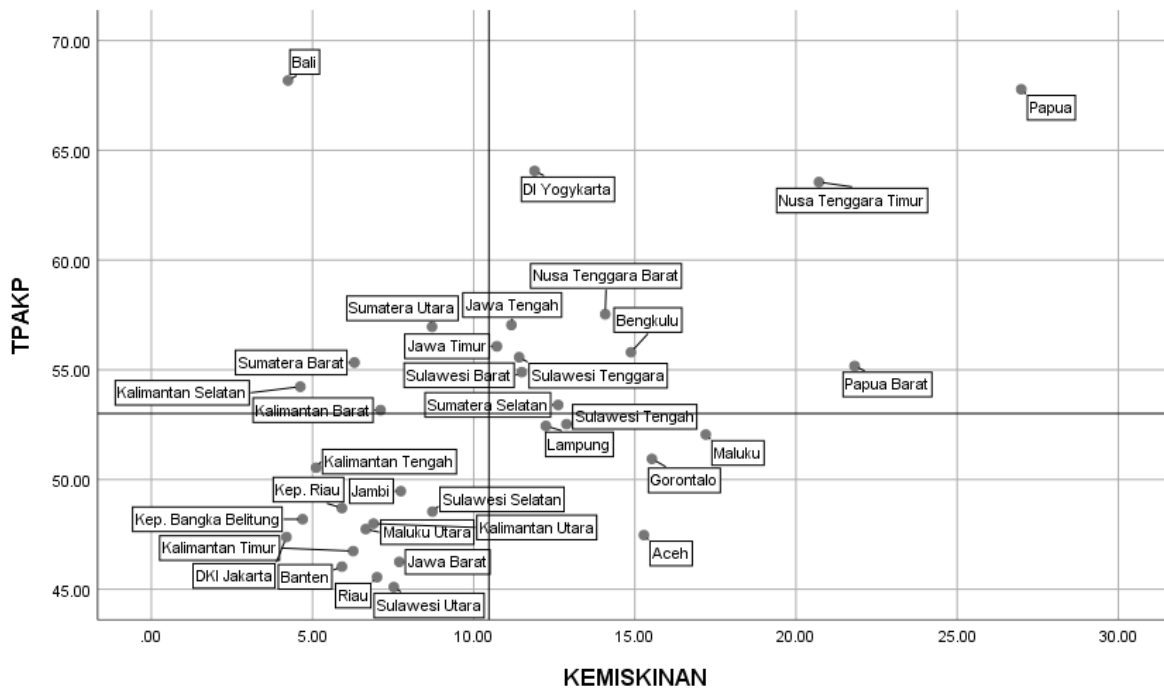


Figure 1. Mapping the distribution of poverty and the level of female labor force participation between Provinces in Indonesia
 Source: Data processed by author, 2024.

Multiple Linear Regression Analysis

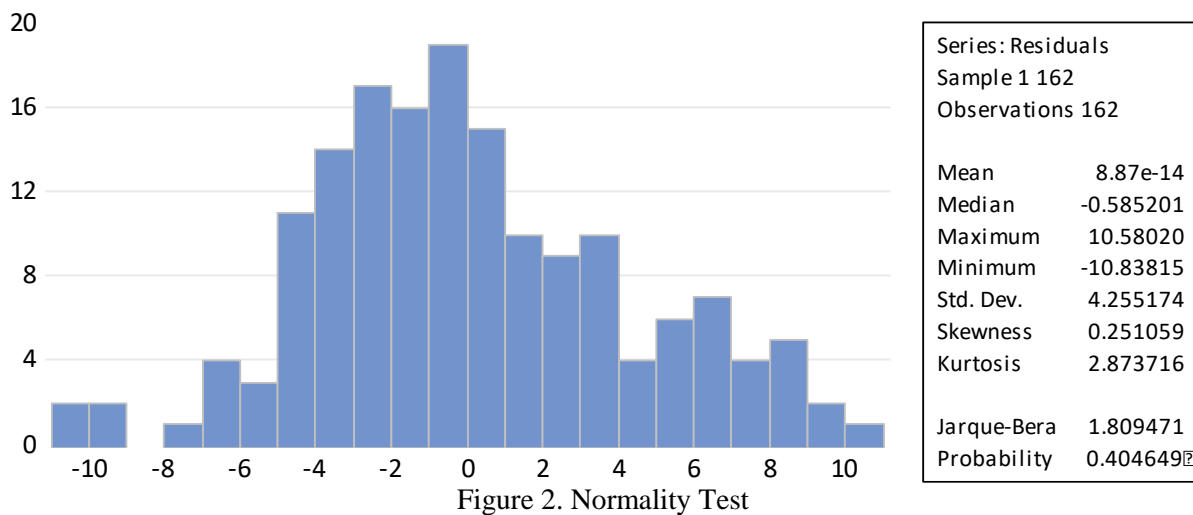
This multiple linear regression analysis aims to determine the influence of independent variables, namely the female labor force participation rate (X1), women's income contribution (X2), gender development index (X3), and GDP rate (X4) on the dependent variable poverty rate in 34 Indonesian provinces. . The following are the results of multiple regression analysis using the E-views program:

Table 1. Multiple Regression Analysis

Dependent Variable: Y
Method: Least Squares
Date: 05/28/24 Time: 05:05
Sample: 1 162
Included observations: 162

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	129.9784	61.53656	2.112213	0.0363
X1	0.299680	0.081215	3.689939	0.0003
X2	0.076347	0.124311	0.614166	0.5400
LOGX3	-70.53533	32.15657	-2.193496	0.0297
X4	-0.029450	0.111687	-0.263679	0.7924
R-squared	0.161923	Mean dependent var		10.05333
Adjusted R-squared	0.140570	S.D. dependent var		4.648098
S.E. of regression	4.309039	Akaike info criterion		5.789685
Sum squared resid	2915.147	Schwarz criterion		5.884981
Log likelihood	-463.9645	Hannan-Quinn criter.		5.828376
F-statistic	7.583385	Durbin-Watson stat		0.385734
Prob(F-statistic)	0.000013			

Normality Test



From the table above, Jarque Berra's probability is $0.4046 > 0.05$, it can be concluded that the data is normally distributed.

Multicollinearity Test

Table 2. Multicollinearity Test

	X1	X2	LOGX3	X4
X1	1.000000	0.632318	0.230471	-0.072819
X2	0.632318	1.000000	0.609980	0.029574
LOGX3	0.230471	0.609980	1.000000	0.092461
X4	-0.072819	0.029574	0.092461	1.000000

The correlation coefficient between the labor force participation rate variable (X1) and women's income contribution (X2) is $0.6323 < 0.85$, the correlation coefficient between the labor force participation rate variable (X1) and the gender development index (X3) is $0.2304 < 0.85$, the correlation coefficient between the variable labor force participation rate (X1) and the GRDP rate (X4) is $-0.0728 < 0.85$, the correlation coefficient between the variable women's income contribution (X2) and the gender development index (X3) is $0.6099 < 0.85$, the correlation coefficient between the variable women's income contribution (X2) and the GRDP rate (X4) is $0.0295 < 0.85$, and the correlation coefficient between the gender development index variable (X3) and the GRDP rate (X4) is $0.0924 < 0.85$, then it can be concluded that it is free from multicollinearity or passes the multicollinearity test. (Napitupulu et al 2021:141)

Heteroscedasticity Test

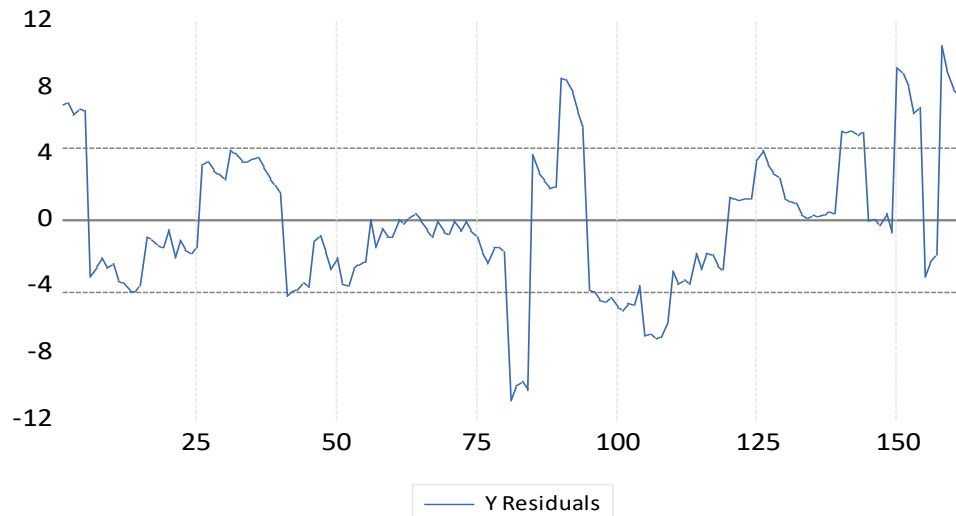


Figure 3. Heteroskedasticity Test

From the residual graph (blue) it can be seen that it does not exceed the limits (500 and -500), meaning that the residual variance is the same. Therefore, there are no symptoms of heteroscedasticity or passing the heteroscedasticity test. (Napitupulu et al 2021:143).

Table 3. Heteroskedasticity Test: Breusch Pagan Godfrey
 Heteroskedasticity Test: Breusch-Pagan-Godfrey
 Null hypothesis: Homoskedasticity

F-statistic	10.56827	Prob. F(4,157)	0.0000
Obs*R-squared	34.36610	Prob. Chi-Square(4)	0.0000
Scaled explained SS	30.23940	Prob. Chi-Square(4)	0.0000

From the heteroscedasticity test table above, it can be seen that the Obs*R Squared value is $34.3661 > 0.05$, so it can be concluded that there are no symptoms of heteroscedasticity.

Regression Coefficient Test (R^2)

Adjusted value R^2 of 0.1619 or 16.19%. The coefficient of determination value shows that the independent variables consisting of TPAKP, SPP, IPG and GRDP Rate are able to explain the Poverty Rate variable in Indonesia of 16.19% while the rest is explained by other variables outside the model which are not included in this research.

F test

The significance value of the f statistic probability is 0.0000, which is less than 0.05, so H0 is rejected. Ha is accepted, meaning that simultaneously the variables TPAKP, SPP, IPG and GRDP rate influence the poverty rate in Indonesia.

T test

Table 4. T Test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	129.9784	61.53656	2.112213	0.0363
X1	0.299680	0.081215	3.689939	0.0003
X2	0.076347	0.124311	0.614166	0.5400
LOGX3	-70.53533	32.15657	-2.193496	0.0297
X4	-0.029450	0.111687	-0.263679	0.7924

The influence of the independent variable on the dependent variable partially is as follows:

- The TPAKP variable (X1) obtained a significance probability value of 0.0003 < 0.05. The TPAKP variable has an influence on the poverty rate variable.
- The SPP variable (X2) obtained a significance probability value of 0.5400 > 0.05. The SPP variable had no effect on the poverty rate variable.
- The IPG variable (X3) obtained a significance probability value of 0.0297 < 0.05. The IPG variable has an effect on the poverty rate variable.
- The GRDP rate variable (X4) obtained a significance probability value of 0.7924 > 0.05. The GRDP rate variable had no effect on the poverty rate variable.

Discussion

The variable level of female labor force participation has a significant effect on poverty alleviation. The results of this research are in line with research conducted by GU Rui & Nie Feng-ying (2021) that women's empowerment programs have a positive effect on poverty alleviation in China. The variable women's income contribution has no effect on the poverty rate. The results of this research are in line with research conducted by Salva & Hendry (2022) explaining that women's income contribution has no effect and is not significant on the poverty rate in the city of Surabaya, Indonesia. The Gender Development Index variable has a significant effect on the poverty rate. The results of this research are supported by the results of Ahmad's (2021) research which revealed that the gender ratio has a positive and significant effect on the percentage of poverty. The economic growth rate variable has no effect on the poverty rate. The results of this research are in line with research conducted by Desriny (2018) that partially economic growth has no effect on poverty levels in Indonesia.

Conclusion

The variable level of female labor force participation has a significant effect on poverty alleviation. Therefore, there is a need for the role of women to participate in economic activities to help the family economy and reduce poverty in Indonesia. The variable women's income contribution has no effect on the poverty rate. Women's income contribution in Indonesia is still relatively low compared to men's income, therefore there is a need for gender equality in economic activities so that women's income can be almost equal to men's income to alleviate the problem of poverty in Indonesia.

References

- Adnan, G., & Amri, K. (2020). Can Women's Income Reduce Poverty? Panel Data Evidence in Indonesia. *Inovbiz: Journal of Business Innovation*, 8(1), 64. <https://doi.org/10.35314/inovbiz.v8i1.1235>.
- Auzar, Z. (2021). Poverty, Gender, and Covid-19 East Java: Feminization of Poverty, Multiple Pandemic, and Feminization of Pandemic. *Proceedings of the National Seminar on Poverty Reduction*, 1, 248–287.
- Central Bureau of Statistics. (2020). *BPS HDI Booklet 2019*. Jakarta.
- Bappenas. (2020). *National Level PPRG Implementation Achievements*. Jakarta.
- Kertati, I. (2021). Analysis of the Gender Development Index (IPG) and Gender Empowerment Index (IDG) for Surakarta City. *Public Service and Governance Journal*, Vol 2(1), 1–11.
- Kurniasih, CE, Tampubolon, D., & Ula, T. (2022). Analysis of the Influence of Female Labor Market Indicators on Poverty Between Districts/Cities in Riau Province. *UM Jember Proceedings Series*, 1(4), 572–584.
- Nachrowi, ND and HU (2006). *Popular and Practical Approaches to Econometrics for Economic and Financial Analysis*. Jakarta: FE UI Publishing Institute.
- Nisak, SS, & Sugiharti, L. (2020). Gender inequality and women poverty in Indonesia. *International Journal of Innovation, Creativity and Change*, 11(9), 375–387.
- O'Neil, T. (2006). *Human Rights and Poverty Reduction: Realities, Controversies, and Strategies*. (T. O'Neil, Ed.). Overseas Development Institute.
- Royat, S. (2015). *Government Policy in Reducing Poverty*. Jakarta.
- Schieder, J., & Gould, E. (2016). “Women's work” and the gender pay gap. How discrimination, societal norms, and other forces affect women's occupational choices-and their pay, 11.
- Septiawan, A., & Wijaya, SH (2019). 387-Article Text-2254-1-10-20210118 (4), 449–461.
- Šilingienė, V., & Radvila, G. (2014). Gender Differences of Wage Trends in the Baltic States. *Procedia - Social and Behavioral Sciences*, 156(April), 98–101. <https://doi.org/10.1016/j.sbspro.2014.11.127>.
- Todaro, M. P. (2004). *Economic Development in the Third World*. Jakarta: Erlangga.
- Widayanti, DV (2019). Effects of Economic Growth, 7(April), 1–23.
- Yacoub, Y. (2012). The Influence of Unemployment Levels on Regency/City Poverty Levels in West Kalimantan Province. *Journal of exos*, 8 Number 3, 176–185.

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