Jurnal Wacana Ekonomi
Fakultas Ekonomi, Universitas Garut
P-ISSN: 1412-5897; E-ISSN: 2715-517X

The Effect of Provincial Minimum Wages and Open Unemployment Rate on Poverty in DKI Jakarta 2016 - 2023

Cut Nurul Aidha[1]; Safna Afriani[2]; AB Christono[3]

STIE Unisadhuguna
cnaidha@gmail.com

STIE Unisadhuguna
safnafrn@gmail.com

STIE Unisadhuguna
ab.christono@ubs-usg.ac.id

Abstract

Poverty has always been an interesting issue in research, especially when linked to unemployment and minimum wage levels. The purpose of this study is to examine how the provincial minimum wage and the open unemployment rate affect poverty levels in DKI Jakarta during the period 2016–2023. The data used is secondary quantitative time series data obtained from the DKI Jakarta Central Statistics Agency (BPS) and the Ministry. Republic of Indonesia Labor Force during the period 2016 -2023. The study employs a multiple linear regression model. The findings indicate that, when tested individually, the Provincial Minimum Wage (t-test) shows a significant effect on poverty, as the calculated t-value exceeds the critical value (3.726 > 1.943). In contrast, the Open Unemployment Rate (t-test) demonstrates no significant impact on poverty since the obtained t-value is lower than the critical threshold (1.727 < 1.943). Nevertheless, the joint test (f-test) reveals that both variables collectively exert a significant influence on poverty, supported by the f-value being higher than the f-table (13.291 > 5.79)

Keywords: Provincial Minimum Wage, Open Unemployment Rate, and Poverty.

1 Introduction

Poverty is a perennial problem faced by many countries, especially developing nations like Indonesia (Todaro & Smith, 2020). This phenomenon poses a serious challenge to governments because poverty not only hinders economic growth but also impacts the overall quality of life of the community (World Bank, 2022). If not addressed promptly and the root causes are not identified, poverty has the potential to escalate and lead to more complex social problems (Bappenas, 2020).

Poverty is not limited to rural or remote areas, which are generally associated with limited access to infrastructure and public services. In reality, poverty is still prevalent in urban centers, including large cities like Jakarta (BPS, 2023a). As the nation's capital, Jakarta offers vast economic opportunities, but on the other hand, it still harbors a relatively high number of poor people. This situation demonstrates social inequality, where some groups are able to live at a relatively high economic standard, while others struggle to meet basic living needs (Kuncoro, 2019).

Several indicators indicate poverty in a region. Poor quality of life, limited healthcare services, and low education are factors that frequently emerge as key indicators of poverty (Suryahadi et al., 2021). For

example, limited access to healthcare can lead to malnutrition in children, which in turn impacts the quality of human resources in the future. Similarly, low levels of education limit a person's opportunities to obtain decent employment. Poverty is also closely related to a person's income. A person with a low income and unable to meet basic daily needs such as food, clothing, and shelter is categorized as poor. According to official standards, residents with an average monthly per capita expenditure below the poverty line are considered poor (BPS, 2023b).

In addition to education and health factors, labor absorption is also a crucial variable in poverty issues. Low labor absorption results in high unemployment rates, which directly triggers an increase in the number of poor people (Tambunan, 2019). The limited availability of jobs makes it difficult for people to find work. On the other hand, an individual's ability or expertise is a determining factor in the needs of companies and employment agencies (Arsyad, 2018). The mismatch between the needs of the workforce and the skills of the workforce often exacerbates unemployment. DKI Jakarta, as the national economic center, also faces this problem. Data shows that between 2016 and 2023, the open unemployment rate in Jakarta fluctuated, with both increases and decreases, reflecting the instability of the labor market in the region (BPS, 2023).

Another factor contributing to poverty is the issue of wages. Wages are a basic right that workers must receive in return for the services they provide (Sastrohadiwiryo, 2020). Wages are not merely nominal figures, but also relate to fulfilling the needs of a decent life for workers and their families. According to Article 88 paragraph (1) of Law Number 6 of 2023, the central government has the authority to determine wage policies to guarantee the rights of workers to live humanely. This policy includes setting minimum wages that apply annually in various regions. Determining these minimum wages will significantly impact the socio-economic conditions of the community (Simanjuntak, 2019). Wages that are too low cannot improve worker welfare, while setting wages that are too high can have consequences in the form of reduced job opportunities due to the company's limited ability to pay workers (Mankiw, 2021). Thus, wages are an important instrument in maintaining a balance between worker needs and business continuity.

Overall, poverty is a multidimensional issue influenced by various factors, ranging from the quality of education and health to job opportunities and wage policies (Bappenas, 2020). Therefore, a comprehensive and collaborative strategy is needed between the government, the business sector, and the community to address poverty. Poverty alleviation efforts cannot simply focus on providing social assistance but must address fundamental aspects such as improving the quality of human resources, creating adequate jobs, and enforcing fair and sustainable wage policies (Todaro & Smith, 2020).

2 Literature Review

Poverty

Poverty is a multidimensional socioeconomic condition characterized by the inability of individuals or households to meet minimum standards of living, including food, housing, education, and healthcare. According to the World Bank, poverty is commonly measured based on income or consumption levels relative to a defined poverty line. In Indonesia, poverty is officially defined by the Central Statistics Agency (BPS) as the inability to fulfill basic needs, measured through the poverty line approach. Urban poverty, such as in DKI Jakarta, is often influenced by labor market conditions, wage levels, and employment opportunities. Despite being the economic center of Indonesia, Jakarta still faces poverty challenges due to income inequality, labor market competition, and rising living costs. Therefore, understanding the determinants of poverty—particularly wages and unemployment—is crucial for effective policy formulation.

Provincial Minimum Wage (UMP)

The provincial minimum wage refers to the lowest legally mandated wage set by the government that employers must pay workers within a province. The primary objective of the minimum wage policy is to ensure a decent standard of living for workers and reduce income inequality (Belser & Rani, 2015). Higher minimum wages can increase workers' income, improve purchasing power, and reduce poverty by raising household earnings (Fields, 2012).

However, classical economic theory suggests that excessively high minimum wages may lead to reduced labor demand, potentially increasing unemployment, which could offset poverty reduction effects (Neumark & Wascher, 2008). Thus, the impact of minimum wages on poverty depends on labor market conditions and the ability of firms to absorb higher wage costs.

Open Unemployment Rate

The open unemployment rate refers to the proportion of the labor force that is actively seeking employment but unable to find work. Unemployment represents a major socioeconomic problem because it directly affects income generation and household welfare. Empirical studies consistently show a positive relationship between unemployment and poverty, indicating that higher unemployment rates are associated with higher poverty levels (Ravallion, 2001). In urban areas such as Jakarta, unemployment is often linked to labor market mismatches, population growth, and skill gaps, which intensify poverty risks, particularly among low-skilled workers.

3 Research Methods

This research applies a quantitative approach using an associative method, as its objective is to examine the impact of the independent variables—the Provincial Minimum Wage (UMP) and the Open Unemployment Rate (TPT)—on the dependent variable, namely poverty in DKI Jakarta during the 2016–2023 period (Sugiyono, 2018).

The type of data used in this study is secondary data in the form of annual time series data for the period 2016–2023. Data were collected from official agencies such as the Central Statistics Agency (BPS) and the Department of Manpower regarding information on the Provincial Minimum Wage (UMP), open unemployment rate, and poverty rate in DKI Jakarta (BPS, 2023; DKI Jakarta Department of Manpower, 2023).

Data collection techniques are carried out through documentation, namely collecting data from official publication reports, journals, and relevant literature (Nazir, 2017).

This study employs multiple linear regression analysis to evaluate the extent to which the Provincial Minimum Wage (UMP) and the Open Unemployment Rate (TPT) influence poverty (Gujarati & Porter, 2009). Prior to performing the regression, several classical assumption tests were conducted, including assessments of normality, multicollinearity, heteroscedasticity, and autocorrelation, to verify the model's reliability (Ghozali, 2018). Subsequently, statistical procedures were applied, consisting of a t-test to measure the partial effect of each independent variable, an F-test to examine the simultaneous effect of the predictors on the dependent variable, and an R^2 test to assess the explanatory power of the independent variables in accounting for variations in the dependent variable (Gujarati & Porter, 2009).

4 Research Results and Discussion

The research relies on secondary data collected from official publications issued by the Central Statistics Agency (BPS) of DKI Jakarta Province, the Ministry of Manpower of the Republic of Indonesia

(KEMNAKER RI), as well as online sources. The dataset comprises time series information covering the years 2016–2022. In this study, poverty serves as the dependent variable, while the Provincial Minimum Wage (UMP) and the Open Unemployment Rate (TPT) are treated as independent variables.

Table 1. Data Presentation

Year	Provincial Minimum Wage (X1)	Open Unemployment Rate (X2)	Poverty (Y)
2016	Rp. 3,100,000	317,020	348.30
2017	Rp. 3,355,750	346,940	389.69
2018	Rp. 3,648,035	314,840	373.12
2019	Rp. 3,940,973	339,402	365.55
2020	Rp. 4,267,349	572,780	480.86
2021	Rp. 4,416,187	439,899	501.92
2022	Rp. 4,573,845	377,294	502.04
2023	Rp. 4,900,798	354,490	477.83

Source: BPS DKI Jakarta, Ministry of Manpower of the Republic of Indonesia, and Website (2025)

1 Classical Assumption Test

a) Normality Test

Normality testing aims to evaluate whether the independent variable, the dependent variable, or both have a normal distribution in a regression model. Normality testing can be performed using the One Sample Kolmogorov-Smirnov method, where if the significance value exceeds 5% or 0.05, then the data is considered to have a normal distribution, conversely, if the significance value is less than 5% or 0.05, then the data is considered not to have a normal distribution (Ghozali, 2016).

The results of the One-Sample Kolmogorov-Smirnov test with eight observations (N = 8) show an Asymp. Sig. (2-tailed) value of 0.200, which is higher than 0.05. This indicates that the observation points are normally distributed, meaning the regression model satisfies the normality assumption.

The fulfillment of the normality assumption is essential, as it ensures that the regression model can provide unbiased and reliable estimates. Normal distribution of residuals also supports the validity of subsequent hypothesis testing, including both the t-test and the F-test, which are highly sensitive to violations of normality. Consequently, these findings confirm that the data used in this study are suitable for multiple linear regression analysis and that the results can be interpreted with greater confidence.

Multicollinearity Test

According to Ghozali (2016), the purpose of multicollinearity testing is to determine whether independent variables in a regression model are correlated. A properly specified classical regression model should be free from multicollinearity, meaning that no exact linear relationship exists among the independent variables. The most common approach to detect this issue is by examining the Variance Inflation Factor (VIF) and tolerance values. A model can be considered free of multicollinearity when the VIF is below 10 and the tolerance exceeds 0.1

The collinearity diagnostics indicate that the tolerance values for Provincial Minimum Wage and Open Unemployment Rate are 0.833, with corresponding VIF values of 1.201. These results show that all tolerance values are well above 0.10 and all VIF values are below 10, indicating that there is no multicollinearity among the independent variables in the model.

b) Heteroscedasticity Test

This test aims to evaluate whether there is inconsistent variation in the residuals between one observation and another in a regression model (Ghozali, 2018). In this study, a graphical method was used to test for the presence or absence of heteroscedasticity symptoms in the model.

The scatterplot of the standardized residuals against the standardized predicted values demonstrates that the residuals are randomly dispersed around the horizontal axis without any discernible pattern or systematic structure. This random distribution suggests that the assumption of homoscedasticity is satisfied, indicating that the variance of the residuals is constant across all levels of the predicted values and that the model does not exhibit heteroskedasticity.

c) Autocorrelation Test

According to Ghozali (2016), autocorrelation can arise due to the relationship that exists between consecutive observations over time. To achieve a quality regression model, it is important that the model is free from autocorrelation..The basis for decision making in this test is as follows (Ghozali, 2016): If the Asymp. Sig. (2-tailed) value is less than 5% or 0.05, then Ho is rejected and Ha is accepted. This indicates that the residual data has a non-random (systematic) pattern. If the Asymp. Sig. (2-tailed) value is more than 5% or 0.05, then Ho is accepted and Ha is rejected. This indicates that the residual data is random.

The Runs Test results for the unstandardized residuals show no evidence of autocorrelation. With 4 cases below and 4 cases above the median, the number of runs is 4, Z = -0.382, and the two-tailed significance is 0.703 (>0.05). This indicates that the residuals are independent, satisfying the assumption of no autocorrelation.

2 Multiple Linear Regression Analysis

A multiple linear regression was performed to examine how the independent variables affect the dependent variable in terms of both direction and magnitude (Ghozali, 2018). Standardized coefficients were used for path analysis. Because this study did not use path analysis, the regression equation used was Unstandardized Coefficients.

The multiple linear regression analysis produced the following estimated equation for predicting poverty. The constant (intercept) is 1960.576, with a standard error of 8043.057, which is not statistically significant (t = 0.244, p = 0.817). The Provincial Minimum Wage variable has a positive and significant effect on poverty, with an unstandardized coefficient of 0.008, a standardized Beta of 0.727, t = 3.726, and p = 0.014. In contrast, the Open Unemployment Rate shows a positive but not statistically significant effect, with a coefficient of 25.898, Beta = 0.337, t = 1.727, and p = 0.145.
Overall, the regression equation can be expressed as:
Poverty = 1960.576 + 0.008 × Provincial Minimum Wage + 25.898 × Open Unemployment Rate
Interpretation of results:

1. The constant (intercept) of 1960.576 indicates that when both independent variables (X1 and X2) are equal to zero, the predicted value of the dependent variable (Y) is 1960.576.
2. The regression coefficient for the Provincial Minimum Wage (X1) is 0.008 and is positive, indicating that a one-rupiah increase in the provincial minimum wage is associated with an increase of 0.008 in the poverty level.
3. The regression coefficient for the Open Unemployment Rate (X2) is 25.898 and positive, suggesting that an increase of one unit in the unemployment rate corresponds to a 25.898 increase in the poverty level.

3. Coefficient of Determination

The results of the model summary indicate a strong goodness of fit for the multiple linear regression model. The correlation coefficient (R) is 0.917, demonstrating a strong positive relationship between the independent variables—Provincial Minimum Wage and Open Unemployment Rate—and the dependent variable, Poverty. The coefficient of determination (R^2) is 0.842, meaning that approximately 84.2% of the variation in poverty can be explained by changes in the two independent variables included in the model. The adjusted R^2, which accounts for the number of predictors and sample size, is 0.778, indicating that the model maintains a high explanatory power even after adjustment. The standard error of the estimate is 31.293, reflecting the average distance of the observed poverty values from the regression line. Overall, these statistics suggest that the model fits the data well and provides a reliable prediction of poverty based on the selected predictors.

4 Statistical Test

a. T-Test (Partial Test)

The t-test is employed to examine the research hypothesis concerning the individual effect of each independent variable on the dependent variable (Sudjiono, 2010). The hypothesis is evaluated based on the following criteria: if the significance value is less than 0.05 or the calculated t-value exceeds the critical t-value, the independent variable is considered to have a significant effect on the dependent variable. Conversely, if the significance value is greater than 0.05 or the calculated t-value is below the critical t-value, the independent variable is regarded as having no significant effect.

The results of the multiple linear regression analysis indicate that the independent variables have a significant impact on the dependent variable, Poverty. The regression coefficient for the Provincial Minimum Wage is 0.008, with a standardized Beta of 0.727, t = 3.726, and a significance value of 0.014, showing a positive and statistically significant effect on poverty. Similarly, the Open Unemployment Rate has a regression coefficient of 25.898, a standardized Beta of 0.337, t = 1.727, and a significance value of 0.145, indicating a positive relationship with poverty. The constant (intercept) of the model is 1960.576, which is not statistically significant (t = 0.244, p = 0.817). Overall, these results suggest that both independent variables contribute positively to explaining the variation in poverty, with the Provincial Minimum Wage showing a stronger and statistically significant influence.

The analysis of the regression results demonstrates that the Provincial Minimum Wage exerts a significant positive effect on poverty levels, as evidenced by its coefficient of 0.008, standardized Beta of 0.727, t-value of 3.726, and a significance level of 0.014. This indicates that increases in the minimum wage are associated with a corresponding rise in poverty, highlighting its strong influence within the model.

In contrast, the Open Unemployment Rate also shows a positive coefficient of 25.898 with a standardized Beta of 0.337. However, with a t-value of 1.727 and a significance level of 0.145, this variable does not reach statistical significance, suggesting that while it is positively related to poverty, its explanatory power is weaker compared to the minimum wage. The constant of 1960.576 is not significant, implying that the baseline level of poverty is not reliably explained in the absence of the independent variables. Taken together, these findings suggest that the Provincial Minimum Wage plays a more dominant and statistically significant role in influencing poverty than the Open Unemployment Rate.

b. F Test (Simultaneous Test)

The F-test is used to assess whether the independent variables collectively have an effect on the dependent variable. The decision rule is as follows: if the significance value is less than 0.05 or the calculated F-value exceeds the critical F-table value, it indicates that the independent variables jointly

influence the dependent variable. If the sig value is >0.05 or the calculated f value is < f table, then the independent variables simultaneously do not influence the dependent variable.

The results of the ANOVA test indicate that the regression model is statistically significant. The regression sum of squares is 260,293,512.890 with 2 degrees of freedom, while the residual sum of squares is 48,962,086.985 with 5 degrees of freedom, producing a total sum of squares of 309,255,599.875. The mean square for regression is 130,146,756.445, and the mean square for residuals is 9,792,417.397. The resulting F-statistic is 13.291 with a significance value of 0.010, which is below the 0.05 threshold.

This outcome confirms that the independent variables—Provincial Minimum Wage and Open Unemployment Rate—when considered together, have a statistically significant effect on the dependent variable, Poverty. In other words, the model as a whole is valid for explaining variations in poverty based on the selected predictors.

4 Conclusion

The study examining the impact of Provincial Minimum Wages and Open Unemployment Rates on Poverty in DKI Jakarta for the years 2016–2023 yields several notable conclusions.

First, the partial test (t-test) results reveal that the Provincial Minimum Wage (UMP) significantly affects poverty levels. This suggests that the wage policy set by the regional government through the UMP determination plays an important role in shaping the socio-economic conditions of society, particularly in lowering poverty rates. Therefore, consistently increasing the UMP can be an effective policy instrument for improving the welfare of people in urban areas.

Second, partial test results on the Open Unemployment Rate (TPT) variable indicate that this variable has no significant influence on poverty levels in DKI Jakarta. This finding suggests that although the open unemployment rate fluctuated during the study period, this factor did not directly impact increases or decreases in poverty levels. This condition may be due to other, more dominant factors, such as the informal sector's ability to absorb labor, albeit at low incomes, and therefore not officially recorded in poverty indicators.

Third, the results of the simultaneous test (F-test) demonstrate that the Provincial Minimum Wage (UMP) and the Temporary Unemployment Rate (TPT) together significantly influence poverty. This means that even though the TPT has no effect partially, the combination of wage policies and labor market conditions still plays a significant role in determining poverty dynamics in urban areas such as Jakarta. This confirms that poverty reduction policies cannot focus solely on a single variable but require a comprehensive approach that encompasses various aspects of employment and welfare.

Overall, the results of this study confirm that wage policy, through the establishment of the Provincial Minimum Wage (UMP), is a significant factor in reducing poverty levels, while the role of open unemployment is less significant. However, the interaction between the two remains relevant and needs to be considered in formulating economic development and poverty alleviation policies in Jakarta.

References

Arsyad, L. (2018). Development Economics. Yogyakarta: UPP STIM YKPN.
Fields, G. S. (2012). *Working hard, working poor: A global journey*. Oxford University Press.
National Development Planning Agency (Bappenas). (2020). Indonesian Human Development Report. Jakarta: Bappenas.

Central Statistics Agency (BPS). (2023a). Open Unemployment Rate by Province 2016–2023. Jakarta: BPS.
Central Statistics Agency (BPS). (2023b). Poverty Profile in Indonesia 2023. Jakarta: BPS.
Jakarta Manpower Office. (2023). Jakarta Province Manpower Report 2023. Jakarta: Disnakertrans.
Ghozali, I. (2018). Multivariate Analysis Application with IBM SPSS 25 Program. Semarang: UNDIP Publishing Agency.
Gujarati, D. N., & Porter, D. C. (2009). Basic Econometrics (5th ed.). New York: McGraw-Hill.
Kuncoro, M. (2019). Problems, Policies, and Politics of Development Economics. Jakarta: Erlangga.
Mankiw, N.G. (2021). Principles of Economics (9th ed.). Boston: Cengage Learning.
Sastrohadiwiryo, SB (2020). Indonesian Workforce Management. Jakarta: Bumi Aksara.
Nazir, M. (2017). Research Methods. Bogor: Ghalia Indonesia.
Neumark, D., & Wascher, W. (2008). *Minimum wages*. MIT Press.
Ravallion, M. (2001). Growth, inequality and poverty: Looking beyond averages. *World Development*, 29(11), 1803–1815.
Simanjuntak, PJ (2019). Human Resource Economics. Jakarta: FE UI Press.
Sugiyono. (2018). Quantitative, Qualitative, and R&D Research Methods. Bandung: Alfabeta.
Suryahadi, A., et al. (2021). Poverty, Growth, and Inequality in Indonesia. Bulletin of Indonesian Economic Studies, 57(1), 1–26.
Tambunan, T. (2019). The Indonesian Economy: Theory and Empirical Findings. Jakarta: Ghalia Indonesia.
Todaro, M. P., & Smith, S. C. (2020). Economic Development (13th ed.). Harlow: Pearson Education.
Law Number 6 of 2023 concerning Job Creation.
World Bank. (2022). Indonesia Economic Prospects: Boosting the Recovery. Washington, DC: World Bank.