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Research Article

The Influence of Minimum Wages and Unemployment Rates on Poverty in Indonesia for the Period 2015-2025

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Keywords:	Abstract
Poverty, Minimum Wage, Unemployment	This study aims to analyze the influence of minimum wages and unemployment rates on poverty levels in Indonesia during the period 2015–2024. Poverty remains one of the most persistent socio-economic challenges in developing countries, including Indonesia, where economic growth does not always lead to equitable welfare distribution. Minimum wage policies are expected to improve the income of low-income workers, while high unemployment rates tend to increase the number of people living below the poverty line. Therefore, understanding the interaction between these variables is essential for designing effective poverty reduction strategies. This research employs a quantitative approach using multiple linear regression analysis to examine the relationship between minimum wages, unemployment rates, and poverty levels. The study utilizes secondary data obtained from the Central Statistics Agency (Badan Pusat Statistik/BPS) covering the 2015–2024 period. Data were processed using statistical software to test both the partial and simultaneous effects of the independent variables on poverty. The results reveal that minimum wage and unemployment rate variables significantly affect poverty levels, both partially and simultaneously. However, the effect of minimum wage increases on reducing poverty is not always consistent, particularly when not accompanied by improvements in labor productivity and job creation. Conversely, the unemployment rate has shown a strong and positive relationship with poverty, indicating that higher unemployment tends to raise poverty levels. The findings highlight the importance of integrating wage policies with employment and productivity enhancement programs to achieve sustainable poverty reduction in Indonesia.

Introduction

Many developing countries, including Indonesia, face poverty problems that are still complex and multidimensional. Based on data from the Central Statistics Agency (BPS, 2021), poverty is measured by the poverty line, which indicates that a person or household cannot meet their basic needs, both food and non-food. Poverty represents an unresolved global inequality, with more than one billion people worldwide living in poverty. This problem is influenced by factors outside a country, such as social policies and economic structures, as well as factors at the global level, such as economic instability, interdependence between countries, and the effects of globalization (Ihsan et al., 2018). In addition to increasing economic relations between countries, globalization also brings challenges and risks to progress, especially for countries that are

still less well-off. This means that developing countries do not have enough fiscal and policy space to overcome poverty independently. As a developing country, Indonesia continues to face the problem of poverty that still exists in the lives of its people. Facts on the ground show that poverty is still a structural problem that requires serious attention, even though various mitigation programs have been implemented.

Poverty reflects the inability of people to achieve a minimum standard of living (Thalita et al.,). Unemployment is one of the factors that worsens this situation because it reduces purchasing power and reduces demand for goods and services. Ultimately, unemployment hinders investment and the creation of new jobs (Khindya Alifah et al., 2023). Unemployment has significant social and economic effects, making it a major problem for all regions of Indonesia, according to Aswanto et al. (2025). This situation creates a vicious circle of poverty that is difficult to break, especially in areas that already have limited access to education, skills, and economic resources. Therefore, it is very important to understand how the cycle of poverty works in each region so that the policies implemented can better address it. Do not use the name of an expert in front of the sentence.

On the other hand, wage levels also play an important role in poverty dynamics. Inadequate minimum wages are unable to meet the basic needs of workers, thus triggering inequality and ongoing poverty. In addition, the low level of education and skills of the workforce weakens their competitiveness in the labor market. This condition causes poverty to remain difficult to overcome even though the minimum wage has been set without improving the quality of human resources as a whole (Chairunnisa and Qintharah, 2022). Low minimum wages can also limit social mobility, so that poverty tends to continue between generations. In addition, setting a minimum wage that refers to the wage level at the provincial level is a strategy to maintain the income standards of workers in areas that have not set specific wages, although its implementation still faces various challenges (Ghoni, 2017). When income is not enough to meet basic needs, opportunities for social mobility are limited, so that the cycle of poverty continues from generation to generation. The minimum wage is set based on the state minimum wage level as a reference for cities and districts that have not determined their geographic areas.

The data recorded by the Central Statistics Agency from this research variable is minimum wage, unemployment rate, and poverty.

Table 1
Here is the Minimum Wage Data, Unemployment Rate, and Poverty Line in Indonesia for the Period 2015 – 2024

Year	Minimum Wage (%)	Unemployment Rate (%)	Poverty (%)
2015	10,61	6,18	11,13
2016	14,81	5,61	10,70
2017	14,52	5,50	10,12
2018	7,04	5,30	9,66
2019	6,58	5,23	9,41
2020	0	7,07	9,78
2021	3,92	6,49	10,14
2022	5,08	5,86	9,54
2023	4,84	5,32	9,36
2024	9,33	4,12	8,57

Data source: https://www.bps.go.id/id

During the period 2015 to 2024, there is a close relationship between minimum wage increases, unemployment rates, and poverty, reflecting the socio-economic dynamics of society. In 2015–2017, high minimum wage increases did not cause a spike in unemployment, and were even accompanied by a decrease in poverty rates, indicating the positive role of wages in supporting welfare. However, in 2020 when there was no wage increase due to the COVID-19 pandemic, there was a spike in unemployment and poverty, reflecting the economic vulnerability of society in a crisis situation. Recovery began to be seen from 2021 to 2024, where moderate wage increases were accompanied by a decrease in unemployment and poverty. Overall, minimum wage

policies that are adjusted to economic conditions have proven to be effective in encouraging job creation and reducing poverty. Therefore, a wage policy is needed that balances business competitiveness and protection of vulnerable communities.

Based on the description, it can be concluded that poverty in Indonesia is a multidimensional problem that cannot be separated from the problems of unemployment and minimum wage levels. In the context of "The Effect of Minimum Wages and Unemployment Rates on Poverty in Indonesia for the Period 2015–2024", it is important to understand that the non-food poverty line reflects the community's ability to meet basic needs other than food, such as housing, education, and health.

Hypotheses Development

Poverty is a multidimensional issue in Indonesia, heavily influenced by economic indicators such as minimum wages and unemployment rates. As highlighted in previous studies and supported by empirical data from 2015 to 2024, the interplay between these variables has substantial implications for poverty alleviation efforts.

Minimum wage and Poverty

Theoretically, an increase in minimum wage is expected to improve household income and purchasing power, thereby reducing poverty. However, when not aligned with labor productivity, higher minimum wages may instead burden employers—particularly in the informal sector—resulting in layoffs or reduced hiring. This paradoxical effect suggests that the impact of minimum wage on poverty may not always be straightforward.

Unemployment and Poverty

Unemployment directly reduces household income and limits consumption capacity. A rising unemployment rate typically leads to increased poverty due to reduced access to employment and economic resources. Consequently, unemployment is frequently cited as one of the most significant contributors to poverty in developing nations, including Indonesia.

Effects of Minimum Wage and Unemployment on Poverty

The interaction between minimum wage policies and unemployment can have a compounded effect on poverty levels. While increasing wages might reduce poverty if employment is stable, the opposite might occur if higher wages cause increased unemployment. Therefore, understanding their combined effect is crucial for policy design.

Based on the theoretical and empirical foundations above, the following hypotheses are proposed:

- H1: Minimum wage has a significant effect on the poverty rate in Indonesia.

- H2: Unemployment rate has a significant effect on the poverty rate in Indonesia.

- H3: Minimum wage and unemployment rate simultaneously have a significant effect on the poverty rate in Indonesia.

Method

This study uses a quantitative descriptive method, namely research that analyzes numerical data in the form of numbers which are then processed using the SPSS application and presented in the form of descriptions. The data used in this study are secondary data, namely data obtained from government institutions and have been published to the public, such as the Central Statistics Agency (BPS), Bank Indonesia (BI), and other sources that can provide relevant and adequate information.

The data analysis technique in this study uses multiple linear regression analysis hypothesis testing. Multiple linear regression analysis is used to determine the effect of two or more independent variables on one dependent variable. However, before conducting multiple linear regression analysis, a classical assumption test is used which includes a normality test, a multicollinearity test, and an autocorrelation test. The normality test aims to test whether in the regression model, the dependent variable and the independent variable are both normally distributed or not. A good regression model has a normal or near-normal data distribution (Ghozali,

2001). While the multicollinearity test aims to test whether there is a correlation between the independent variables in the regression model (Ghozali, 2001). The form of the multiple linear regression equation used can be formulated as follows:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \in$$

Description:
Y   = Dependent variable: Poverty in Indonesia
α   = Constant
β1   = Minimum Wage variable coefficient
β2   = Unemployment variable coefficient
X1   = Minimum Wage variable
X2   = Unemployment variable
∈   = Random error or confounding factor

Results And Discussion

A. Classical Asumption Test
  1. Normality Test

Table 2
One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		10
Normal Parameters [a,b]	Mean	.0000000
	Std. Deviation	26.69863620
Most Extreme Differences	Absolute	.123
	Positive	.113
	Negative	-.123
Test Statistic		.123
Asymp. Sig. (2-tailed)		.200[c,d]

a. Test distribution is Normal.
b. Calculated from data.
c. Lilliefors Significance Correction.
d. This is a lower bound of the true significance.

Based on the results of the Normality Test in the Kolmogorov-Smirnov table above, the Asymp. Sig. (2-tailed) value is 0.200. Because this value is greater than the significance level of 0.05 (0.200 > 0.05), then H0 is accepted. This means that the residuals from the regression model are normally distributed. Thus, the normality assumption is met and the regression model used is declared feasible for further hypothesis testing.

2. Multicollinearity Test

Table 3
Coefficientsᵃ

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	404.190	89.976		4.492	.003		
	minimum wage	.125	.024	.811	5.201	.001	.798	1.253
	unemployment rate	.854	.141	.947	6.076	.001	.798	

a. Dependent Variable: poverty

Based on the Coefficientsa table above, the Variance Inflation Factor (VIF) value for the minimum wage and unemployment rate variables is 1.253 each. This value is below the general threshold used, which is

10. This indicates that there is no multicollinearity between the independent variables in the regression model. Thus, the variables in the model are considered not highly correlated with each other and the regression model can be used for further analysis validly.

3. Autocorrelation Test

Table 4
Model Summaryᵇ

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.930ᵃ	.864	.825	30.27341	2.151

a. Predictors: (Constant), unemployment rate, minimum wage
b. Dependent Variable: poverty

Based on the results of the Model Summary, the R value = 0.930 and R Square = 0.864 were obtained. This means that 86.4% of the variation in poverty can be explained by the unemployment rate and minimum wage variables, while the remaining 13.6% is influenced by other factors outside the model. In addition, the Durbin-Watson value of 2.151 is in the range of 1.5–2.5, which indicates that there is no autocorrelation in this regression model. Thus, the model meets the assumption of being free of autocorrelation and is suitable for further analysis.

A. Multiple Linear Regression Test
   1. F Test

Table 5
ANOVAᵃ

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	40847.545	2	20423.773	22.285	.001ᵇ
	Residual	6415.355	7	916.479		
	Total	47262.900	9			

a. Dependent Variable: Poverty
b. Predictors: (Constant), unemployment rate, minimum wage

Based on the ANOVA table above, the calculated F value is 22.285 and the significance value (Sig.) Is 0.001. When compared with the significance value of 0.05, then 0.001 <0.05, so H₀ is rejected and Hₐ is accepted. This means that simultaneously the unemployment rate and minimum wage variables have a significant effect on the poverty rate. Thus, this regression model is suitable for use in further analysis.

2. T Test

Table 6
Coefficientsᵃ

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	404.190	89.976		4.492	.003
	minimum wage	.125	.024	.811	5.201	.001
	unemployment rate	.854	.141	.947	6.076	.001

a. Dependent Variable: poverty

$Y = 404.190 + 0.125 \times X1 + 0.854 \times X2$

Description:
Y   = Poverty
X1   = Minimum Wage
X2   = Unemployment Rate

1. Constant (404.190). If the Minimum Wage and Unemployment Rate variables are zero, then the poverty rate is estimated at 404.190.
2. Minimum Wage (0.125). This coefficient value indicates that every 1 unit increase in the Minimum Wage will increase the poverty rate by 0.125, assuming other variables remain constant.
3. Unemployment Rate (0.854). Every 1 unit increase in the Unemployment Rate will increase the poverty rate by 0.854, assuming other variables remain constant.
4. Significance. The significance value (Sig.) for the Minimum Wage is 0.001 and for the Unemployment Rate is 0.001, both of which are less than 0.05. This indicates that the influence of the Minimum Wage and Unemployment Rate simultaneously and partially is significant on the poverty rate in this regression model.

3. Coefficient of Determination (r-square)

Table 7
Model Summaryᵇ

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.930ᵃ	.864	.825	30.27341	2.151

a. Predictors: (Constant), unemployment rate, minimum wage
b. Dependent Variable: poverty

The table above shows that the multiple regression coefficient (R) value is 0.930, and the multiple determination coefficient (R Square) value is 0.864. This means that 86.4% of the variation in poverty levels can be explained by changes in the unemployment rate and minimum wage variables. Meanwhile, the remaining 13.6% is influenced by other factors not included in this research model.

The Impact of Minimum Wages on Poverty

The results of the analysis show that, with a significance value of 0.001, the minimum wage variable has a significant impact on the poverty rate. With a regression coefficient of 0.125, it can be seen that an increase in the minimum wage is automatically followed by an increase in poverty. This can be caused by two things. First, an increase in the minimum wage that is not balanced with labor productivity causes business efficiency to decrease, which in turn causes layoffs, and ultimately increases poverty. Second, because small businesses are unable to comply with formal wage provisijjons, high minimum wages encourage the informal sector to grow rapidly.mThis finding is in line with Pamungkas' (2018) research which shows that increasing the minimum wage can trigger an increase in unemployment, which in turn has an impact on increasing poverty. In line with this, a study by Putri and Putri (2021) revealed that the minimum wage has a positive but insignificant effect on reducing poverty, indicating that increasing wages without increasing productivity or quality of the workforce is not effective enough to reduce poverty. Meanwhile, Akbar et al. (2022) found that the contribution of the minimum wage in explaining variations in poverty rates was only 22.27%, indicating that other factors such as economic growth, education, and government spending also play an important role. Thus, the policy of increasing the minimum wage must be accompanied by a strategy to increase productivity and protect the informal sector so as not to have a negative impact on poverty alleviation efforts.

The Impact of Unemployment on Poverty

With a significance value of 0.001 and a regression coefficient of 0.854, the unemployment rate also shows a significant effect on poverty. In other words, unemployment is the main factor causing poverty because it reduces people's purchasing power and results in a decrease in household consumption. This finding is in line with the research results of Maskur et al. (2023) which shows that unemployment has a significant influence on poverty in Indonesia. The increase in unemployment in various provinces has a direct impact on the increase in the number of poor people. In addition, Guampe, Walenta, and Kawani (2024) also found that open unemployment contributed significantly to driving poverty during the period 2001–2021. Furthermore, Zaqiah, Triani, and Yeni (2021) emphasized that the increase in the unemployment rate is directly proportional to the increase in the number of poor people in Indonesia. These three studies emphasize that unemployment is not only an economic indicator, but also a direct trigger for weakening the welfare of society in general. Therefore, poverty alleviation efforts need to seriously integrate policies for creating productive and sustainable jobs.

The Impact of Minimum Wages and Unemployment on Poverty

The results of the F test show that simultaneously, minimum wages and unemployment rates have a significant effect on poverty, with a significance value of 0.001. The large value of the coefficient of determination (R^2) of 0.864 indicates that these two variables are able to explain 86.4% of the variation in poverty rates in Indonesia in the period 2015–2024. This indicates that wage policies and job creation must go hand in hand to effectively reduce poverty rates. This finding is in line with the research results of Munarni, Syaris, and Nusantara (2024) which showed that minimum wages and unemployment partially and simultaneously had a significant effect on poverty in Southeast Sulawesi Province. Similar results were also found by Sulistiawan (2023) in his research in the provinces of Java Island, where increasing minimum wages and economic growth had a negative impact on poverty, while unemployment had a significant positive effect. Meanwhile, Hanifah and Hanifa (2021) in a study in Lamongan Regency also showed that economic growth, minimum wages, and unemployment together significantly affected poverty.

Conclusion

Based on the research results, the minimum wage and unemployment rate have a significant effect on the poverty rate in Indonesia for the period 2015–2024. Increasing the minimum wage does not always reduce poverty if it is not accompanied by increased productivity. Meanwhile, unemployment has proven to be a dominant factor that worsens poverty conditions. Simultaneously, both variables explain most of the variation in poverty, so an integrated policy is needed that prioritizes job creation and strengthening the quality of the workforce. The study utilizes secondary data obtained from the Central Statistics Agency (Badan Pusat Statistik/BPS) covering the 2015–2024 period. Data were processed using statistical software to test both the partial and simultaneous effects of the independent variables on poverty. The results reveal that minimum wage and unemployment rate variables

significantly affect poverty levels, both partially and simultaneously. However, the effect of minimum wage increases on reducing poverty is not always consistent, particularly when not accompanied by improvements in labor productivity and job creation. Conversely, the unemployment rate has shown a strong and positive relationship with poverty, indicating that higher unemployment tends to raise poverty levels. The findings highlight the importance of integrating wage policies with employment and productivity enhancement programs to achieve sustainable poverty reduction in Indonesia.

References

Akbar, M., Rachmawati, R., & Darmayanti, D. (2022). *Pengaruh Upah Minimum, Produk Domestik Regional Bruto (PDRB), dan Tingkat Pengangguran Terhadap Tingkat Kemiskinan di Provinsi Jawa Barat Tahun 2010–2020*. Jurnal Ilmiah Mahasiswa Ekonomi Pembangunan, 2(2), 194–207.

Aswanto, Y. E. (2025). Analisis Tingkat Pengangguran dan Kemiskinan Terhadap Pertumbuhan Ekonomi Indonesia. *Scientific Journal of Economics, Management, Business, and Accounting*, 98-116.

Chairunnisa, N. M., & Qintharah, Y. N. (2022). Pengaruh Kesehatan, Tingkat Pendidikan, dan Upah Minimum terhadap Kemiskinan pada Provinsi Jawa Barat Tahun 2019-2020. *Jurnal Penelitian Teori & Terapan Akuntansi (PETA)*, 7(1), 147–161.

Ghoni, M. A. (2017). *Analisis Pengaruh Upah Minimal, Pengangguran dan Pendidikan Terhadap Kemiskinan di Provinsi Jawa Tengah Tahun 2010-2014*. Universitas Muhammadiyah Yogyakarta.

Giovanni, R. (2018). Analisis Pengaruh PDRB, Pengangguran dan Pendidikan Terhadap Tingkat Kemiskinan di Pulau Jawa tahun 2009-2016. *Economics Development Analysis Journal*, 23-31.

Guampe, F. A., Walenta, A. S., & Kawani, F. B. (2024). *Pengaruh Pertumbuhan Ekonomi dan Pengangguran Terbuka terhadap Kemiskinan di Indonesia Tahun 2001–2021*. Jurnal Pendidikan Ekonomi dan Kewirausahaan, 8(1), 10–21.

Hanifah, S., & Hanifa, N. (2021). *Pengaruh Pertumbuhan Ekonomi, Upah Minimum, Dan Pengangguran Terhadap Kemiskinan Di Kabupaten Lamongan*. Independent: Journal of Economics, 1(3), 191–206.

Khindya Alifah, N. I. (2023). Tingkat Pendidikan, Upah Minimum & Tingkat Penggangguran Terbuka Terhadap Tingkat Kemiskinan di Provinsi Daerah Istimewa Yogyakarta. *Equilibrium* , 1-11.

Maskur, S. R. R., Aedy, H., Saenong, Z., Tajuddin, S., Alwi, S., & Barani, L. O. S. (2023). *Pengaruh Ketimpangan Pendapatan, Pengangguran dan Pembangunan Manusia terhadap Kemiskinan di Indonesia Periode 2017–2021*. Jurnal Progres Ekonomi Pembangunan, 8(1).

Munarni, V., Syaris, M., & Nusantara, A. W. (2024). *Pengaruh Upah Minimum dan Pengangguran terhadap Kemiskinan di Provinsi Sulawesi Tenggara*. Jurnal Progres Ekonomi Pembangunan, 9(2).

Pamungkas, Y. R. (2018). *Pengaruh Upah Minimum dan Tingkat Pengangguran terhadap Kemiskinan di Indonesia*. Jurnal Ilmu Ekonomi, 6(1), 14–22.

Putri, R. A., & Putri, D. A. (2021). *Pengaruh Upah Minimum Terhadap Tingkat Kemiskinan di Indonesia Tahun 2015–2019*. Jurnal Ekonomi dan Kebijakan Publik, 12(1), 50–59.

Sulistiawan, A. (2023). *Pengaruh Upah Minimum, Produk Domestik Regional Bruto (PDRB), dan Pengangguran Terhadap Kemiskinan di Provinsi Pulau Jawa*. Jurnal Ilmu Ekonomi (JIE), 7(01), 115–126.

Thalita Luqiana Putri, R. E. (n.d.). Analisis Pengaruh Pengangguran, Penanaman Modal dalam negeri, dan Upah Minimum Provinsi terhadap Kemiskinan di Jawa Timur. *Jurnal Riset Pendidikan Ekonomi*, 66-77.

Zaqiah, A., Triani, M., & Yeni, I. (2021). *Pengaruh Pendidikan, Pengangguran dan Jumlah Penduduk terhadap Tingkat Kemiskinan di Indonesia*. e-Journal Ekonomi Pembangunan, Universitas Negeri Padang.