Al-Kharaj: Journal of Islamic Economic and Business
Volume 8 (2), 2026
P-ISSN: 2686-262X; E-ISSN: 2685-9300

The Effect of Poverty Levels and Minimum Wages on The Human Development Index in West Nusa Tenggara Province

Erika Suryaningsih[1], Baehaqi[2], Ahmad Suhendri[3]
[123]Faculty of Economics and Business, Universitas Islam Al-Azhar, Indonesia
Email: esuryaningsih249@gmail.com, baehaqi@unizar.ac.id, ahmadsuhendri@unizar.ac.id

Received:

Revised:

Accepted:

Abstract

This study aims to determine how poverty levels and minimum wages affect the Human Development Index (HDI) in West Nusa Tenggara Province from 2010 to 2024. This study is quantitative in nature because it is numerical and uses multiple linear regression analysis. This study uses secondary data in the form of time series data for the period 2010-2024 obtained from the Central Statistics Agency (BPS). The results show that, partially, the poverty level variable has a negative and significant effect on the human development index variable in NTB in 2010-2024, while the minimum wage variable partially has a positive and significant effect on the Human Development Index variable in NTB in 2010-2024. Then, simultaneously, the poverty rate and minimum wage variables affect the Human Development Index in NTB in 2010-2024.

Keywords: *Human Development Index, Poverty Rate, Minimum Wage*

INTRODUCTION

Human development has become a strategic priority in contemporary development planning, emphasizing the enhancement of people's capabilities and quality of life over mere economic expansion (Telch & Appe, 2022). The United Nations Development Programme (UNDP) introduced the Human Development Index (HDI) in 1990 as a composite indicator to evaluate human progress through three core dimensions: a long and healthy life, knowledge acquisition, and a decent standard of living (United Nations Development Programme, 2023). In Indonesia, the Central Bureau of Statistics (BPS) aligns with this framework, conceptualizing human development as "the process of expanding the choices available to the population," rooted in three fundamental opportunities: the chance to live a long and healthy life, access to knowledge via education, and the ability to secure sufficient economic resources for a decent livelihood (BPS, 2024). These dimensions are foundational, as their fulfillment enables individuals to pursue broader opportunities and elevates overall well-being (Hartanto et al., 2019).

The HDI functions as both a measure of achievement and a benchmark for assessing policy effectiveness in regional development (Kouskoura et al., 2024). Higher HDI values indicate improved quality of life and lower poverty incidence, while disparities reveal structural barriers in health, education, and economic access (Adim, 2024). Nationally, Indonesia's HDI has exhibited steady progress, reaching 75.90 in 2025—an increase of 0.88 points from 75.02 in 2024—placing it firmly in the high human development category (BPS, 2025). Nevertheless, inter-provincial

inequalities persist, driven by variations in socioeconomic conditions, infrastructure, and resource availability.

Nusa Tenggara Barat (NTB) Province exemplifies these challenges. Despite consistent annual improvements, NTB's HDI has trailed the national average. In 2025, it reached 73.97 (up 0.87 points or 1.19% from 73.10 in 2024), reflecting gains across all dimensions: life expectancy at birth rose to 72.6 years, mean years of schooling to 8.21 years, and real per capita expenditure supporting enhanced living standards (BPS NTB, 2025b). Yet, NTB remains below the national figure, underscoring lags in human resource quality and the need for targeted interventions (Jati, 2023).

Poverty constitutes a primary impediment to human development progress. Multidimensionally defined, poverty extends beyond income deficits to encompass deprivations in basic needs—food, clothing, shelter, education, and health—as well as limitations in social participation and capabilities. As Amartya Sen (1999) argues in the capability approach, poverty represents "deprivation of the freedoms to achieve valued functionings," necessitating assessments that incorporate access to education, health, and social engagement rather than monetary metrics alone (Osei & Owoo, 2024). Chambers (1995) further conceptualizes poverty as an integrated phenomenon involving powerlessness, vulnerability, dependency, and isolation, highlighting its structural and social roots. In NTB, poverty rates have declined from 21.58% in 2010 to 11.38% in September 2025, yet they exceed the national average, perpetuating restricted access to quality services and constraining HDI advancement (BPS NTB, 2025b).

In contrast, minimum wage policies represent a potential mechanism for mitigation (Sefil-Tansever & Yılmaz, 2024). Efficiency wage theory suggests that higher wages boost labor productivity by improving nutrition and health (particularly in developing contexts), reducing turnover, enhancing effort, and attracting skilled workers (Mankiw, 2018). The living wage framework ensures earnings sufficient for dignified living, encompassing basic physical needs and social participation (Anker, 2011). In Indonesia, minimum wages aim to secure decent livelihoods for workers, with provincial adjustments reflecting local economic conditions (Faizin, 2021). NTB's provincial minimum wage increased progressively from Rp890,775 in 2010 to Rp2,602,931 in 2025 (with a further modest rise to Rp2,673,861 in 2026), though it lags national levels and faces implementation challenges (BPS NTB, 2025a).

Prior empirical research on these relationships yields inconsistent findings. Some studies report a significant negative effect of poverty on HDI (Adim, 2024), while others find it insignificant (Priambodo, 2021). Minimum wages demonstrate positive significant impacts in certain analyses (M Alfen, 2026) but not others. These discrepancies, often attributable to shorter

time spans, limited regional scope, or omitted variables, indicate the value of extended longitudinal examination.

This study addresses these gaps by examining the extent to which poverty levels and minimum wages influence the Human Development Index in NTB Province over the 2010–2024 period, utilizing comprehensive time-series data to capture long-term dynamics and provide a more robust understanding of these relationships. Specifically, the analysis seeks to determine whether poverty exerts a significant partial effect on HDI, whether minimum wages exert a significant partial effect on HDI, and whether these two factors together exert a significant simultaneous influence on HDI in the province during the specified timeframe. The objectives align with these inquiries, aiming to uncover partial and joint effects. Theoretically, the study contributes to refining understandings of poverty-wage-HDI linkages in lagging regions. Practically, the findings offer empirical insights to inform policy formulation for poverty reduction, wage optimization, and accelerated human development in NTB and similar provinces.

METHODS

This study employs a quantitative causal-associative design to explore the potential cause-and-effect relationships between the independent variables—poverty rate and minimum wage—and the dependent variable, the Human Development Index (HDI) in Nusa Tenggara Barat (NTB) Province. By relying on time-series data covering the period from 2010 to 2024, the research tests the formulated hypotheses through empirical analysis.

All data used in this study are secondary and were obtained from official publications of the Central Bureau of Statistics (BPS) for Nusa Tenggara Barat Province. The analysis is based on annual observations of poverty rates, provincial minimum wages, and HDI values over the fifteen-year span. These longitudinal data were collected from BPS statistical reports, annual publications, and the official BPS website, ensuring consistency and reliability from a trusted government source.

The dependent variable is the Human Development Index (HDI), denoted as Y. This composite indicator reflects overall human development success by integrating three main dimensions: health (measured through long and healthy life expectancy), education (capturing knowledge and learning opportunities), and decent living standards (based on income and consumption levels). HDI is expressed in annual percentage terms and was sourced from BPS NTB and national BPS records for the 2010–2024 period.

The independent variables consist of poverty rate (X_1) and minimum wage (X_2). Poverty rate represents the percentage of the population living below the official poverty line, signifying limited capacity to fulfill basic needs (Satrya & Dewi, 2025). It is measured annually in percentage

terms using data from BPS NTB and national BPS series. Minimum wage refers to the legally mandated lowest monthly wage that employers are required to pay workers to support a decent standard of living. This variable is measured in Indonesian Rupiah (Rp) and was obtained from BPS NTB publications and relevant government decrees across the study period.

The core analytical method is multiple linear regression, which quantifies the influence of the independent variables on HDI. The regression equation is formulated as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \varepsilon$$

where Y denotes the Human Development Index, X_1 is the poverty rate, X_2 is the minimum wage, β_0 is the constant intercept, β_1 and β_2 are the regression coefficients, and ε is the error term.

All statistical computations, parameter estimations, and hypothesis tests were conducted using SPSS version 25.0 to facilitate accurate and efficient processing.

Before interpreting the regression results, classical assumption tests were applied to verify the model's validity. Residual normality was examined using the Shapiro-Wilk test, which is suitable for small sample sizes, along with P-P plots; residuals are deemed normally distributed when the significance level exceeds 0.05. Multicollinearity was assessed through the Variance Inflation Factor (VIF), with values below 10 (and tolerance above 0.1) indicating no substantial multicollinearity issue (Ghozali, 2013). Heteroscedasticity was tested via the Glejser method, and the absence of this problem is confirmed when significance is greater than 0.05. For time-series data, autocorrelation was checked using the Durbin-Watson statistic, with values falling between 1.5 and 2.5 suggesting no first-order autocorrelation. Finally, stationarity of the variables was confirmed through the Augmented Dickey-Fuller (ADF) unit root test, where stationarity is established if the probability is less than 0.05 (Gujarati, 2006).

Hypothesis testing proceeded with three main procedures. The coefficient of determination (R^2) evaluated the overall explanatory power of the model, while partial R^2 values assessed the individual contribution of each independent variable (derived from t-statistics and degrees of freedom: df = n – k – 1). The partial t-test determined the significance of each independent variable's individual effect, with significance indicated when $p < 0.05$ or the absolute t-calculated value exceeds the critical t-value. The simultaneous F-test assessed the joint significance of poverty rate and minimum wage, with significance established when $p < 0.05$ or the F-calculated value surpasses the critical F-value.

These methodological steps collectively ensure that the regression model is statistically robust and capable of yielding reliable conclusions about the hypothesized relationships

RESULTS AND DISCUSSION

The analysis utilizes annual time-series data from 2010 to 2024 sourced from official

publications of BPS NTB. For poverty rate (X_1), the data range from a minimum of 12.91% to a maximum of 21.58%, with a mean of 16.07%, standard deviation of 2.44, and variance of 5.96. Approximately 68% of observations lie within one standard deviation of the mean, consistent with a normal distribution.

Table 1. Descriptive Statistics of Research Variables

	Poverty Rate	Minimum Wage	Human Development Index
N	15	15	15
Range	8.67	1553292	9.77
Minimum	12.91	890775	61.16
Maximum	21.58	2444067	70.93
Mean	16.0720	1654868.80	66.3240
Std. Deviation	2.44201	554781.378	3.01241
Variance	5.963	307782376822.029	9.075

As shown in Table 1, the poverty rate ranges from a minimum of 12.91% to a maximum of 21.58%, with a mean of 16.07% and a standard deviation of 2.44. This reflects a moderate downward trend over the period with relatively low year-to-year variability. The minimum wage ranges from Rp890,775 to Rp2,444,067, with a mean of Rp1,654,868.80 and a standard deviation of Rp554,781.38, indicating consistent nominal growth driven by periodic adjustments, though with considerable dispersion reflecting the scale of increases. The HDI ranges from 61.16 to 70.93, with a mean of 66.32 and a standard deviation of 3.01, demonstrating steady improvement in human development outcomes accompanied by moderate variability.

The standard deviations are relatively modest compared to the ranges and means for all variables, suggesting stable and consistent trends without extreme fluctuations. For each variable, approximately 68% of observations fall within one standard deviation of the mean, which is consistent with approximate normality in the distributions. These descriptive patterns provide a reliable basis for the subsequent regression analysis, revealing clear directional movements: declining poverty, rising minimum wages, and progressive gains in HDI.

Classical Assumption Tests

Prior to interpreting the regression results, classical assumption tests were conducted to validate the multiple linear regression model.

Normality Test

Given the small sample size (n = 15), the Shapiro-Wilk test was applied. The significance values are 0.246 for poverty rate, 0.141 for minimum wage, and 0.826 for HDI—all greater than 0.05—indicating that the residuals follow a normal distribution. This is corroborated by the P-P plot of standardized residuals, where points closely follow the diagonal reference line without systematic deviation (González-Estrada & Cosmes, 2019). A probability value greater than 0.05

indicates that the residuals follow a normal distribution.

Table 2. Normality Test Results (Shapiro–Wilk)

Variable	Statistic	df	Sig.
Poverty Rate	.927	15	.246
Minimum Wage	.911	15	.141
Human Development Index	.968	15	.826

The results show that the significance value is greater than 0.05, indicating that the residuals of the regression model are normally distributed. Therefore, the normality assumption is satisfied.

Multicollinearity Test

The Variance Inflation Factor (VIF) values are 8.540 for both independent variables, with tolerance values of 0.117. As VIF is below 10 and tolerance exceeds 0.1, multicollinearity is not present.

Table 3. Multicollinearity Test Results

Variable	Tolerance	VIF
Poverty Rate	.117	8.540
Minimum Wage	.117	8.540

The results indicate that all independent variables have tolerance values above 0.10 and VIF values below 10. This finding suggests that the regression model does not suffer from multicollinearity.

Heteroskedasticity Test

The Glejser test yields significance levels of 0.917 for poverty rate and 0.408 for minimum wage, both greater than 0.05, confirming homoscedasticity (constant variance of residuals). (Glejser, 1969). A significance value greater than 0.05 indicates that heteroskedasticity is not present.

Table 4. Heteroskedasticity Test Results (Glejser Test)

Variable	Tolerance	VIF
Poverty Rate	.106	.917
Minimum Wage	.857	.408

Autocorrelation Test

The Durbin–Watson test was employed to examine the presence of autocorrelation in the residuals across successive time periods in the regression model (Durbin & Watson, 1950). The

Durbin-Watson statistic is 2.100, falling within the acceptable range of 1.5 to 2.5, indicating no first-order autocorrelation in the residuals.

Table 5. Autocorrelation Test Results (Durbin–Watson)

R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin–Watson
.997	.995	.993	.22192	2.100

The Durbin–Watson value falls within the acceptable range, indicating that the regression model is free from autocorrelation.

Stationarity Test

Given that the analysis relies on time-series data, the Augmented Dickey–Fuller (ADF) test was performed to assess stationarity (Paparoditis & Politis, 2018). A series is deemed stationary when the associated probability value falls below 0.05.

Table 6. Stationarity Test Results (ADF Test)

Variable	ADF Statistic	Critical Value (5%)	Probability (Sig.)	Decision
Poverty Rate (X1)	-5,475	-3,000	0,000	Stationary
Minimum Wage (X2)	-2,259	-3,000	0,186	Not Stationary
Human Development Index (Y)	-3,610	-3,000	0,006	Stationary

The Augmented Dickey-Fuller (ADF) unit root test indicates stationarity at level for poverty rate (ADF = −5.475, Sig. = 0.000) and HDI (ADF = −3.610, Sig. = 0.006). Minimum wage is non-stationary at level (ADF = −2.259, Sig. = 0.186). Nevertheless, the stationarity of the dependent variable (HDI) and the expected stationarity of regression residuals confirm a stable long-run relationship, mitigating the risk of spurious regression (Ayooluwade & Alamu, 2025).

Multiple Linear Regression Analysis

Multiple linear regression analysis was used to examine the effect of the poverty rate and Minimum wage on the Human Development Index in West Nusa Tenggara Province.

Table 7. Multiple Linear Regression Results

Variable	Unstandardized Coefficient (B)	Std. Error	t-Statistic	Sig.
Constant	67.409	2.821	23.898	.000
Poverty Rate	-.434	.122	-3.548	.004
Minimum Wage	3.558E-6	.000	6.610	.000

Based on the regression analysis, the estimated regression model can be expressed as follows:

$$HDI = 67.409 - 0.434\,X_1 + 3.558 \times 10^{-6} X_2 + \varepsilon$$

The negative coefficient for poverty rate (−0.434) indicates an inverse relationship, while the positive coefficient for minimum wage (3.558×10^{-6}) indicates a direct relationship.

Coefficient of Determination (R^2)

The coefficient of determination (R^2) was used to measure the ability of the independent variables to explain variations in the dependent variable.

Table 8. Coefficient of Determination (R^2)

R	R Square	Adjusted R Square	Std. Error of the Estimate
0.993	0.986	0.984	0.38237

The overall coefficient of determination (R^2) is 0.986, meaning that 98.6% of the variation in HDI is explained by poverty rate and minimum wage combined; the remaining 1.4% is attributable to other factors.

Partial R^2 values are 0.512 (51.2%) for poverty rate and 0.784 (78.4%) for minimum wage, calculated from t-statistics (t = −3.548 and 6.610, respectively) and df = 12.

Hypothesis Testing

Partial Test (t Test)

The partial t-test shows that poverty rate is significant (Sig. = 0.004 < 0.05; |t| = 3.548 > t-table 2.179), exerting a negative effect. Minimum wage is also significant (Sig. = 0.000 < 0.05; t = 6.610 > 2.179), exerting a positive effect.

Table 9. t Test Results

Variable	Unstandardized Coefficient (B)	Std. Error	t-Statistic	Sig.
Constant	67.409	2.821	23.898	.000
Poverty Rate	-.434	.122	-3.548	.004
Minimum Wage	3.558E-6	.000	6.610	.000

The simultaneous F-test yields Sig. = 0.000 < 0.05 and F-calculated = 428.465 > F-table (3.89), confirming that poverty rate and minimum wage jointly exert a significant influence on HDI.

Simultaneous Test (F Test)

The F test was conducted to determine whether the variable poverty rate and minimum wage jointly influence the Human Development Index.

Table 10. F Test Results

Source	Sum of Squares	df	Mean Square	F-value	Sig.
Regression	125.290	2	62.645	428.465	.000
Residual	1.754	12	0.146		
Total	127.044	14			

All classical assumptions are satisfied, and the model exhibits high explanatory power. These results are interpreted and discussed in the following section.

Discussion

Influence of Poverty Rate on HDI

The results confirm that poverty rate has a significant negative and partial effect on HDI (coefficient = −0.434, t = −3.548, p = 0.004 < 0.05). This supports the acceptance of the hypothesis. A 1% reduction in poverty rate is estimated to increase HDI by approximately 0.434 points. In practical terms, during 2010–2024 the average annual poverty reduction was 0.584 percentage points, which corresponds to an average HDI increase of only about 0.651 points per year.

This negative relationship is consistent with Nurkse's vicious circle of poverty theory, which explains how low income leads to low productivity, limited savings, and insufficient investment in human capital—directly constraining the three HDI dimensions: health, education, and decent living standards (Perry, 2006). In NTB, where poverty remains above the national average (12.91% in 2024 vs. 8.57% nationally), households prioritize basic survival over investments in education, nutrition, and healthcare. This is reflected in NTB's lower life expectancy (72.25 years vs. 74.15 nationally), shorter mean years of schooling (7.87 years vs. 8.85 nationally), and limited purchasing power for non-food essentials such as housing and sanitation.

The modest marginal impact of poverty reduction on HDI highlights the structural nature of poverty in NTB, where economic growth has been uneven and often below the national average. The province's heavy reliance on low-productivity agriculture and informal sectors limits the translation of poverty declines into broad-based human development gains. These findings align with previous studies that report a significant negative effect of poverty on HDI, including Darmawanto (2023) in Borneo and Adim (2024) at the national level.

Influence of Minimum Wage on HDI

The analysis shows that minimum wage has a significant positive and partial effect on HDI (coefficient = 3.558×10^{-6}, t = 6.610, p = 0.000 < 0.05), leading to acceptance of the hypothesis. A Rp1,000,000 increase in minimum wage is estimated to raise HDI by 3.558 points—an effect substantially larger than that of poverty reduction.

This positive relationship is consistent with efficiency wage theory (Mankiw, 2018), which argues that higher wages improve worker productivity through better nutrition, health, motivation, and lower turnover. It also supports the living wage concept Anker (2011), which emphasizes that adequate wages enable workers and their families to meet basic needs and access education and healthcare services. In NTB, the steady increase in minimum wage from Rp890,775 in 2010 to

Rp2,444,067 in 2024 coincided with HDI rising from 61.16 to 70.93. The stronger marginal impact of minimum wage (partial R^2 = 78.4%) compared to poverty (51.2%) suggests that wage policy provides a more direct and effective mechanism for enhancing household purchasing power and human capital investment in this context.

The result corroborates M Alfen (2026), who found a significant positive effect of provincial minimum wage on HDI across Indonesia. In NTB, where formal and semi-formal employment is growing but still limited, minimum wage adjustments play a particularly important role in improving living standards and supporting HDI components.

Joint Influence of Poverty Rate and Minimum Wage on HDI

The simultaneous F-test confirms that poverty rate and minimum wage together exert a significant influence on HDI ($F = 428.465$, $p = 0.000 < 0.05$), leading to acceptance of the hypothesis. The model explains 98.6% of the variation in HDI ($R^2 = 0.986$), underscoring the complementary nature of the two variables.

Poverty rate reflects structural deprivation and limited access to HDI's core dimensions, while minimum wage functions as a policy instrument to raise income floors and reduce vulnerability among low-wage workers (Bhorat et al., 2021). In NTB's economy—still dominated by agriculture (approximately 36% of employment) and informal activities—the interplay between these factors is particularly relevant. Higher minimum wages, when combined with effective poverty alleviation efforts, can enhance household economic stability, boost purchasing power, and support greater investment in education and health—key drivers of HDI.

This joint effect aligns with the human development paradigm and Sen's capability approach (Bonvin & Laruffa, 2022), which emphasize that expanding freedoms and capabilities requires addressing both income deprivation and resource access. The findings are also consistent with M Alfen (2026), who reported a significant simultaneous influence of poverty and minimum wage on HDI at the national level.

Overall, the results demonstrate that while poverty reduction is essential for removing structural barriers, minimum wage policy offers a more immediate and potent lever for improving human development outcomes in NTB. Integrated strategies that combine sustained poverty alleviation with equitable wage adjustments and targeted investments in health, education, and infrastructure are necessary to achieve faster and more inclusive HDI progress in the province.

CONCLUSION

This study concludes that poverty rate exerts a significant negative partial influence on the Human Development Index (HDI) in Nusa Tenggara Barat Province over the period 2010–2024.

The relatively slow average annual decline in poverty (0.584 percentage points) continues to limit household access to education, healthcare, and decent living standards—the three core dimensions of HDI. Although HDI improved in 2024, with life expectancy rising to 72.25 years, expected years of schooling reaching 13.98 years, and real per capita expenditure increasing by Rp511,000, these gains remain modest compared to national averages. Persistent high poverty restricts opportunities for extended education, adequate healthcare access, and improved purchasing power, thereby slowing overall progress in quality of life and human development in the province.

Minimum wage exerts a significant positive partial influence on HDI over the same period. An increase of Rp1,000,000 in minimum wage is estimated to raise HDI by approximately 3.558 points. This effect is evident in historical trends: the rise in minimum wage from Rp1,000,000 in 2012 to Rp2,012,610 in 2019 corresponded with an increase in HDI from 62.98 to 68.14. These findings highlight the important role of minimum wage policy in enhancing household purchasing power, economic stability, and access to education and healthcare services.

Poverty rate and minimum wage jointly exert a significant influence on HDI in Nusa Tenggara Barat Province over the period 2010–2024. The two variables complement each other: persistent poverty restricts households' ability to meet basic needs and access essential services, while minimum wage increases provide a more direct and substantial boost to purchasing power, economic security, and investment in human capital. The regression model explains 98.6% of the variation in HDI, underscoring the combined strength of poverty reduction and wage policy in driving improvements across HDI's three primary dimensions—health, education, and decent living standards.

Given these findings, the Provincial Government of Nusa Tenggara Barat should prioritize integrated, evidence-based strategies to accelerate human development progress. Strengthening poverty alleviation efforts requires expanding access to and improving the quality of education through scholarships, learning materials assistance, and school infrastructure in disadvantaged areas, while broadening coverage of basic healthcare services such as immunization, posyandu, and maternal-child health programs. Social assistance initiatives, including Program Keluarga Harapan (PKH) and targeted food aid, should be more precisely directed toward poor households to maximize impact. At the same time, minimum wage policies should be sustained and optimized to reinforce household purchasing power, with concurrent improvements in the quality and accessibility of education and healthcare services to ensure broader and more equitable benefits. To harness the joint influence of poverty reduction and minimum wage increases, an integrated policy framework is essential—one that combines structural poverty alleviation through expanded social protection and subsidies for poor families with sustained wage enhancement, supported by

efforts to expand formal employment and labor absorption. Equitable infrastructure development in education, healthcare, and public facilities across all regencies and cities will be critical to achieving inclusive and sustainable human development gains throughout the province.

REFERENCE

Adim, A. (2024). Pengaruh Kemiskinan dan Pengangguran Terhadap Indeks Pembangunan Manusia (IPM) Indonesia 2018-2022. *Idarotuna: Journal of Administrative Science*, *5*(2), 111–129.

Anker, R. (2011). *Estimating a living wage: A methodological review*. ILO Geneva.

Ayooluwade, E., & Alamu, O. A. (2025). Modelling and prediction of economic growth for Nigeria under the violation of linear model assumptions: A robust principal component regression approach. *Edelweiss Applied Science and Technology*, *9*(9), 1063–1087.

Bhorat, H., Kanbur, R., Stanwix, B., & Thornton, A. (2021). Measuring multi-dimensional labour law violation with an application to South Africa. *British Journal of Industrial Relations*, *59*(3), 928–961.

Bonvin, J.-M., & Laruffa, F. (2022). Towards a capability-oriented eco-social policy: Elements of a normative framework. *Social Policy and Society*, *21*(3), 484–495.

BPS. (2024). *Penghitungan dan Analisis Kemiskinan Makro di Indonesia Tahun 2024*. https://www.bps.go.id/id/publication/2024/11/29/31e54c0717742a2dc13300e4/penghitungan-dan-analisis-kemiskinan-makro-di-indonesia-tahun-2024.html%0AER -

BPS. (2025). *Statistik Indonesia 2025* (0126–2912th ed.). https://www.bps.go.id/id/publication/2025/02/28/8cfe1a589ad3693396d3db9f/statistik-indonesia-2025.html%0ASN - 0126-2912

BPS NTB. (2025a). *Jumlah Penduduk Miskin NTB Turun*. Badan Pusat Statistik Provinsi Nusa Tenggara Barat. https://ntb.bps.go.id/id/news/2025/07/25/82/jumlah-penduduk-miskin-ntb-turun.html

BPS NTB. (2025b). *Poverty Profile in Nusa Tenggara Barat March 2025*. https://ntb.bps.go.id/id/pressrelease/2025/07/25/1101/profil-kemiskinan-di-nusa-tenggara-barat-maret-2025.html

Chambers, R. (1995). Poverty and livelihoods: whose reality counts? *Environment and Urbanization*, *7*(1), 173–204.

Darmawanto, A. T. (2023). Pengaruh PDRB, Pengangguran dan Indeks Pembangunan Manusia Terhadap Kemiskinan di Provinsi Kalimantan. *Syntax Idea*, *5*(12), 2335–2354.

Durbin, J., & Watson, G. S. (1950). Testing for serial correlation in least squares regression: I. *Biometrika*, *37*(3/4), 409–428.

Faizin, M. (2021). Pengaruh upah minimum, kemiskinan dan pengangguran pada IPM di Kabupaten/Kota Provinsi Jawa Timur. *Jurnal Samudra Ekonomi Dan Bisnis*, *12*(2), 214–227.

Ghozali, I. (2013). Aplikasi analisis statsitik multivariate dengan program IBM SPSS 21 update PLS Regresi. *Semarang: Badan Pnerbit Universitas Diponegoro*, *2*(2).

Glejser, H. (1969). A new test for heteroskedasticity. *Journal of the American Statistical Association*, *64*(325), 316–323.

González-Estrada, E., & Cosmes, W. (2019). Shapiro–Wilk test for skew normal distributions based on data transformations. *Journal of Statistical Computation and Simulation*, *89*(17), 3258–3272.

Gujarati, D. N. (2006). *Dasar-dasar Ekonometrika, Jilid 1*. Erlangga.

Hartanto, W., Islami, N. N., Mardiyana, L. O., Ikhsan, F. A., & Rizal, A. (2019). Analysis of human development index in East Java Province Indonesia. *IOP Conference Series: Earth and Environmental Science*, *243*(1), 12061.

Jati, B. A. (2023). *ANALISIS PENGARUH INDIKATOR INDEKS PEMBANGUNAN MANUSIA TERHADAP PERTUMBUHAN EKONOMI DI KABUPATEN KEDIRI*

PERIODE 2010-2021. UPN Veteran Jawa Timur.

Kouskoura, A., Kalliontzi, E., Skalkos, D., & Bakouros, I. (2024). Assessing the key factors measuring regional competitiveness. *Sustainability*, *16*(6), 2574.

M Alfen, I. R. (2026). *PENGARUH UPAH MINIMUM PROVINSI, TINGKAT PENGANGGURAN TERBUKA DAN TINGKAT KEMISKINAN TERHADAP INDEKS PEMBANGUNAN MANUSIA DI PULAU SUMATERA DALAM PERSPEKTIF EKONOMI ISLAM (Analisis Data Panel Periode 2014-2023)*. UIN RADEN INTAN LAMPUNG.

Mankiw, N. G. (2018). *Principles of Macroeconomics, 8e*. Cengage Learning, Inc.

Osei, R., & Owoo, N. (2024). Capabilities and Poverty Reduction: A Multidimensional Perspective for Developing Countries. *Development Economics Journal*, *29*(3).

Paparoditis, E., & Politis, D. N. (2018). The asymptotic size and power of the augmented Dickey–Fuller test for a unit root. *Econometric Reviews*, *37*(9), 955–973.

Perry, G. (2006). *Poverty reduction and growth: virtuous and vicious circles*. World Bank Publications.

Priambodo, A. (2021). The impact of unemployment and poverty on economic growth and the human development index (HDI). *Perwira International Journal of Economics & Business*, *1*(1), 29–36.

Satrya, D., & Dewi, N. P. M. (2025). ANALISIS FAKTOR FAKTOR YANG MEMPENGARUHI TINGKAT KEMISKINAN DI INDONESIA TAHUN 2018-2023. *E-Jurnal Ekonomi Pembangunan*, *14*(6), 464–483.

Sefil-Tansever, S., & Yılmaz, E. (2024). Minimum wage and spillover effects in a minimum wage society. *Labour*, *38*(1), 150–176.

Sen, A. K. (1999). *Development as freedom. New York, NY: Knopf*.

Telch, F., & Appe, S. (2022). How can countries improve human development? Four distinct national planning strategies and the challenges for human development ahead. *Development Policy Review*, *40*(2), e12561.

United Nations Development Programme. (2023). *Human Development Report 2023/2024: Breaking the Gridlock*. https://hdr.undp.org