R E S E A R C H   A R T I C L E

The Impact of the HDI, LFPR, RMW on Poverty in West Nusa Tenggara Province (NTB) During the Period 2016–2023

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Abstract

This study investigates the influence of the Human Development Index (HDI), Labor Force Participation Rate (LFPR), and District/City Minimum Wage (UMK) on poverty levels in West Nusa Tenggara Province (NTB) over the period 2016–2023. Employing a quantitative approach through panel data regression analysis, the findings reveal that both HDI and UMK exert a statistically significant impact on poverty, whereas LFPR does not demonstrate a significant effect. Specifically, HDI is found to have a positive and significant relationship with poverty, suggesting that enhancements in education quality, health services, and purchasing power contribute to poverty reduction. Conversely, UMK exhibits a significant negative correlation with poverty, indicating that increases in minimum wages, when not accompanied by the generation of productive employment opportunities, may inadvertently exacerbate poverty levels. The insignificance of LFPR implies that labor force participation alone does not directly influence poverty alleviation in the region. These findings offer valuable insights for the formulation of more targeted and integrative policy interventions aimed at eradicating poverty in NTB.

Keywords: Poverty, HDI, LFPR, Minimum Wage, NTB

1.Introduction
Poverty

Poverty is a global problem, especially in developing countries. Poverty is the limited amount of food, access and quality of health services and the low quality of education, employment and business opportunities, and limited housing and sanitation facilities. High burden on the population due to low trust in the ownership and control of clean water and land, degradation of the environment and natural resources, poor security guarantees, low participation and heavy family responsibilities (Suhandi et al., 2018)

Poverty is a fundamental problem that is a major concern in development in various countries, especially in developing countries such as Indonesia. Poverty does not only concern economic aspects, but also social, political, and cultural aspects that are interrelated. According to poverty, it can be defined as a condition in which individuals or groups of people are unable to meet the basic needs of life, such as food, board, education, and health. In the global context, poverty alleviation is one of the development priorities formulated in the (Todaro dan Smith, 2016)*Sustainable Development Goals (SDGs)*, especially on the first goal, which is to "end poverty in all its forms everywhere".

The inability to meet living standards in general, such as public health and education standards, will also be affected by low income capacity. The ability to earn enough money to meet important needs means that a society is included in the poor category (Nugroho, 2019)

According to poverty as an estimate of income levels, basic needs, and minimum basic needs that allow a person to be able to live a decent life. If the income cannot meet basic needs or minimum basic needs, then the person can be said to be poor. The definition of poverty can be seen from various points of view, including: (Kuncoro, 2018)

a) Poverty according to a decent standard of living. This group argues that poverty occurs when basic needs or basic needs are not met. This means that a person or a household is included in the poor category if the family is unable to meet

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basic needs in accordance with a decent standard of living. This kind of poverty is called absolute poverty.

b) Poverty according to income level. This view argues that poverty occurs due to a lack of income to meet the needs of a decent life.

The two points of view are the same, namely the inability to meet basic needs or live a decent life, called poverty according to the basic needs approach. (Maipita, 2016)

Because poverty has an impact on the state and individuals, this issue is still a concern for many parties. Various indicators are needed to reflect the conditions and dynamics of the poor in Indonesia, in order to plan, monitor, and evaluate programs aimed at reducing poverty rates. These indicators include the number and percentage of poor people, as well as various other relevant characteristics that are analyzed by time and geographic area. According to the Central Statistics Agency (BPS), the basic needs approach is used to measure poverty, by defining it as a person's inability to meet basic needs, both food and non-food needs.

Poverty is one of the topics that many people are interested in. Therefore, opinions and viewpoints about the definition, definition, causes, impacts, measurement methods and how to overcome them vary. citing opinions distinguishing the causes of poverty in villages and in cities. Poverty in the village is mainly caused by factors including: (Indra Maipita, 2015) (Isdjoyo, 2019)

a) Helplessness, this condition arises due to a lack of employment, low prices for the products produced, and high education costs.

b) Isolation, low levels of education, lack of skills, difficulty in transportation, and lack of access to credit cause them to be isolated and poor.

c) Material poverty, this condition is caused by a lack of capital, and the lack of agricultural land owned causes relatively low income.

d) Vulnerability, difficulty in getting a job, seasonal jobs, and natural disasters, cause them to become vulnerable and poor.

e) Attitudes, attitudes that accept them as they are and lack of motivation to work hard make them poor.

Poverty in the city is caused by the same factors as in the villages, the different ones are the cause of the helplessness factor in the city tends to be due to lack of employment, and the high cost of living.

Ideally, equitable and sustainable economic growth, improving the quality of human resources, optimizing labor participation, and fair wage policies are expected to be able to encourage poverty reduction. However, in reality, the gap between actual conditions and ideal conditions is still a major challenge in various regions in Indonesia. One of the areas that experienced this problem was West Nusa Tenggara Province (NTB).

Graph 1 Poverty Level in NTB Province
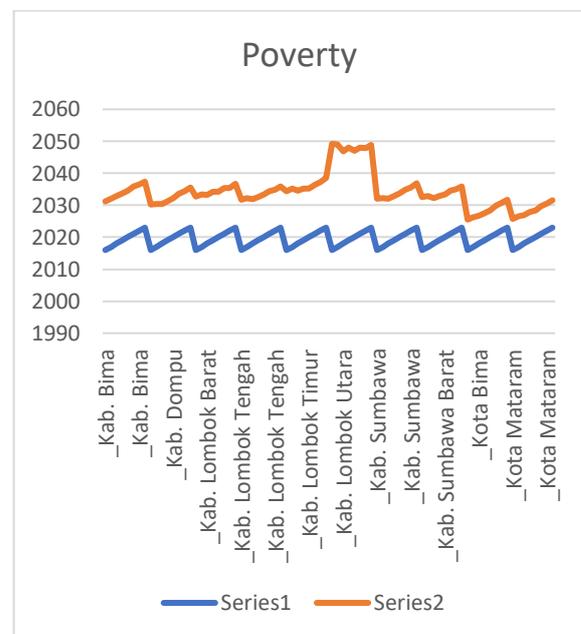
Source: Central Statistics Agency (BPS)

The data on the graph shows the poverty level in various districts/cities in West Nusa Tenggara Province (NTB) during the 2016–2023 period, with striking differences between regions. North Lombok Regency consistently recorded the highest poverty rate compared to other regions, despite a slow downward trend. On the other hand, Mataram City and Bima City have the lowest and more stable poverty rates. Areas such as East Lombok, Central Lombok, and West Lombok Regencies are at the medium level, while Sumbawa and West Sumbawa Regencies recorded slightly lower scores from the group. Overall, despite efforts to reduce poverty in NTB, the gap between regions is still evident, reflecting the need for a more inclusive and

equitable development strategy to address these challenges.

Human Development Index (HDI)

A set of measurements known as indicators of human development can be used to assess the extent of human progress in both terms of non-physical (intellectual) and physical (health and well-being) life. The expected figure shows developments that have an impact on the physical condition of the community. livelihood and purchasing power, while the level of education of the community shows a non-physical influence (Sutikno et al.,, 2019)

The composition of HDI is based on three indicators, namely health, education, and standard of living (purchasing power) or income. An increase in one's education is often associated with an increase in income or wages earned. If wages reflect productivity, then the more people who have higher levels of education and training experience, the higher the productivity and the result the national economy will grow higher. In addition to education, health also has a role in increasing income. The effect of health on income, including improving the health of the population, will increase labor force participation. Improved health can also bring improvements in the level of education and development of personal potential which then contributes to economic growth with increased income. (Lumbantoruan dan Hidaya, 2017)

The Human Development Index is an indicator to measure success in order to build the quality of human life in a region. If the human development index is high, the income obtained is also high, from high income, poverty can further decrease. (Estrada & Wenagama, 2020)

According to the fundamental challenge in poverty alleviation efforts in Indonesia, economic progress is not evenly distributed throughout the country, which is indicated by the considerable income disparity between regions. HDI also provides assistance in determining policy formation priorities and determining development programs in the implementation of development planning. (Islami, 2016)

In the context of economic development in a region, the Human Development Index (HDI) is determined as one of the main measures included in the basic pattern of regional development. This indicates that HDI occupies an important position in regional development management. The function of HDI and other human development indicators will be the key to the implementation of targeted planning and development. HDI which is a benchmark for the development of a region should be positively correlated with poverty conditions in the region because it is expected that an area that has high HDI ideally the quality of life of the community is also high or it can also be said that if the HDI value is high, then the poverty level of the community should be low. (Kurnia Lismawati, 2017)

One of the poverty alleviation strategies is the development of human resources. Human resource development can be done by improving access to social services including education, health and nutrition as measured by the Human Development Index. All of this is a step by the government to be able to reduce the existing poverty level and improve people's welfare. Through an increase in the health index, education index and purchasing power ability, it is hoped that it will be able to improve the quality of human life. This is due to the heterogeneity of individuals, geographical disparities and diverse social conditions of the community, causing the level of income to no longer be the main benchmark in calculating the success rate of development. (Maulana & Alamsyah, 2021)

The concept of human development is development that is carried out prioritizing the development of human resources in tandem with economic growth. The development of human resources physically and mentally means increasing the basic absorption of the population which will then increase the opportunity to be patriciated in the sustainable development process. The Human Development Index (HDI) is one of the parameters to assess the success of human development in a region. (Mahroji, 2019)

The relationship between the human development index and poverty according to , that human development is the goal of development. Where human development will be able to create a workforce that is able to absorb modern technology to develop its capacity to create job opportunities to reduce unemployment. The quality of human resources can also be a factor causing the occurrence of poor people. The quality of human resources can be seen from 6 quality of life indices/human

development indices. The low Human Development Index (HDI) will result in low work productivity from the population. Low productivity results in low income earnings. So that low income causes a high number of poor people. (Todaro, 2016)

According to That the availability of quality human resources is an important requirement for sustainable economic development. Based on the definition of Sjafi'i and Hidayanti, it can be concluded that human resources are very important for the sustainable development of an economy, so if a country wants to build a long-term and mutually sustainable economy, it is very important to increase the human development index which will improve the quality of human resources in a country. (Sjafi'i dan Hidayanti, 2019)

This shows that the human turnover index (HDI) is an important component in regional development management. The implementation of targeted planning and development depends on HDI capabilities and other human development indicators. As a benchmark for regional development, HDI should show a positive correlation with the poverty status of an area. This is because areas with high HDI are ideally expected to be able to improve the high quality of life of the community. It can also be said that the higher the HDI value, the lower the poverty line of the community. (Gandasari, 2016)

Labour Force Participation Rate (TPAK)

According to the Central Statistics Agency, the Labor Force Participation Rate (TPAK) is the ratio between the number of labor force and the working-age population. The working age population in question is in the range of 15 years to 64 years who can carry out production process activities. The labor force participation rate can be expressed with all available workers or the number of workers by gender, age group, education level. According to the Labor Force Participation Rate (TPAK), it greatly affects the amount of output produced in economic activities. The higher the productive population, the greater the output produced. (BPS, 2020) (Wisna Sarsi, Tri Sukirno Putro, & Lapeti Sari, 2015)

A high labor force participation rate (TPAK) can increase income and consumption levels, so

that people's welfare will also increase. This is followed by arguing that a high labor force participation rate (TPAK) will increase the income of poor households so that they can improve welfare because basic needs are met and will slowly get out of the poverty problem. (Widyasworo, 2015)

Regency/City Minimum Wage (MSE)

According to the Central Statistics Agency (BPS), the minimum wage is the minimum wage limit that must be issued by companies for workers to follow the regulations set in each region based on existing laws. The establishment of a minimum wage has the main objective of meeting the minimum standard of living such as for the health, efficiency, and welfare of workers. , wage determination has goals that can be distinguished micro and macro. Micro-speaking, the purpose of wage determination is: a) as a safety net so that wages do not decline b) reduce the gap between the lowest and highest wages in the company c) increase workers' income at the lowest level. Meanwhile, on a macro level, the objectives of wage determination are: a) income equity b) increasing the purchasing power of workers and expanding employment opportunities c) changes in the cost structure of sectoral industries. (Kaufman, 2020) (Hasanuddin Rachman, 2015)

The minimum wage policy also affects the poverty rate. According to the idea of the minimum wage that has been started and developed since the early 1970s, it aims to strive so that in the long term the minimum wage can meet the minimum living needs (KHM), so that it is expected to ensure that the workforce to meet the needs of life and family and at the same time can encourage an increase in work productivity and worker welfare. According to Law No. 13 of 2003 and later updated on October 23, 2015 concerning Manpower and Wage Policy, it is stated that the review of the amount of the provincial minimum wage and the district/city minimum wage is held once a year. In encouraging the increase of workers in the implementation of the production process and the improvement of worker welfare, one of which is through the mechanism of determining the Regency/Provincial Minumum Wage. And in its implementation, it must pay attention to regional conditions, the ability of the company that refers

to needs. The Provincial minimum wage level is used as a basis for determining the City/Regency minimum wage in Jambi Province. (Sonny Sumarsono dalam Khabibi, 2017) (Andriyani, 2017)

Another index of factors that affect poverty in NTB is the Labor Force Participation Rate (TPAK) in NTB which reflects the participation of the productive age community in economic activities. The low TPAK is influenced by the lack of employment, low education and skills, and the dominance of the informal sector. Although the agriculture, fisheries, and tourism sectors have great potential, low productivity and lack of innovation are obstacles. As a result, many workers remain vulnerable to poverty despite working.

In addition to TPAK, the Regency/City Minimum Wage (UMK) plays an important role in ensuring the welfare of workers. However, in NTB, relatively low MSEs often lack enough living costs, especially in urban areas, so many workers remain below the poverty line despite working full-time.

In theory, factors such as HDI, TPAK, and MSEs have a significant relationship with poverty rates. According to Todaro et al, poverty is often the result of a combination of various economic and social factors that affect each other. However, the impact can vary depending on the local conditions of a region. In NTB, despite economic growth, the impact on poverty reduction is still limited due to structural barriers, such as income distribution inequality, low quality of human resources, and lack of decent jobs. (Todaro dan Smith, 2016)

This study was conducted to identify and analyze the influence of HDI, TPAK, and MSEs on the poverty rate in NTB during the 2016–2023 period. Using a quantitative approach, this study aims to provide empirical evidence that can be used as a basis for formulating more effective and targeted poverty alleviation policies. The results of this research are expected to contribute both theoretically and practically to understanding the dynamics of poverty in NTB and developing a more inclusive development strategy.

Method
Types of Research

This study uses a quantitative method that aims to analyze the relationship between variables that affect the poverty rate in West Nusa Tenggara Province. The quantitative method was chosen because this study utilizes numerical data and statistical analysis to test the hypothesis and explain the partial and simultaneous influence of independent variables, namely HDI, TPAK, and MSEs, on the dependent variable, namely poverty level. This approach allows the results of the research to be generalized and provides an objective empirical picture of the phenomenon being studied. (Sugiyono, 2019)

Research Location and Time

This research was conducted on data on the Human Development Index (HDI), Labor Force Participation Rate (TPAK), and Regency/City Minimum Wage (MSE) in the West Nusa Tenggara Province area. The selection of this location is based on the significant differences in poverty levels between districts/cities and the relevance of data related to research variables that fluctuated during the 2016–2023 period. This research is planned to be carried out in 2024, starting from data collection to analysis.

Data Collection Methods

The method of data collection that is in accordance with this research is through documentation and literature studies obtained through government agencies such as the Central Statistics Agency (BPS) of West Nusa Tenggara Province and also comes from literature sourced from the internet that is related to the research topic.

Data Collection Techniques and Tools
1. Documentation
Documentation in data collection refers to the steps of data collection by studying, recording, storing information obtained by books or similar literature during the research or study process. The purpose of this documentation is to provide clear and accountable evidence regarding the methods and results of data collection.

2. Literature Study

According to literature studies, it is the initial stage in research that is conducted to obtain information from various sources that are relevant and can support the research being conducted. (Sugiyono, 2015)

Types of Research Data

The type of data used in this study is secondary data. Secondary data is data obtained from pre-existing sources and used to support research. This data can be in the form of official reports, books, articles, or other relevant documents. In this study, the secondary data used included data on the Human Development Index (HDI), Labor Force Participation Rate (TPAK), and Regency/City Minimum Wage (MSE) in West Nusa Tenggara Province during the 2016–2023 period. The data is obtained from official sources such as the Central Statistics Agency (BPS) and other supporting documents. (Sugiyono, 2018)

Research Variables
Identification and Classification of Variables
A. Variable Identification:
1) Kemiskinan (Y)
2) Human Development Index(X1)
3) Labor Force Participation Rate (X2)
4) City/Regency Minimum Wage (X3)

B. Variable Classification:
1) Variabel Terikat *(Dependent Variable)* (Y)
   Bound variable or *dependent variable* is a variable that is measured to see the influence of independent variables. This variable is often the outcome to be achieved in a study. (Sugiyono, 2018)
2) Independent *Variable* (X)
   Independent variable or *Indespendent Variable* is a variable that is considered to be a cause or factor that affects the dependent variable. In research, these variables are variables that are altered or manipulated to see the effect. (Kuncoro, 2019)

Variable Operational Definitions

The operational definitions of variables in this study are:

1. Poverty
   Poverty is the percentage of the number of poor people in NTB Province in 2016-2023. This data was obtained from the Central Statistics Agency (BPS) of NTB, which is measured based on the poverty line and the number of people below the poverty line, expressed as a percentage (%). This variable is used as an indicator of the level of community welfare in a region.
2. Human Development Index (HDI)
   The Human Development Index (HDI) is a composite measure of the three main dimensions of human development, namely education, health, and a decent standard of living. The HDI data used in this study is the HDI value in NTB Province in 2016-2023 obtained from the NTB Central Statistics Agency, expressed in index numbers.
3. Labour Force Participation Rate (TPAK)
   The Labor Force Participation Rate (TPAK) is the percentage of the working-age population (15-64 years) who are actively working or looking for work in relation to the total working-age population. The TPAK data in NTB Province for 2016-2023 used in this study was obtained from the Central Statistics Agency of NTB and expressed in percentage (%).
4. City/Regency Minimum Wage (MSE)
   The City/Regency Minimum Wage (UMK) is the minimum wage set by the local government as the minimum income standard for workers in NTB Province. The data on MSEs for NTB Province for 2016-2023 used in this study was obtained from the Central Statistics Agency of NTB and expressed in rupiah units.

Data Analysis Procedure

This analysis tool is used to answer the problems that have been described earlier. In this study, data analysis used a panel data regression analysis tool. The panel data regression method is one of the analysis methods that aims to see the relationship between several variables in economic units in a certain period. Data panels provide more comprehensive results and more diverse information because they are a combination of time series and cross-section data. (Nehemia dan Prasetiya, 2023)

This analysis tool was used to analyze the relationship between the Human Development Index, Labor Force Participation Rate, and Regency/City Minimum Wage to the poverty rate in West Nusa Tenggara Province.

Data processing in this study was carried out using EViews12 software. The following is the panel data regression analysis model used in this study:

$$Yit = \alpha + \beta_1 X1it + \beta_2 X2it + \beta_3 X3it + eit$$

Information

Y = Poverty Rateα = Constantβ = Regression CoefficientX1 = Human Development Index (HDI)X2 = Labor Force Participation Rate (TPAK)X3 = Regency/City Minimum Wage (MSE)ε = Error Term)i = 10 Regencies/Cities in West Nusa Tenggara Province = Research time period, namely 2016-2023.

With this model, it is hoped that the research can provide an empirical picture of the influence of independent variables on the poverty level in the research area.

Regression Model Estimation

There are several steps in regression analysis that apply panel data regression and must be taken by choosing the right size, namely:

Fixed Effect Model (FEM)
The Fixed Effect Model (Last Square Dummy Variable) is a model that assumes that there is a difference between intercepts but has a fixed slope, it is necessary to add *a dummy variable* to the variable data.

Model Specification Test

a. Chow Test

The Chow test is a test that is carried out to determine the exact model between *common effect* and *fixed effect*. Assuming that each cross section unit has the same behavior is likely to be unrealistic given the possibility that each cross section unit has different behaviors is the basis of the chow test. The hypothesis in this test is that
H0 : Common Effect Model
H1 : Fixed effect model
If the value of F is greater than the F of the table, then H0 is rejected so that the

regression technique of panel data with fixed effect is better than the common effect.

b. Hausman Test

The Hausman test is a statistical test to compare models *fixed effect* with *random effect* in determining the best model to deuse as a data regression model panel. The hypotheses formed in the thirst test are: (Gujarati, D.N., 2018)
H0 : *Random Effect*
H1 : *Fixed Effect*
H0 is accepted if the P-value > 0.05. Instead H0 is rejected if the P-value < 0.05. Significant rate used of 5%

Classical Assumption Test

a. Normality Test

The normality test is one of the important steps in statistical analysis that aims to determine whether the data obtained from a study follows a normal distribution. The method used to perform the normality test is the Kolmogorov-Smirnov Test. This test is used for larger samples (n > 50). The Kolmogorov-Smirnov test compares the distribution of the sample with the normal distribution. If the significance > 0.05, then the data is considered normal.

b. Multicollinearity Test

The multicollinearity test is an important step in regression analysis that aims to detect the presence of a high correlation between two or more independent variables in the regression model. To detect the presence of multicollinearity, several methods are used, namely *Variance Inflation Factor* (VIF), which is a VIF value of > 10 is considered to indicate the presence of serious multicollinearity and *Tolerance,* which is a tolerance value close to 0 indicates the presence of strong multicollinearity. A *tolerance* value of < 0.1 is considered an indication of multicollinearity.

c. Heteroscedasticity Test

The heteroscedasticity test is an important step in regression analysis that aims to test whether the variance of the residual (error) regression model is constant across the entire range of values of independent variables. Heteroscedasticity occurs when the residual variance is not the same, which can result in inefficient regression

coefficient estimation and incorrect conclusions. Therefore, it is important to detect and address this issue in regression analysis.

Results and Discussion
Model Selection Test
3.1.1 Chow Test

Redundant Fixed Effects Tests
Equation: Untitled
Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	315.291632	(9,66)	0.0000
Cross-section Chi-square	302.724831	9	0.0000

The test results showed a probability value of 0.0000 which was smaller than 0.05, so it was concluded that the best model used in this study was *the Fixed Effect Model (FEM)*.

Hausman Test

Thirst test testing is performed to determine which model is best to use between *the Fixed Effect Model* **and** *the Random Effect Model*.

Correlated Random Effects - Hausman Test
Equation: Untitled
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	2.595292	4	0.6277

Based on the results of the test with a probability value of 0.6277 greater than 0.05, it was concluded that the best model used in this study was *the Random Effect Model (REM)*.

Uji Regresi Fixed Effect Model (FEM)
Based on the results of the regression analysis, the regression model can be formulated as follows:

Dependent Variable: Y
Method: Panel Least Squares
Date: 12/02/24 Time: 23:54
Sample: 2016 2023
Periods included: 8
Cross-sections included: 10
Total panel (balanced) observations: 80

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	21.64569	0.936497	23.11347	0.0000
X1	0.025915	0.010593	2.446409	0.0171
X2	-9.72E-05	6.61E-05	-1.469532	0.1464
X3	-3.36E-06	4.27E-07	-7.867569	0.0000

Effects Specification			

Cross-section fixed (dummy variables)

R-squared	0.978920	Mean dependent var	14.76175
Adjusted R-squared	0.974768	S.D. dependent var	5.343691
S.E. of regression	0.848830	Akaike info criterion	2.667713
Sum squared resid	47.55382	Schwarz criterion	3.084567
Log likelihood	-92.70850	Hannan-Quinn criter.	2.834842
F-statistic	235.7610	Durbin-Watson stat	1.022257

$$\text{Poverty} = 21.64569 + 0.025915 \text{IPM} - 9.72E\text{-}05\ \text{TPAK} - 3.36E\text{-}06 + e$$

The results of the model show that the constant and variables of HDI have a positive and significant effect on the poverty level in NTB. On the other hand, MSEs have a negative and significant effect, while TPAK has no influence on poverty. This shows that only HDI and MSEs significantly affect the poverty rate in the region.

Multicollinearity Test
The multicollinearity test is a test to describe the relationship/correlation between independent variables. The following are the results of the multicollinearity test in this study:

	X1	X2	X3
X1	-0.094934	0.096893	0.155000
	1.000000	-0.117250	0.168798
X2	-0.117250	1.000000	0.266075
X3	0.168798	0.266075	1.000000

From the results of the test above, it shows that the value of the relationship between independent variables is less than 0.85. Thus, it can be concluded that the regression model is

free from multicollinearity between independent variables.

Heteroscedasticity Test

The heteroscedasticity test aims to find out whether heteroscedasticity occurs in a linear regression model. This test is carried out by looking at the results of the prob.

Dependent Variable: ABS(RESID)
Method: Panel Least Squares
Date: 12/04/24   Time: 14:09
Sample: 2016 2023
Periods included: 8
Cross-sections included: 10
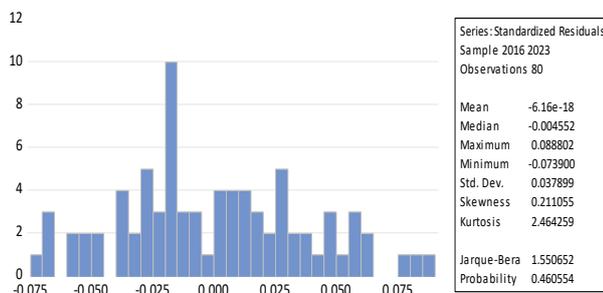Total panel (balanced) observations: 80

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.911425	0.405704	2.246530	0.0276
X1	0.003449	0.001423	2.424144	0.0178
X2	-7.54E-05	3.04E-05	-2.481219	0.0153
X3	-1.22E-08	2.01E-07	-0.060489	0.9519

R-squared	0.172799	Mean dependent var	0.467356
Adjusted R-squared	0.128682	S.D. dependent var	0.433251
S.E. of regression	0.404416	Akaike info criterion	1.087717
Sum squared resid	12.26643	Schwarz criterion	1.236594
Log likelihood	-38.50867	Hannan-Quinn criter.	1.147406
F-statistic	3.916799	Durbin-Watson stat	1.703346
Prob(F-statistic)	0.006086		

From the results of the tests that have been carried out, it shows that the probability value of each variable > 0.05, from this result it can be concluded that from the data processing carried out there are no symptoms of heteroscedasticity.

Normality Test

The normality test is carried out to find out whether the residual value is distributed normally or not. In this study, the normality test was carried out using a residual histogram to see the distribution of research data.

Series: Standardized Residuals	
Sample 2016 2023	
Observations 80	
Mean	-6.16e-18
Median	-0.004552
Maximum	0.088802
Minimum	-0.073900
Std. Dev.	0.037899
Skewness	0.211055
Kurtosis	2.464259
Jarque-Bera	1.550652
Probability	0.460554

Based on the results of the output above, it is known that the probability value of 0.460554 indicates that the value is >0.05. This means that the data in this study has met the assumption of normality.

Estimation and Interpretation Results

This study uses the Fixed Effect Model (FEM) approach to estimate the influence of independent variables, namely HDI, TPAK, and MSEs on the bound variable, namely the Open Unemployment Rate in West Nusa Tenggara Province during the period 2016–2023. The results of the panel data regression analysis produced a regression equation that describes the relationship between these variables.

Poverty = 21.64569 +0.025915IPM − 9.72E-05 TPAK − 3.36E-06 + e

The following is an interpretation of the equation of the results of panel data regression analysis with the FEM model:

Partial Test
The Effect of the Human Development Index (HDI) on Poverty in West Nusa Tenggara Province in 2016-2023

Based on the results of regression analysis using the Fixed Effect Model (FEM) model, it was obtained that the Human Development Index (HDI) variable had a positive coefficient of 0.025915, with a t-calculation value of 2.446409 and a probability of 0.0171 ($p < 0.05$). This shows that HDI has a positive and significant effect on the poverty rate in West Nusa Tenggara Province in the 2016–2023 period.

This means that every increase in HDI of 1% is followed by an increase in poverty by 0.259%, which shows that the increase in HDI in NTB has not been evenly distributed and has not touched all levels of society, especially the poor. Inequality in access to education, health, and income is the main factor that causes HDI to increase without being accompanied by a decrease in poverty rates.

The Effect of the Labor Force Participation Rate (TPAK) on Poverty in West Nusa Tenggara Province in 2016-2023

The TPAK variable has a coefficient value of -9.72E-05, this states that a decrease in the TPAK rate by 1% will have an impact on an increase in the poverty rate of 9.72%. Based on the test results that have been carried out in the FEM Test, the output result or t calculated from the TPAK variable is -1.469532 with a probability value of 0.1464 This result shows that the output

result is more than 0.05, H1 is rejected and H0 is accepted. so it is concluded that TPAK has a negative effect and has an insignificant influence on the poverty level in West Nusa Tenggara. The lower level of Work Participation also has an impact on the high poverty rate.

The Effect of the Regency Minimum Wage (UMK) on Poverty in West Nusa Tenggara Province in 2016-2023

The coefficient of the MSE variable is -3.36E-06, which means that every 1% increase in MSEs will reduce the poverty rate in West Nusa Tenggara Province by 3.36%. Based on the regression test using the Fixed Effect Model (FEM), the t-calculated value of the MSE variable is -7.867569 with a probability value of 0.000 which meets the significance requirement ($p < 0.05$), thus showing that the H1 hypothesis is accepted and H0 is rejected. From these results, it is explained that MSEs have a negative and significant influence on the poverty level of West Nusa Tenggara Province 2016-2023.

Simultaneously
The Effect of HDI, TPAK, and MSE, on Poverty in West Nusa Tenggara in 2016-2023.

Based on the results of data analysis, it is known that independent variables including the Human Development Index (HDI), Regency/City Minimum Wage (MSE), and Labor Force Participation Rate (TPAK) simultaneously have a significant influence on the Poverty Level in NTB Province, This is proven by the F-calculated value of R-squared 0.978920 and a probability value of 0.000. This value shows that the three variables together affect the poverty rate by 97.89%, while the remaining 2.11% is influenced by other variables that are not studied in this study. From the regression test, the constant of 21.64569 shows that if the HDI, MSEs, and TPAK variables remain constant, then the poverty rate in Indonesia will be at 21.64%.

Conclusion

This study analyzes the influence of HDI, TPAK, and MSEs on poverty levels in NTB Province for the 2016–2023 period using the panel data regression method and the Fixed Effect Model (FEM) approach. The results showed that HDI and MSEs had a significant

effect on poverty, while TPAK had no significant influence.

The main findings in this study are:

- HDI has a positive and significant influence on poverty, which means that an increase in HDI is followed by an increase in poverty. This shows that the increase in HDI has not touched all levels of society equally, especially the poor.
- MSEs have a negative and significant effect on poverty, which shows that an increase in the minimum wage can reduce poverty, as long as it is balanced with productivity and employment opportunities.
- TPAK has no significant effect, which indicates that high labour participation is not always directly proportional to poverty reduction, especially if it is dominated by informal and low-wage jobs.

The purpose of the study was well achieved, namely to determine the influence of the three variables on poverty partially and simultaneously. Simultaneously, the three variables had an influence of 97.89% on the variation in poverty levels in NTB.

Limitation of the Study

This research has several limitations. First, the use of secondary data from BPS limits the possibility of measuring qualitative aspects that can affect poverty, such as the quality of employment or local socio-cultural conditions. Second, the coverage of variables that are limited to HDI, TPAK, and MSEs has not been able to capture the complexity of poverty as a whole. Third, research is only carried out in the context of NTB Province, so generalization of findings to other regions needs to be done with caution.

This study also does not consider the dynamics of fiscal policies and social assistance programs that can have a direct influence on poverty rates in the short term.

Conclusions and Recommendations

This study concludes that HDI and MSEs have a significant effect on the poverty rate in NTB Province, while TPAK does not have a significant influence. An uneven increase in HDI can actually widen the gap, while increasing MSEs has proven to be effective in reducing

poverty if supported by work productivity. A high TPAK does not guarantee a reduction in poverty if the quality of work is low.

Policy recommendations that can be proposed include:

1. Local governments need to direct the development of HDI more equitably, especially in areas with high poverty levels.
2. Adjustments for MSEs must consider not only the needs of a decent life, but also opportunities for the creation of productive jobs.
3. Improving the quality of the workforce through vocational training, so that TPAK is not only high in terms of quantity, but also economically quality.
4. An integrated policy approach between improving welfare and equitable development is needed for sustainable poverty alleviation in NTB.

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