

FACTORS AFFECTING POVERTY IN EAST NUSA TENGGARA PROVINCE IN 2017-2022

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ABSTRACT

his study employs a multi-faceted approach to explore the relationship between poverty and various socio-economic indicators such as unemployment, Human Development Index (HDI), and Gross Regional Domestic Product (GDP). The methodological framework involves a thorough analysis of longitudinal data obtained from East Nusa Tenggara Province spanning the period from 2017 to 2022. Through statistical modeling, trend analysis, and correlation studies, the research aims to pinpoint the primary determinants contributing to the prevalent poverty rates in NTT Province. By integrating diverse methodological tools, including regression analysis and comparative assessments, this study seeks to unravel the complex interplay between economic disparity, job resilience, and the overall quality of life experienced by the local population. The comprehensive examination of these factors is expected to yield nuanced insights into the intricate dynamics shaping poverty in the region. Ultimately, leveraging this multifaceted methodology to understand the correlation between these factors is pivotal in devising evidence-based policies. It is anticipated that the outcomes derived from this comprehensive study will pave the way for the formulation of more targeted and effective policies aimed at addressing the multifaceted challenges of poverty and improving the overall well-being of the residents in East Nusa Tenggara Province.

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1. INTRODUCTION

Poverty is considered like a shadow that covers the conscience of society, which emerges as a very difficult challenge in life. In reality, poverty is not only a material deprivation, but also a reflection of inequality of welfare, high unemployment and so on, but also as a complex and very difficult reality poverty demands a deep understanding of its root causes and the best solutions to be obtained. The shadow of poverty is rampant as a phenomenon that continues to haunt human life. While much effort has been made to address this problem, there are still challenges that are often attached to the root of the problem. One aspect that has an important role to play in fighting poverty is the growing economic inequality. As the economy progresses, the gap between high- and low-income groups widens, creating social inequalities that can deepen the poverty gap. Factors such as limited access to quality education, limited health services, and minimal economic opportunities are among the triggers that reinforce the cycle of poverty that continues to spiral.

The problem of poverty is also closely related to GDP or Gross Regional Domestic Product, unemployment and HDI or Human Development Index, of the three indicators, the study discusses factors that have an influence on the poverty level, more specifically this discussion will explore the influence of poverty in East Nusa Tenggara Province

This research on poverty was taken in East Nusa Tenggara province as a province geographically located in a tropical climate, and has social problems such as a long dry season and lack of food production (hasan and Mongko, 2016). Administratively, NTT Province has 22 regencies/cities in each archipelago. Based on the data released, NTT Province is classified as an area with a relatively high poverty rate, which is currently ranked 22.39% of the 4,444 worst regions in Indonesia. In this research focusing on East Nusa Tenggara Province, there are several factors that affect poverty including HDI (Human Development Index), GRDP (Gross Regional Domestic Product) and unemployment. [1] [2]

The Human Development Index (HDI) is also closely related to poverty. One of the factors causing income inequality is the Human Development Index (HDI), where a high and low Human Development Index (HDI) can affect the labor productivity of the population to be low Although it can be considered a

measure of a country's progress, HDI does not always reflect true equality within society. High levels of poverty can be the cause of low HDI, as limited access to education and health services can be detrimental to overall human development. In the research conducted, it was revealed that one of the factors causing poverty in NTT Province is the low level of education, which has a serious impact on the human development index and low life expectancy. The Human Development Index (HDI) processed by BPS refers to three dimensions, namely long and healthy life, knowledge, and also a decent standard of living. In research conducted by it can be found that poverty has a negative and insignificant effect on the Human Development Index in East Nusa Tenggara Province. Likewise, in accordance with research conducted by that the Human Development Index has a negative and significant influence on poverty. [3] [4] [5] [6] [7]

Another factor that affects the human development index is unemployment which of these two indicators has a relationship with poverty. Unemployment also plays a role as one of the elements that affect the poverty rate. Unemployment creates a vicious cycle that is difficult to break, as lack of income leads to an inability to meet basic needs, such as food, housing, and education. The unemployment rate is a serious issue that has a significant impact on the economy, both at the individual level and society as a whole. The high number of unemployed results in limitations in achieving the maximum level of welfare for the community. The open unemployment rate represents the proportion of the number of unemployed individuals compared to the number of people included in the labor force. As is known, in 2019, the open unemployment rate in East Nusa Tenggara Province reached 3.01%, representing 78,584 individuals out of a total labor force of 2,486,281 people according to BPS. [8] [9] [10]

Population growth in a region, without being accompanied by an increase in the development of the quality of human resources, can result in tougher competition in finding work. This has the potential to lead to increased unemployment, rising income inequality, and declining levels of welfare. According to research conducted by Ie from the results of this study, it is seen that unemployment has a relatively small impact on the poverty rate as a result of investment. It will be explained in the research method that in this research in NTT Province, unemployment has an influence on poverty. [3] [10]

Then continued with the third variability in this study, namely GDP or Gross Domestic Product, this GRDP here as an economic indicator of a region, can reflect the level of people's welfare. However, the unequal distribution of economic benefits is often the cause of inequality and poverty. When economic growth is not accompanied by social development and equitable distribution, large parts of society may not feel the positive effects. There are previous studies conducted to see the relationship between several factors and poverty, one of which is GDP, The results of previous studies recorded several factors that have been proven to have a significant impact on the percentage of poor people. For example, research conducted by discusses the effect of GRDP, HDI, and TPT on poverty rates in five provinces (Papua, West Papua, NTT, Maluku, Gorontalo) that have the highest poverty rates in Indonesia. The GDP of East Nusa Tenggara Province shows a relatively higher level when compared to the Indonesian national average. This indicates that the economy in East Nusa Tenggara can be considered better than the national scale. This is due to progress in sectors such as agriculture, forestry, and fisheries, as well as the growth of a number of business sectors such as the development of electricity, gas, and services. Such developments are supported by improvements and improvements in economic conditions. However, several factors, which cause a decline every year, have an impact on economic growth in East Nusa Tenggara. These factors include GDP, poverty rate, open unemployment rate, and gini ratio, all of which create a response to economic conditions as well as the well-being of people in the region. Based on research conducted that the growth of GDP in Indonesia, the Eastern Part has a positive and significant impact on the poverty rate. [12] [9] [13] Still from previous research conducted, it was found that labor force participation and GRDP in East Nusa Tenggara Regency / City did not have an impact on the level of income inequality. Later research conducted has shown that the Gross Regional Domestic Product (GDP) has a positive and significant influence on the poverty rate. [3] [5]

2. METHOD

Types of Research

This study uses secondary data with quantitative methods, as well as information obtained from existing sources and published by the Central Bureau of Statistics of East Nusa Tenggara Province from 2017 to 2022.

Operational Definition

Data is measured in units of percent of poverty rate, Human Development Index, unemployment, and Gross Regional Domestic Product Rate.

Data Analysis Techniques

The study used panel data regression and was followed by a classical assumption test and a hypothesis test. Classical assumption testing is a step that should be carried out in regression analysis to obtain parameters that can provide a good understanding. The classical assumption test consists of the normality test, multicollinearity test, and autocorrelation test. However, there are several things that need to be considered before the classical assumption test, it is necessary to pay attention to the model chosen best in conducting panel data regression analysis. [14]

The model consists of Fixed Effect Model, Random Effect Model, and Common Effect Model. Panel data regression analysis involves examining the relationship between a variable referred to as the dependent variable and one or more variables known as the independent variable. The following panel data regression analysis model can be elaborated as follows:

$$KMS_{it} = \beta_0 + \beta_1 IPM_{it} + \beta_2 PGR_{it} + \beta_3 GRDP_{it} + \epsilon_{it}$$

Where as follows:

- KMS = Poverty
- β_0 = Intercept
- $\beta_1, 2, 3$ = Regression Coefficient β
- HDI = Human Development Index
- PGR = Unemployment
- GDP = Gross Regional Domestic Product
- i = District and City
- t = year
- ϵ = error

3. RESULTS AND DISCUSSION

Classical Assumption Test

Classical assumption tests, also known as classical assumptions or assumptions of classical linear regression, are fundamental prerequisites that need to be met for regression analysis to produce reliable and valid results. These assumptions serve as crucial criteria to ensure the accuracy and effectiveness of statistical techniques like linear regression in modeling relationships between variables.

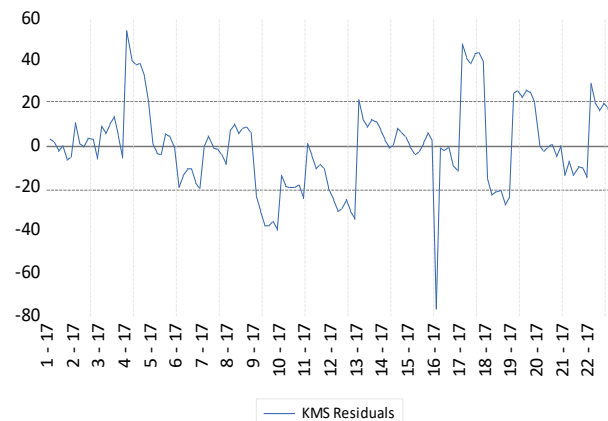
1. Multicollinearity Test

	IPM	PGR	GRDP
IPM	1.000000	0.688864	0.057741
PGR	0.688647	1.000000	-0.093238
GRDP	0.057741	-0.093238	1.000000

Source : data analyzed

The model chosen as the most optimal is the *Common Effect Model* (CEM), so that a classic assumption examination is carried out that includes Multicollinearity and Heterokedasticity. The correlation coefficient between HDI and unemployment is 0.68864786, between HDI and GRDP is 0.05774167, and between unemployment and GDP is -0.0932381, all below the value of < 0.85. Therefore, it can be concluded that this model is free from Multicollinearity or successfully passes the Multicollinearity test.

2. Heterokedasticity Test



Source : data analyzed

From the residual chart pattern (in blue), it can be seen that the values do not go beyond the limits (500 and -500), indicating that the residual variables have a uniform distribution. This indicates that there are no signs of heterokedasticity or exit from the heterokedasticity test.

3. Panel Data Regression Analysis Results

Variable	Coefficient	Error Std.	t-Statistics	Prob.
C	1.016.928	3.512.202	0.289541	0.7726
IPM	0.289009	0.601709	0.480314	0.6318
PGR	-3.241.880	1.286.242	-2.519.978	0.0130
GRDP	0.884456	0.097481	907.315	0.0000

Source : data analyzed

$$KMS = 10.169 + 0.289IPM - 3.241PGR + 0.884GRDP$$

1. A constant value of 10.169 means that if the HDI, Unemployment, and GRDP value is zero, then the poverty value is 10.16 percent.
2. The positive regression coefficient (+) of the Human Development Index (HDI) variable indicates that a 1 percent increase in HDI will contribute to a 0.289 percent increase in the poverty rate. Similarly, conversely, a 1 percent decrease in HDI would result in a 0.289 percent decrease in the poverty rate.
3. The negative regression coefficient (-) of the Unemployment variable (PGR) illustrates that a 1 percent increase in the unemployment rate, will lead to a 3,241 percent decrease in the poverty rate. Similarly, a 1 percent decrease in the unemployment rate would result in a 3,241 percent increase in the poverty rate.
4. The value of the regression coefficient of the GDP variable that is positive (+) shows that an increase of 1 percent in GDP will increase poverty by 0.884 percent and vice versa. Similarly, a 1 percent decrease in GDP would result in a 3,241 percent reduction in the poverty rate.

4. Test the Hypothesis

The effect of the Independent Variable and the dependent variable partially is as follows.

5. T test

Variable	t-Statistics
C	0.289541
IPM	0.480314
PGR	-2.519.978
GRDP	907.315

Source : data analyzed

- a. The results of the t test on the Human Development Index (HDI) variable obtained a calculated value of $0.480 < t$ table which is 1.97838 and a sig value. $0.6318 > 0.05$, then the HDI variable has a positive but not significant effect on poverty.
- b. The results of the t test on the unemployment variable (PGR) obtained a calculated t value of $-2.5199 > t$ table which is 1.97838 and niali sig. $0.0130 < 0.05$, then the unemployment variable has a negative but significant effect on poverty.
- c. The results of the t test on the variable Gross Regional Domestic Product (GRDP) obtained a calculated t value of $9.0731 > t$ table which is 1.97838 and a sig value. $0.0000 < 0.05$, then the unemployment variable has a positive and significant effect on poverty.

6. F Test

The calculated F value is $33.99192 >$ the table F is 2.675387 and the sig value. $0.000000 < 0.05$, then simultaneously the independent variables (HDI, PGR, and GRDP) affect the dependent variable, namely poverty.

7. Test Coefficient of Determination

The r adjusted R Square value of 0.443 or 44.3% of the value of the coefficient of determination shows that the independent variables consisting of HDI, PGR, and GRDP are able to explain the poverty variable in East Nusa Tenggara by 44.3% while the remaining 55.7% is influenced by other variables that are not included in this study.

Discussion

This study deeply investigates the complex relationship between poverty rates in East Nusa Tenggara (NTT) with the Human Development Index (HDI), unemployment rate, and Gross Regional Domestic Product (GRDP). A thorough analysis of these factors aims to detail the impact of each indicator's contribution to poverty levels in the region.

Based on the results of the analysis, it is known that the probability on the Human Development Index has a probability of >0.05 which explains that HDI has no effect on poverty in East Nusa Tenggara Province. This is likely because there are several theories and factors that can explain why the Human Development Index (HDI) does not always directly affect the poverty rate in East Nusa Tenggara (NTT). First, HDI, which consists of indicators of health, education, and standard of living, may not fully reflect the reality of poverty experienced by people in NTT. Poverty can be caused by economic factors, such as low employment and inequality in income distribution, which are not always represented in the HDI. Second, NTT may face unique challenges that are not reflected in the HDI, such as vulnerability to natural disasters or geographic remoteness that affects access to economic resources. In addition, regional inequalities and variations in social conditions within NTT can lead to significant differences in poverty rates, even if the overall HDI is high. Therefore, to better understand the impact of development on poverty in NTT, it is necessary to conduct a more in-depth analysis that includes economic, social, and geographical aspects that are not always covered in the HDI.

Unemployment has negatively affected poverty in East Nusa Tenggara Province. This explains that when unemployment decreases poverty increases, so does unemployment rise and poverty falls. This is likely because according to Human Capital theory high unemployment rates can hinder the development of human capital, resulting in low levels of education and skills that can make it difficult for individuals to get quality jobs. This impact can be exacerbated by cyclical poverty theory, where economic instability causes vulnerable groups of people to have difficulty breaking the cycle of poverty. In addition, unemployment can also affect household income directly, reduce purchasing power and trigger more groups of people trapped in poverty. Therefore, reducing unemployment in NTT is not only an economic goal, but also a very important strategy in efforts to reduce the poverty rate, given the close relationship between these two phenomena in the economic context of the region.

GRDP has a significant positive effect on poverty in East Nusa Tenggara. This means that when GDP rises, poverty will also increase and vice versa. This is likely due to several factors that can hinder the equitable distribution of economic growth benefits. Income inequality theory explains that if economic growth is focused on certain sectors and does not create enough jobs or if economic benefits are not evenly distributed across all levels of society, then social and economic inequality may occur that can increase poverty rates. Therefore, in the case of NTT, policy strategies focused on inclusive economic empowerment and reducing income inequality may be key to ensuring that high GDP growth exerts a comparable positive impact on poverty in the region. This is in line with research conducted which explains that GRDP has a positive effect on poverty. [15]

4. CONCLUSION

The results showed that, in the context of East Nusa Tenggara (NTT), the Human Development Index (HDI) did not have a significant impact on the poverty rate. Although HDI can reflect the level of human development, factors such as the unemployment rate exert a greater negative influence on poverty. High unemployment rates are believed to exacerbate inequality and hinder people's economic progress. In contrast, GDP, which is supposed to have a positive impact on poverty levels, appears to be making an unintended contribution. The possibility of a gap in the distribution of economic growth benefits and a lack of inclusive policies can be factors that explain why GDP growth does not always reduce poverty rates in NTT. These conclusions emphasize the importance of engaging holistic and inclusive analysis to design effective policies to alleviate poverty in the region. Based on research findings showing that HDI does not have a significant influence on poverty rates in East Nusa Tenggara (NTT), it is advisable to evaluate human development policies by strengthening initiatives to address high unemployment rates in the region. The focus of attention should also be extended to the distribution of economic growth benefits, given that high GDP has not always been shown to reduce poverty equally. Therefore, policy measures should prioritize skills training and job creation programs, while ensuring inclusive policies to address inequalities in the distribution of economic growth benefits in NTT.

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