



**Dampak Pertumbuhan Ekonomi, Pengangguran, dan Tingkat Pendidikan Terhadap Kemiskinan di Provinsi Nusa Tenggara Timur, Indonesia**

*Impact of Economic Growth, Unemployment, Education Level on Poverty in Indonesia's East Nusa Tenggara Province*

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**Abstract**

*This study sought to ascertain how poverty in East Nusa Tenggara, Indonesia, was impacted concurrently and in part by economic growth, unemployment, and educational attainment. Non-participant observation was used for data gathering. Panel data analysis utilizing the Fixed Effect Model (FEM) was data analysis technique employed. The results which were based on the Eviews 9 test showed F statistic was greater than the F table ( $105.1927 > 2.46$ ) or the F probability was smaller than the probability value ( $0.000000 < 0.05$ ), it means poverty in East Nusa Tenggara, Indonesia, was positively and significantly impacted by economic growth, unemployment, and education levels simultaneously between 2015 and 2019. Meanwhile, partially 2015 to 2019, economic growth (T value  $0.344914 < T_{table} 1.65936$  and probability value  $0.7310 > \alpha = 0.05$ ), unemployment (T value  $1.194274 < T_{table} 1.65936$  and probability value  $0.2357 > \alpha = 0.05$ ) and educational attainment (T value  $-0.546285 < T_{table} 1.65936$  and probability value  $0.5863 > \alpha = 0.05$ ) had a negative and negligible impact on poverty in the province of East Nusa Tenggara, Indonesia.*

**Keywords:** Education, Unemployment, Economic and Poverty

**Abstrak**

Tujuan dari penelitian ini adalah untuk mengetahui apakah pertumbuhan ekonomi, pengangguran, dan tingkat pendidikan berpengaruh secara simultan dan parsial terhadap kemiskinan di provinsi Nusa Tenggara Timur, Indonesia. Observasi non-partisipan digunakan untuk pengumpulan data. Analisis data panel dengan Fixed Effect Model (FEM) merupakan teknik analisis data yang digunakan. Berdasarkan hasil uji Eviews 9 bahwa nilai F statistic lebih besar dari Ftabel ( $105.1927 > 2.46$ ) atau nilai signifikansi lebih kecil 0.05 ( $0.000000 < 0.05$ ), artinya kemiskinan di provinsi Nusa Tenggara Timur, Indonesia, dipengaruhi secara positif dan signifikan oleh pertumbuhan ekonomi, pengangguran, dan tingkat pendidikan secara bersamaan antara tahun 2015 dan 2019. Sementara itu, secara parsial dari tahun 2015 hingga 2019, faktor pertumbuhan ekonomi (nilai T  $0.344914 < T_{tabel} 1.65936$  dan nilai signifikansi  $0.7310 > 0.05$ ), pengangguran (nilai T  $1.194274 < T_{tabel} 1.65936$  dan nilai signifikansi  $0.2357 > 0.05$ ), dan pencapaian pendidikan (nilai T -

0.546285 < Ttabel 1.65936 dan nilai signifikansi 0.5863 > 0.05) mempunyai dampak negatif dan dapat diabaikan terhadap kemiskinan di provinsi Nusa Tenggara Timur, Indonesia.

**Kata Kunci:** Pendidikan, Pengangguran, Ekonomi dan Kemiskinan

## INTRODUCTION

A person or group of people who do not have their fundamental rights to a dignified existence maintained and developed is said to be in poverty. A person's or a group's basic needs include the need for food, health, education, work, housing, clean water, land, natural resources, the environment, protection from abuse or threats of violence, and the ability to take part in social life and political organizing. Those who worked but made too little money to cover their essential expenses were likewise considered to be in this state of poverty. A low income to meet fundamental necessities was the standard definition of poverty (Gani, 2022).

As a developing nation, Indonesia needs to be very determined to learn from more established nations. Indonesia is facing numerous challenges in implementing sustainable development. The goal of development was to ensure the community's wellbeing and prosperity. The government had put in place a number of economic development strategies aimed at promoting economic growth and equitable economic equality, specifically by lowering the number of impoverished individuals. However, there remained a gap between what was expected and what was actually happening in terms of poverty. (Ishak et al., 2020).

Five provinces in Indonesia's eastern area have the highest rates of poverty out of the country's thirty-four provinces. According to Central Statistics Agency (BPS) and Regional Development Planning Agency (Bappeda) Yogyakarta Special Region Province, 2020, these provinces are Papua (27.53%), West Papua (22.17%), East Nusa Tenggara (21.09%), Maluku (17.69%), and Gorontalo (15.52%). (Badan Pusat Statistik (BPS) dan Badan Perencanaan Pembangunan Daerah (Bappeda) Provinsi Daerah Istimewa Yogyakarta, 2020).

The author limited the scope of this study to East Nusa Tenggara Province based on the five provinces in the eastern area of Indonesia with the highest rates of poverty mentioned above. It was because poverty was a major issue that still needed to be addressed when discussing this province. In East Nusa Tenggara Province, poverty had been a major issue.

East Nusa Tenggara Province's environment was primarily dry and desolate. It appeared that food insecurity and drought were calamities that East Nusa Tenggara locals dealt with virtually every. In addition, unemployment, school dropout rates, poverty, malnutrition, uneven economic growth in each district, and poor access to healthcare services eventually formed more links in the chain of issues. Natural resources were abundant, varied, and dispersed throughout the entire province of East Nusa Tenggara, Indonesia. However, up until this point, none of the sectors had fully realized their potential to significantly improve the welfare of the local population. This resulted from insufficient investment.

Between 2015 and 2019, the number of impoverished individuals in East Nusa Tenggara Province fluctuated annually. The Central Bureau of Statistics statistics for the years 2015–2019 indicated fluctuations in the number of impoverished individuals in East Nusa Tenggara Province, so the author restricted the data to that period. Additionally, the author was interested in conducting research at the time based on the Central Bureau of Statistics' 2019 report on the number of impoverished people in East Nusa Tenggara Province from 2015 to 2019.

South Central Timor Regency had the greatest percentage of impoverished individuals in the province of East Nusa Tenggara, with 144.01 thousand residents in 2015, while the percentage was still falling. The South Central East district had 130.31 thousand impoverished residents as of 2019. The province of East Nusa Tenggara, specifically the Nagekeo district, has the lowest percentage of impoverished individuals, with 20,000 in 2015 and 18,70 thousand in 2019 (Central Bureau of Statistics-East Nusa Tenggara Province). The fact that poverty rates are

still high indicates that the government's programs for the impoverished were not successful in reaching them. Regional administrations now had the ability to create and carry out development strategies and programs in accordance with their needs, as per the 2001 regional autonomy policy. Regional autonomy, as defined by Law No. 22 of 1999, is the power granted to an autonomous region to oversee and control the interests of its constituent communities.

The regional administration has so far provided the strategy to address East Nusa Tenggara's poverty issue. The regional government policies, such as the Indonesian health card, Indonesian smart card, and direct financial support, among others. Poverty is one issue that all those programs were designed to address in East Nusa Tenggara. Hopefully, more strategic regional government measures would be implemented to address East Nusa Tenggara's poverty issue. The elimination of poverty in East Nusa Tenggara Province was largely dependent on the actions of both the central and local governments.

In implementing regional autonomy, regional governments did not only implement development programs but were also directly and actively responsible for handling poverty, so that to overcome poverty it was necessary to study what factors influence poverty, especially in the province of East Nusa Tenggara. The economic dynamics in East Nusa Tenggara province could not be separated from the dynamics of the Indonesian economy and the world economy where economic transactions had become limitless. Indonesia's philosophy of being free to be active in world relations, as well as the shift in Indonesian governance to more democratic conditions, has enabled Indonesia to become a country that was increasingly open in carrying out economic transactions (Regional Long-Term Development Plan of East Nusa Tenggara Province, 2005-2025).

Education is a window to knowledge, education is an effort that requires a long process so that an individual is able to think and be responsible at least for him or her. This made the position of education in the cycle of poverty important. Education will make a person has the life skills to think creatively and innovatively so that it will open up many options for people to earn income to meet their daily needs. Apart from that, education is currently still used as a qualification in obtaining work; of course this is a real link between education and poverty alleviation (Asih Handayani, 2018).

The dominant factor that worsens the quality of education in East Nusa Tenggara Province is poverty which has a plural character including economic, structural, situational/natural, social – political and subjective. This worrying condition really disturbed the low quality of East Nusa Tenggara's human resources which in turn causes the low Human Development Index (HDI) of East Nusa Tenggara. To overcome this problem, it is appropriate for development policy to provide space for all stakeholders to participate actively according to their roles. There is a positive correlation between the low income of the people of East Nusa Tenggara and their low level of education and conversely, high people's income turns out to be a high level of education of the population which has an impact on their mastery of technology and science (Regional Long-Term Development Plan of East Nusa Tenggara Province, 2005-2025).

Sukirno (1994) defined unemployment as the state in which an individual in the labor force wishes to obtain employment but has not yet done so. Unemployment does not apply to someone who is not working but is not actively seeking employment (Yacoub & Firdayanti, 2019).

A deficiency of expenditure on goods and services within an economy is one of the reasons contributing to unemployment. Entrepreneurs create products and services with the hope of turning a profit, but they can only do so if they sell the items and services they create. The amount of goods and services produced increases with demand. The need for workers will rise as a result of the growth in production.

One macroeconomic issue that has a direct impact on human survival is unemployment. Losing a job typically results in a drop in one's level of life. Therefore, it is not unexpected that politicians frequently bring up unemployment in their speeches because they frequently believe that the measures they propose will contribute to the creation of jobs for workers. As to Sumarsono (2009), the unemployment rate represents the proportion of jobless individuals to the whole workforce. The term "unemployed" refers to people who are seeking for work but are not

yet employed. (Yacoub & Firdayanti, 2019). In East Nusa Tenggara Province, the open unemployment rate peaked in 2019 at 83,030, while it was at its lowest point in 2018 at 3.01 percent (Central Bureau of Statistics-East Nusa Tenggara).

Economic growth, which was quantified using a region's Gross Domestic Product (GDP) and Gross Regional Domestic Product (GRDP), was an attempt to boost product capacity in order to obtain greater production (Prasetya, 2021). The development process required high national income and rapid economic growth. In many countries, the main condition for a steady reduction in poverty was economic growth. Economic growth was not enough to eradicate poverty, but it was something that was needed. However, good economic growth would be meaningless for reducing poverty if it was not accompanied by equitable development and social welfare (Kawi & Sudibia, 2022).

The process of long-term increases in per capita output was known as economic growth. Additionally, economic growth was a process rather than a snapshot of the economy at a certain moment. In this article, we examined the dynamic side of economies—that is, how they grow or alter over time. The focus was on actual progress or transformation (Kawi & Sudibia, 2022).

Poverty was a complicated issue with multiple facets. As a result, initiatives to reduce poverty must be carried out completely, addressing a range of facets of people's life, and executed in an integrated way. (Nuraeni Handayani, 2022).

East Nusa Tenggara has had a poverty problem for a number of years. Despite some efforts, not much of an impact was seen. The government of Indonesia was concerned about the poverty situation in East Nusa Tenggara due to the region's proximity to Timor Leste's border as well as its high rate of poverty. Whether it is known or not, East Nusa Tenggara possesses significant power to address the issues brought about by its arid land and some social problems within its community. Five local economic sectors—demography, forestry, farming and animal husbandry, trading, and tourism—showed signs of some of those potencies.

There were some researchers doing the research about the effect of education level, unemployment, and economic growth on poverty. For instances, in research conducted by Sirilius Seran (University of Timor) he conducted research entitled "The relationship between education, unemployment and economic growth and poverty", research conducted by Yarlina Yacoub (Tanjungpura University, Pontianak) entitled "The Influence of Unemployment Levels on Regency/City Poverty Levels in West Kalimantan Province", research conducted by Kurnia Dwi Rahmawati (Sunan Kalijaga Yogyakarta State University), she had conducted research entitled "Analysis of the Influence of Population, Education Level and Unemployment Rate on Poverty in DIY for the 2006-2013 Period. However, there was no one doing research that relate to this topic with the location in East Nusa Tenggara Province. So, this study tried to fill the gap that had not researched by other researchers or authors.

Although the term "poverty" has multiple definitions, the majority of them relate to economic factors. Numerous attempts to characterize and categorize poverty ultimately resulted in a reducible conceptual framework. First, absolute and relative poverty were distinguished from a measurement standpoint. Second, poverty can be classified as either structural or natural from a causal standpoint. For a policy aimed at reducing poverty to be successful, it was crucial to establish unambiguous standards for determining which community groups were considered impoverished and who the program was intended to assist (Kawi & Sudibia, 2022).

According to Gunawan Sumodiningrat, poverty can be divided into three meanings, namely: *First*, absolute poverty, namely if a person's income was not sufficient for the minimum living needs, including food, clothing, health, housing and education needed to live and work. This low level of income was mainly caused by limited physical facilities and infrastructure as well as scarcity of capital or poverty due to natural causes. *Second*, cultural poverty described the mindset of an individual or group that, despite outside assistance, was unwilling to try to raise their standard of living due to cultural reasons. *Third*, relative poverty was closely related to structural development problems. Namely, unbalanced development policies caused income inequality.

Education was a process where there was a change in attitude or behavior or bad habits that a person had so that they become better through the teaching process and was expected to be able to produce human resources who were superior and able to compete in the world of work competency which was known to be quite difficult. Higher education results in better work productivity so that the impact would provide greater income (Prasetya, 2021).

According to Law Number 20 of 2003 article 1 paragraph 7 concerning the National Education System, it was a vehicle through which students developed their potential in an educational process that was in accordance with educational goals. The educational path was as follows:

1. Primary, secondary, and postsecondary education make up the formal education system, which is an organized and graded educational path.
2. An alternative to formal education that can be used in an organized, tiered fashion is called non-formal education.
3. The path of informal education involves autonomous learning activities and focuses on environmental and family education.

Once students complete tests in compliance with national education standards, the outcomes of their formal education are acknowledged as being equivalent to those of their non-formal education. (Central Bureau of Statistics, 2017) states that there are four categories for unemployment:

1. Full or open unemployment  
Specifically those who were part of the labor force but were neither employed nor seeking employment.
2. Involuntary underemployment  
These individuals, who were willing to accept a job with a lesser salary than anticipated, worked fewer than 35 hours per week against their will for whatever reason because they were unable to find employment.
3. Selective underutilization  
Specifically, those who would prefer to stay jobless than take a job that they believe does not match their level of education or pays less than they anticipated.
4. People who worked less than they can actually do with their education or skills.

The various causes above showed that unemployment can occur because the job market did not meet the workforce, resulting in unemployment. One way to overcome unemployment was to make the labor force meet the job market.

According to Schumpeter (Boediono, 2002) economic growth was defined as an increase in society's output caused by the increasing number of production factors used in the production process without any change in methods or technology itself. Since strong economic growth was required to speed up changes in regional economic structure toward a balanced and dynamic economy in order to raise people's incomes and eradicate socioeconomic inequality, economic growth should exhibit a growing and consistent trend from year to year (Bawinti et al., 2018).

In research conducted by R. Ishak, J. Zakaria, M. Arifin entitled "The Influence of Economic Growth, Education and Unemployment on Poverty Levels in Makassar City". The results of this research showed that economic growth and unemployment have a positive effect on poverty levels. Meanwhile, the education level variable based on Average Years of Schooling has a negative effect on poverty levels (Ishak et al., 2020).

Apart from that, according to research conducted by Eka Agustina, Mohd. Nur Syechalad, Abubakar Hamzah entitled "The Influence of Population, Unemployment Level and Education Level on Poverty in Aceh Province". The results of this research show that population size, unemployment rate and education level on poverty show that unemployment rate and education level have a positive and significant effect on poverty, while population size does not have a significant effect on poverty (Agustina et al., 2019).

Drawing on the aforementioned theoretical framework, the ensuing hypothesis was formulated as follows:

1. From 2015 to 2019, the province of East Nusa Tenggara's poverty rate is significantly influenced by the unemployment rate, economic growth, and education rate.
2. In East Nusa Tenggara province, poverty is significantly impacted by the unemployment rate, education rate, and economic growth all at the same time between 2015 and 2019.

Poverty in East Nusa Tenggara is a complex problem. There are a number of factors that cause poverty in East Nusa Tenggara. However, in this research the author only took three variables that cause poverty in East Nusa Tenggara, namely economic growth, unemployment and education level. The following is the number of poor people in East Nusa Tenggara province from 2015 to 2019.

Table 1. Number of Poor Population in East Nusa Tenggara Province Per Semester (Thousand People-Year 2015)

Number of Poor Population in East Nusa Tenggara Province Per Semester (Thousand People)			
2015			
REGION (Urban Rural)	Semester 1 (March)	Semester 2 (September)	Annually
Urban	116.16	97.06	-
Rural	1043.68	1063.47	-
Total	1159.84	1160.53	-

Source: [BPS, Survei Sosial Ekonomi Nasional \(Susenas\)](#)

Table 2. Number of Poor Population in East Nusa Tenggara Province Per Semester (Thousand People-Year 2016-2017)

Number of Poor Population in East Nusa Tenggara Province Per Semester (Thousand People)						
2016						
REGION (Urban Rural)	Semester 1 (March)	Semester 2 (September)	Annually	2017		
	Semester 1 (March)	Semester 2 (September)		Semester 1 (March)	Semester 2 (September)	Annually
Urban	112.02	112.48	-	117.40	119.04	-
Rural	1037.90	1037.60	-	1033.39	1015.70	-
Total	1149.92	1150.08	-	1150.79	1134.74	-

Source: [BPS, Survei Sosial Ekonomi Nasional \(Susenas\)](#)

Table 3. Number of Poor Population in East Nusa Tenggara Province Per Semester (Thousand People-Year 2018-2019)

Number of Poor Population in East Nusa Tenggara Province Per Semester (Thousand People)						
2018						
REGION (Urban Rural)	Semester 1 (March)	Semester 2 (September)	Annually	2019		
	Semester 1 (March)	Semester 2 (September)		Semester 1 (March)	Semester 2 (September)	Annually
Urban	121.95	-	-	114.12	108.62	-
Rural	1020.21	-	-	1032.20	1020.84	-
Total	1142.17	-	-	1146.32	1129.46	-

Source: [BPS, Survei Sosial Ekonomi Nasional \(Susenas\)](#)

The table 1, 2, and 3 above shows that the number of poor people in East Nusa Tenggara Province from 2015 to 2019 continued to increase, although in 2015 from semester 1 to semester 2 there was a slight decline and in 2018 to 2019 there was a slight decline, and the decline was not significant. From the data and phenomena encountered by the author, poverty in East Nusa

Tenggara is a very serious and complex problem. In the author's opinion, the variables that cause poverty in East Nusa Tenggara are human resource factors (education), lack of employment opportunities (unemployment) and low income (economic growth rate). Based on the background of this problem, the author is interested in conducting research on this with the independent variables that are the focus in this research being: Economic Growth, Unemployment, and Education Level.

Many previous studies have examined the relationship between economic growth, unemployment and education level on poverty. However, no previous researcher has examined these three variables in the province of East Nusa Tenggara. Therefore, the author took the initiative to conduct research with these three variables in East Nusa Tenggara Province. Hopefully this research can provide benefits and increase insight for the people of East Nusa Tenggara in particular and Indonesian society in general.

The author was therefore motivated to do research under the heading "The Impact of Economic Growth, Unemployment, and Education Level on Poverty in Indonesia's East Nusa Tenggara Province," given the history and issues mentioned above. The purpose of this study was to ascertain how poverty in East Nusa Tenggara Province is influenced simultaneously and in part by economic growth, unemployment, and education level. The study is crucial to the reader's understanding and to the serious consideration given by the national and local governments to the issues influencing poverty in the province of East Nusa Tenggara. In order to address the issue of poverty in East Nusa Tenggara Province, policymakers may find this research to be useful as a reference.

## **RESEARCH METHODOLOGY**

The method that was used in this research was a quantitative approach with secondary data types. Data collected through this method was by making observations and taking notes as well as studying descriptions from books, journals, theses and accessing data from the East Nusa Tenggara Province Central Statistics Agency. Because there were still a lot of impoverished individuals in East Nusa Tenggara Province, whose distribution was unequal across different districts and cities, this research was done there.

For data analysis, the Eviews 9 application was utilized in this study. The study's research objects included the following: poverty, unemployment, economic growth, and education level in Indonesia's East Nusa Tenggara Province. The Central Statistics Agency of East Nusa Tenggara Province provided the quantitative data for this study, which included average years of education, unemployment, GRDP, and the proportion of the poor population for the years 2015–2019. Non-participant observation was the technique employed in this study to collect data; the researcher was merely an impartial observer and was not participating (Sugiyono, 2013) in (Wijaya et al., 2021).

Panel data analysis was the analytical technique employed, and the data set included cross-sectional data from East Nusa Tenggara Province, Indonesia, as well as time series data from 2015 to 2019. The Fixed Effect Model was the method employed to estimate regression models using panel data (FEM).

Three independent factors and one dependent variable were included in this study. Poverty (POV) was the dependent variable in this study. In this study, the independent variables were GDP growth, unemployment (TPT), and education level (EDUC).

Operational Definition of the Variable:

1. The number of impoverished individuals was the dependent variable, and the data unit used for this was thousands of individuals.
2. Independent variables (independent variables), the variables in this research were as follows:
  - a. Education variable, average length of schooling (EDUC), the unit to be used was years.
  - b. The unit of unemployment variable (TPT) that was used was percent.
  - c. The GDP, or economic growth variable The GRDP was predicated on the millions of rupiah, which served as the unit of account.

In order to ascertain the impact of economic growth, unemployment, and education level on poverty in the Indonesian province of East Nusa Tenggara between 2015 and 2019, Panel Data Regression Analysis with the following econometric model was used:

$$POVit = \beta_0 + \beta_1GRDPit + \beta_2EDUCit + \beta_3TPTit + \beta_4JPit + uit$$

Information:

- POVit : poverty in the i-unit and i-time unit  
 GRDPit : economic growth in the i-unit and i-time unit  
 EDUCit : education level at the 4th unit, and the i-time unit  
 TPTit : unemployment in the i-unit and i-time unit  
 JPit : population in the i-unit and i-time unit  
 $\beta_1$ - $\beta_4$  : regression coefficient for each variable  
 i : 1,2,3,4 (regency/city cross section data)  
 t : 1,2,3,4 (time series data 2015-2019)  
 $\beta_0$  : Constant

## RESULTS AND DISCUSSION

### Results

Table 4. Results of statistical calculations description

Variabel	POV	EDUC	TPT	GRDP
Mean	5295.091	7.117727	3.328364	2.887664
Median	4479.500	6.980000	2.895000	2.162000
Maximum	14401.000	11.47000	14.26000	16.76400
Minimum	1869.000	5.120000	0.500000	0.619000
Std. Deviasi	2845.385	1.144030	2.331896	2.839370

Source: Processed data using Eviews 9, 2021

Based on the data that was showed by Table 4, it showed that the average value of poverty in East Nusa Tenggara Province in 2015-2019 was 5295,091 thousand people. The median value was 4479,500 thousand people. Then for the highest value of the amount of poverty in the province of East Nusa Tenggara in 2015-2019, the value was 14,401,000 thousand people, while the lowest value was 1,869,000 thousand people. With a standard deviation of 2845,385 units in thousands of people.

The average value of education obtained in East Nusa Tenggara Province in 2015-2019 was 7.117727 years. The median value had a value of 6.980000 years. Then the highest value of education obtained in the province of East Nusa Tenggara in 2015-2019 was 11,47,000 years, while the lowest value was 5,120,000 years. With a standard deviation of 1.144030 in years.

The average value of unemployment in East Nusa Tenggara Province in 2015-2019 was 3.328364 percent. The median value had a value of 2.895000 percent. Then the highest value of unemployment in East Nusa Tenggara Province was 14.26000 percent, while the lowest value was 0.500000 percent. With a standard deviation of 2.331896 in percent units.

The average value of economic growth in East Nusa Tenggara Province in 2015-2019 was 2,887664 million rupiah. The median value was 2,162,000 million rupiah. Then the highest value for economic growth in East Nusa Tenggara Province was 16,76,400 million rupiah, while the lowest value was 0.619,000 million rupiah. With a standard deviation of 2.839370 in millions of rupiah.

Table 5. Chow Test

	Statistic	Prob.
<b>Cross-section F</b>	67.535775	0.0000

Source: Processed data using Eviews 9, 2021

Table 5 above showed that based on the Chow test, the probability value of 0.0000 was smaller than  $\alpha$  of 0.05, so it could be decided to reject  $H_0$ , so it could be concluded that the fixed effect model (FEM) was better than the common effect model (CEM). Because this conclusion

was obtained, further tests would be carried out to find out which was more appropriate, the fixed or random approach.

Table 6. Hausman Test

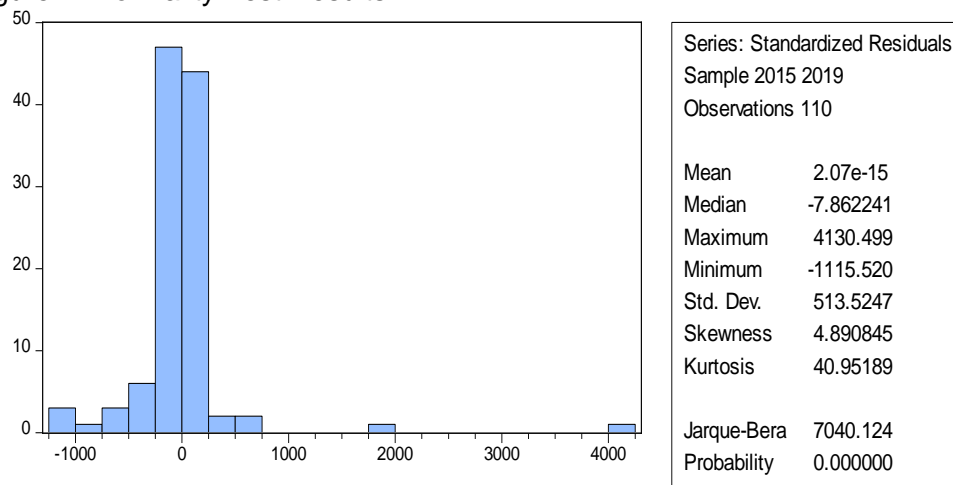
Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
25.034792	3	0.0000

Source: Processed data using Eviews 9, 2021

Table 6 above showed that based on the Hausman test, the Prob value of 0.0000 was smaller than  $\alpha$  of 0.05 so it could be decided to Reject  $H_0$ , so it could be concluded that the fixed effect model (CEM) was better than the random effect model (REM).

Because the results of the Chow test and the Hausman test had the same results, namely the fixed effect model (FEM), there was no need to carry out further model selection tests.

Figure 1. Normality Test Results



Source: Processed data using Eviews 9, 2021

Based on the Figure 1 above, it showed that by using panel data, the graph of the amount of poverty in East Nusa Tenggara province with a probability of 0.000000 was smaller than the probability of 0.05, so this data was not normally distributed. If the normality test in this study was not normally distributed, then the solution could be used the Central Limit Theorem assumption, namely that the number of observations was large ( $n > 30$ ), so it could be concluded that the normality assumption could be ignored (Gujarati, 2000).

Table 7. Multicollinearity Test Results

	EDUC	TPT	PDRB
EDUC	1.000000	0.674856	0.810400
TPT	0.674856	1.000000	0.721010
GRDP	0.810400	0.721010	1.000000

Source: Processed data using Eviews 9, 2021

The table 7 above would explain the relationship between variables. The basis for making the decision was if it was greater than 0.8 then multicollinearity occurred, if it was smaller than 0.8 then multicollinearity did not occur (Agus, 2015).

From the data above it could be concluded that education had a big influence on the level of poverty. This could be seen from the table above that the value was more than 0.8 therefore it was very influential, while for unemployment it had no influence because it was less than 0.8 and for economic growth it had an influence where the value was more than 0.8.

Table 8. Heteroscedasticity Test

Variable	Prob.
EDUC	0.2218
TPT	0.0562
GRDP	0.3021

Source: Processed data using Eviews 9, 2021

Table 8 above stated that the data results did not contain heteroscedasticity, it was because the probability value was above 0.05. The EDUC variable had a probability of 0.2218 >  $\alpha = 0.05$ . The TPT variable had a probability of 0.0562 > from  $\alpha = 0.05$ . The GRDP variable had a probability of 0.3021 > from  $\alpha = 0.05$ . It could be concluded that this data was free.

Table 9. Autocorrelation Test

d count	Value
DW	0,363395
dU	1,7455
dL	1,6336
4-dU	2,3664
4-dL	2,2545

Source: Processed data using Eviews 9, 2021

From table 9 above, it showed that the resulting DW was 0.363395, the results were in the area of doubt or did not know, which means it did not produce a definite result and there was no autocorrelation.

So it could be produced as shown below:

Negative autocorrelation	Did not know	No Autocorrelation	Did not know	Negative autocorrelation
0	dL 1,6336	dU 1,7455	2 4-dU	2,2545 2,36644 4 4-dL

Table 10. Results of Multiple Linear Regression Analysis

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	5979.413	1994.112	2.998534	0.0036
EDUC	-159.1603	291.3505	-0.546285	0.5863
TPT	77.86688	65.20021	1.194274	0.2357
GRDP	65.57833	190.1295	0.344914	0.7310

Source: Processed data using Eviews 9, 2021

Based on the results of table 10 of the calculations above, the panel regression equation was obtained as follows:

$$POV_{it} = 5979.413 - 159.1603 EDUC_{it} + 77.86688 TPT_{it} + 65.57833 GRDP_{it} + e_{it}$$

The interpretation of the regression model above is as follows:

1. The constant ( $\beta_0$ ) of 5979.413 showed that if the independent variable = 0 then (PE) would have a value of 5979.413.

2. The EDUC coefficient ( $\beta_1$ ) value of -159.1603 indicated that if the EDUC variable (X1) was increased, it would result in a decrease in the value of (PE) of -159.1603, assuming other variables were constant.
3. The TPT coefficient value ( $\beta_2$ ) is 77.86688, indicated that if the TPT variable (X2) was increased, it would result in a decrease in the (PE) value of 77.86688, assuming the other variables were constant.
4. The GRDP coefficient ( $\beta_3$ ) value of 65.57833 indicated that if the GRDP variable (X3) was increased, it would result in an increase in the value of (PE) of 65.57833, assuming the other variables were constant.

#### F test

Table 11. T-Statistics Test Results

F. Statistic	Prob (F-Statistic)	F-table
105,1927	0,000000	2.46

Source: data processed using Eviews 9, 2021

Table 11 above showed that the statistical F test was 105.1927. By using  $\alpha = 0.05$ , the F-Table was obtained by the numerator being 3 (4-1=3) and the denominator 106 (110-4) with  $\alpha = 0.05$ .

So the F statistic was greater than the F table (105.1927 > 2.46) or the F probability was smaller than the probability value (0.000000 < 0.05), then what could be concluded was that the independent variables education, unemployment and economic growth had a simultaneous effect on the dependent variable total poverty.

#### T test

Table 12. T-Statistics Test Results

Variable	t-Statistic	Prob.	T Table
EDUC	-0,546285	0.5863	1,65936
TPT	1,194274	0,2357	1.65936
GRDP	0,344914	0,7310	1.65936

Source: data processed using Eviews 9, 2021

Table 12 above stated that the statistical T value of the education variable was -0.546285, which was smaller than the T table of 1.65936 and the probability value of 0.5863 was greater than  $\alpha = 0.05$ . So it was concluded that education had no significant effect on poverty.

The statistical T value of the unemployment variable was 1.194274 which was greater than the T table of 1.65936 and the probability value of 0.2357 was greater than  $\alpha = 0.05$ . So it was concluded that unemployment had no significant effect on poverty.

The statistical T value of the economic growth variable was 0.344914 which was smaller than the T table of 1.65936 and the probability value of 0.7310 was greater than  $\alpha = 0.05$ . So it was concluded that economic growth had an insignificant effect on poverty.

Table 13. Results of the Coefficient of Determination R2

R-squared	Adjusted R-squared
0,967428	0,958232

Source: data processed using Eviews 9, 2021

The R-squared was 0.967428, and the adjusted R-squared was 0.958232, as indicated by Table 13 above. The association between the variables of education, unemployment, and economic growth and the level of poverty in East Nusa Tenggara province, with an R-squared of 0.967428, could be explained. Other variables not included in this study were responsible for the remaining 3.26.

## **Discussion**

### **Discussion of the Impact of Economic Growth, Unemployment, and Education Level on Poverty in Indonesia's East Nusa Tenggara Province**

Based on the T test results, poverty in the Indonesian province of East Nusa Tenggara was negatively and insignificantly affected by unemployment, economic growth, and education between 2015 and 2019. According to Sirilius Seran's research (University of Timor), "The relationship between education, unemployment, economic growth, and poverty" was supported by this. Based on the analysis's findings, which showed that education had a small but negative correlation with both unemployment and population poverty, the research's conclusion was reached. Economic growth was positively correlated with education as well. Unemployment not only had a negative association with economic growth, but it also had a positive and substantial relationship with population poverty, while economic growth had a negative and minor relationship with population poverty. The impact of unemployment on poverty was not examined or explained in this section of Sirilus Seran's earlier study. On the other hand, the author examined and discussed how unemployment affects poverty in this study. According to the T test results, poverty in the Indonesian province of East Nusa Tenggara was negatively and negligibly impacted by unemployment, economic growth, and education between 2015 and 2019. It denotes the rejection of hypothesis 1 (one).

Based on the F test results, it is possible to draw the conclusion that, in the Indonesian province of East Nusa Tenggara, poverty was significantly impacted by unemployment, economic growth, and education level all at the same time between 2015 and 2019. This was consistent with a study titled "The Influence of Unemployment Levels on Regency/City Poverty Levels in West Kalimantan Province" by Yarlina Yacoub of Tanjungpura University in Pontianak. Based on the analysis's findings, the research's conclusion was that West Kalimantan Province's districts' and cities' levels of poverty were significantly impacted by the unemployment rate. Yarlina Yacoub's earlier studies did not investigate and elucidate the relationship between poverty and economic growth and educational attainment. Nonetheless, the author of this study examined and discussed how poverty is impacted by economic progress and educational attainment. Therefore, based on the F test results, it can be stated that, in the Indonesian province of East Nusa Tenggara, poverty was significantly impacted by unemployment, economic growth, and education level all at the same time between 2015 and 2019. It denotes the acceptance of hypothesis 2 (two).

## **CONCLUSION**

### **1) Conclusion**

From the above discussion, it can be inferred that the analysis's findings demonstrated that, from 2015 to 2019, the dependent variable—poverty in East Nusa Tenggara Province, Indonesia—was significantly impacted by the independent variables of education level, unemployment, and economic growth all at the same time. Between 2015 and 2019, the province of East Nusa Tenggara in Indonesia experienced a slight and unfavorable impact on poverty due to factors such as education, unemployment, and economic growth. This indicates that poverty was partially unaffected by and negatively impacted by the variables of education level, unemployment, and economic growth. If the province of East Nusa Tenggara's poverty was partially evaluated, the three independent factors had no effect. Simultaneous examination of the variables of economic growth, unemployment, and education level revealed a substantial impact on poverty. It indicates that there was a substantial impact on poverty if these three independent variables were looked at concurrently. One may argue that all three factors—economic growth, unemployment, and educational attainment—had an equal impact on poverty in East Nusa Tenggara Province.

## 2) Suggestions

Based on the findings of this study, which examined the effects of unemployment, economic growth, and education level on poverty in 22 districts and cities in East Nusa Tenggara Province, Indonesia, between 2015 and 2019. So, the following is how it can be obtained:

In addition, if the rate of unemployment declined and higher education levels increased, East Nusa Tenggara Province, Indonesia's economic growth would also rise. This was expected in light of the government's stated commitment to addressing the issue of education and providing full scholarships for impoverished individuals in the province. The goal was to enable all those classified as impoverished to complete their education and acquire the necessary knowledge to create jobs and open doors for jobless people.

In addition, the policies of the central and regional governments were crucial and more strategically oriented in eradicating the poverty issue in the province of East Nusa Tenggara. In East Nusa Tenggara Province, poverty has been a significant and grave issue. Thus, this study is crucial for the reader's education as well as for the central and local governments to take the problem of poverty in East Nusa Tenggara Province more seriously. Policy makers must be aware of the variables influencing poverty in the province of East Nusa Tenggara. The research's findings should serve as a guide for policymakers, in this case the national and local governments, as they formulate laws pertaining to the economy, education, and employment creation in an effort to reduce unemployment. In order to address the issue of poverty in East Nusa Tenggara Province, certain measures need to be implemented.

In addition, according to research entitled "Finding out the Potency of East Nusa Tenggara in Poverty Alleviation" by Erlinda Matondang (Ministry of Defense of the Republic of Indonesia), potency utilization could be held optimally through strategic, effective, and efficient efforts supported by national and local government as well as East Nusa Tenggara society. The poverty rate in East Nusa Tenggara Province ought to be reduced through potency optimization. Through research and analysis, researcher found that poverty in East Nusa Tenggara is influenced simultaneously by the variables of economic growth, unemployment and education level. The findings in this research can certainly be a reference and point of reference for policy makers to overcome the problem of poverty in East Nusa Tenggara. Several previous studies have conducted similar research, but it has not been carried out in East Nusa Tenggara. To overcome poverty problem, the policy maker should identify the factors affected poverty and the goals of regional development. Identifying the goals can guide you to the best next steps (Leanne, 2010). To overcome the poverty problem in East Nusa Tenggara, it needs leadership. A leader's leadership also has an important role in this context, a leader has to be able to manage the situation when leading the regional government (Pio & Tampi, 2018). The leader prioritizes which problems are urgent and should be solved as soon as possible, prioritizes leader conduct that facilitate the creative process (Efrata, 2023). Hopefully this research can provide benefits, improve knowledge and increase insight for the people of East Nusa Tenggara in particular and Indonesian society in general.

The author came to the conclusion that the research's outcome was far from ideal in the end. Therefore, the author really hoped that the future researcher would be able to complete the gaps in the research by doing studies connected to this problem (poor) in East Nusa Tenggara Province.

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