Analysis of Determinants of Economic Growth in Regencies/Cities in East Nusa Tenggara Province

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ABSTRACT

One indicator of development progress is economic growth, which is marked by an increase in national production and income. Social issues that can affect economic growth include unemployment rates caused by an increase in the labor force that is not accompanied by an increase in job opportunities. Additionally, economic growth is also influenced by the Minimum Wage, which aims to promote economic equality, particularly for low-income workers. The goal of this study is to assess the effects of the Unemployment Rate and the Provincial Minimum Wage (PMW) on economic development in East Nusa Tenggara Province between the years 2020 and 2024. This study examines the unemployment rate, the provincial minimum wage, and economic growth in the province of East Nusa Tenggara. The approach applied in this study is quantitative description, and the analytical tool used is path analysis. Based on the analysis, it was found that the Unemployment Rate has a negative impact on economic growth with a coefficient value of -0.307 and a p-value <0.01, while the Provincial Minimum Wage has a positive impact on economic growth with a coefficient value of 0.745 and a p-value <0.01. The combined influence of both variables on economic growth is 65%.

Keywords: Economic Growth, NTT Province, Unemployment Rate, Minimum Wage, Regencies/Cities.

1. INTRODUCTION

Economic growth refers to an increase in the production of goods and services in a region over a certain period. Economic growth can be used as an indicator of economic success [1]. East Nusa Tenggara (NTT) has low economic growth compared to other provinces, such as West Nusa Tenggara (NTB), which is the closest province. NTT's economic growth in 2024 reached 3.03%. Economic growth in NTT Province increased from 2020 to 2023, but declined in 2024. This is shown in the following figure.
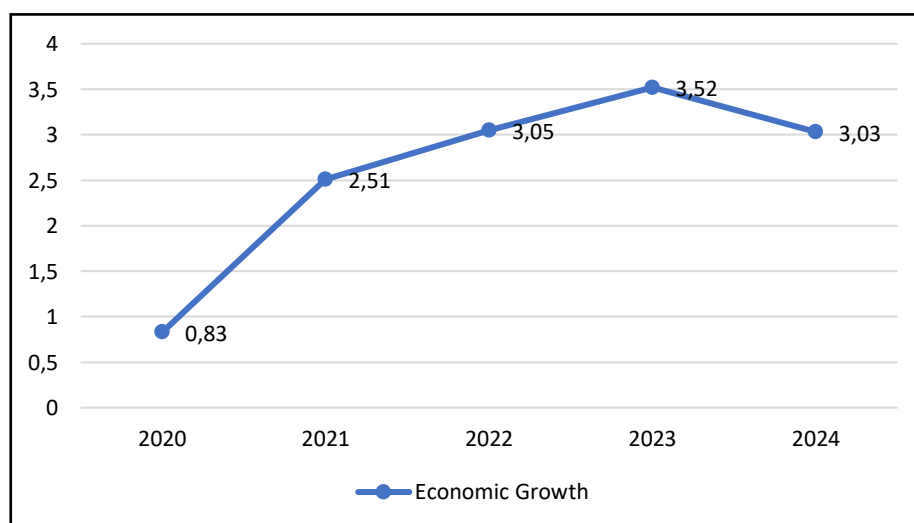

Figure 1. Economic Growth in NTT
Source: BPS NTT

Economic growth and unemployment are interrelated. High economic growth can reduce unemployment, but unemployment can also hamper economic growth.

Unemployment is characterized by the number of working-age individuals who do not have jobs and are looking for work but have not yet found it. The unemployment rate in East Nusa Tenggara has increased, although the number of employed people has also increased, especially in the agriculture, forestry, and fisheries sectors. However, the percentage of formal workers has decreased [2]. Higher unemployment rates slow economic growth because individuals' incomes decrease, leading to an imbalance between labor demand and supply [3]. Research findings indicate that unemployment impacts economic growth negatively because it reduces individual income, consumption, and productivity losses for the economy [4]. Other research findings indicate that unemployment rates can boost economic growth because high unemployment leads to lower salaries for workers seeking employment, thereby helping companies reduce labor costs and improve profitability. Additionally, unemployment can drive innovation and productivity, which can create growth in economic sectors and ultimately enhance economic growth [5].

In addition to unemployment rates, minimum wages can affect economic growth in a region. Minimum wages are the lowest wage limits set to meet basic living needs and help improve the quality of life for low-income communities. An increase in the minimum wage can boost workers' income, thereby enhancing their purchasing power, which ultimately serves as motivation to increase productivity. With improved productivity, this will affect economic growth in the long term [6]. Research findings indicate that an increase in the minimum wage has a positive impact on economic development [7].

Therefore, this study aims to analyse the effect of unemployment rates and Provincial Minimum Wage (PMW) on economic growth in East Nusa Tenggara (NTT). This study is expected to contribute to the government's efforts to promote economic growth, particularly inclusive economic growth.

2. LITERATURE REVIEW

2.1 Agency Theory

According to agency theory, interactions between society and government can be viewed as an agency relationship. This relationship exists due to a contractual arrangement between society (as the principal) and the government (as the agent) to provide services for the benefit of the people [8]. This theory has important implications for the formulation and implementation of public policy. The government has a responsibility to maintain the welfare of society, particularly in reducing unemployment. In addition, it must set an optimal minimum wage policy that takes into account the interests of both workers and employers.

2.2 Economic Growth

Economic growth is the progress of economic activities that increase in number in society in producing goods and services as a result of an increase in the quantity and quality of production factors [9]. Increasing economic growth over time indicates an increase in community income, as evidenced by the fulfilment of daily needs [1]. Economic growth is measured using Gross Regional Domestic Product (GRDP), which is calculated by the Statistics Indonesia (BPS) by comparing the GRDP value in a given period with that of the previous period using the following formula:

$$Economic\ Growth\ =\ \frac{GRDP_t\ -\ GRDP_{t-1}}{GRDP_{t-1}} \times\ 100$$

2.3 Unemployment Rate

Unemployment refers to people aged 15 years and above who are not working but are looking for work; preparing to start a new business; have been accepted for work/are ready to work but have not yet started working/starting a business; or are unable to find work [2]. Based on data from the Statistics Indonesia (BPS), the unemployment rate is calculated using the Open Unemployment Rate (OUR), which is the ratio between the number of unemployed individuals and the total labor force, using the formula:

$$Open\ Unemployment\ Rate\ =\ \frac{Number\ of\ Unemployed}{Total\ Labor\ Force} \times\ 100\%$$

2.4 Minimum Wage

The minimum wage is the lowest wage standard set by the local government (province or regency/city) for workers in its area [10]. The minimum wage is determined based on the Decent Living Needs (DLN) [11], which includes various basic needs of workers and their families, such as food, clothing, housing, education, and health.

2.5 Hypothesis Development

Unemployment refers to someone who does not have a job, is currently seeking employment, or is currently training to prepare for employment [12]. According to the Statistics Indonesia (BPS), unemployment is measured using the Open Unemployment Rate (OUR), an indicator used to measure the labor force not absorbed by the labor market and reflecting the underutilization of the labor supply. The higher the unemployment rate or the larger the labor force not absorbed by the labor market, the more income declines while needs increase, leading to a slowdown or even a decline in economic growth in a region [3]. Based on this, the research hypothesis is:

H1: The unemployment rate has a negative effect on economic growth in districts/cities in East Nusa Tenggara.

The minimum wage is the lowest monthly payment that a company gives to workers in exchange for work that has been or will be done [13]. The minimum wage is established annually in response to the local economic climate [14]. An increase in the minimum wage for employees will increase their ability to purchase goods and services, which in turn will encourage them to be more productive, thereby contributing to economic growth. Based on this, the research hypothesis is:

H2: The Provincial Minimum Wage (PMW) has a positive effect on economic growth in districts/cities in East Nusa Tenggara.

3. METHODS

This study is a quantitative study using secondary data obtained from publications by the Statistics Indonesia (BPS) during the period 2020-2024. The population in this study consists of districts/cities in the province of East Nusa Tenggara, totaling 21 districts and 1 city. The sample was determined using purposive sampling with the criterion that the selected districts/cities were not the

result of territorial expansion or merger in 2020-2024. The data analysis used was path analysis using SEM (Structural Equation Modeling) with WarpPLS.

The variables used in this study are:

1. Independent variables, namely the unemployment rate, which is measured using the open unemployment rate (OUR), which is the percentage of the unemployed population relative to the total labor force; and the provincial minimum wage (PMW), which is the lowest monthly wage determined by the government and set for workers in that region.

2. The dependent variable is economic growth, which is an increase in the production of goods and services in a region during a certain period of time, measured by the growth rate of GRDP based on constant prices in percentage terms.

4. RESULTS AND DISCUSSION

4.1 Descriptive Analysis

The results of the descriptive analysis are shown in Table 1. According to Table 1, the lowest economic growth rate was recorded in Kupang City in 2020, while the highest rate was recorded in West Manggarai Regency in 2024. The lowest unemployment rate was recorded in Manggarai Timur Regency in 2024, and the highest in Kupang City in 2020. The lowest provincial minimum wage (PMW) value was in 2020, and the highest in 2024 for all regencies in East Nusa Tenggara except Kupang City, which implemented a minimum wage higher than the provincial minimum wage.

Table 1. Descriptive Analysis

Descriptive Statistic	N	EGW	OUR	PMW
Mean	110	2,376	3,411	2.039.947
Minimum	110	-2,05	0,51	1.950.000
Maximum	110	4,93	10,9	2.250.419
Standard Deviation	110	1,570	1,673	100.357

Source: Obtained from data processing

Note: EGW – Economic Growth; OUR- Open Unemployment Rate; PMW- Provincial Minimum Wage

4.2 Inner Model Analysis

The inner model was evaluated by looking at the Goodness of Fit Model value using the rule of thumb criteria. The Goodness of Fit Model value can be seen in Table 2.

Table 2. Model Fit and Quality Indices

No	Model Fit and Quality Indices	Fit Criteria	Fit Value	Description
1.	Average path coefficient (APC)	Accepted if p Value < 0,05	0,526; P < 0,001	Criteria Met
2.	Average R-squared (ARS)	Accepted if p Value < 0,05	0,641; P <0,001	Criteria Met
3.	Average adjusted R-squares (AARS)	Accepted if p Value < 0,05	0,641; P <0,001	Criteria Met
4.	Average block VIF (AVIF)	Accepted if AVIF ≤ 5	1,000	Criteria Met
5.	Average full collinearity VIF	Accepted if AFVIF ≤ 5	1,590	Criteria Met
6.	Tenenhaus GoF (Gof)	Small if 0,25 > GoF ≥ Moderate if 0,36 > GoF ≥ 0,25 Large if ≥0,36	0,805	Criteria Met with a large GoF value.

No	Model Fit and Quality Indices	Fit Criteria	Fit Value	Description
7.	Sympson's paradox ratio (SPR)	Accepted if SPR ≥ 0,7	1,000	Criteria Met
8.	R-squared contribution ratio (RSCR)	Accepted if SSR ≥ 0,9	1,000	Criteria Met
9.	Statistical suppression ratio (SSR)	Accepted if SSR ≥ 0,7	1,000	Criteria Met
10.	Nonlinear bivariate causality direction ratio (NLBCDR)	Accepted if NLBCDR ≥ 0,7	0,750	Criteria Met

Source: Obtained from data processing

Based on Table 2, it can be seen that all model fit and quality indices criteria are met. Therefore, it can be said that Goodness of Fit is met so that hypothesis testing can be carried out.

4.3 Path Analysis and Hypothesis Testing

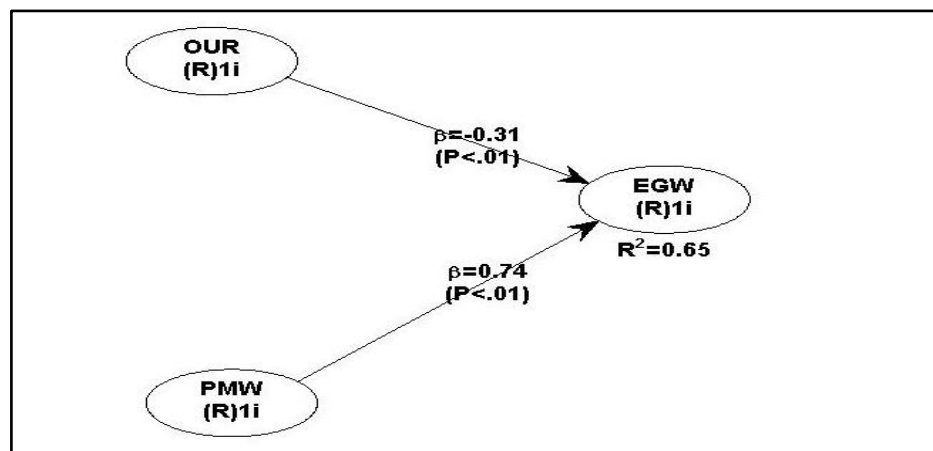Based on the inner model, it can be illustrated in a path diagram as shown in Figure 1.

Figure 1. Path Diagram
Note: EGW – Economic Growth; OUR- Open Unemployment Rate; PMW- Provincial Minimum Wage

On the economic growth variable, the variables of unemployment rate and provincial minimum wage (PMW) only account for 65% of the data variation, as shown by the R-squared value of 0,65, with the remaining 35% being explained by additional factors not taken into consideration in the study.

Hypothesis testing in this study was conducted by testing the relationship between variables. The test results are shown in Table 3 below.

Table 3. Inner Model Hypothesis Test

No	Relationship Variable	Path Coefficient	P-Value	Prediction	Findings	Hypothesis
1.	OUR → EGW	-0,307	< 0,01	-	-	Supported*)
2.	PMW → EGW	0,745	< 0,01	+	+	Supported*)

Source: Obtained from data processing
Note: *) Significant because the value p-value ≤0,05; EGW – Economic Growth; OUR- Open Unemployment Rate; PMW- Provincial Minimum Wage

Based on the results of hypothesis testing in Table 3, it shows that:
1. The effect of unemployment rate on economic growth shows a negative coefficient value and p-value ≤ 0.05. This means that the unemployment rate has a negative effect on economic growth. Therefore, hypothesis 1 (H1) is accepted.

2. The effect of the Provincial Minimum Wage (PMW) on economic growth shows a positive coefficient value and p-value ≤ 0.05. This means that the Provincial Minimum Wage (PMW) has a positive effect on economic growth. Therefore, hypothesis 2 (H2) is accepted.

Research Discussion

Based on hypothesis testing, this study shows that the unemployment rate has a negative effect on economic growth, indicating that the lower the unemployment rate, the higher the economic growth of a region. High unemployment has a negative impact on the economy, slowing economic growth and increasing poverty. When unemployment is high, people's income will decrease, which will ultimately reduce their purchasing power. When purchasing power decreases, demand for goods and services also decreases, which causes economic growth to slow down. The results of this study are consistent with previous research findings that indicate that the unemployment rate has a significant and negative impact on economic growth [14]. This suggests that policies are needed to achieve inclusive economic growth—growth that prioritizes not only the final output but also the improvement of public welfare [15] by creating new job opportunities and promoting growth in the Micro, Small, and Medium Enterprises (MSME) sector.

The test results also show that the Provincial Minimum Wage has a positive effect on Economic Growth. This means that the higher the minimum wage, the higher the economic growth. The purpose of the minimum wage is to provide basic living needs so that it can increase the income of low-income communities. When workers receive higher wages, their ability to meet their needs increases. The findings of this study align with previous research indicating that the Minimum Wage positively impacts economic growth because increased purchasing power for goods and services motivates workers to enhance their productivity, which, in the long term, influences local economic growth [6]. Therefore, when setting the Minimum Wage, the government must consider both worker well-being and business sustainability.

CONCLUSION

Based on the analysis results, the conclusions are as follows:

1. The unemployment rate measured using the open unemployment rate (OUR) has a negative effect on economic growth in districts/cities in East Nusa Tenggara. Due to the decrease in public purchasing power brought on by rising unemployment rates, the economy of a region slows down, suggesting that the higher the unemployment rate, the slower the economic growth of the region. Therefore, the government needs to implement policies such as creating jobs and improving the quality of education and training for the community.

2. The minimum wage has a positive effect on economic growth in districts/cities in East Nusa Tenggara. This shows that the minimum wage can improve the welfare of low-income residents, thereby increasing their purchasing power, which in turn can boost economic growth. Therefore, the government needs to establish more flexible wage policies that take into account the interests of both workers and employers, particularly small and medium-sized enterprises. If the minimum wage is set too high, the labor costs incurred by companies will increase, leading them to reduce the number of workers, which ultimately increases unemployment.

REFERENCES

[1] R. Badrudin and Y. M. J. Hale, "Organizational innovation implementations to achieve development goals: Evidence from Indonesia," *J. Appl. Econ. …*, pp. 986–992, 2019.

[2] BPS PROVINSI NUSA TENGGARA TIMUR, "Keadaan Ketenagakerjaan Nusa Tenggara Timur Februari 2025 Tingkat Pengangguran Terbuka (TPT) sebesar 3,23 persen BADAN PUSAT STATISTIK PROVINSI NUSA TENGGARA TIMUR," no. 30, pp. 1–16, 2025.

[3]   C. N. Sabrina and E. Suhartono, "Jumlah tenaga kerja dan jumlah pengangguran terhadap pertumbuhan ekonomi provinsi Jawa Timur tahun 2012-2021," *Sosio E-Kons*, vol. 15, no. 1, pp. 1–11, 2023.

[4]   M. Sabyan, F. Herlin, and I. Wiarta, "Pengaruh inflasi dan tingkat pengangguran terhadap pertumbuhan ekonomi kota jambi," *J. Manaj. Terap. Dan Keuang.*, vol. 12, no. 2, pp. 538–544, 2023.

[5]   L. A. Abdullah, S. Canon, and B. R. Payu, "Analisis pengaruh variabel makro ekonomi (Inflasi, tenaga kerja, investasi dan tingkat pengangguran) terhadap pertumbuhan ekonomi di Indonesia," *J. Stud. Ekon. dan Pembang.*, vol. 2, no. 2, 2024.

[6]   H. Winarto, Z. Zumaeroh, and D. Retnowati, "Pengaruh human capital, upah minimum dan angkatan kerja terhadap pertumbuhan ekonomi sektor industri pengolahan di provinsi jawa tengah," *Ekon. J. Econ. Bus.*, vol. 6, no. 1, pp. 190–194, 2022.

[7]   L. Mukaromah, Z. Hanifatuzzahra, A. Nasrullah, T. M. Latifah, V. T. Purwaningsih, and I. W. Suparta, "Pengaruh Indeks Pembangunan Manusia, Tingkat Upah Minimum, Dan Tingkat Pengangguran Terhadap Pertumbuhan Ekonomi Indonesia Tahun 2022," *ANALISIS*, vol. 13, no. 2, pp. 228–245, 2023.

[8]   R. Badrudin and C. A. P. Mayangsari, "The Evaluation of Fiscal Decentralization Implementation," *Wahana J. Ekon. Manaj. dan Akunt.*, vol. 26, no. 1, pp. 60–74, 2024, doi: 10.35591/wahana.v26i1.336.

[9]   L. T. A. Sari and L. W. P. Fisabilillah, "Pengaruh pertumbuhan umkm dan tingkat pengangguran terhadap pertumbuhan ekonomi di indonesia," *Indep. J. Econ.*, vol. 1, no. 3, pp. 178–190, 2021.

[10]   A. M. Choirunnisa and R. Khoirudin, "Pengaruh Upah Minimum Provinsi, PDRB, IPM, Jumlah Penduduk, TPAK Terhadap Penanaman Modal Asing Kabupaten/Kota di Provinsi Jawa Tengah," *Socius J. Penelit. Ilmu-Ilmu Sos.*, vol. 1, no. 12, 2024.

[11]   Y. A. Sari, "Pengaruh Upah Minimum Tingkat Pengangguran Terbuka Dan Jumlah Penduduk Terhadap Kemiskinan Di Provinsi Jawa Tengah," *Equilib. J. Ilm. Ekon. Manaj. dan Akunt.*, vol. 10, no. 2, pp. 121–130, 2021, doi: 10.35906/je001.v10i2.785.

[12]   S. S. Putri, "Analisis Pengaruh Tingkat Kemiskinan dan Pengangguran Terhadap Pertumbuhan Ekonomi Di Kab/Kota DKI Jakarta Tahun 2017-2021," *Inisiat. J. Ekon. Akunt. dan Manaj.*, vol. 2, no. 1, pp. 39–51, 2023.

[13]   M. Ningsih, N. Nursini, and S. Sabir, "Pengaruh upah minimum, inflasi dan investasi terhadap pertumbuhan ekonomi dan kemiskinan di Pulau Sulawesi," *Econ. Digit. Bus. Rev.*, vol. 4, no. 2, pp. 362–372, 2023.

[14]   A. L. Lubis and M. Murtala, "Pengaruh Upah Minimum Dan Pengangguran Terhadap Pertumbuhan Ekonomi Di Provinsi Aceh," *J. Ekon. Reg. Unimal*, vol. 4, no. 3, pp. 28–36, 2021.

[15]   M. I. D. Safitri, "Analisis Dampak Belanja Pemerintah Daerah Terhadap Pertumbuhan Ekonomi Inklusif Jawa Timur," *Indones. Treas. Rev. J. Perbendaharaan, Keuang. Negara dan Kebijak. Publik*, vol. 6, no. 2, pp. 85–96, 2021, doi: 10.33105/itrev.v6i2.339.