Analysis of determinant factors of life expectation age in East Nusa Tenggara Province

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Info Artikel	ABSTRACT
	East Nusa Tenggara Province is one of the poorest provinces in Indonesia and various prevention programs are being intensified. The conditions of poverty experienced also have an impact on life expectancy. Recognizing this condition, the main objective to be achieved in this study is to determine the effect of the variable Education, Health services and GRDP on the Life Expectancy of the people in the Province of NTT. The analytical tool used is Panel Data Regression Analysis using secondary data published by the Central Statistics Agency during 2014-2018. Time series data was taken for an observation period of 5 years starting from 2014-2018 for the independent variables which include education, health facilities, and gross regional domestic product on the dependent variable life expectancy. So that from a total of 22 regencies/cities in the province of NTT multiplied by 5 years of observation, the number of units of analysis is 110 arithmetical series. The results showed that the variables of Education, Health services and GRDP either partially or simultaneously have a significant effect on life expectancy in East Nusa Tenggara Province.

INTRODUCTION

East Nusa Tenggara Province is one of the provinces within the Unitary State of the Republic of Indonesia (NKRI) with the capital city of Kupang and administratively has 22 regencies/cities. One of the most crucial and unresolved problems is the problem of poverty. The Central Bureau of Statistics (2020) noted thatthe percentage of poor people in March 2019 was 21.09 percent, an increase of 0.06 percent, points compared to September 2018. If you refer to this data, the ProvinceEast Nusa Tenggara is still a province that has the third highest percentage of poor people in Indonesia, after Papua and West Papua.

Poverty is so high that it has a socio-economic impact that can be felt directly by the community, among others. First, unemployment. As is known, the number of open unemployment in East Nusa Tenggara Province in 2019 was recorded at 3.01% or as many as 78,584 people from the total workforce of 2,486,281 people (BPS NTT, 2019). This figure is quite large and very disturbing considering that unemployment is one of the macroeconomic diseases that has a chain effect and disrupts the economic fundamentals of the region and the nation. With the number of unemployed means that many people have no income because they do not work. Because they do not work and have no income, the poor are unable to meet their food needs (Probosiwi, 2016).

Second, education. Education is an important factor in shaping the quality of human resources. However, the phenomenon found that the high dropout rate experienced by the Indonesian people in general is also caused by the cost of the education sector which is quite expensive and difficult to reach by the lower classes of society (Ustama, 2009). The BPS for the Province of East Nusa Tenggara (2020) noted that the literate population aged over 10 years is 7.25% of the total population. Another indicator that is also seen is the average length of schooling in East Nusa Tenggara Province reaching 13.07 years while the national average is only 12.85. However, in the health dimension, East Nusa Tenggara Province is still lagging behind. The average life expectancy at birth is 66.07 years, while the national average has reached 71.06.

Third, health. It is undeniable that in health services to the community there is still a fairly acute disparity due to the increasing difficulty of the community in getting access to adequate health services due to the costs that are difficult to reach by the lower classes of society (Fariadi et al., 2016).
Seeing the problem of poverty with its various impacts, it is the duty of the local government as a public policy maker to pay attention to various important aspects for improving the quality of life of the

community, especially in the fields of health, education, and income (Soleha & Fathurrahman, 2017). The following is presented data in the form of a table 1 of life expectancy per Regency/City in East Nusa Tenggara Province in 2014-2018

Table 1 Average Life Expectancy of Population Per Regency in East Nusa Tenggara Province 2014-2018

Districts	2014	2015	2016	2017	2018
West Sumba	66.11	66.11	66.15	66.20	66.58
East Sumba	63.48	63.88	64.00	64.12	64.45
Kupang	62.97	63.17	63.33	63.49	63.86
TTS	65.45	65.55	65.60	65.65	65.91
TTU	65.89	65.09	66.14	66.19	66.45
Belu	62.31	63.01	63.21	63.42	63.81
Alor	59.73	60.23	60.35	60.47	60.80
Lembata	65.35	65.85	66.02	66.19	66.57
East Flores	63.88	64.28	64.36	64.45	64.70
Sikka	65.70	66.10	66.20	66.30	66.61
Ende	64.27	64.37	64.42	64.48	64.75
Ngada	67.32	67.32	67.34	67.36	67.59
Manggarai	64.78	65.48	65.66	65.84	66.23
Rote Ndao	62.86	62.86	63.13	63.41	63.80
Manggarai B.	65.98	65.98	66.19	66.19	66.58
Sumba Tengah	67.65	67.65	67.73	67.74	67.96
SBD	67.08	67.08	67.71	67.76	68.02
Nagekeo	66.05	66.25	66.31	66.36	66.62
Manggarai T.	67.27	67.27	67.39	67.40	67.62
Sabu Raijua	57.98	58.38	58.69	59.00	59.53
Malaka	64.15	64.15	64.27	64.29	64.52
Kupang City	68.14	68.34	68.46	68.58	68.90

Source: BPS NTT 2021.

Based on table 1, it is known that the life expectancy in each district in the province of East Nusa Tenggara is different. The highest life expectancy of all regencies/cities in East Nusa Tenggara Province is Kupang Regency/City in 2018 with an average number of 68.90. Meanwhile, in 2018 the lowest life expectancy was in Sabu Raijua Regency/City with an average number of 59.53.Many things are behind the life expectancy in East Nusa Tenggara Province in a high or low position. The success of health programs and socio-economic development in general can be seen in the improvement of health facilities, education, and income which is described in Gross Regional Domestic Income (GRDP).

Education is one of the main indicators of development and the quality of human resources, so the quality of human resources is highly dependent on the quality of education (Ningrum, 2016). Education is a very important and strategic field in national development, because it is one of the determinants of the progress of a nation (Soleha & Fathurrahman, 2017). Education is even the most effective means to improve the quality of life and the degree of community welfare, and which can lead the nation to achieve prosperity (Syam, 2016). The following shows the data in the form of a table 2 of education levels per Regency/City in East Nusa Tenggara Province in 2014-2018.

Table 2 Education Level of Population Who Graduated from High School, Diploma and Strata in East Nusa Tenggara Province 2014-2018 (%)

Districts	High School					Diploma&Strata				
	2014	2015	2016	2017	2018	2014	2015	2016	2017	2018
West Sumba	9.41	13.42	14.10	12.66	14.02	2.31	4.34	3.44	5.97	3.33
East Sumba	12.60	9.61	11.00	13.26	13.15	4.31	4.12	4.91	4.52	4.10
Kupang	13.03	12.97	13.85	15.63	13.44	2.97	3.45	4.33	3.46	4.75

Districts	High School					Diploma&Strata				
	2014	2015	2016	2017	2018	2014	2015	2016	2017	2018
TTS	9.39	12.05	12.31	10.06	11.18	2.04	3.10	3.21	2.17	2.46
TTU	10.69	14.90	12.13	10.70	12.82	3.83	4.62	5.93	5.37	5.70
Belu	11.53	12.99	13.28	13.15	14.30	3.31	3.00	4.28	3.84	3.39
Alor	12.67	11.89	12.22	12.99	12.79	4.41	4.95	4.28	5.33	6.20
Lembata	12.07	15.00	11.55	12.58	13.94	4.32	6.01	7.01	5.32	6.82
East Flores	10.75	12.24	11.85	13.65	12.21	2.92	2.51	3.44	4.13	4.71
Sikka	9.36	10.60	11.87	10.99	8.35	2.72	4.21	4.92	3.58	5.04
Ende	14.21	13.09	13.36	13.93	14.99	4.21	6.12	6.33	6.24	5.72
Ngada	10.74	9.59	12.23	12.55	12.34	3.57	5.30	4.86	5.20	8.35
Manggarai	8.80	8.67	12,20	11.60	11.84	2.83	4.85	4.77	3.95	5,12
Rote Ndao	13.64	13.57	14.16	16.04	14.43	1.86	4.02	4.10	5.22	5.50
Manggarai B.	7.23	7.64	7.20	8.60	9.24	3.29	3.21	2.83	6.18	5.31
Sumba Tengah	10.96	11.56	12.79	10,19	11.79	2.85	5.46	2.58	6.00	5.17
SBD	6.62	8.23	10.64	8.37	9.52	1.37	2.33	2.34	1.85	2.85
Nagekeo	10.92	11.06	11.78	10.98	12.84	2.94	4.08	5.39	5.81	6.39
Manggarai T.	5.93	5.27	6.51	5.83	8.15	1.94	1.87	2.80	3.02	4.70
Sabu Raijua	8.77	10.61	11.41	11.83	11.12	2.75	1.81	2.49	2.96	2.91
Malaka	-	13.57	14.86	10.78	13.98	-	3.32	4.52	4.09	3.84
Kupang City	34.30	35.21	35.14	31.25	29.02	12.06	13.46	12.96	11.13	13.91

Source: BPS NTT 2021.

Table 2 shows that the level of education in East Nusa Tenggara Province from 2014–2018 for each district in it is also different from one another. The highest percentage of education at the high school level in 2015 was in Kupang Regency/City of 35.21%. While the education rate for the lowest high school level is in East Manggarai Regency at 5.27%. For the diploma/bachelor degree level in 2018, the highest was in Kota Kupang Regency at 13.91%. On the other hand, the lowest diploma/bachelor level in 2014 was in Southwest Sumba Regency at 1.37%.

The high and low levels of education in East Nusa Tenggara Province are caused by a lack of income and low health degrees (Kennedy et al., 2019). Education is often a problem in economic development. If education is low, the ability of human resources will be very limited. Low levels of education can also increase poverty rates and cause other social problems (Nalle, 2018). Therefore, there is a need for government intervention to provide a good solution so that in the future the percentage of education levels in East Nusa Tenggara Province will increase.

In addition, the health facility variable is a tool and or place used to carry out health service efforts, whether promotive, preventive, curative or rehabilitative carried out by local governments and or the community (Government Regulation Number 7 of 2011).

In supporting optimal health services, every local government needs to prepare supporting facilities and infrastructure from the city to remote villages so that the goals of each local government in creating a healthy society can be achieved. The availability of infrastructure here is not only about physical health equipment and also physical buildings such as health centers, hospitals or supporting pharmacies, but also concerns the availability of medical personnel who have qualifications in their respective fields. This is intended so that people also have high confidence when choosing medical steps as the best solution in treating all kinds of diseases they suffer from (Rumengan et al., 2015). In the following, data is presented in the form of a table 3 of health facilities per Regency/City in East Nusa Tenggara Province in 2014–2018.

Table 3 District/City Health Facility Units in East Nusa Tenggara Province 2014-2018

Districts	Hospital					Public health center				
	2014	2015	2016	2017	2018	2014	2015	2016	2017	2018
West Sumba	0	2	2	2	2	9	9	9	9	10
East Sumba	3	3	3	3	3	22	22	22	22	22
Kupang	1	1	1	1	1	26	26	26	26	26

Districts	Hospital					Public health center				
	2014	2015	2016	2017	2018	2014	2015	2016	2017	2018
TTS	2	2	1	2	3	34	37	35	35	36
TTU	2	2	2	3	3	26	26	26	26	26
Belu	5	4	4	4	4	17	17	17	17	17
Alor	2	2	2	2	3	24	24	24	26	26
Lembata	3	3	3	3	2	9	9	9	9	9
East Flores	1	2	1	1	1	20	20	20	21	21
Sikka	3	2	3	3	3	24	23	23	23	23
Ende	2	2	2	2	2	24	24	24	24	24
Ngada	1	1	1	1	1	14	14	14	14	15
Manggarai	2	2	2	2	2	21	21	21	22	22
Rote Ndao	1	1	1	1	1	12	12	12	12	12
Manggarai B.	0	0	2	2	2	15	18	18	18	21
Sumba Tengah	1	1	1	1	1	8	8	8	8	8
SBD	1	1	1	1	1	12	12	12	14	15
Nagekeo	0	0	0	1	1	7	7	7	7	8
Manggarai T.	0	0	0	0	0	22	22	23	25	25
Sabu Raijua	1	1	1	1	1	6	6	6	6	6
Malaka	1	1	1	1	1	17	17	17	20	20
Kupang City	12	12	12	13	12	10	11	11	11	11

Source: BPS NTT 2021.

Table 3 explains that the number of health facilities in East Nusa Tenggara Province is not sufficient. There are several regencies where facilities such as hospitals are not yet available, namely East Manggarai Regency in 2014-2017, West Manggarai from 2014-2015, and West Sumba in 2014. The highest number of health centers is in Kupang Regency, which is 26 units from 2014. 2014-2018, 26 units of Alor Regency from 2017-2018, and 26 units of North Central Timor Regency from 2014-2018. From the number of available health facilities, their use is still not effective. There are still people who prefer to seek treatment at home and buy medicines available at pharmacies. Seeing such conditions, there are several reasons why this happens, namely they do not have the cost for treatment, the costs are quite high, especially those who do not have BPJS, ASKES and Health Cards, lack of information and other social problems. A high degree of public health can be used as a tool to evaluate government performance on the success of health and socio-economic development in an area.

Furthermore, the goal of economic development is to improve the welfare of the population. The level of welfare of the population can be measured by the increase in GDP (Damanik & Sidauruk, 2020). GRDP per capita is calculated by dividing GRDP by the mid-year population. From this understanding, it can be seen that the level of population welfare will be achieved if the GDP growth rate is faster than the population growth rate. Therefore, every local government always strives to avoid the number of population explosions that are not controlled (Sukirno, 1985). The following shows the data in the form of a table 4 of gross regional domestic product per Regency/City in East Nusa Tenggara Province in 2014–2018.

Table 4 District/City Gross Regional Domestic Product in East Nusa Tenggara Province 2014-2018

County/City	2014	2015	2016	2017	2018
West Sumba	1,129.10	1183.32	1,242.52	1.304.95	1.371.14
East Sumba	3.118.00	3,274.75	3,440.58	3,618.32	3,807.08
Kupang	3,778.24	3,968.94	4.159.67	4,371.88	4,595.82
TTS	3,763.52	3,928.82	4.113.98	4,320.34	4,540.72
TTU	2,279.99	2,387.08	2.501.68	2,626.90	2,759.10
Belu	2,254.67	2,374.99	2,511.90	2,657.05	2,805.75
Alor	1,575.30	1,651.91	1,730.55	1,817.74	1,909.71
Lembata	915.27	960.86	1.006.57	1,957.25	1.110.55

County/City	2014	2015	2016	2017	2018
East Flores	2,787.34	2,915.83	3,045.56	3.183.46	3,333.58
Sikka	2.611.00	2,725.79	2,860.29	3.011.13	3.169.95
Ende	3,231.20	3.395.12	3,567.47	3,747.14	3,931.88
Ngada	1,808.63	1,893.45	1,991.67	2,094.62	2,199.29
Manggarai	2,358.86	2,476.81	2,602.83	2,735.43	2,873.77
Rote Ndao	1,491.99	1,567.48	1,648.32	1,737.62	1,831.71
Manggarai B.	1,757.87	1,836.05	1,925.39	2,023.76	2,129.51
Sumba Tengah	590.58	618.87	648.72	680.65	714.37
SBD	1,812.41	1.896.28	1.988.69	2,089.21	2.193.90
Nagekeo	1.093.55	1,143.94	1.196.14	1,253.90	1.313.33
Manggarai T.	1.581.65	1,662.33	1,747.25	1,836.08	1,928.40
Sabu Raijua	613.86	644.80	677.33	711.90	748.41
Malaka	1,457.21	1,528.58	1,605.27	1,687.34	1,773.64
Kupang City	12,147.98	12,953.37	13,826.09	14,770.13	15,772.26

Source: BPS NTT 2021.

Table 4 above explains that the highest total GRDP in 2018 is in Kupang Regency/City of15,772.26 billions of rupiah and the lowest total GRDP in 2014 was in Central Sumba Regency of 590,580 billion rupiahs. The high and low GRDP in each Regency/City can have their respective impacts. High GDP can increase a person's life expectancy. Life expectancy itself is a measure of health and success. Therefore, the economic factors of an individual or region become important. The income factor is closely related to the community's ability to access health services. If GRDP increases, it will reduce infant mortality and life expectancy will increase.

RESEARCH METHODS
This research was conducted in East Nusa Tenggara Province using secondary data types in the form of publications from the Central Statistics Agency (Time Series) for the independent variables which include education, health facilities, and gross regional domestic product on the dependent variable life expectancy. Time series data was taken for an observation period of 5 years starting from 2014-2018. So that from a total of 22 regencies/cities in the province of NTT multiplied by 5 years of observation, the number of units of analysis is 110 arithmetical series. The analytical tool used is Panel Data Regression Analysis according to Gujarati (Febriana & Yulianto, 2017) whose equation is:

Yit = o + 1X1it + 2X2it + 3X3it + eit

Where,

Y	= Life Expectancy
X_1	= Education Level
X_2	= Health Facilities
X_3	= GRDP (Gross Regional Domestic Product)
o	= Constant
β_1&β_2	= Regression coefficient
I	= Data *cross section*
T	= Data *time series*
E	= Residual

Furthermore, so that the regression model is not biased or the regression model does not experience BLUE (*Best Linear Unbiased Estimator*), it is necessary to test the classical assumptions first.

RESULTS AND DISCUSSION
Results
Normality test
The normality test aims to test whether in the regression model, the dependent variable and the independent variable are both normally distributed or not. Decision making with Jargue-Bera test

or JB test, that is, if the probability value is $> 5\%$, then the variables are normally distributed..
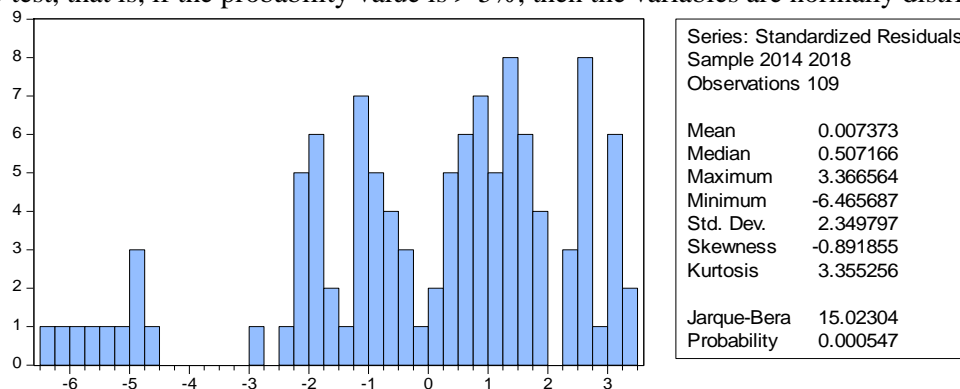

Figure 1 Results of 2021 Data Processing

Based on the normality test figure 1, the probability of 0.000547 indicates that the probability is $< 5\%$. So it can be concluded that the data is not normally distributed.

Autocorrelation Test

The autocorrelation test aims to test whether in the linear regression model there is a correlation between the confounding error in the time or space period and the confounding error in the previous time or space. To detect this problem, the Durbin-Watson (DW) test can be used. the criteria of the DW test are as follows.

Table 5 Durbin-Watson Test Criteria

Zero Hypothesis	Decision	Criteria
There is a positive autocorrelation	reject	$0<d<dl$
There is no positive autocorrelation	No decision	$dl<d<du$
There is a negative autocorrelation	reject	$4-dl<d<4$
There is no negative autocorrelation	No decision	$4-du<d<4dl$
No autocorrelation	Don't refuse	$Du<d<4-4u$

Source: Damodar Gujarati, Basic Economers

From the results of the DW test that has been carried out, the Durbin-Watson Stat results are1.798675. While $dL = 1.0529$ and $du = 1.6640$. Because the calculated d value is greater than du and smaller than 4-du=2,336, it can be concluded that there is no autocorrelation disorder.

Heteroscedasticity Test

The heteroscedasticity test aims to test whether in the regression model there is an inequality of variance and residuals from one observation to another.

Table 6 Heteroscedasticity Test

Variable	Coefficient	Std. Error	t-Statistics	Prob.
C	2.781208	0.724579	3.838380	0.0002
X1	-0.042777	0.015039	-2.844324	0.0054
X2	-0.023839	0.023627	-1.008987	0.3153
X3	0.057694	0.141882	0.406632	0.6851

Source: Results of 2021 data processing

The results from the table 6 above are regression from the log residual squared on all variables showing a probability of more than 0.05. This means that there is no heteroscedasticity in the model.

Multicollinearity Test

The multicollinearity test aims to test whether the regression model has a correlation between the independent variables or not. According to Gujarati (2013), if the correlation coefficient between independent variables is more than 0.8, it can be concluded that the model has multicollinearity problems. On the other hand, if the correlation coefficient is less than 0.8, the model is free from multicollinearity problems.

Table 7 Multicollinearity Test Results

Variable	X1	X2	X3
X1	1.0000000	0.078625	0.775712
X2	0.078625	1.0000000	0.105065
X3	0.775712	0.105065	1.0000000

Source: Processed Results for 2021

From the test results, all correlation coefficients are less than 0.8, so it can be concluded that the model is free from multicollinearity problems.

Discusion

Effect of Educational Variables (X1) Against Life Expectancy (Y)

In this analysis, we want to know the objectives and the first research hypothesis, namely the influence of education level (X1) to life expectancy (Y) in East Nusa Tenggara Province. The output table of the processed data using the help of E-views 8 can be seen in the table 8 below.

Table 8 Effect of Education (X1) Against AHH (Y)

Variable	Coefficient	Std. Error	t-Statistics	Prob.
C	63.76398	0.589394	108.1857	0.0000
X1	0.079052	0.017161	4.606602	0.0000

Source: Processed Results for 2021

Based on table 8, it is known that tcount for the education level variable is 4.606602 with a probability of 0.0000 and significant at a significance level of 5% (0.05). At the significance level with the degree of freedom or df = 109, the ttable value is 1.65895. Here it can be seen that the value of tcount > ttable and it can also be seen that the probability value (0.000) is smaller than the significance of 0.05.

This shows that the education variable has a significant positive effect on life expectancy in East Nusa Tenggara Province. The results of this study are in line with the theory expressed by Atmanti, (2005)who said that an increase in the level of education would have a positive effect on life expectancy. If a person's education level increases, it will indirectly increase life expectancy. A higher level of education will ensure continuous improvement in the level of technology used by society. The results of this study are similar to those of Anton Lager from the Center of Health Aquity Studies and Jenny Torssander from the Swedish Institute for Social Research, both from Stockholm University. They found that students who underwent nine years of education tended to have a lower mortality rate after the age of 40 than participants who only attended school for 8 years (Pepi Nugraha, 2020).

Effect of Health Facility Variables (X2) Against Life Expectancy (Y)

This analysis wants to know the objectives and the second research hypothesis, namely the influence of health facilities (X2) to life expectancy (Y) in East Nusa Tenggara Province. The results of data processing using the help of the E-views 8 application can be seen below.

Table 9 Effect of Health Facilities (X2) Against AHH (Y)

Variable	Coefficient	Std. Error	t-Statistics	Prob.
C	63.43408	0.792498	80.04323	0.0000
X2	0.084577	0.030172	2.803188	0.0060

Source: Processed Results for 2021

Based on table 9, it can be seen that the tcount value for the health facility variable is 2.803188 which is greater than ttable (2.803188 > 1.65895). Besides, the resulting probability value of 0.0060 is smaller than the significance level of 0.05. Thus, it can be concluded that the health facility variable has an effect on life expectancy in the province of East Nusa Tenggara.

Improving health facilities will increase age and improve a person's quality of life. Quality of life plays a major role in the development of an area where good quality people can carry out activities productively. The results of this test are the same as the research conducted by (Bangun, 2019), where the results of testing health facilities have a positive effect on life expectancy in Mandailing Regency. Shows that the better the availability of health facilities, the more a person's life expectancy will be.

Effect of GRDP Variable (X3) Against Life Expectancy (Y)

In this analysis, we want to know the objectives and the third research hypothesis, namely the influence of gross regional domestic product (X3) to life expectancy (Y) in East Nusa Tenggara Province. The output table of the processed data using the help of E-views 8 can be seen in the table 10 below.

Table 10 Effect of GRDP (X3) Against AHH (Y)

Variable	Coefficient	Std. Error	t-Statistics	Prob.
C	61.97616	0.928088	66.77832	0.0000
X3	0.622768	0.153026	4.069694	0.0001

Source: Processed Results for 2021

Based on table 10, it is known that the tcount for the education level variable is 4.069694 with a probability of 0.0001 and a significance level of 5% (0.05). At the significance level with the degree of freedom or df = 110, the ttable value is 1.65882. Here it can be seen that the value of tcount > ttable and it can also be seen that the probability value (0.0001) is smaller than the significance level of 0.05.

This shows that the Gross Regional Domestic Product variable has a positive effect on life expectancy in East Nusa Tenggara Province. The results of this test are different from the research conducted by (Restya, 2018), where the test results show that the gross regional domestic productno significant negative effect on life expectancy in Indonesia. In contrast to the results of Restya's research(2018), the results of this study also explain thatan increase in gross regional domestic product will be a benchmark for regional success in increasing the success of a region's development. The higher the regional income which is represented by the size of the Gross Regional Domestic Product, the better the impact on the length of a person's life expectancy.

Effect of Educational Variables (X1) Towards Gross Regional Domestic Product (X3)

In this analysis, we want to know the objectives and the fourth research hypothesis, namely the influence of education level (X1) to gross regional domestic product (X3) in East Nusa Tenggara Province. The output table of the processed data using the help of E-views 8 can be seen in the table 11 below.

Table 11 Effect of Education (X1) Against GRDP (X3)

Variable	Coefficient	Std. Error	t-Statistics	Prob.
X1	-0.005764	0.001700	-3.390994	0.0010
X3	0.214492	0.006359	33.72861	0.0000

Source: Processed Results for 2021

Based on table 11, it is known that the tcount for the gross regional domestic product variable is 33,72861 with a probability of 0.0000 and a significant level of significance at 5% (0.05). At the significance level with the degree of freedom or df = 109, the ttable value is 1.65895. Here it can be seen that the value of tcount > ttable (33.72861>1.65895) and it can also be seen that the probability value (0.000) is smaller with a significance level of 0.

This shows that the education variable has a significant positive effect on the gross regional domestic product in the Province of East Nusa Tenggara. According to Todaro in(Erwin & Karmini, 2012)The main reason regarding the effect of formal education on income distribution is that there is a positive correlation between a person's education and the income he will earn. The moreThe higher the education, the easier it is for someone to get a decent job with a comparable wage. So as to increase

income and welfare of life.The results of this test are the same as the research conducted by(Julianto et al., 2016)where the results of testing the level of education have a positive influence on the level of individual income. The higher the level of education, the higher the level of a person's income.

F Test Results

The F test is basically used to find out whether all the independent variables included in the model have a joint or simultaneous effect on the dependent variable Ghozali (Nurcahyo & Riskayanto, 2018). The basis for decision making is based on the probability value: If the probability is < 0.05 then it can be concluded that all independent variables have a joint influence on the dependent variabl

Table 12 F . Test Results

R-square	0.239711
Adjusted R-square	0.217989
SE of regression	0.301782
F-statistics	11.03515
Prob (F-statistic)	0.000002

Source: Processed Results for 2021

Based on table 12 above, it can be explained that the F-statistic of11.03515 with Prob (F-statistic) 0.000002 < alpha 5%, so it can be concluded that the independent variable is education (X1), health facilities (X2) and gross regional domestic product (X3) jointly significantly affect the dependent variable life expectancy (Y).

Coefficient of Determination

The coefficient of determination (R2) is used to measure how much the model's ability to explain the variation of the dependent variable (goodness of fit test). The small value of R2 indicates that the ability of the independent variables in explaining the dependent variable is very limited. The value of R2 starts from 0 - 1. A value close to one means that the independent variables provide almost all the information needed to predict the independent variables

Table 13 Test of Determination

R-square	0.239711
Adjusted R-square	0.217989
SE of regression	0.301782
F-statistics	11.03515
Prob (F-statistic)	0.000002

Source: Processed Results for 2021

Based on table 13 it can be explained that the value of R^2=0.239711, which means that 23.97% of the variation or change in the life expectancy variable can be explained by variations in education, health facilities, and gross regional domestic product, while the remaining 76.03% is explained by variables outside the model.

CONCLUSIONS

Based on the results of the study, it is known that the variableEducation (X1) health facilities (X2) and gross regional domestic product (X3), partially or simultaneously affect the life expectancy (Y) in East Nusa Tenggara Province. Based on the results of data analysis, what I can recommend to the regional government of NTT Province as the holder of the authority to determine public policy are: 1) Immediately carry out the development of the education sector in the form of increasing adequate facilities and infrastructure to remote villages. Budget support through government spending should be prioritized in the education sector in order to improve the quality of human resources. 2). The availability of health facilities absolutely needs to be provided to remote villages. 3). One way that can be done to increase the value of GRDP is to stimulate productive economic sectors through strategic programs.

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