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Effect of Gross Regional Domestic Product And Unemployment on Poverty Levels in Indonesia

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ABSTRACT

This study aims to determine the Influence of Gross Regional Domestic Product (GRDP) and Unemployment on Poverty Levels in Indonesia. The type of research used in this study is quantitative data. The analysis technique used is panel data regression analysis. The estimation tool used in the study is*eviews*10 and the analysis selected for use in this study is*Fixed Effect Model*(FEM). The results of the study show that the value of Y = 9.464451 + 0.144933X1 + 0.134832X2 and the partial results of the Gross Regional Domestic Product (GRDP) variable have a positive but insignificant effect on the Poverty Rate in Indonesia, meaning that an increase in GRDP is not necessarily able to directly reduce the poverty rate. Meanwhile, unemployment was found to have a positive and significant effect, meaning that the higher the unemployment rate, the higher the poverty rate. When both variables were analyzed together (simultaneously), both were shown to have a significant effect on poverty, indicating that this combination of macroeconomic factors is important to consider in poverty alleviation. The level of explanation of the model is also very high, with an Adjusted R Square of 99.3%, meaning that almost all variations in the poverty rate can be explained by changes in GRDP and unemployment, while only 0.7% is influenced by other factors not examined in this study.

INTRODUCTION

One of the problems still faced by Indonesia is the problem of poverty. The problem of poverty is a complex and multidimensional problem so that it becomes a development priority. So far, the Indonesian government has had many programs to eradicate poverty. There are two strategies that must be taken to eradicate poverty. First, protect families and poor community groups by meeting their needs in various fields. Second, provide training to them so that they have the ability to make efforts to prevent new poverty. Efforts to eradicate poverty are carried out to realize the ideals of the nation, namely, the creation of a just and prosperous society (Ferezegia, 2018).

To improve the quality of education in Indonesia, the government uses a 12-year compulsory education program. In addition, there is also the Smart Indonesia Card program which is intended for school-age children (aged 6-21 years) who are classified as underprivileged, both those who are in school and those who are not yet enrolled in school. Education is very important for a person because through education it can improve the quality of Human Resources (HR) so that humans have skills and are more productive in doing many things (Lili Salfina & Fatria Destika, 2021).

According to (Rachmawati, 2020) the Theory of "Vicious Circle of Poverty", which is a translation of "Vicious Circle of Poverty", is interpreted as a concept that describes a circular constellation and forces that continuously influence each other, so that poor countries are placed in a state of continuous poverty. Through this theory, the causes of poverty experienced by developing countries are explained, especially countries that have just been freed from foreign colonialism. Based on this theory, theories of development economics have been developed, which were previously applied in Western Europe, and then used as a paradigm in understanding and solving economic problems in developing countries, such as India or Indonesia.The following is a picture of the endless vicious circle of poverty:

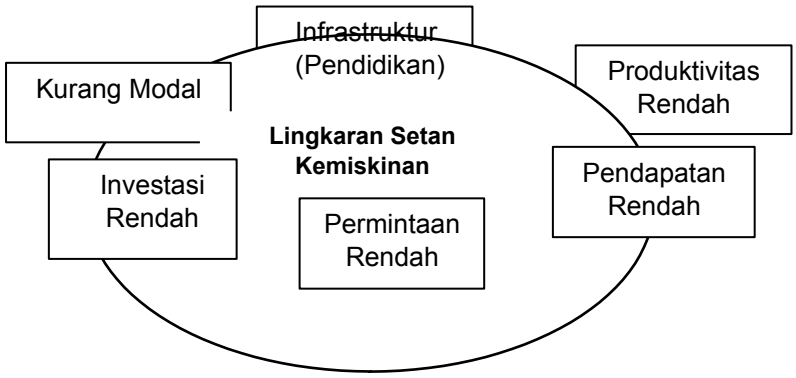


Figure 1.1 The Vicious Circle of Poverty

In the results of his study, it was stated that developing countries are categorized as poor countries and remain in poverty due to low productivity levels. Because productivity is considered low, individual income is positioned at a low level, which is only possible to meet minimal consumption needs. Therefore, the ability to save cannot be realized, even though savings should be used as the main source in the formation of community capital. As a result, the capital owned cannot be used efficiently and tends to be wasteful. To enable development, the vicious circle of poverty must be broken, especially at the point of low productivity, which is identified as the initial and main cause. Efforts to break the vicious circle of poverty from the demand side are carried out by increasing community income, so that demand can be increased and investment can be encouraged, which ultimately results in capital being used more efficiently. Thus, increased productivity can be achieved.

Table 1 Percentage of Poor Population by Province in Indonesia 2018-2022

No	Province	Percentage of Poor Population By Province (in percent)					
		2018	2019	2020	2021	2022	Rate-rate
1.	Aceh	15,97	15,32	14,99	15,33	14,64	15,25
2.	North Sumatra	9,22	8,83	8,75	9,01	8,42	8,85
3.	West Sumatra	6,65	6,42	6,28	6,63	5,92	6,38
4.	Riau	7,39	7,08	6,82	7,12	6,78	7,04
5.	Jambi	7,92	7,60	7,58	8,09	7,62	7,76
6.	South Sumatra	12,80	12,71	12,66	12,84	11,90	12,58
7.	Bengkulu	15,43	15,23	15,03	15,22	14,62	15,11
8.	Lampung	13,14	12,62	12,34	12,62	11,57	12,46
9.	Bangka Belitung Islands	5,25	4,62	4,53	4,90	4,45	4,75
10.	Riau islands	6,20	5,90	5,92	6,12	6,24	6,08
11.	Jakarta	3,57	3,47	4,53	4,72	4,69	4,20
12.	West Java	7,45	6,91	7,88	8,40	8,06	7,74
13.	Central Java	11,32	10,80	11,41	11,79	10,93	11,25
14.	In Yogyakarta	12,13	11,70	12,28	12,80	11,34	12,05
15.	East Java	10,98	10,37	11,09	11,40	10,38	10,84
16.	Banten	5,24	5,09	5,92	6,66	6,16	5,81

17.	Bali	4,01	3,79	3,78	4,53	4,57	4,14
18.	West Nusa Tenggara	14,75	14,56	13,97	14,14	13,68	14,22
19.	East Nusa Tenggara	21,35	21,09	20,90	20,99	20,05	20,88
20.	West Kalimantan	7,77	7,49	7,17	7,15	6,73	7,26
21.	Central Kalimantan	5,17	4,98	4,82	5,16	5,28	5,08
22.	South Kalimantan	4,54	4,55	4,38	4,83	4,49	4,56
23.	East Kalimantan	6,03	5,94	6,10	6,54	6,31	6,18
24.	North Kalimantan	7,09	6,63	6,80	7,36	6,77	6,93
25.	North Sulawesi	7,80	7,66	7,62	7,77	7,28	7,63
26.	Central Sulawesi	14,01	13,48	12,92	13,00	12,33	13,15
27.	South Sulawesi	9,06	8,69	8,72	8,78	8,63	8,78
28.	Southeast Sulawesi	11,63	11,24	11,00	11,66	11,17	11,34
29.	Gorontalo	16,81	15,52	15,22	15,61	15,42	15,72
30.	West Sulawesi	11,25	11,02	10,87	11,29	11,75	11,24
31.	Maluku	18,12	17,69	17,44	17,87	15,97	17,42
32.	North Maluku	6,64	6,77	6,78	6,89	6,23	6,66
33.	West Papua	23,01	22,17	21,37	21,84	21,33	21,94
34.	Papua	27,74	27,53	26,64	26,86	26,56	27,07
Indonesia		**9,82**	**9,41**	**9,78**	**10,14**	**9,54**	**9,74**

Data source: Central Bureau of Statistics 2023

Based on **Table 1** the data above, it can be seen that the average percentage of the Province with the Highest Poverty Rate is Papua at 27.07%, so Papua is in first place as the province with the highest average percentage of poor people in Indonesia during the 2018-2022 period. While the province with the lowest poverty rate is the Bangka Belitung Islands at 4.75%. The Bangka Belitung Islands recorded the lowest average percentage of poor people in Indonesia during the same period.

When the percentage of poor people is at a high level, some of the population is considered unable to contribute optimally to the economy. The impact of a decrease in people's purchasing power and investment can be caused by low income. Productivity is expected to decline as a result of limited access to education, health services, and job training, thus potentially having a negative impact on the country's Gross Regional Domestic Product (GRDP). One of the factors considered to influence poverty is Gross Regional Domestic Product, or abbreviated as GRDP. GRDP is used as an indicator to measure the economic performance of a region in a certain period. The following is a table of GRDP of provinces in Indonesia in 2018-2022:

Table 2 Percentage of GRDP PerCapita at Constant Prices by Province in Indonesia 2018-2022

No	Province	GRDP Per Capita at Constant Prices 2010 (in Thousand Rupiah)					
		2018	2019	2020	2021	2022	Rate-rate
1.	Aceh	24.014	24.842	25.018	25.356	26.062	25.058
2.	North Sumatra	35.570	36.854	36.175	36.582	37.781	36.592
3.	West Sumatra	30.471	31.427	30.696	31.265	32.167	31.205
4.	Riau	70.737	72.509	76.885	78.319	80.774	75.845
5.	Jambi	40.026	41.812	41.926	42.898	44.515	42.235
6.	South Sumatra	35.660	37.126	37.323	38.182	39.719	37.602
7.	Bengkulu	22.495	23.505	23.106	23.546	24.238	23.378
8.	Lampung	25.736	28.895	26.747	27.150	27.974	27.300
9.	Bangka Belitung Islands	35.762	37.173	36.308	37.621	38.744	37.122
10.	Riau islands	81.206	81.139	85.013	86.585	89.637	84.716
11.	Jakarta	165.769	174.813	170.089	175.005	183.598	173.855
12.	West Java	29.160	30.413	30.181	30.935	32.247	30.587
13.	Central Java	27.285	28.696	26.484	27.093	28.248	27.561
14.	In Yogyakarta	25.776	27.009	27.754	29.116	30.411	28.013
15.	East Java	39.580	41.512	39.686	40.780	42.636	40.839
16.	Banten	34.184	35.914	37.165	38.339	39.790	37.078
17.	Bali	35.896	37.297	34.217	33.124	34.481	35.003
18.	West Nusa Tenggara	18.020	18.219	17.583	17.716	18.647	18.037
19.	East Nusa Tenggara	12.274	12.762	12.961	13.077	13.261	12.867
20.	West Kalimantan	26.111	27.200	24.954	25.794	26.735	26.159
21.	Central Kalimantan	35.548	37.870	37.149	37.955	39.856	37.676
22.	South Kalimantan	30.615	31.611	32.212	32.895	34.133	32.293

23.	East Kalimantan	127.354	134.411	125.765	127.368	131.239	129.227
24.	North Kalimantan	80.205	88.300	86.824	88.974	92.393	87.339
25.	North Sulawesi	33.912	35.687	33.670	34.776	36.369	34.883
26.	Central Sulawesi	39.049	42.055	45.052	49.690	56.577	46.485
27.	South Sulawesi	35.244	37.474	36.246	37.501	38.973	37.088
28.	Southeast Sulawesi	33.279	35.310	35.709	36.570	37.956	35.765
29.	Gorontalo	22.539	24.168	24.313	24.594	25.270	24.177
30.	West Sulawesi	22.953	24.164	22.666	22.898	23.071	23.150
31.	Maluku	16.607	17.557	16.688	17.053	17.717	17.124
32.	North Maluku	20.309	21.525	21.915	25.191	30.526	23.893
33.	West Papua	64.499	64.419	54.488	53.324	53.507	58.047
34.	Papua	48.069	40.203	32.109	36.420	39.113	39.183
Indonesia		**1.427.914**	**1.483.961**	**1.445.077**	**2.279.808**	**2.611.979**	**1.849.747**

Data source: Central Bureau of Statistics 2023

Based on **Table 2** GRDP per capita data at constant 2010 prices (in thousand rupiah) from 2018 to 2022, the following is the province with the highest GRDP, DKI Jakarta Province: 173,855 thousand rupiah (average 2018–2022). DKI Jakarta consistently records the highest GRDP per capita in Indonesia, reflecting a high level of productivity and economic activity. Meanwhile, the lowest province in Indonesia is East Nusa Tenggara (NTT) Province at 12,867 thousand rupiah (average 2018–2022). NTT recorded the lowest GRDP per capita, indicating limitations in economic activity and productivity compared to other provinces.

When GRDP is at a high level, economic growth and development can be said to be going well. This condition is marked by the availability of many jobs for the community. Thus, the unemployment rate can be reduced because more job opportunities can be provided. Conversely, if GRDP is at a low level, economic growth is considered to be hampered and the availability of jobs is limited, so that an increase in the unemployment rate has the potential to occur.

Unemployment is considered as one of the factors that influence poverty levels. This problem is often faced by developing countries, including Indonesia. Unemployment occurs due to the growth of the workforce that exceeds the number of available jobs. From a macroeconomic perspective, high unemployment rates can be considered a serious problem for an economy. The impact of high unemployment is shown by the wasting of many resources and the decline in people's income, even in some cases, income cannot be obtained at all. Theoretically, people who are unemployed are considered to have no jobs and income, so that their living needs cannot be met. If basic needs are not met, poverty can arise.

Table 3 Open Unemployment Rate by Province in Indonesia 2018-2022

	Region	Open Unemployment Rate According to Provinces in Indonesia (In percent)					
		2018	2019	2020	2021	2022	Rate-rate
1.	Aceh	6.54	5.48	5.40	6.30	5.97	5.94
2.	North Sumatra	5.61	5.57	4.71	6.01	5.47	5.47
3.	West Sumatra	5.68	5.38	5.25	6.67	6.17	5.83
4.	Riau	5.55	5.36	4.92	4.96	4.40	5.04
5.	Jambi	3.56	3.52	4.26	4.76	4.70	4.16
6.	South Sumatra	4.08	4.02	3.90	5.17	4.74	4.38
7.	Bengkulu	2.63	2.41	3.08	3.72	3.39	3.05
8.	Lampung	4.32	3.95	4.26	4.54	4.31	4.28
9.	Bangka Belitung Islands	3.59	3.32	3.35	5.04	4.18	3.90
10.	Riau islands	7.30	7.02	5.98	10.12	8.02	7.69
11.	Jakarta	5.73	5.50	5.15	8.51	8.00	6.58
12.	West Java	8.22	7.78	7.71	8.92	8.35	8.20
13.	Central Java	4.19	4.19	4.20	5.96	5.75	4.86
14.	In Yogyakarta	3.00	2.89	3.38	4.28	3.73	3.46
15.	East Java	3.77	3.77	3.60	5.17	4.81	4.22
16.	Banten	7.72	7.55	7.99	9.01	8.53	8.16
17.	Bali	0.88	1.22	1.25	5.42	4.84	2.72
18.	West Nusa Tenggara	3.28	3.15	3.04	3.97	3.92	3.47
19.	East Nusa Tenggara	2.82	2.98	2.64	3.38	3.30	3.02
20.	West Kalimantan	4.09	4.06	4.47	5.73	4.86	4.64
21.	Central Kalimantan	3.14	3.21	3.33	4.25	4.20	3.63
22.	South Kalimantan	3.72	3.41	3.67	4.33	4.20	3.87
23.	East Kalimantan	6.79	6.65	6.72	6.81	6.77	6.75
24.	North Kalimantan	4.70	5.84	5.71	4.67	4.62	5.11
25.	North Sulawesi	5.86	5.17	5.34	7.28	6.51	6.03
26.	Central Sulawesi	3.12	3.46	2.93	3.73	3.67	3.38
27.	South Sulawesi	5.02	5.10	5.70	5.79	5.75	5.47
28.	Southeast Sulawesi	2.77	2.88	3.10	4.22	3.86	3.37
29.	Gorontalo	3.38	3.25	3.29	3.41	3.25	3.32
30.	West Sulawesi	2.33	1.29	2.39	3.28	3.11	2.48
31.	Maluku	7.07	6.61	6.71	6.73	6.44	6.71
32.	North Maluku	4.56	4.96	4.09	5.06	4.98	4.73
33.	West Papua	6.27	5.81	6.78	6.18	5.78	6.16
34.	Papua	2.75	3.22	3.42	3.77	3.60	3.35
Indonesia		**5.13**	**4.98**	**4.94**	**6.26**	**5.83**	**5.42**

Data source: Central Bureau of Statistics 2023

Based on **Table 3** the Open Unemployment Rate (TPT) data by province in Indonesia from 2018 to 2022, the following are the provinces with the highest unemployment rates with (Average 2018–2022) being West Java at 8.20%. This province consistently records the highest unemployment rate in Indonesia, driven by the high number of workforce that is not comparable to the provision of jobs. The province with the Lowest Unemployment Rate on average in 2018–2022 is West Sulawesi at 2.48%, West Sulawesi recorded the lowest unemployment rate, indicating that the availability of jobs is relatively in accordance with the number of workforce.

Based on the explanation above, the purpose of this study is to investigate the relationship between Gross Regional Domestic Product (GRDP) and unemployment on the poverty rate in Indonesia in 2018 - 2022. Specifically, the objectives of this study are:

1. To analyze the relationship betweenthe influence of GRDP on poverty levels in Indonesia.
2. For analyze the relationship betweenthe influence of unemployment on poverty levels in Indonesia.
3. For analyze the relationship betweenthe influence of GRDP and unemployment on poverty levels in Indonesia.

LITERATURE REVIEW

Poverty

Poverty is a social phenomenon and is even considered a problem faced by every society throughout the world throughout time, where poverty is a condition where a person is unable to maintain himself according to the standard of living of his group, and is also unable to utilize his mental and physical energy in that group (Rasyadi, 2011).
Poverty is a complex problem influenced by various interrelated factors, such as unemployment, education, community income levels, health, inequality in income distribution, access to goods and services, and geographic location (Saraswati, 2020). Poverty describes the social conditions of individuals who do not get basic rights to maintain and develop a dignified life. A person is considered poor if he or she has relatively lower income, productivity, capital, savings, and access to goods and services compared to the average person (Naomi et al., 2022).
Poverty is a condition in which a person or group of people are unable to fulfill their basic rights to maintain and develop a dignified life. Poverty according to BPS is a condition in which an individual or group of people cannot fulfill their basic needs. Poverty is a disease in the economy of a country, especially for countries that are still developing countries, where poverty is complex and multidimensional (Sari & Novianti, 2024).

Gross Regional Domestic Product
Gross Regional Domestic Product (GRDP) is the total added value produced by all business units in a particular region, and can be understood as the total value of final goods and services produced by all economic units (BPS, 2016).
There are several factors that can affect the rate of economic growth, but the most influential main factor is Gross Domestic Product (GDP). GDP is a picture of the total production of goods and services produced by a country within a certain period of time, usually one Association period. This Gross Domestic Product will later be used as a benchmark in calculating the rate of economic growth. Gross National Product (GNP) is a national product realized by production factors owned by citizens. Gross Domestic Product (GDP) is realized by domestic production factors. GNP and GDP are measures of the extent of a country's ability to produce goods and services in a given year. National product data can be used to assess the achievement of economic growth and can be used to determine the level of community prosperity and its development (Sholikhah, 2020).

Unemployment
According to Filiasari (2021), unemployment is an individual who is actively seeking work in the labor market but is unable to get a job according to the desired wage standard. Unemployment can be triggered by internal factors, such as low purchasing power of the community which reduces income and leads to termination of employment. External factors, such as the global economic crisis, can also reduce the competitiveness of a region and increase the risk of termination of employment. Unemployment is a term for people who do not work at all, are looking for work, work less than two days a week, or someone who is trying to get a decent job. Unemployment is usually caused because the number of the workforce or job seekers is not comparable to the number of jobs available and able to absorb them. Unemployment is a problem in the economy, because with unemployment, people's productivity and income will decrease so that it can lead to poverty and other social problems (Wanda, 2023). According to (Sholikhah, 2020), unemployment in a country is the difference between the workforce and the actual use of labor. The workforce is the number of workers in an economy at a certain time. The labor force participation rate can be calculated using the following method:
Number of workforce: number of working age population x 100%

METHOD
Sugiyono (2018, p.80) states that population is a generalization area of objects with certain qualities and characteristics determined by researchers to be studied and then conclusions drawn. Determining the population is an important step in research. Population can provide data or information for research. In Indonesia there are 38 provinces, but only 34 provinces have data (Central Bureau of Statistics, 2022). Therefore, researchers calculate the population of 34 provinces x 5 years = 170 populations.As stated by Arikunto (2019:109), a sample is a part or representation of the population to

be studied. Thus, it can be concluded that the sample is a part or representation of the population to be studied. All populations in this study were taken as samples, namely 34 x 5 = 170 samples. This is due to the fact that the data collected by researchers for five years was multiplied by the number of provinces used in the study, which amounted to 34 provinces, so that the total was 170. Therefore, all populations were taken as samples.

Data Analysis Methods

This study uses quantitative data analysis using the panel data regression method. The data is processed using the programEconometric Views(2010). According to Ghozali (2018:296), panel data regression is a regression method that combines time series data.(Time series) with datacross-section. In this study, descriptive statistical tests, classical assumption tests, model selection, panel data regression models, and hypothesis tests were used.

RESULTS AND DISCUSSION

Descriptive Statistics

Table 4 Results of Descriptive Statistical Tests

	AND	X1	X2
Mean	10.53888	2.941059	4.806412
Median	8.765000	2.355000	4.590000
Maximum	27.74000	12.44000	10.12000
Minimum	3.470000	0.830000	0.880000
Std. Dev.	5.451821	2.261716	1.682551
Observations	170	170	170

Source: Data Processing Results, 2024 (Eviews 10)

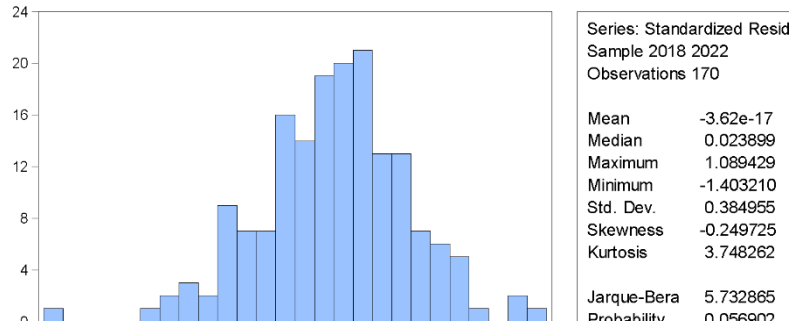
Based on **Table 4** the statistical table above, it shows that the number of samples in this study is 170 samples, with the average value (mean), median value, minimum value and maximum value for each variable from 2018-2022 explained as follows:

1. The poverty level has a maximum value of 27,740, a minimum value of 3,470 and a mean value of 10,538 with a standard deviation of 5,451.
2. PDRB has a maximum value of 12,050, a minimum value of 0.830, and a mean value of 2.941 with a standard deviation of 2.228.
3. Unemployment has a maximum value of 10,120, a minimum value of 0.880 with a mean value of 4.806 with a standard deviation of 1.682.

Classical Assumption Test

1. Normality Test

Figure 5 Normality Test Results



Source: Data Processing Results, 2024 (Eviews 10)

Based on **Figure 5** the results of the Jarque-Berra test in the table above, it can be seen that the Jarque-Bera value is 5.732865 with a probability of 0.057. Because the probability value of 0.057> 0.05, it can be said that the residuals in this research model have been normally distributed.

2. Multicollinearity Test

Table 6 Multicollinearity Test Results

	X1	X2
X1	1.000000	0.352436
X2	0.352436	1.000000

Source: Data Processing Results, 2024 (Eviews 10)

Based on the table of multicollinearity test results above, it can be seen that the correlation matrix value of the two variables, namely PDRB and Unemployment, is 0.352436 and 0.352436 <0.80, so it can be concluded that there is no multicollinearity in the variables in the study.

3. Heteroscedasticity Test

Table 7 Heteroscedasticity Test Results

Dependent Variable: RESABS
Method: Panel Least Squares
Date: 09/21/24 Time: 08:04
Sample: 2018 2022
Periods included: 5
Cross-sections included: 34
Total panel (balanced) observations: 170

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.094546	0.282366	0.334837	0.7383
X1	0.034841	0.078925	0.441443	0.6596
X2	0.020804	0.027211	0.764554	0.4459

Effects Specification			
Cross-section fixed (dummy variables)			
R-squared	0.275381	Mean dependent var	0.297037
Adjusted R-squared	0.086115	S.D. dependent var	0.243797

S.E. of regression	0.233063	Akaike info criterion	0.110556
Sum squared resid	7.278668	Schwarz criterion	0.774607
Log likelihood	26.60275	Hannan-Quinn criter.	0.380020
F-statistic	1.454996	Durbin-Watson stat	2.213639
Prob(F-statistic)	0.067572		

Source: Data Processing Results, 2024 (Eviews 10)

From the results of **Table 7** the glacier test for the heteroscedasticity test method above, it can be seen that the probability of significance of variable X1 (Gross Regional Domestic Product) is 0.66> 0.05. So there is no heteroscedasticity, the significant probability value of variable X2 (unemployment) is 0.44> 0.05, so there is no heteroscedasticity.

4. Autocorrelation Test

Table 8 Autocorrelation Test Results

Dependent Variable: Y
Method: Panel Least Squares
Date: 09/21/24 Time: 08:06
Sample: 2018 2022
Periods included: 5
Cross-sections included: 34
Total panel (balanced) observations: 170

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	9.464451	0.523768	18.06992	0.0000
X1	0.144933	0.146399	0.989983	0.3240
X2	0.134832	0.050474	2.671293	0.0085

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.995014	Mean dependent var	10.53888
Adjusted R-squared	0.993712	S.D. dependent var	5.451821
S.E. of regression	0.432315	Akaike info criterion	1.346247
Sum squared resid	25.04413	Schwarz criterion	2.010299
Log likelihood	-78.43103	Hannan-Quinn critter.	1.615712
F-statistic	764.0646	Durbin-Watson stat	1.550886
Prob(F-statistic)	0.000000		

Source: Data Processing Results, 2024 (Eviews 10)

Based on **Table 8** the above autocorrelation test, the Durbin Watson value is 1.550886, meaning that the DW value is between -2 and +2, so it can be concluded that there is no autocorrelation.

Panel Data Regression Model Selection Results

Uji chow

Table 9 Chow Test Results

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

Effects Test	Statistic	d.f.	Prob.
Cross-section F	699.521093	(33,134)	0.0000
Cross-section Chi-square	876.324800	33	0.0000

Cross-section fixed effects test equation:
Dependent Variable: Y
Method: Panel Least Squares
Date: 09/21/24 Time: 07:54
Sample: 2018 2022
Periods included: 5
Cross-sections included: 34
Total panel (balanced) observations: 170

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	14.79020	1.193630	12.39094	0.0000
X1	-0.732047	0.188006	-3.893742	0.0001
X2	-0.436443	0.249026	-1.752597	0.0815

R-squared	0.136108	Mean dependent var	10.53888
Adjusted R-squared	0.125762	S.D. dependent var	5.451821
S.E. of regression	5.097492	Akaike info criterion	6.112864
Sum squared resid	4339.399	Schwarz criterion	6.168201
Log likelihood	-516.5934	Hannan-Quinn criter.	6.135319
F-statistic	13.15556	Durbin-Watson stat	0.020822
Prob(F-statistic)	0.000005		

Source: Data Processing Results, 2024 (Eviews 10)

Based on **Table 9** the results of the chow-test using*Eviews*10 The probability obtained is 0.0000. Where the probability value is smaller than the significant level (α=0.05), so the best estimate used in this model is*fixed effect model*(FEM) and needs to be continued with the Hausman Test.

Hausman Test Results

Table 10 Hausman Test Results

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

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	6.850979	2	0.0325

Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
X1	0.144933	0.023791	0.002502	0.0154
X2	0.134832	0.121168	0.000031	0.0148

Cross-section random effects test equation:
Dependent Variable: Y
Method: Panel Least Squares
Date: 09/21/24 Time: 07:55
Sample: 2018 2022
Periods included: 5
Cross-sections included: 34
Total panel (balanced) observations: 170

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	9.464451	0.523768	18.06992	0.0000
X1	0.144933	0.146399	0.989983	0.3240
X2	0.134832	0.050474	2.671293	0.0085

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.995014	Mean dependent var	10.53888
Adjusted R-squared	0.993712	S.D. dependent var	5.451821
S.E. of regression	0.432315	Akaike info criterion	1.346247
Sum squared resid	25.04413	Schwarz criterion	2.010299
Log likelihood	-78.43103	Hannan-Quinn criter.	1.615712
F-statistic	764.0646	Durbin-Watson stat	1.550886
Prob(F-statistic)	0.000000		

Source: Data Processing Results, 2024 (Eviews 10)

Based on **Table 10** the results of the Hausman test using eviews 10, a probability value of 0.0325 was obtained. The probability value is smaller than the significant level (α = 0.05), so a better estimate to use in this model is*Fixed Effect Model (FEM)*.

Panel Data Regression Results

Table 11 Panel Regression Estimation Results with Model*Fixed Effect*

Dependent Variable: Y
Method: Panel Least Squares
Date: 09/21/24 Time: 07:57
Sample: 2018 2022
Periods included: 5
Cross-sections included: 34
Total panel (balanced) observations: 170

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	9.464451	0.523768	18.06992	0.0000
X1	0.144933	0.146399	0.989983	0.3240
X2	0.134832	0.050474	2.671293	0.0085

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.995014	Mean dependent var	10.53888
Adjusted R-squared	0.993712	S.D. dependent var	5.451821
S.E. of regression	0.432315	Akaike info criterion	1.346247
Sum squared resid	25.04413	Schwarz criterion	2.010299
Log likelihood	-78.43103	Hannan-Quinn criter.	1.615712
F-statistic	764.0646	Durbin-Watson stat	1.550886
Prob(F-statistic)	0.000000		

Source: Data Processing Results, 2024 (Eviews 10)

The eviews processing data obtained the following panel data regression equation:

Y=9.464451+0.144933X1+0.134832X2 + e

The description of the panel data regression equation is as follows:

a) constant (α)
From the results of the panel data regression analysis test, it can be seen that the constant is 9.464451. This means that if the independent variables (Gross Regional Domestic Product and Unemployment) do not exist or have a value of zero, then the poverty rate is 9.46 percent.

b) Regression Coefficient (β) of Gross Regional Domestic Product (GRDP)
The coefficient value of Gross Regional Domestic Product is 0.144933, which means that the GRDP variable has a positive and insignificant effect on the Poverty Rate in Indonesia. If GRDP increases by 1 percent, then the Poverty Rate decreases by 14.49 percent.

c) Regression coefficient (β) of Unemployment
The unemployment coefficient value is 0.134832, which means that the Unemployment variable has a positive and significant effect on the Poverty Rate in Indonesia. If Unemployment increases by 1 percent, then the Poverty Rate in Indonesia increases by 13.48 percent.

Hypothesis Testing

1. t-test (Partial)

Table 12 t-test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	9.464451	0.523768	18.06992	0.0000
X1	0.144933	0.146399	0.989983	0.3240
X2	0.134832	0.050474	2.671293	0.0085

Source: Data Processing Results, 2024 (Eviews 10)

Based on the results of statistical data processing, it can be seen that the influence between independent variables on dependent variables partially is as follows:

1. Gross Regional Domestic Product has a t-statistic value of 0.989983, with a significance level of (0.3240>0.05), where the coefficient (β) is 0.144933. So it can be concluded that Gross Regional Domestic Product has a positive but insignificant effect on the Poverty Rate in Indonesia.
2. Unemployment has a t-statistic value of 2.671293 with a significance level of (0.0085 <0.05), where the coefficient (β) is 0.134832. So it can be concluded that unemployment has a positive and significant effect on the poverty rate in Indonesia.

2) **Simultaneous Test (F)**

Table 13 F Test Results

Dependent Variable: Y
Method: Panel Least Squares
Date: 09/21/24 Time: 07:57
Sample: 2018 2022
Periods included: 5
Cross-sections included: 34
Total panel (balanced) observations: 170

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	9.464451	0.523768	18.06992	0.0000
X1	0.144933	0.146399	0.989983	0.3240
X2	0.134832	0.050474	2.671293	0.0085
	Effects Specification			
Cross-section fixed (dummy variables)				
R-squared	0.995014	Mean dependent var		10.53888
Adjusted R-squared	0.993712	S.D. dependent var		5.451821
S.E. of regression	0.432315	Akaike info criterion		1.346247
Sum squared resid	25.04413	Schwarz criterion		2.010299
Log likelihood	-78.43103	Hannan-Quinn criter.		1.615712
F-statistic	764.0646	Durbin-Watson stat		1.550886
Prob(F-statistic)	0.000000			

Source: Data Processing Results, 2024 (Eviews 10)

Based on Table 13 the results above, the probability of the F-statistic obtained is **0,000000**smaller than sig (0.05). This indicates that this regression model shows a good level so that it can be used to predict or it can be said that the independent variables have a joint effect on the dependent variable.

Coefficient of Determination (*R Squire*)

Table 14 Results of Determination Coefficient

Dependent Variable: Y
Method: Panel Least Squares
Date: 09/21/24 Time: 07:57
Sample: 2018 2022
Periods included: 5
Cross-sections included: 34
Total panel (balanced) observations: 170

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	9.464451	0.523768	18.06992	0.0000
X1	0.144933	0.146399	0.989983	0.3240
X2	0.134832	0.050474	2.671293	0.0085
	Effects Specification			
Cross-section fixed (dummy variables)				

R-squared	0.995014	Mean dependent var	10.53888
Adjusted R-squared	0.993712	S.D. dependent var	5.451821
S.E. of regression	0.432315	Akaike info criterion	1.346247
Sum squared resid	25.04413	Schwarz criterion	2.010299
Log likelihood	-78.43103	Hannan-Quinn criter.	1.615712
F-statistic	764.0646	Durbin-Watson stat	1.550886
Prob(F-statistic)	0.000000		

Source: Data Processing Results, 2024 (Eviews 10)

Based on Table 14 the results of panel data regression *Fixed Effect Model*(FEM), obtained value *Adjusted R-Square*of 0.993712. which means that the independent variable is able to influence the dependent variable by 99.3% while the remaining 0.7% is influenced by other variables outside this study.

DISCUSSION

The Influence of Gross Regional Domestic Product (GRDP) on Poverty Levels

Based on the results of panel data regression in this study, it shows that the probability value of Gross Regional Domestic Product is 0.3240 > (0.05) and the coefficient value is 0.144933, so that GRDP has a positive but insignificant effect on the Poverty Rate in Indonesia for the 2018-2022 period.

This research is supported by research conducted by (Azriyansyah, 2022) which also obtained the same results. Based on the results of data analysis using panel data regression with *Fixed Effect Model*(FEM) that has been carried out, shows that Gross Regional Domestic Product has a positive value and is not significant to the poverty rate in Indonesia for the period 2017-2021. The influence of GRDP on the poverty rate is strengthened by research conducted by (Mardianta, 2023) based on the results of the study, the t-value of GRDP is 0.141 while the t-table value is 1.770 with a significant value of 0.192 which is greater than 0.05, it can be concluded that GRDP has a positive and insignificant effect on the poverty rate in provinces in Indonesia. This is due to factors such as: uneven economic growth, so that the benefits are not felt by all levels of society. Uneven distribution of income so that the benefits of this growth are not felt by all levels of society, especially the poor. The existence of an economic crisis, a pandemic and limited market access. Therefore, although GRDP has increased, the poverty rate is still high.

The Impact of Unemployment on Poverty Levels

Based on the results of panel data regression, the coefficient value of Unemployment is (0.0085 <0.05), where the coefficient (β) is 0.134832. So it can be concluded that Unemployment has a positive and significant effect on the Poverty Rate in Indonesia.

From the research results (Sinaga, 2022) it was found that unemployment has a significant influence on the poverty rate of provinces in Sumatra. The significant positive influence of unemployment on the poverty rate indicates that the higher the unemployment rate, the higher the poverty rate. This is in accordance with the theory and argument that the absence of work or also called unemployment, will cause a person to be unable to support himself and his family to meet the needs of a decent life so that they will be classified as poor. These results also confirm that one of the most effective strategies to reduce poverty is to expand and create various employment opportunities.

The Influence of Gross Regional Domestic Product and Unemployment on Poverty Levels

Based on the results of the F test (Simultaneous) Gross Regional Domestic Product and Unemployment have a significance value of 0.000 <0.05. Thus, it can be concluded that simultaneously Gross Regional Domestic Product (GRDP) and Unemployment have a significant effect on the Poverty Level in Indonesia. Research that supports the results of this study, namely (Azriyansyah, 2022) that simultaneously the variables Human Development Index, Gross Regional Domestic Product and Unemployment have a significant effect on Poverty in Indonesia for the period 2017-2021.

CONCLUSION

There is a positive but insignificant influence of Gross Regional Domestic Product on the Poverty Rate in Indonesia for the 2018-2022 Period. Although economic growth reflected in GRDP can have a positive impact on reducing the Poverty Rate, it is not significant enough to reduce the existing poverty rate. There is a positive and significant influence of Unemployment on the Poverty Rate in Indonesia for the period 2018-2022. If unemployment increases, the poverty rate also tends to increase. The more unemployed people will cause more people to experience poverty. There is a significant influence of Gross Regional Domestic Product and Unemployment on the Poverty Rate in Indonesia for the period 2018-2022.

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