

DETERMINANTS OF POVERTY IN 10 PROVINCES IN SUMATRA ISLAND

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Abstract: Poverty is a complex and multidimensional problem and cannot be seen easily only from an absolute number. The problem of provincial poverty is inseparable from various aspects in each region. In this study, the problem of poverty is studied in the province of Sumatra island. Sumatra Island has 10 provinces. This study aims to determine the effect of macroeconomic variables, namely the quality of human resources, income inequality and the level of open unemployment on the percentage of poor people in 10 provinces on the island of Sumatra. This study uses a combined Panel Data from data between time series and regional observations, where the time series (time series) used in this research is in the 2017-2021 period, using regional observations or (cross section) covering the area of Aceh, North Sumatra, South Sumatra, West Sumatra, Riau, Jambi, Riau Islands, Bangka Belitung Islands and Lampung. In this study, secondary data were obtained from the Central Statistics Agency (BPS). This research uses Panel Data Regression Method. The results showed that the quality of human resources had a negative and significant influence, income inequality and the open unemployment rate had a positive and significant impact on the percentage of poor people in 10 provinces on the island of Sumatra.

Keywords: *Poverty, Quality of human resources, Income Inequality and Open Unemployment Rate*

1. Introduction

Poverty is a complex and multidimensional problem and cannot be seen easily only from an absolute number. Poverty is also the main menu presented, especially in developing countries, creating prosperity for the people is the ultimate goal of a country, welfare is closely related to poverty. In theory, poverty can be said where there is an inability to meet household or family needs such as eating, drinking, shelter, clothing, education and health. (Sukirno, 2010).

The World Bank sets an international poverty line of \$2 US dollars per capita per day. This means that people who are considered poor in all countries in the world are those whose expenses are less than \$2 per day. In the Indonesian context, the measure commonly used is the poverty line.

Several findings in the problem of urban poverty have mixed results, (Pitri Yandri, 2018), In the case of the poor, it can be explained that the tendency to save (marginal propensity to saving) $MPS = 0$ and the tendency to consume (marginal propensity to consume / MPC) is close to 1, because Almost all of the income earned is used for consumption.

The problem of provincial poverty is inseparable from various aspects in each region. In this study, the problem of poverty is studied in the province of Sumatra. Sumatra Island has 10

provinces. To measure poverty, BPS uses the concept of the ability to meet basic needs (basic needs approach).

The following is an illustration of the number of poor people in 10 provinces on the island of Sumatra:



Figure 1. Average Number of Poor Populations in 10 Provinces on Sumatra Island in 2017-2021 (thousand people)

Based on Figure 1, the highest average number of poor people in 10 provinces on Sumatra Island in 2017-2021 is North Sumatra Province with an average of 2639,378 thousand people, South Sumatra with 2178,17 thousand people and Lampung with 2148,314 thousand people, while the areas with the lowest number of poor people are Bangka Belitung with 143,016 thousand people and the Riau Islands with 264.77 thousand people.

Ritonga (2003) Poverty is a condition of life that is completely deprived experienced by a person or household so that they are unable to meet the minimum or decent needs for their lives. One of the factors of the Human Development Index is a concept that influences each other, in the classical concept of development it is defined as an increase in economic growth and can help in reducing poverty levels. Salcatore (2008) argues that there is a direct positive effect between the high growth of human development on economic growth.

The following is a description of the Human Development Index of 10 Provinces on the Island of Sumatra:



Figure 2. Average Human Development Index of 10 Provinces in Sumatra Island 2017-2021

From Figure 2 it can be seen that the average Human Development Index is the highest in 10 provinces on the island of Sumatra in 2017-2021. Human development is an important component in the formation of human capital in each region. In the figure data, the average range of the human development index in the Sumatran regions is at 70.3 regions with the highest numbers covering the Riau Archipelago Province of 75.23, Riau Province of 72.576 and West Sumatra Province of 72,028, while the lowest value is only in 2 regions, namely

Lampung Province at 69.286 and South Sumatra Province at 69.704. This human development index is the result of several components, namely health rates, expected years of schooling and adjusted Real Expenditure per Capita.

Singh (2012) clearly reveals that HDI and per capita income have a major influence on poverty reduction. The effect of HDI and per capita income on poverty alleviation was found to be significant and the impact of HDI on poverty was negative. Furthermore, Arief and Pratiwi's research (2017) concludes that the HDI indicator has a negative relationship and has a significant effect on statistical poverty reduction. In several studies on poverty hacking income inequality has a role in existing poverty cases, Nisa et al.(2020) found that income inequality has a significant and negative effect on poverty in the Province of the Bangka Belitung Islands.

The following is an overview of the Gini Ratio in 10 provinces on the island of Sumatra:

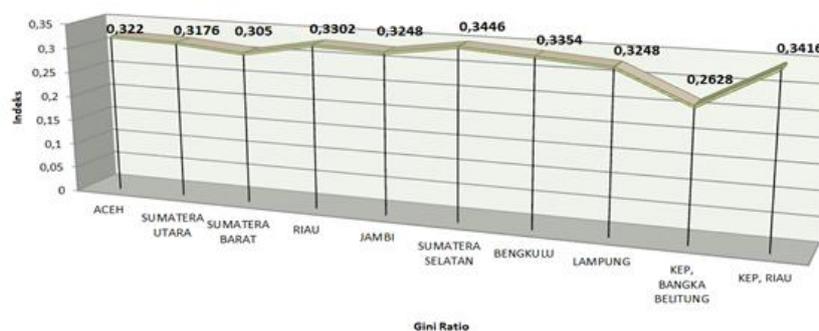


Figure 3. Average Gini Ratio of 10 Provinces in Sumatra Island 2017-2021

Based on Figure 3, the average Gini ratio of 10 provinces on Sumatra Island in 2017-2021. Overall, the Sumatran regions are included in the moderate level of income inequality, as can be seen from the average value which is around 0.3. In the figure, the highest Gini ratio value is in 3 regions, namely South Sumatra Province of 0.3446, Riau Islands Province of 0.3416 and Bengkulu Province of 0.3354 but the value range of this number is still in the category of moderate inequality. while the lowest average Gini ratio was in Bangka Belitung Province which touched a figure of 0.2628. But different things have been found that with the level of inequality which tends to be moderate, the Sumatran region still has a relatively high poverty rate.

Yusuf et al. (2014); Ahmad (2015); Gitting (2015); Mahardiki and Santoso (2013); Nurhuda at al. (2012) in East Java Baransano at.al (2016) in West Papua; Barika (2012) in Bengkulu Province; said there had been development imbalances both at the provincial and district levels within the region. Therefore, the development of the leading sectors of each region must be increased in each region, so that it can spur regional growth and ultimately accelerate the reduction of inequality and poverty. This is important because by reducing inequality development aims to reduce the level of debt in the region.

The understanding of the importance of the role of employment in the relationship between economic growth and poverty alleviation is based on the arguments of Jonaidi (2012) and Awandari & Indrajaya (2016), that high economic growth should provide many jobs. Jonaidi (2012) explains that job opportunities play an important role in influencing economic growth to reduce poverty. Labor has a close relationship with the unemployment rate, where a region must be able to absorb labor as a form of reducing the existing unemployment rate.

The following is an overview of the unemployment rate in 10 provinces on the island of Sumatra:

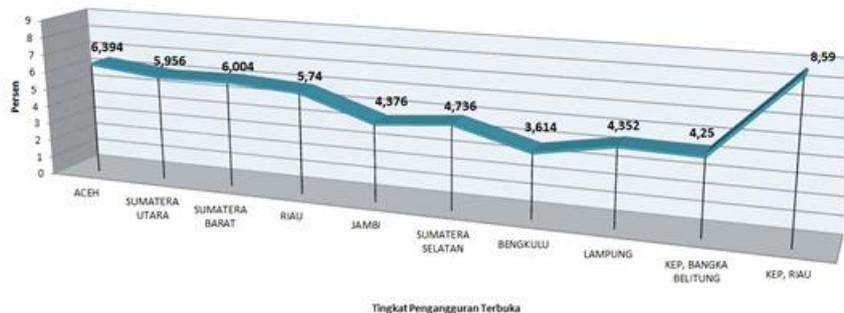


Figure 4. Average Open Unemployment Rate of 10 Provinces in Sumatra Island 2017-2021

Figure 4, shows that the average Open Unemployment rate is from 2017-2021. The unemployment rate is one of the important variables in the case of poverty in areas on the island of Sumatra. In the provinces of Sumatra Island, some of the highest unemployment rates include the Riau Archipelago Province at 8.59%, Aceh Province 6.394% and West Sumatra Province at 6.004, while for areas with low levels, Bengkulu Province is 3.614%, Bangka Belitung Islands Province at 4.25% and Lampung Province at 4.352%.

The size of poverty in an area can be seen or known by using a number of measuring tools commonly called poverty indicators, namely: income or consumption per week/month/year, assets, total wealth, food consumed, housing, formal education, basic infrastructure household, and health, Sukirno S. (2014) and Tambunan T. (2015). However, recent literature on this issue suggests that macroeconomic factors influence poverty in a nonlinear manner. Prasetyoningrum (2018) found that unemployment has a positive effect on poverty levels and has a significant effect. Saleem et al. (2019) shows that multidimensional poverty is significantly more in rural areas than in urban areas. A recent study conducted by Meo et al. (2018) also states that various macroeconomic variables including unemployment affect poverty asymmetrically. Based on the background that has been stated, the formulation of the problem in this study, how is the influence of the Quality of Human Resources, Income Inequality and the Open Unemployment Rate on the poverty level in 10 provinces on the island of Sumatra.

2. Research Method

A. Types, Data Sources and Research Variables

This study uses panel data in 10 provinces on the island of Sumatra, covering the areas of Aceh, North Sumatra, South Sumatra, West Sumatra, Riau, Jambi, Riau Islands, Bangka Belitung Islands and Lampung. In this study, secondary data were obtained from the Central Statistics Agency for 10 Provinces, website: <https://www.bps.go.id/> in each issue. The variables used in this study are:

Table 2.1. Variable Names, Symbols, Units, and Variable Definitions

No	Variable	Symbols	Units	Definitions
1	Percentage of Poor Population	PPM	percent %	The PPM variable used is the Percentage of Poor Population in percent in 10 provinces of Sumatra Island in 2017-2021.

No	Variable	Symbols	Units	Definitions
2	Quality of Human Resources	KSDM	Indeks	HDI is a composite index that measures human development from three basic aspects, namely a long and healthy life, knowledge, and a decent standard of living. Variables of the Quality of Human Resources Using index units in 10 provinces of Sumatra Island in 2017-2021.
3	Income Inequality	KP	Indeks	The Gini Ratio is an indicator that shows the level of inequality in spending as a whole. Income Inequality Variable using index units in 10 provinces of Sumatra Island in 2017-2021.
4	Open Unemployment Rate	TPT	percent %	The Open Unemployment Rate is the percentage of the number of unemployed to the total labor force. The TPT variable uses percent units in 10 provinces of Sumatra Island in 2017-2021.

B. Multiple Linear Regression with Data Panel

The econometric model that will be used to analyze the effect of the Multiple Linear Regression Model and Analysis Tool (OLS) with panel data using Eviews 9. To determine the effect of the dependent variable on the independent variable, the panel data regression model is used with the following equation:

$$PPM_{it} = \beta_0 + \beta_1 KSDM_{it} + \beta_2 KP_{it} + \beta_3 TPT_{it} + \varepsilon_{it}$$

- PPM = Percentage of Poor Population
- KSDM = Quality of Human Resources
- KP = Income Inequality
- TPT = Open Unemployment Rate
- I = Observation of 10 Provinces (Cross section)
- T = Research period 2017-2021 (time series)
- β_0 = The coefficient of the intercept constant which is a scalar
- $\beta_1, \beta_2, \beta_3$ = Regression coefficient or slope of each variable
- ε_{it} = Standard error in mathematical models (Error Term)

C. Panel Data Model Selection

Basically there are four models used in panel data analysis, namely pooled least square, pooling independent cross sections over times, least square dummy variable (fixed effects), and random effects. The three models can be explained with the following figure:

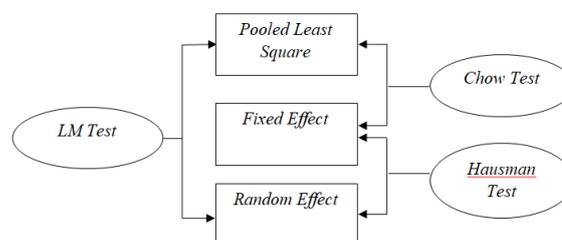


Figure 5. Panel Data Model Selection

Where :

1. Pooled Least Square (PLS)
2. Chow test /Fixed Effect
3. Hausman test / Random Effect

D. Lagrange Multiplier Test (LMT)

To find out whether the random effect model is better than the common effect method, the Lagrange Multiplier (LM) test developed by Breusch-Pagan is used.

E. Classic Assumption Test

- 1) Multicollinearity Detect

There are two important assumptions about the disturbance variable that will affect the nature of the BLUE estimator.

- 2) Heteroscedasticity Test

The value of Sum Square Resid (SSR) Weighted compared to Sum Square Resid (SSR) Unweighted. If $SSR_{weighted} < SSR_{Unweighted}$, it can be said that the model is free from heteroscedasticity problems.

- 3) Autocorrelation Test

In relation to the OLS method, autocorrelation is a correlation between one disturbance variable and another disturbance variable.

F. Hypothesis Test t and F statistic

- 1) Uji t (*t-test*)

The t-statistic test is used to determine whether the independent variables are partially independent. This test is used to see the significance of the effect of the independent variable on the dependent variable individually. One-way test is used with a 95% confidence level with the hypothesis that it has a significant effect on the dependent variable at the level = 0.05.

- 2) Uji F-Statistik

F-Statistics test is used to prove whether the independent variables used in the study together significantly affect the dependent variable. A large F-Statistic value is better than a small F-Statistic value.

At the level of = 0.05 if H_0 is rejected, it means that the independent variable being tested has a significant effect on the dependent variable. If H_0 is accepted, it means that the independent variable tested has no significant effect on the dependent variable at = 0.05.

G. Individual Effect

Individual effect In Widarjono (2013), is the individual value of each cross-section obtained from the Fixed Effect model. The individual effect formula is :

$$C_i = C + \beta$$

Where :

C_i = Individual Effect

C = constant

β = coefficient of each Cross section

3. Results and Discussion

3.1. Results

Panel Data Regression Model Selection Test

1) Fixed Effect Test/Chow Test

Table 3.1. Chow Test Results

No	Test Summary	Chi-Sq. Statistic	Chi-Sq. df	Prob.	Conclusion
1	Fix Effect Model	268,626282	9	0,0000	H ₀ rejected

Source : Data processed in 2022.

Information : Critical Value pada 0,05

Based on the Chow test shown in Table 2. the value of Chi-Square Statistics (268.626282) > Chi Squaretable (16.919) is obtained at df = 9 with a probability level of 0.000 < 0.05, thus causing Ho to be rejected. Therefore, reject Ho and accept Ha so that the fixed effect model is the right model to be used in panel data regression.

2) Hausman test

Table 3.2. Hausman test results

No	Test Summary	Chi-Sq. Statistic	Chi-Sq. df	Prob.	Conclusion
1	Husman Effect Model	5,777019	3	0,1230	H _a received

Source : Data processed in 2022.

Information : Critical Value pada 0,05

Based on the Hausman test shown in the table, the value of Chi-Square Statistics (5.777019) < Chi-Square table (7.814728) is obtained at df = 3 with a probability level of 0.1230 > 0.05, thus causing Ha to be accepted. In the best model, the fixed effect model is the right model to be used in panel data regression.

Classical Assumption Testing on Panel Data Model

1) Multicollinearity Test

Table 3.3. Multicollinearity Test Results

NO	Variable	VIF	Information
1	Quality of Human Resources	1,09276	In the Level of Tolerance
2	Income Inequality	1,39132	In the Level of Tolerance
3	Open Unemployment Rate	1,32701	In the Level of Tolerance

Source: Eviews, Data processed 2022

The results of the Multicollinearity level test show that the Variance Inflation Factor (VIF) value of all independent variables has a value of < 10, this explains that all variables have values within the tolerance level.

2) Heteroscedasticity Test

Table 3.4. Heteroscedasticity Test Results

No	Independent Variable	Chi-Square Count	Chi-Square Table	results	Conclusion
1	3	1,0028	7,810	Reject H ₀	Free of Heteroscedasticity

Source : Eviews, Data processed 2022

Description : Critical Value at 0.05.

Panel model Chisquare Count = Total n * Rsquare (50 * 0.020056 = 1.0028), In the Chi-Square table count (1.0028) < Chi Square Table (7.810) on df of independent variable = 3 with a significance level of 5 percent, thus rejecting H0 which means that there is no heteroscedasticity problem in the equation.

3) Autocorrelation Test

Table 3.5. Autocorrelation Test Results

No	Dependent variable	Chi-Square Count	Chi-Square Table	Results	Conclusion
1	1	9,04224	3,841	Reject H ₀	Autocorrelation free

Source : Eviews, Data processed 2022

Description : Critical Value at 0.05.

Chi-square panel model Count = Total n * Rsquare (40*0.0226056 = 9.04224), In the Chi-Square table count (9.04224) < Chi Square Table (3.841) on df humidity autocorrelation 1 with a significance level of 5 percent, then the results of the hypothesis accept Ha. In the final model of panel data regression, the white method has been used to eliminate the autocorrelation problem by changing the Coef Covariance Method to the White-Cross section in the panel options so that it changes the regression equation to be free from autocorrelation problems (Widarjono, 2013).

4) Panel Data Regression Estimation Results with Fixed Effect Model

Table 3.6. Results of Ordinary Least Square (OLS) in Fixed Effect Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	36,19838	2,339689	15,47145	0,0000
KSDM	-0,397373	0,026770	-14,84395	0,0000
KP	2,885175	1,370079	2,105846	0,0421
TPT	0,182361	0,059737	3,052710	0,0042
R ²	0,998386			
F-stat	1906,748			

Source : Eviews, Data processed 2022

Description : Critical Value at 0.05

The following is a mathematical model on the panel data model:

$$PPM_{it} = \beta_0 + \beta_1 IPM_{it} + \beta_2 GR_{it} + \beta_3 TPT_{it} + \varepsilon_{it}$$

$$PPM_{it} = 36,19838 - 0,397373IPM_{it} + 2,885175GR_{it} + 0,182361TPT_{it} + e_{it}$$

(15,47145) (-14,84395) (2,105846) (3,052710)

In the R-square value model of 0.998386, this explains 99% of the variation in the rise and fall of the Percentage of the Poor in 10 Provinces on Sumatra Island in 2017-2021, influenced by the variables of Human Resources Quality (KSDM), Income Inequality (KP) and The Open Unemployment Rate (TPT) this figure also explains the percentage of the influence of all independent variables used in the model on the dependent variable. In the panel model, the remaining 1% is influenced by other variables that are not included in the research model. The value of the coefficient that can represent the

magnitude of the influence of the independent variable on the dependent variable. The interpretation of each variable is described as follows :

5) T-Test Results (Partial)

By looking for the value of the degree of freedom, with a significance level of : 0.05 % using the formula: number of observations (n) = 50, independent variable (k) = 3 - 1 , so $df (n-k-1) = 46$. Then The t-table value found is 1.67866.

Table 3.7. t-statistical test results

Variable	Koefisien	t-hitung	t-tabel	Prob.	Kesimpulan
Quality of Human Resources	- 0,3973	14,843	1,6786	0,0000	H ₀ rejected
Income Inequality	2,8851	2,1058	1,6786	0,0421	H ₀ rejected
Open Unemployment Rate	0,1823	3,0527	1,6786	0,0042	H ₀ rejected

Source : Eviews, Data processed 2022

Description : Critical Value at 0.05

Based on the table above, the t-count value is obtained for t-statistical testing so that the results of the partial test or t-statistics are obtained, it can be concluded that the t-count value of the variables Human Resources Quality (KSDM), Income Inequality (KP) and Open Unemployment Rate (TPT) is more The magnitude of the t-table is 1.6786, so the conclusion of the partial t-hypothesis obtained in this test states that H₀ is rejected, then each variable has a partially significant effect on poverty.

6) F-Statistics Test Results

This study was conducted at the 95% confidence level ($\alpha = 0.05$). In the model with the degree of freedom numerator ($df1) = k - 1$ or ($df1) = 3 - 1 = 2$ and the degree of freedom denominator ($df2) = n - k$ or ($df2) = 50 - 3 = 47$. Then the f value table of 3.195.

Table 3.8. F test results statistic

Dependent variable	F Count	F Table	Conclusion
1	1906,748	3,195	H ₀ rejected

Source : Eviews, Data processed 2022

Description : Critical Value at 0.05.

The F-table used based on the reference table for the F-table distribution obtained was 3.195 with = 5 percent. Because F-statistics > F-table = 1906.748 > 3.195 then H₀ is rejected, this explains that the independent variables tested have a significant effect on the dependent variable, so it can be concluded that the variables of Human Resource Quality (KSDM), Income Inequality (KP) and The Open Unemployment Rate (TPT) jointly affects the Percentage of the Poor (PPM).

7) Individual Effect Results and Analysis

Individual effect is the individual cross section value obtained from the Fixed Effect Model. Individual effect is the value of each cross-section obtained from each region in 10 provinces on the island of Sumatra:

Table 3.9. Results of Individual Effects in 10 Provinces on Sumatra Island

No	Variable	Koefisien
1	C	36,19838
2	KSDM	-0,397373
3	KP	2,885175

No	Variable		Koefisien
4	TPT		0,182361
No	Province	Cross Effect	Individual Effect
1	Aceh	5.661333	41,85971
2	Sumatera Utara	-0.911783	35,28660
3	Sumatera Barat	-3.093428	33,10495
4	Riau	-2.246099	33,95228
5	Jambi	-1.954344	34,24404
6	Sumatera Selatan	2.492190	38,69057
7	Bengkulu	5.503622	41,70201
8	Lampung	2.159242	38,35762
9	Kep. Bangka Belitung	-4.682643	35,51574
10	Kep. Riau	-2.928092	33,27029

Source: Data processed in 2022.

The value of the Individual Effect of Aceh Province has the highest magnitude of 41.85971, this result indicates the characteristics of the region in the formation of poverty, this also explains when the Quality of Human Resources, Income Inequality and the Open Unemployment Rate are constant or the same, then the province with the percentage of poor people The largest in 10 provinces on Sumatra Island in 2017-2021 is Aceh Province. And the second highest is the Bengkulu Province Individual Effect Value which is 41.70201 indicating regional characteristics in the form of poverty. The lowest Individual Effect value is in West Sumatra Province at 33.10495 and Riau Islands Province at 33.27029. These results indicate regional characteristics in the formation of poverty, this also explains when the Quality of Human Resources, Income Inequality and the Open Unemployment Rate are not constant or the same, then the province with the lowest percentage of poor people in 10 provinces on Sumatra Island in 2017-2021 is West Sumatra Province.

3.2. Discussion

1. The Influence of the Quality of Human Resources on the Percentage of Poor Population in 10 Provinces on Sumatra Island in 2017-2021

The Human Development Index is an important factor in building human capital for each region, when a region has good and superior human resources when the HDI rises resulting in increased work productivity of the population which increases income. With an increase in income will cause the community to be able to meet their needs and can reduce the level of poverty. In the results of the study the Quality of Human Resources (KSDM) has a negative and significant influence with a coefficient value of -0.397373, if the Quality of Human Resources has increased by 1%, then the percentage of the poor will decrease by 0.397373%, with ceteris paribus assumption, in 10 provinces on Sumatra Island in 2017-2021.

Todaro (2003) also said that human development is the goal of development itself. Where human development plays a key role in shaping the ability of a country to absorb the ability of a country to absorb modern technology to build capacity to create sustainable growth and development. According to Yani Mulyaningsih (2008), the human development index contains three important dimensions in development, namely with aspects of meeting the needs for long life (longevity), and healthy life (healthy life), to gain knowledge (the knowledge) and have access to natural resources. that can meet the standard of living. This

means that the three important dimensions of human development are very influential on poverty.

Apriliyah S. Napitupulu (2007), said that the Human Development Index has an influence in reducing the number of poor people. The Human Development Index has composite indicators in its calculation, including life expectancy, literacy rates, and per capita consumption. Improvements in the health and education sectors as well as income per capita contribute to human development, so that the higher the quality of human beings in an area will reduce the number of poor people in the area. The following is a description of the HDI and the percentage of poor people. The following are the results of accumulated data on the Human Development Index and poverty in 10 provinces on the island of Sumatra :

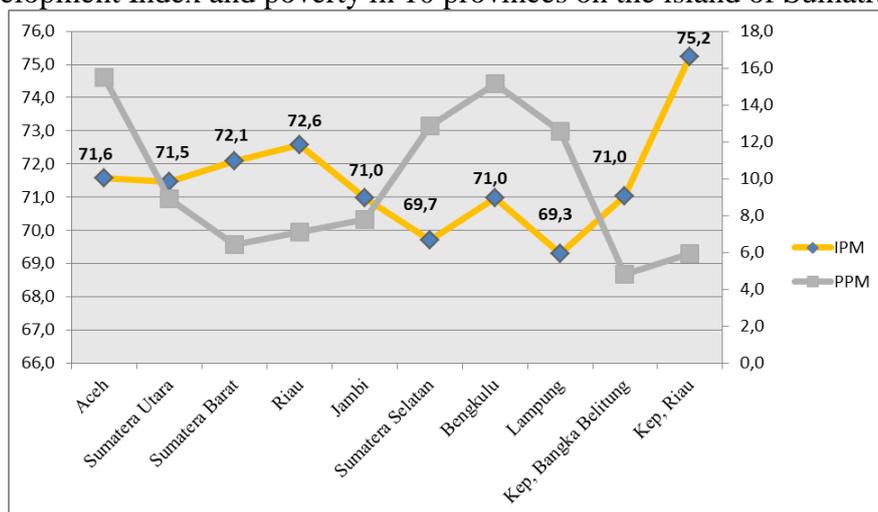


Figure 6. Average Human Development Index and Percentage of Poor Population in 10 Provinces on Sumatra Island in 2017-2021.

This can be seen from the comparison of several areas of 10 provinces on the island of Sumatra where when the human development index increases, poverty tends to decrease, in the data the Riau archipelago has the highest average HDI level of 75.2% with a low poverty level, then Riau region has a high average HDI level of 72.6% with a low poverty rate, and the Lampung region has a low average HDI level of 69.3% with a poverty rate that continues to increase for the Bengkulu region has an average A low HDI of 71.0% with an increasing poverty rate. From the data above, it can be concluded that as the Human Development Index increases, the percentage of poor people in 10 provinces on the island of Sumatra tends to decrease.

2. The Effect of Income Inequality on the Percentage of Poor Population in 10 Provinces on Sumatra Island in 2017-2021

Income inequality between regions is a problem that continues to occur, this income inequality is also the root of the problem of increasing poverty levels in each region. In the results of the research, Income Inequality (KP) has a positive and significant effect with a coefficient value of 2.885175, if Income Inequality increases by 1%, then the percentage of the poor will increase by 2.885175%, assuming ceteris paribus, at 10 Province on Sumatra Island in 2017-2021.

The following are the results of the accumulation of data on development inequality and poverty in 10 provinces on the island of Sumatra:

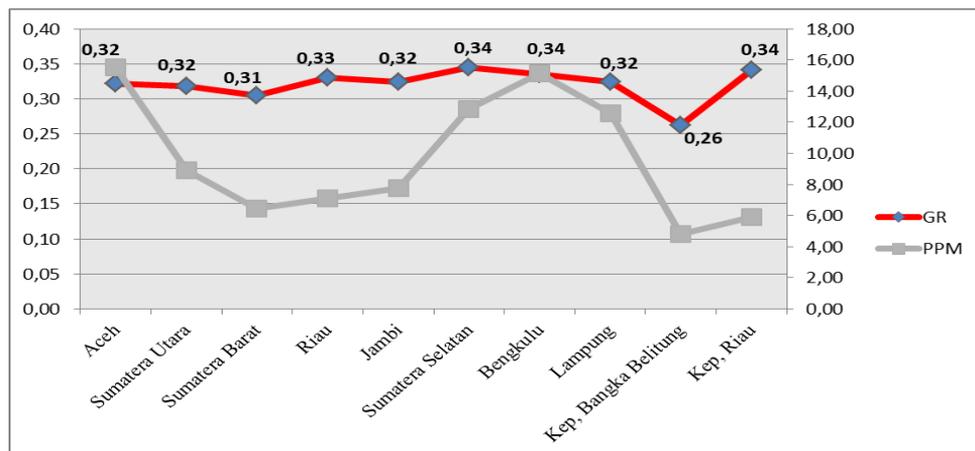


Figure 7. Average Gini Ratio and Percentage of Poor Population in 10 Provinces on Sumatra Island in 2017-2021.

This can be seen from the comparison of several areas of 10 provinces on the island of Sumatra where when the Gini Ratio increases, poverty also increases, Bengkulu data has an average Gini Ratio of 0.34 index with a poverty level that tends to be high, then the area Aceh has an average Gini Ratio index of 0.32 with a poverty rate that tends to be high. From the available data, it can be concluded that the higher the Gini Ratio, the percentage of poor people in 10 provinces on the island of Sumatra tends to increase.

3. Effect of Open Unemployment Rate on Percentage of Poor Population in 10 Provinces on Sumatra Island in 2017-2021

The open unemployment rate is an unemployment indicator chosen based on the fact that the indicator is related to income levels, and this will be directly related to the existing poverty level due to the problem of lack of welfare due to unemployment. In the results of the research, the Open Unemployment Rate (TPT) has a positive and significant effect with a coefficient value of 0.182361, if the Open Unemployment Rate has increased by 1%, then the percentage of the poor will increase by 0.182361%, assuming *ceteris paribus*, in 10 Provinces on Sumatra Island in 2017-2021.

Lincoln Arsyad (1997) states that there is a very close relationship between high levels of unemployment and poverty. For most people, those who do not have permanent or part-time jobs are always among the very poor. People who work for a fixed fee in the public and private sectors are usually among the upper middle class group of people. Everyone who does not have a job is poor, while those who work fully are rich. Because sometimes there are also workers in urban areas who do not work voluntarily because they are looking for better jobs that are more in line with their education level. They reject jobs that they feel are inferior and they behave that way because they have other resources that can help with their financial problems. People like this can be called unemployed but not necessarily poor. Similarly, there are many individuals who may work full-time per day, still earning a meager income. Many independent workers in the informal sector are fully employed but often remain poor. The following are the results of the accumulation of data on the open unemployment rate and poverty in 10 provinces on the island of Sumatra :

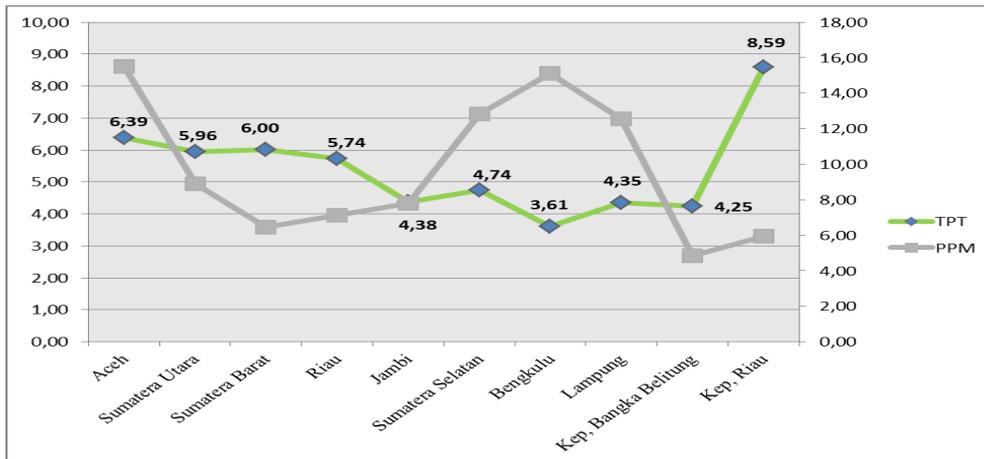


Figure 8. Average Open Unemployment Rate and Percentage of Poor Population in 10 Provinces on Sumatra Island in 2017-2021.

This can be seen from the comparison of several regions in 10 provinces on the island of Sumatra where when the Open Unemployment Rate increases, poverty also increases, in Jambi data, the average Open Unemployment Rate is 4.38% with a poverty level that tends to be high, Furthermore, the North Sumatra region has an average Open Unemployment Rate of 5.76% with a poverty rate that tends to be high. From the available data, it can be concluded that as the Open Unemployment Rate increases, the percentage of poor people in 10 provinces on the island of Sumatra tends to increase.

4. Conclusion and Suggestion

4.1 Conclusion

Based on the formulation of the research problem proposed, and based on the results of the data analysis that has been carried out, as well as the discussion that has been put forward, the following conclusions are obtained:

1. The quality of human resources has a negative and significant influence on the Percentage of the Poor in 10 Provinces on the Island of Sumatra due to the three components of HDI formation consisting of health, years of schooling and real per capita expenditure. The results of the t-test calculation with a significance level of = 5, the t-count of the Economic Development Index is 3.4109 and the t-table value is 1.6786, it can be concluded that $3.4109 > 1.6786$ the t-count value is greater than t-table.
2. Income inequality has a positive and significant influence on the Percentage of the Poor in 10 Provinces on the Island of Sumatra. The results of the t-test calculation with a significance level of = 5, the t-count Gini ratio is 2.105846 and the t-table value is 1.6786, it can be concluded that $2.105846 > 1.6786$ the t-count value is greater than t-table.
3. The Open Unemployment Rate has a positive and significant influence on the Percentage of the Poor in 10 Provinces on the Island of Sumatra. The results of the t-test calculation with a significance level of = 5, obtained the t-count of the open unemployment rate of 3.052710 and the t-table value of 1.6786, it can be concluded that $3.052710 > 1.6786$ the t-count value is greater than t-table.

4.2 Suggestion

In this case, the Indonesian government is expected to pay more attention to human development to reduce poverty levels. It is hoped that the Indonesian government can further promote the illiteracy eradication program, provide assistance to the founders of schools in the regions, so that education can be evenly distributed throughout the region in order to reduce poverty. There are several things that the provincial government as policy makers can do to address the income inequality that occurs. The Indonesian government can reduce income inequality in 10 provinces on the island of Sumatra in three ways, namely through taxes, government spending and regulations. The author hopes that the government through the Ministry of Manpower (Kemnaker) will carry out expansion activities for job opportunities in all sectors and education levels. With this, it is hoped that the labor force that tends to choose will be able to get the job they want.

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