



The Effect Of The Human Development Index (HDI) And Open Unemployment Rate (OUR) On The Poverty Rate In South Sumatra Province

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ABSTRACT

This research discusses the influence of the Human Development Index (IPM) and the Open Unemployment Rate (TPT) on the Rate of poverty in South Sumatra Province. Using secondary data in the form of a times series from 2004 - 2023. The analysis method uses multiple linear regression with IPM and TPT variables as independent variables and poverty rate as the dependent variable. The results of the analysis in this research are that IPM has no significant effect on the poverty rate in South Sumatra province and TPT has a significant effect on the poverty rate in South Sumatra province. The contribution of the IPM and TPT variables in influencing the poverty rate in South Sumatra province is 83.6%.

INTRODUCTION

In the current era of the 4.0 industrial revolution, technological developments are rapidly advancing by combining digital technology with physical technology to create more efficient and effective production (Vlachos dkk, 2024). This means that people need to have the skills to keep up with the times, so the government needs to play a role in human development through public spending, like the budget for healthcare, which is meant to increase life expectancy and lower mortality rates.

Meanwhile, the budget for education serves to improve public access to good and affordable education, with the hope that literacy rates will increase so that human development goals can be achieved, as measured by the Human Development Index (HDI) of a region/area (Primandari, 2020). The achievement of human development goals is expected to have a positive impact on poverty levels, meaning that an increase in HDI can lead to a reduction in poverty

levels. People with good health and adequate education will have opportunities to find employment, thereby improving their standard of living.

Poverty is a problem faced by every country, especially developing countries. One of the causes of rising poverty is high unemployment. Unemployment has broad social implications, one of which is poverty (Umara dkk, 2024). Being unemployed means that a person has no income and is automatically unable to meet their basic needs. According to Silaen (2025) , Unemployed or underemployed (in the sense of being unproductive) human resources will find it difficult to meet their most basic needs, such as food and shelter, which will eventually deplete their assets and possessions over time. In terms of a decrease in wealth or the amount of money they have, these human resources can be categorized as poor (Suryaningtyas, 2021).

South Sumatra Province has seen a steady increase in its Human Development Index (HDI) year after year, with unemployment rates fluctuating despite an overall decline when compared to poverty rates, which also fluctuate. This can be seen in Table 1 below.

Table 1. Human Development Index, Open Unemployment Rate, and Poverty Rate in South Sumatra Province from 2019 - 2023.

No	Year	HDI (%) (X1)	OUR (%) (X2)	Poverty Rate (%) (Y)
1	2019	70.02	4.53	12.71
2	2020	70.01	5.51	12.66
3	2021	70,24	4.98	12.84
4	2022	70.90	4.63	11.95
5	2023	71.62	4.11	11.78

Source: South Sumatra in Figures (2024)

Based on Table 1, it can be explained that there is a positive correlation between the Human Development Index (HDI) and the poverty rate in South Sumatra Province. This can be seen in 2020, where when the HDI decreased from 70,02 to 70,01, it was followed by a decrease in the poverty rate from 12,71 to 12,66. Similarly, in the following year, 2021, where the HDI increased from 70,01 to 70,24, while the poverty rate also rose from 12,66 to 12,84. This contradicts several previous studies that found that HDI has a negative effect on poverty rates (Ferayanti et al., 2023).

Meanwhile, the open unemployment rate in South Sumatra Province, as shown in Table 1, increased from 4.53% to 5,51% between 2019 and 2020, while the poverty rate decreased from 12,71% to 12,66%. Similarly, in 2021, the unemployment rate decreased from 5,51% to 4,98%. This should have led to a decrease in the poverty rate, but the opposite occurred in 2021, with the poverty rate increasing from 12,66% to 12,84%. This is inconsistent with previous research findings that the open unemployment rate has a positive effect on the poverty rate in South Sumatra Province (Primandari, 2019).

LITERATURE REVIEW

According to Efendi (2024) there are three indicators for measuring HDI. The first is life expectancy at birth, which is used to measure the health of the population. The second is the adult literacy rate and mean years of schooling, which are used to determine the level of education. The third is purchasing power parity, which is used to measure the standard of living of the population (Primandari, 2019). According to Bangun, (2023), The Human Development Index (HDI) is measured through three main indicators: (1) long and healthy life (life expectancy at birth), (2) knowledge (average length of schooling and expected length of schooling), and (3) decent

living standards (adjusted per capita expenditure or income).

Based on previous research, the Human Development Index (HDI) has an impact on the poverty rate. This is in line with the theory of Ravi Kanbur dan Lyn Squire, (1999) who argue that health and education levels, which are indicators of human development, can influence poverty levels by improving the quality of education and health services provided by the government so that public health can be guaranteed and school-age children can receive a good education. This will make the community more productive, and the skills and knowledge they acquire can then be used to find employment, which will ultimately contribute to a reduction in poverty levels (Ayu Nurlita et al., 2017).

Someone who enters the workforce and wants to work but has not yet found a job can be categorized as unemployed. According to Tambunan (2001) Poverty levels can be influenced by unemployment. When someone is unemployed, economic and social problems arise. This happens because the individual has no income to meet their basic needs and must reduce their consumption expenditure (Mukhtar et al., 2019).

Previous research on the impact of unemployment on poverty in Indonesia found that the open unemployment rate has a significant impact on poverty in Indonesia. This is in line with Godfrey (1993) opinion that poverty may not always be related to employment issues. This is further reinforced by Arsyad (2020) who argues that there is a very close relationship between high open unemployment and poverty. This applies to most people who do not have permanent jobs or only work part-time, who are always among the poorest members of society (Mukhtar et al., 2019).

High unemployment is one factor that illustrates the lack of success of the development process in a region, due to an imbalance between the size of the workforce and the number of jobs available. This will disrupt the national stability of a country (Mataheurilla & Rachmawati, 2021). In Arsyad (2020) if there are jobs available that match the number of workers, then employment opportunities will be able to accommodate all available workers. The main mechanism in developing countries to reduce poverty and income distribution inequality is through the provision of adequate wages and employment opportunities to the poor in those countries (Feraiyanti et al., 2023).

According to the SMERU Research Institute (2001) poor people view poverty as a condition in which a person loses their self-respect, becomes dependent on others, is forced to accept harsh treatment and insults, and is ignored when seeking help. SMERU also revealed another definition of poverty, namely the inability of a person to meet their basic consumption needs and improve their quality of life. Poverty arises due to inequality in the ownership of means of production. Poverty is also related to attitudes, culture, and certain environments within a society (Novriansyah, 2018).

According to the Vicious Circle of Poverty Theory proposed by Nurkse (1953), poverty occurs due to low productivity caused by market imperfections, backwardness, underdevelopment, and insufficient capital. Low productivity will result in low income. Furthermore, low income can result in low savings rates. Savings have an impact on investment, whereby low savings rates will result in low investment. Investment is very important in capital, so low investment causes a shortage of capital, which results in market imperfections, backwardness, and underdevelopment (Supir et al., 2023).

METHODS

The analytical tool used in this study is quantitative analysis (Sugiyono, 2019). This analysis emphasizes testing theories through measuring research variables with numbers. This analysis was used to determine the effect of the Human Development Index (HDI) and the Open Unemployment Rate on the Poverty Rate in South Sumatra Province. The analytical tool used in

this study was multiple linear regression analysis, while the data used were secondary data, including time series data from 2009 to 2023 in South Sumatra.

Multiple linear analysis is used to predict the magnitude of the dependent variable using data from independent variables whose magnitude is already known. The regression equation model is as follows (Ghozali, 2018):

$$Y = \alpha + b_1 X_1 + b_2 X_2 + e$$

Where:

Y : Poverty Rate
 α : Constant Coefficient
 b_1, b_2 : Regression Coefficient
 X_1 : Human Development Index (HDI)
 X_2 : Open Unemployment Rate
 e : Error Terms

RESULTS

Classical assumption testing is performed before conducting multiple linear regression analysis. Classical assumption testing is performed to show that the testing has passed the normality, multicollinearity, heteroscedasticity, and autocorrelation tests so that the testing can be carried out to linear regression analysis (Ghozali, 2018).

Based on data processing conducted with the help of SPSS software, the following results were obtained:

Test Normalitas

Table 2. Test Normalitas (One Sample Kolmogrov Smirnov)

		Unstandardized Residual
N		20
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	1.25279382
Most Extreme Differences	Absolute	.118
	Positive	.118
	Negative	-.082
Kolmogorov-Smirnov Z		.529
Asymp. Sig. (2-tailed)		.943

Source: Processed Data

Based on Table 2, it can be seen that the value of asymp.sig (2-tailed) is 0.943 > 0.05, meaning that the hypothesis is accepted. Therefore, it can be concluded that the data is normally distributed

Test Multikolinearitas

Table 3. Uji Multikolinearitas

Model		Collinearity Statistics	
		Tolerance	VIF
(Constant)			
1	IPM	.931	1.074
	TPT	.931	1.074

Source: Processed Data

Based on Table 3, it can be seen that the VIF value is $1.074 < 10$ and the tolerance value is $0.931 > 0.10$, so it can be concluded that there is no multicollinearity in the regression model.

Test Heterokedastisitas

Table 4. Test Heterokedastisitas (Test Glejser)

Coefficients	
Model	Sig.
(Constant)	1.000
Human Development Index (HDI)	1.000
Open Unemployment Rate	1.000

Source: Processed Data

Based on Table 4, it can be concluded that the significance value obtained is $1.000 > 0.05$, which means that there is no heteroscedasticity.

Test Autokorelasi

Table 5. Uji Autokorelasi (Test DW)

Runs Test	
	Unstandardized Residual
Test Value ^a	-.27049
Cases < Test Value	10
Cases ≥ Test Value	10
Total Cases	20
Number of Runs	8
Z	-1.149
Asymp. Sig. (2-tailed)	.251
a. Median	

Source: Processed Data

Based on Table 5, it can be explained that the asymp sig (2 tailed) value obtained is $0.251 > 0.05$, which means that the residual data occurs randomly or it can be concluded that there is no autocorrelation problem.

Test F

Table 6. Simultaneous Significance Test Results (F Test)

Model		F	Sig.
1	Regression	43.199	.000 ^b
	Residual		
	Total		

Source: Processed Data

Based on Table 6, it can be seen that the sig. value is $0.000 < 0.05$, so H_0 is rejected. Human Development Index (HDI) and Open Unemployment Rate simultaneously have a significant effect on the poverty rate in South Sumatra Province.

Uji t**Table 7. Partial Significance Test Results (t-Test)**

Model		t	Sig.
	(Constant)	.450	.659
1	Human Development Index (HDI)	.350	.731
	Open Unemployment Rate	8.869	.000

Source: Processed Data

Based on Table 7, it can be seen that the sig value of IPM is $0.731 > 0.05$, so H_0 is accepted, meaning that Human Development Index (HDI) does not significantly affect the poverty rate in South Sumatra Province. Meanwhile, the sig value of Open Unemployment Rate is $0.000 < 0.05$, so H_0 is rejected, meaning that Open Unemployment Rate significantly affects the poverty rate in South Sumatra Province.

Koefisien Determinasi (R^2)**Table 8. Koefisien Determinasi (R^2)**

Model Summary ^b				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.914 ^a	.836	.816	1.32444

Source: Processed Data

Based on the model summary table above, the R square value of 0.836 means that the Human Development Index and Open Unemployment Rate contribute 83.6% to the Poverty Rate in South Sumatra Province, while the remaining 16.6% is influenced by other variables not examined in this study.

Interpretation of Regression Model**Table 9. Regression Model Interpretation**

Model	Unstandardized Coefficients		Standardized Coefficients
	B	Std. Error	Beta
(Constant)	4.097	9.114	
Human Development Index (HDI)	.047	.135	.036
Open Unemployment Rate	1.221	.138	.904

Source: Processed Data

Based on Table 9. Coefficients, the following equation is obtained:

$$Y = 4.097 + 0.047X_1 + 1.221X_2$$

This equation can be interpreted as follows:

The constant value of 4.097 means that if there is no Human Development Index and Open Unemployment Rate, or if these values are zero, then the Poverty Rate is equal to the constant value of 4.097.

The regression coefficient value of the Human Development Index variable is 0.047, which is positive, meaning that if the Human Development Index increases by 1 percent, the unemployment rate will also increase by 0.047 percent, assuming that other variables remain constant.

The regression coefficient value of the Open Unemployment Rate variable is 1.221, which is positive, indicating that the Open Unemployment Rate variable has a direct relationship with the Poverty Rate. This means that if the open unemployment rate increases by 1%, it will be followed by an increase in the poverty rate of 1.221%, assuming that other variables remain constant.

DISCUSSION

The regression coefficient value of the Human Development Index variable is 0.047, which is positive, meaning that if the Human Development Index increases by 1 percent, the unemployment rate will also increase by 0.047 percent, assuming that other variables remain constant. These results are inconsistent with the theory Ravi Kanbur dan Lyn Squire, (1999) according to him, health and education levels, which are indicators of the Human Development Index, can influence poverty levels by improving the quality of education and health services provided by the government so that public health can be guaranteed and school-age children can receive a good education.

This will make the community more productive, and the skills and knowledge they acquire can then be used to find employment, which will ultimately contribute to a reduction in poverty rates (Ayu Nurlita et al., 2017). It also contradicts the theory that states that when the quality of human resources in a region improves in terms of health, education, and purchasing power, it will be able to break the chain of inequality and reduce poverty levels (Mukhtar et al., 2019). The reality is different in South Sumatra province, where increasing HDI levels have not necessarily reduced poverty levels; in fact, poverty levels have increased. This is because improving the quality of human resources in terms of education, for example, will make people want to find jobs that match their qualifications, so if they cannot, they will choose to look for other jobs and will certainly have no income. The results of this study are in line with the results of previous research conducted by (Sayifullah & Gandasari, 2016). The results of that study stated that HDI had a positive and significant effect on poverty levels. The study was conducted in the regencies/cities of Banten Province from 2008 to 2012.

The regression coefficient value of the Open Unemployment Rate variable is 1.221, which is positive, indicating that the Open Unemployment Rate variable has a direct relationship with the Poverty Rate. This means that if the open unemployment rate increases by 1%, it will be followed by an increase in the poverty rate of 1.221%, assuming that other variables remain constant. These results are consistent with the theory that poverty levels are influenced by unemployment, among other factors. High unemployment has a negative impact on the economy, as it prevents people from maximizing their potential welfare (Febriani Sagala et al., 2024). There have been several previous studies with results consistent with this study, one of which is a study conducted on the effect of the open unemployment rate on the poverty rate in the five poorest provinces in Indonesia in 2020 (Suryaningtyas, 2021). In addition, a similar study was conducted in Minahasa Regency. The results of the study stated that the unemployment rate had a positive effect on the poverty variable in Minahasa Regency from 2008 to 2022. This means that an increase in unemployment resulted in an increase in poverty. This is in line with the existing theory that people's income reaches its maximum when full employment is achieved, so that if they do not work or are unemployed, their income will decrease, which will reduce their level of prosperity and lead to poor social welfare (Supir et al., 2023).

CONCLUSION

Based on the results of the study, it can be concluded that the Human Development Index (HDI) has no significant effect on the poverty rate in South Sumatra Province, while the Open Unemployment Rate (OUR) has a significant effect on the poverty rate in the province. Simultaneously, the HDI and OUR have a significant impact on poverty levels in South Sumatra Province, with the contribution of both variables in explaining variations in poverty levels reaching 83.6%.

SUGGESTION

Based on the results of this study, researchers suggest that the government improve the quality of human resources by making the Human Development Index (HDI) one of the main indicators, so that it can contribute to reducing poverty levels. In addition, in an effort to reduce poverty levels, the government should expand employment opportunities, which will have an impact on reducing unemployment, thereby directly reducing poverty rates. For future researchers, it is recommended to explore other factors that influence poverty levels in greater depth so that the results can serve as a reference for the government in making decisions and formulating targeted policies.

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