International Journal of Business and Applied Economics (IJBAE)
Vol. 4, No. 3, 2025: 993-1008

Analysis of the Influence of Education Level, Economic Growth, and Labor Force Participation Rate on Poverty Levels in Jember Regency and Probolinggo Regency

Olga Fatmah Rahmawati[1], Niniek Imaningsih[2*]
Universitas Pembangunan Nasional "Veteran" Jawa Timur
Corresponding Author: Niniek Imaningsih niniekimaningsih@gmail.com

A R T I C L E I N F O

Keywords: Poverty Rate, Education Level, Economic Growth, Labor Force Participation Rate, Jember Regency

Received : 30, March
Revised : 12, April
Accepted: 14, May

A B S T R A C T

This study aims to analyze the effect of education level, economic growth, and labor force participation rate on the poverty rate in Jember Regency and Probolinggo Regency. Using a quantitative approach and multiple linear regression analysis with secondary data for the period 2011-2023, the results show that only the level of education has a negative and significant effect on poverty in both Jember and Probolinggo. Meanwhile, economic growth and the labor force participation rate have no effect on the poverty rate in both Regency Jember and Probolinggo Regency. This finding emphasizes the importance of improving access to and quality of education as the main strategy for poverty alleviation. On the other hand, the distribution of the results of economic growth and labor quality needs to be improved so that the impact is more equitable.

DOI: https://doi.org/10.55927/ijbae.v4i3.91
ISSN-E: 2963-6124
https://nblformosapublisher.org/index.php/ijbae

INTRODUCTION

Economic development is a continuous process to improve the welfare of society which is closely related to economic growth. Its success is determined by the quality of human resources through education and labor force participation, which play a role in driving productivity, economic growth and equitable development. However, a major challenge faced by developing countries, including Indonesia, is the high level of poverty that limits people's ability to meet basic needs (Rasyida, 2021).

Poverty is a condition when individuals or groups are unable to fulfill basic needs such as food, shelter, and education (H. F. Sari et al., 2024). The high poverty rate in various regions, mainly due to limited access to education, decent work, infrastructure, and public services, has an impact on the low income and welfare of the community(Suripto & Subayil, 2020). This hampers economic development, which aims to create a prosperous and competitive society (Fandi & Yudha, 2024).

In East Java Province, poverty is still a serious problem with a poverty rate above the national average (BPS, 2023). Despite having significant economic potential, this region, especially the Horseshoe Area such as Jember Regency and Probolinggo Regency, still shows a high level of poverty. Dependence on the agricultural and plantation sectors characterizes this region, with most of the population depending on these sectors as the main source of income (Ashari & Athoillah, 2023).

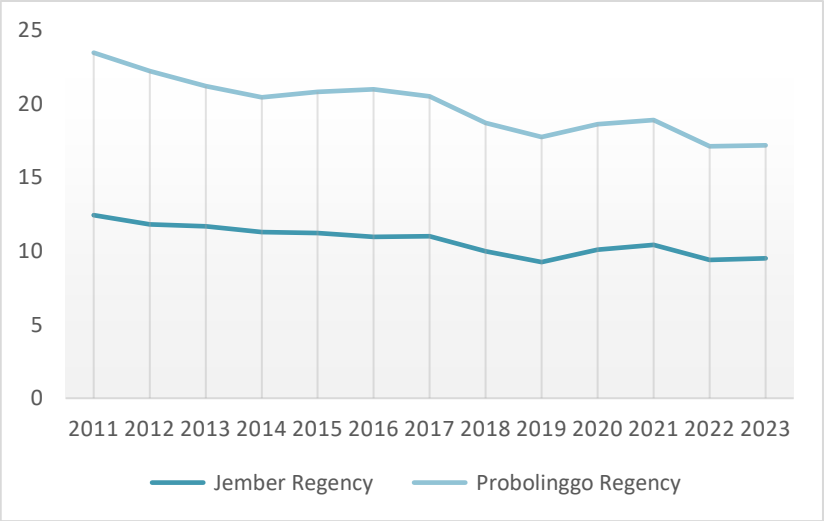

Figure 1. Graph of Poverty Levels in Jember Regency and Probolinggo Regency 2011-2023 (percent)

Based on Figure 1 above, the poverty rates in Jember Regency and Probolinggo Regency during 2011-2023 show a striking difference. Jember Regency tends to have a lower and more stable poverty rate, although it has experienced slight fluctuations, with the poverty rate remaining in the range of 9- 10% until 2023. In contrast, Probolinggo Regency recorded. Despite a gradual decline each year, the poverty rate in Probolinggo remains above 17% in 2023, indicating that the region still faces more serious poverty challenges than Jember.

Poverty is closely related to education levels, where low education limits access to decent work. In Jember Regency and Probolinggo Regency, the average years of schooling shows an increasing trend, reflecting efforts to improve access to and quality of education. In Jember, this development was driven by improvements in education facilities and programs, despite the slowdown caused by the pandemic. In Probolinggo, education improvement was strengthened by the compulsory education program and the expansion of access to remote areas. Although the pandemic was a challenge, both were able to adapt through online learning and recovery programs to catch up with learning.

The level of education plays an important role in driving economic growth by improving skills and labor productivity. Quality and inclusive economic growth also depends on the contribution of the education sector. In Jember and Probolinggo Regency, economic growth trends show fluctuating dynamics. Both recorded an increase, but experienced a sharp decline during the pandemic, mainly due to the disruption of the trade and services sectors. This condition shows the importance of the resilience of the education sector, the economy and the quality of the workforce in facing the crisis and in promoting long-term development.

Labor Force Participation Rate (TPAK) has an effect on poverty, if accompanied by the availability of decent work, a high TPAK can reduce poverty. However, if employment is limited, it can worsen the condition. In Jember Regency and Probolinggo Regency, TPAK shows fluctuations from year to year. Jember tends to have a lower TPAK despite a higher level of education, while Probolinggo records a higher TPAK despite a lower level of education.

Based on this background, the poverty rate is influenced by factors such as education, economic growth, and labor force participation. Knowing their influence in Jember Regency and Probolinggo Regency is important to prevent an increase in poverty in the future. Therefore, this study is entitled "Analysis of the Influence of Education Level, Economic Growth, and Labor Force Participation Rate in Jember Regency and Probolinggo Regency."

LITERATURE REVIEW

The Vicious Circle Theory of Poverty

According to Ragnar Nurkse, poverty is a series of interrelated factors, forming a vicious circle that keeps an area stuck in a poor condition and difficult to develop. This means that poverty is not only the result of lack of development in the past, but also an obstacle to development in the future (C. F. Sari & Huda, 2023).

Human Capital Theory

According to Becker 1954, education plays an important role in reducing poverty and promoting economic growth. The higher a person's level of education, the greater their chances of receiving higher wages and avoiding poverty (Faritz & Soejoto, 2020).

Neo-Classical Growth Theory

Neo-classical growth theory developed since the 1950s highlights that economic growth is determined by technological progress and the availability of production factors. Under these assumptions, the economy is projected to achieve full employment and optimal capital utilization in a sustainable manner (Gripsi et al., 2024).

Neo-Classical Economic Theory

In Neo-Classical economic theory, human resources are viewed as individuals who are free to make the decision to work. Labor supply reflects the amount of labor available at various wage levels in a certain period. Wage increases tend to increase labor supply, because individuals try to maximize satisfaction which is closely related to the income earned (Nainggolan et al., 2021).

Research by (Eka Fatimah et al., 2024), regarding the effect of unemployment, education and population growth on poverty in Lampung Province for the period 2013-2022 shows that the level of education has a negative and significant effect on poverty. In addition, research (Ariyanti, 2024), on the effect of Labor Force Participation Rate (TPAK) and open unemployment on poverty in North Aceh Regency for the period 2017-2022 shows that TPAK has a significant effect on poverty.

Based on the background, literature review and previous research, a hypothesis is formulated as a temporary answer that still requires empirical evidence,

H1; It is suspected that the level of education affects the poverty rate in Jember Regency and Probolinggo Regency.

H2 : It is suspected that economic growth affects the poverty rate in Jember Regency and Probolinggo Regency.

H3 : It is suspected that the labor force participation rate (TPAK) affects the poverty rate in Jember Regency and Probolinggo Regency.

From the hypothesis above, the following framework is prepared:

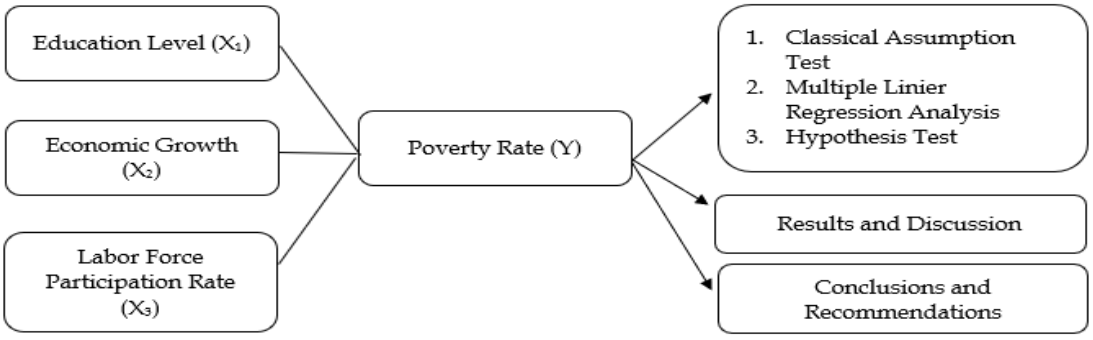

Figure 2. Thinking Framework

METHODOLOGY

According to (Sugiyono, 2018), a quantitative approach is a research method that relies on numerical data and statistical analysis with certain formulas to examine the relationship between variables in a population.

This research uses a descriptive quantitative approach with secondary data including the poverty rate as the dependent variable, then the education level, economic growth, and labor force participation rate as independent variables. The data in this study comes from the publication of the Central Bureau of Statistics (BPS) of East Java Province, Jember Regency, and Probolinggo Regency for the period 2011-2023.

This study uses multiple linear regression analysis as an analytical tool, as well as partial, simultaneous hypothesis testing and the coefficient of determination. Before the analysis is carried out, the data must be tested through the classical assumption test. The classical assumption test is carried out to ensure that the regression model produces valid and reliable estimates, and detects potential problems such as normality, multicollinearity, heteroscedasticity and autocorrelation.

According to (Ghozali, 2020), multiple linear regression analysis is used to measure the effect of more than one independent variable on the dependent variable, either simultaneously or partially. The multiple linear regression model is summarized as follows:

$$\boldsymbol{\gamma = \alpha + \beta 1 \chi 1 + \beta 2 \chi 2 + \beta 3 \chi 3 + \varepsilon}$$

Caption:

γ = Poverty Rate
χ1 = Education Level
χ2 = Economic Growth
χ3 = Labor Force Participation Rate
α = Constant
ε = Standard Error

The application of multiple linear regression requires a classical assumption test, which includes the absence of multicollinearity, heteroscedasticity and autocorrelation.

RESEARCH RESULT

Classical Assumption Test

Normality Test

The normality test is used to determine whether the sample data is normally distributed. In this study, the test was carried out using the one sample Kolmogorov-Smirnov method (Sholikah et al., 2021).

Table 1. Jember Regency Normality Test Results

	Kolmogorov-Smirnov		
	Unstandartdized Residual	Terms	Conclusion
Asymp. Sig. (2-tailed)	.167[c]	>0,05	Data Normally Distributed

Source: Author, 2025 (SPSS 25 processed)

The Kolmogorov-Smirnov normality test results for Jember Regency show an Asymp. Sig (2-tailed) of 0.167, so the regression model in Jember Regency is declared normally distributed.

Table 2. Normality Test Results of Probolinggo Regency
Kolmogorov-Smirnov m dm

	Unstandartdized Residual	Terms	Conclusion
Asymp. Sig. (2-tailed)	.200[c.d]	>0,05	Data Normally Distributed

Source: Author, 2025 (SPSS 25 processed)

The Kolmogorov-Smirnov normality test results in Probolinggo Regency show an Asymp. Sig (2-tailed) of 0.200, so the regression model in Probolinggo Regency is declared normally distributed.

Multicollinearity Test

The multicollinearity test aims to identify a very high relationship between independent variables in the regression model, which should not be strongly correlated. The analysis is carried out by looking at the Tolerance and Variance Inflation Factor (VIF) values as indicators. The test results are presented as follows:

Table 3. Multicollinearity Test Results Jember Regency

Variables	Tolerance	Terms	VIF	Terms	Description
Education Level	.296	>10	3.381	<10	Not Occurring Multicollinearity
Economic Growth	.661	>10	1.514	<10	Not Occurring Multicollinearity
Participation Level Labor Force	.387	>10	2.586	<10	Not Occurring Multicollinearity

Source: Author, 2025 (SPSS 25 processed)

The multicollinearity test results in Jember Regency show that all independent variables have a tolerance value >0.10 and VIF <10. This means that the regression model in Jember Regency does not experience symptoms of multicollinearity.

Table 4. Multicollinearity Test Results Probolinggo Regency

Variables	Tolerance	Terms	VIF	Terms	Description
Education Level	.621	>10	1.611	<10	Not Occurring Multicollinearity
Growth Economy	.647	>10	1.546	<10	Not Occurring Multicollinearity
Participation Level Labor Force	.896	>10	1.116	<10	Not Occurring Multicollinearity

Source: Author, 2025 (SPSS 25 processed)

The multicollinearity test results in Probolinggo Regency show that all independent variables have a Tolerance value> 0.10 and VIF <10. Thus, the regression model does not experience symptoms of multicollinearity.

Heteroscedasticity Test

The heteroscedasticity test aims to test whether there is inequality in the variance and residuals of the regression model. This inequality can affect the accuracy of the model estimation. In this study, the Glejser test was used, namely by regressing the absolute value of the residuals on the independent variables. The test results are as follows:

Table 5. Heteroscedasticity Test Results Jember Regency

Variables	Sig.	Terms	Conclusion
Education Level	.146	>0,05	Not Occurring Heteroscedasticity
Growth Economy	.272	>0,05	Not Occurring Heteroscedasticity
Participation Level Labor Force	.515	>0,05	Not Occurring Heteroscedasticity

Source: Author, 2025 (SPSS 25 processed)

The results of the heteroscedasticity test in Jember Regency show that the three variables have a probability value of Sig>0.05. Therefore, it can be concluded that the regression model in the study in Jember Regency does not experience heteroscedasticity.

Table 6: Heteroscedasticity Test Results of Probolinggo Regency

Variables	Sig.	Terms	Conclusion
Education Level	.938	>0,05	Not Occurring Heteroscedasticity
Growth Economy	.496	>0,05	Not Occurring Heteroscedasticity
Participation Level Labor Force	.477	>0,05	Not Occurring Heteroscedasticity

Source: Author, 2025 (SPSS 25 processed)

The results of the heteroscedasticity test in Probolinggo Regency show that the three variables have a probability value of Sig>0.05. Thus, it can be concluded that the regression model in Probolinggo Regency does not experience heteroscedasticity.

Autocorrelation Test

The autocorrelation test measures the correlation between time series data elements at different points in time, which can occur because successive observations are interconnected (Ghozali, 2020). To detect autocorrelation, the Durbin-Watson value is used, which serves to determine whether autocorrelation exists in the regression model. The test results are as follows:

Table 7. Autocorrelation Test Results for Jember Regency

R	R Square	Df1	Df2	Sig F. Change	Durbin Watson
.898[a]	.807	3	9	.001	1.579

Source: Author, 2025 (SPSS 25 processed)

The autocorrelation test results for Jember Regency show a Durbin-Watson value of 1.579. To interpret these results, the Durbin-Watson value is compared to dU and dL, which are determined based on the number of samples (n) and independent variables (k). In this study, the number of samples is 13 with 3 independent variables, so dU = 1.815 and dL = 0.714 are obtained. Because the Durbin-Watson value in Jember Regency is within the uncertainty area, an additional test is needed to confirm the presence of autocorrelation, so the Run Test is conducted as a supporting method.

Table 8. Run Test Results for Jember Regency

Test Valuea	.07405
Cases< Test Value	6
Cases>= Test Value	7
Total Cases	13
Number of Runs	6
Z	-.561
Asymp. Sig. (2-tailed)	.575

Source: Author, 2025 (SPSS 25 processed)

The Run Test results of Jember Regency show an Asymp. sig (2- tailed) value of 0.575 (>0.05), which means the model is free from autocorrelation.

Table 9. Autocorrelation Test Results of Probolinggo Regency

R	R Square	Df1	Df2	Sig F. Change	Durbin Watson
.899[a]	.809	3	9	.001	1.641

Source: Author, 2025 (SPSS 25 processed)

The results of the autocorrelation test for Probolinggo Regency show a Durbin-Watson value of 1.641. This value is compared with dU = 1.815 and dL= 0.714, based on the number of samples (n)= 13 and independent variables (k)= 3. From this comparison, the Durbin-Watson value of Probolinggo Regency is at area of uncertainty, so additional tests are required. Therefore, a Run Test was conducted as support. The results are presented below:

Table 10. Run Test Results of Probolinggo Regency

Test Value	.31545
Cases< Test Value	6
Cases>= Test Value	7
Total Cases	13
Number of Runs	9
Z	.606
Asymp. Sig. (2-tailed)	.545

Source: Author, 2025 (SPSS 25 processed)

The results of the autocorrelation test using the Run Test method in Probolinggo Regency show an Asymp. Sig (2-tailed) of 0.545 (>0.05), so it can be concluded that the model is free from autocorrelation.

Multiple Linear Regression Analysis

Multiple linear regression analysis was used to determine the level of education, economic growth, and labor participation rate on the poverty rate. The analysis results in the following multiple regression equation:

Table 11. Multiple Linear Regression Analysis of Jember Regency

	Unstandardized Coefficients	
	B	Sig
(constant)	22.876	.000
Education Level	-3.246	.001
Economic Growth	-.117	.163
Participation Level Labor Force	.118	.247

Source: Author, 2025 (SPSS 25 processed)

The results of multiple linear regression analysis resulted in the equation:

$$\gamma = 22.876 - 3.246\chi1 - 0.117\chi2 + 0.118\ \chi3$$

Caption:

β0 (22.876) : The constant value, indicating that if X1, X2, X3 are constant, then the poverty rate (Y) in Jember Regency is 22.876%.

β1 (-3,246) : The education level (X1) negatively affects the poverty rate in Jember Regency. Every 1% increase in X1 decreases Y by 3.246%.

β2 (-0.117) : Economic Growth (X2) of Jember Regency also has a negative impact. A 1% increase in X2 decreases Y by 0.117%.

β3 (0.118) : The labor force participation rate (X3) of Jember Regency has a positive effect. A 1% increase in X3 increases Y by 0.118%.

Table 12. Multiple Linear Regression Analysis of Probolinggo Regency

	Unstandardized Coefficients	
	B	Sig
(constant)	47.758	.003
Education Level	-5.266	.001
Economic Growth	-.111	.538
Participation Level Labor Force	.040	.734

Source: Author, 2025 (SPSS 25 processed)

The results of multiple linear regression analysis resulted in the equation:

$$\gamma = 47.758 - 5.266\chi1 - 0.111\chi2 + 0.040\ \chi3$$

Caption :

β0 (47,758) : If X1, X2, X3 are constant, then the poverty rate (Y) in Kabupaten Probolinggo is 47.758%.

β1 (-5.266) : The education level (X1) negatively affects the poverty rate in Probolinggo Regency. Every 1% increase in X1 decreases Y by 5.266%.

β2 (-0.111) : Economic growth (X2) of Probolinggo Regency also has a negative impact. A 1% increase in X2 decreases Y by 0.111%.

β3 (0.040) : The labor force participation rate (X3) of Probolinggo Regency has a positive effect. A 1% increase in X3 increases Y by 0.040%.

Hypothesis Test

F test (simultaneous)

The F test is used to determine whether the independent variable simultaneously affects the dependent variable. The test results are as follows:

Table 13. F-test results of Jember Regency

Model	Fcount	Ftable	Terms	Sig.	Terms	Description
	12.520	3,863	Fcount> Ftable	.001[b]	<0,05	There is an Influence

Source: Author, 2025 (SPSS 25 processed)

The results of the F (simultaneous) test in Jember Regency show a calculated F value of 12.520 with a significance of 0.001. Because Fcount > Ftable (12.520 > 3.863), H0 is rejected and H1 is accepted. This means that simultaneously, the level of education, economic growth, and labor force participation rate have a significant effect on the poverty rate in Jember Regency.

Table 14. F-test results of Probolinggo Regency

Model	Fcount	Ftable	Terms	Sig.	Terms	Description
	12.672	3,863	Fcount> Ftable	.001b	<0,05	There is an Influence

Source: Author, 2025 (SPSS 25 processed)

The results of the F (simultaneous) test for Probolinggo Regency show an F count of 12.672 with a significance of 0.001. Because Fcount> Ftable (12.672> 3.863), then H0 is rejected and H1 is accepted. This means that simultaneously, the level of education, economic growth, and labor force participation rate have a significant effect on the level of poverty in Probolinggo Regency.

t test (partial)

The t-test is used to measure the significant effect of each independent variable of education level (X1), economic growth (X2), and labor force participation rate (X3) on the dependent variable of poverty level (Y) partially. The test results are as follows:

Table 15. Jember Regency t-test results

Variables	thitung	ttable	Sig
Education Level	-4.568	2,262	.001

Growth Economy	-1.518	2,262	.163
Participation Level Labor Force	1.238	2,262	.247

Source: Author, 2025 (SPSS 25 processed)

-Education Level (X1)
tcount (-4.568) > ttable (-2.262) and significance 0.001 < 0.05. This means that the level of education has a negative and significant effect on the poverty rate in Jember Regency.
-Economic Growth (X2)
tcount (-1.518) < ttable (-2.262) and significance 0.163 > 0.05. This means that there is no significant effect on the poverty rate in Jember Regency.
-Labor Force Participation Rate (X3)
tcount (1.238) < ttable (2.262) and a significance of 0.247 > 0.05. This means that there is no significant effect on the poverty rate in Jember Regency.

Table 16. Probolinggo Regency t-test results

Variables	thitung	ttable	Sig
Education Level	-5.101	2.262	.001
Growth Economy	-.641	2.262	.538
Participation Level Labor Force	.351	2.262	.734

Source: Author, 2025 (SPSS 25 processed)

-Education Level (X1)
tcount (-5.101) > ttable (-2.262) and significance 0.001 < 0.05. This means that the level of education has a significant effect on the poverty rate in Probolinggo Regency.
-Economic Growth (X2)
tcount (-0.641) < ttable (-2.262) and significance 0.538 > 0.05. This means that there is no significant effect on the poverty rate in Probolinggo Regency.
-Labor Force Participation Rate (X3)
tcount (0.351) < ttable (2.262) and a significance of 0.734 > 0.05. This means that there is no significant effect on the poverty rate in Probolinggo Regency.

Coefficient of Determination (R2)

The coefficient of determination (R2) is used to assess how well the regression model explains the variation in the dependent variable (Y) based on the independent variable (X). the R2 value shows how close the estimated regression line is to the actual data. The test results are as follows:

Table 17. Results of the Coefficient of Determination for Jember Regency

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
	.898[a]	.807	.742	.51186

Source: Author, 2025 (SPSS 25 processed)

The result of the R-Square value of Jember Regency of 0.807 shows that the variables of education level (X1), economic growth (X2), and labor force participation rate (X3) are able to explain 80.7% of the variation in the poverty rate (Y), while the remaining 19.3% is influenced by other factors outside the model.

Table 18. Results of the Coefficient of Determination of Probolinggo Regency

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
	.899[a]	.809	.745	.99209

Source: Author, 2025 (SPSS 25 processed)

The result of the R2 value of Probolinggo Regency of 0.809 shows that the variables of education level (X1), economic growth (X2), and labor force participation rate (X3) explain 80.9% of the variation in poverty level (Y), while 19.1% is influenced by other factors outside the model.

DISCUSSION

The Effect of Education Level on Poverty Levels in Jember and Probolinggo Regency

Education is a key element in human resource development because it equips individuals with the knowledge and skills needed to improve their quality of life. Based on the average years of schooling in Jember Regency and Probolinggo Regency, analysis shows that the education level variable partially has a negative and significant effect on the poverty rate in these two Regency. This means that the higher the education level, the lower the poverty rate. This finding is in line with Becker's Human Capital theory, which states that education plays an important role in reducing poverty and promoting economic growth. Individuals with higher education tend to have greater access to jobs with decent income, which supports the fulfillment of life's needs and lowers the risk of poverty.

However, there are differences in impact between the two regions. In Jember Regency, access to education is relatively better than in Probolinggo Regency. This is reflected in the higher average length of schooling, the existence of further education institutions, adequate education facilities, as well as the higher average length of schooling. various educational assistance programs such as scholarships for the underprivileged. These conditions provide greater opportunities for residents of Jember Regency to work in the formal sector with stable incomes, thus contributing significantly to the reduction in the poverty rate.

In contrast, in Probolinggo Regency, access to education, especially in rural areas, still faces various obstacles. Limited education infrastructure and unfavorable economic conditions are the main factors for low participation in education at higher levels. As a result, many residents choose to work directly in the informal sector after completing primary or secondary education, which generally offers lower income. This causes the contribution of education to poverty reduction in Probolinggo Regency to be less than in Jember Regency.

This finding is consistent with the results of previous research by (Chairunnisa & Qintharah, 2022), in a study entitled "The Effect of Health, Education Level and Minimum Wage on Poverty Level in West Java Province in 2019-2020", which states that education has a negative and significant effect on poverty.

The Effect of Economic Growth on Poverty Levels in Jember and Probolinggo Regency

Economic growth is often considered the main factor in reducing the poverty rate, as reflected in the macroeconomic indicators in Jember Regency and Probolinggo Regency. However, the results show that economic growth has no significant effect on the poverty rate in these two Regency. This finding is not in line with the Neo-Classical theory which states that economic growth can create jobs, increase income, and ultimately reduce poverty. According to this theory, increases in productivity and investment should provide direct benefits through the creation of more jobs. However, in reality, economic growth in these two regions has not been evenly distributed, especially to low-income groups.

The difference in economic structure between Jember Regency and Probolinggo Regency also affects the relationship between economic growth and poverty. Kabupaten Jember has more diverse economic sectors such as industry, trade, and services. However, many of its residents choose to continue their education to a higher level before entering the labor market, which causes a slowdown in labor absorption and has an indirect impact on poverty reduction.

On the other hand, Probolinggo Regency is still dependent on the agriculture and fisheries sectors, which are seasonal and less stable. This dependency means that economic growth does not directly reduce the poverty rate because the jobs available are irregular and low-paid. Thus, despite economic growth, its contribution to lifting people out of poverty is still limited. These results are in line with research (Sholikah et al., 2021), in the study "Analysis of the Effect of Economic Growth, Population, Education and Unemployment on Poverty Levels in Tuban Regency", which found that economic growth has no significant impact on poverty reduction. The benefits of economic growth tend to be enjoyed by the upper middle class, while the poor do not feel the direct impact. This inequality hinders the effectiveness of economic growth in reducing poverty.

The Effect of Labor Force Participation Rate on Poverty Levels in Jember and Probolinggo Regency

The Labor Force Participation Rate (TPAK) is an important indicator in analyzing labor market dynamics and its relationship with the poverty rate. However, the results show that the TPAK has no significant effect on the poverty rate in Jember Regency and Probolinggo Regency. This finding is not in line with the Neo-Classical theory which states that an increase in labor force participation will encourage more individuals to earn a decent income, thereby reducing the poverty rate. In the context of these two regions, an increase in the number of workers entering the labor market is not always followed by a decrease in poverty.

Differences in labor market characteristics in each regency also influence this relationship. In Jember Regency, the education level of the community is relatively higher, which encourages the preference of individuals to continue their education before working. This results in a lower labor force participation rate, but the quality of labor entering the market tends to be higher and absorbed in the formal sector with a more stable income. This condition has a positive impact on poverty reduction even though participation is not quantitatively high.

In contrast, Probolinggo Regency has a higher labor force participation rate, but the majority of the population works in informal sectors such as agriculture and fisheries, which are seasonal and have low productivity. This condition causes an increase in labor force participation to be unable to effectively reduce poverty, because the income earned is still below the welfare standard.

These results are consistent with research (Rahmadhani & Wijaya, 2024) in "Analysis of the Effect of Life Expectancy, Open Unemployment Rate, Labor Force Participation Rate and Economic Growth on Poverty Level in East Java Province", which concluded that TPAK has no significant impact on poverty. These findings highlight the suboptimal absorption of labor in East Java, especially due to the low quality of human resources, which has an impact on wage levels and community welfare.

CONCLUSIONS AND RECOMMENDATIONS

Conclusion

Based on the results of the research on the effect of education level, economic growth, and labor force participation rate on the poverty rate in Jember Regency and Probolinggo Regency, the following conclusions can be drawn:

1. Education Level

In Jember Regency, education has a negative effect on the poverty rate. Better access to education, indicated by a higher average years of schooling, encourages people to work in the formal sector with a decent income, thus helping to reduce the poverty rate.

In Probolinggo Regency, the education level also has a negative effect on the poverty rate. However, the impact is more limited. The limited education infrastructure, especially in rural areas, causes a large proportion of the population to work directly in the informal sector with low incomes, which slows down poverty reduction efforts.

2. Economic Growth

In both regency, Jember and Probolinggo have no effect on the poverty rate. In Jember Regency, the growth of the trade, service, and industrial sectors needs to be able to improve welfare evenly because many people are still continuing their education, so employment is limited.

In Probolinggo Regency, dependence on the seasonal and low-wage agriculture and fisheries sectors hampers the contribution of economic growth to poverty reduction.

3. Labor Force Participation Rate

It also has no effect on the poverty rate in both Jember and Probolinggo. In Jember, the low labor force participation rate is due to the tendency of the

population to continue their education, but those who enter the labor market tend to be absorbed in the formal sector.

Meanwhile in Probolinggo Regency, although the labor force participation rate is high, the majority of the workforce is in the informal sector with unstable incomes, as well as work limitations that restrict access to decent work.

Recommendation

Based on these findings, the following are some policy recommendations that can be implemented to accelerate poverty reduction:

1. Improving access and quality of education, especially in rural areas. Local governments need to provide adequate education infrastructure and improve the competence of teaching staff to ensure graduates have skills that are relevant to the needs of the labor market.
2. Strengthening the labor market, with a focus on job creation in the formal sector. Job training and skills upgrading programs should be expanded to enable the workforce to access decent and stable jobs.
3. Differentiation of regional development strategies, Jember Regency with a more diverse economic structure, can be directed towards the development of service sectors and technology-based industries. On the other hand, Probolinggo requires an approach based on community empowerment and economic diversification to reduce dependence on the agricultural sector and increase productivity.

ADVANCED RESEARCH

For future research, it is recommended to consider additional relevant variables, and use more diverse research methods to obtain a more comprehensive understanding. Research can also be focused specifically on certain areas to get a more in-depth picture.

REFERENCES

Ariyanti, O. (2024). Pengaruh Tingkat Partisipasi Angkatan Kerja Dan Pengangguran Terbuka Terhadap Tingkat Kemiskinan di Kabupaten Aceh Utara Periode 2017-2022. Jurnal Tanbih, 1(1), 14–29. https://scholar.googleusercontent.com/scholar?q=cache:RL69BPPH06UJ:scholar.google.com/+pengaruh+tpak+terhadap+kemiskinan+&hl=id&as_sdt=0,5&scioq=pengaruh+dana+zis+terhadap+kemiskinan

Ashari, R. T., & Athoillah, M. (2023). Analisis Pengaruh Tingkat Pengangguran Terbuka, Tingkat Partisipasi Angkatan Kerja, Upah Minimum, Indeks Pembangunan Manusia, Pertumbuhan Ekonomi Dan Jumlah Penduduk Terhadap Kemiskinan Di Kawasan Tapal Kuda. Journal of Development Economic and Social Studies, 2(2), 313–326. https://doi.org/10.21776/jdess.2023.02.2.08

BPS. (2023). Presentase Penduduk Miskin Menurut Kab/Kota.

Chairunnisa, N. M., & Qintharah, Y. N. (2022). Pengaruh Kesehatan, Tingkat Pendidikan, dan Upah Minimum terhadap Kemiskinan pada Provinsi Jawa Barat Tahun 2019-2020. Jurnal Penelitian Teori & Terapan Akuntansi (PETA), 7(1), 147–161. https://doi.org/10.51289/peta.v7i1.530

Eka Fatimah … Muhammad Kurniawan. (2024). Pengaruh Tingkat Pengangguran, Tingkat Pendidikan Dan Laju Pertumbuhan Penduduk Terhadap Tingkat Kemiskinan Penduduk Provinsi Lampung Tahun 2013-2022. MUQADDIMAH: Jurnal Ekonomi, Manajemen, Akuntansi Dan Bisnis, 2(3), 122–131. https://doi.org/10.59246/muqaddimah.v2i3.916

Fandi, G., & Yudha, I. (2024). Korelasi Pertumbuhan Ekonomi, Tingkat Pendidikan, Tingkat Pengangguran dan Pengeluaran Pemerintah Terhadap Tingkat Kemiskinan Kabupaten/Kota di Provinsi Bal. 10(10), 329–336.

Faritz, M. N., & Soejoto, A. (2020). Pengaruh Pertumbuhan Ekonomi Dan Rata-Rata Lama Sekolah Terhadap Kemiskinan Di Provinsi Jawa Tengah. Jurnal Pendidikan Ekonomi (JUPE), 8(1), 15–21. https://doi.org/10.26740/jupe.v8n1.p15-21

Ghozali, I. (2020). Aplikasi Analisis Multivariate dengan Program IBM SPSS 21.

Gripsi, M. … Desmawan, D. (2024). Analisis Pengaruh Pertumbuhan Penduduk dan Tingkat Pengangguran TerhadapKemiskinan di Provinsi Lampung Tahun 2014-202. INFORMATIKA: Fakultas Sains Dan Tegnologi Universitas Labuhan Batu, 12(2), 272–279.

Nainggolan, L. … Damanik, D. (2021). Ekonomi Sumber Daya Manusia. https://kitamenulis.id/2021/05/10/ekonomi-sumber-daya-manusia/

Rahmadhani, G. N., & Wijaya, R. S. (2024). Analisis pengaruh angka harapan hidup, tingkat pengangguran terbuka, tingkat partisipasi angkatan kerja, dan pertumbuhan ekonomi terhadap tingkat kemiskinan di provinsi jawa timur. 7(6), 21–37.

Rasyida, N. U. (2021). Kajian Hubungan Antara Pertumbuhan Ekonomi dan Pengangguran di Indonesia periode 1990-2019 (Aplikasi Hukum Okun). Jurnal Ilmiah Mahasiswa FEB, 9(2), 2–13.

Sari, C. F., & Huda, S. (2023). Analisis Pengaruh Jumlah Penduduk, Tingkat Pengangguran dan Pertumbuhan Ekonomi terhadap Tingkat Kemiskinan di Kabupaten Malang. Al-Buhuts Jurnal Ekonomi Islam, 19(1), 479–490.

Sari, H. F. … Safitri, Y. (2024). Pengaruh Pendidikan, Pengangguran dan Pertumbuhan Ekonomi Terhadap Tingkat Kemiskinan di Provinsi Jambi Tahun 2018-2022. Jurnal Pendidikan Tambusai, 8, 11715–11723. https://www.jptam.org/index.php/jptam/article/view/14102%0Ahttps://www.jptam.org/index.php/jptam/article/download/14102/10884

Sholikah, M. … Wijaya, R. S. (2021). Analisis Pengaruh Pertumbuhan Ekonomi, Jumlah Penduduk, Pendidikan dan Pengangguran Terhadap Tingkat Kemiskinan di Kabupaten Tuban. Jurnal Syntax Admiration, 2(7), 1294–1306. https://doi.org/10.46799/jhs.v2i7.275

Sugiyono. (2018). Metode Penelitian Kuantitatif.

Suripto, & Subayil, L. (2020). Pengaruh Tingkat Pendidikan, Pengguran, Pertumbuhan Rkonomi dan Indeks Pembangunan Manusia Terhadap Tingkat Kemiskinan di D.I. Yogyakarta Periode 210-2017. Jurnal Manajemen Dan Bisnis (Almana), 2.