JIET (Jurnal Ilmu Ekonomi Terapan)
https://e-journal.unair.ac.id/JIET/index

THE EFFECT OF ECONOMIC GROWTH, EDUCATION, UNEMPLOYMENT, AND HUMAN DEVELOPMENT INDEX ON POVERTY IN THE SPECIAL REGION OF YOGYAKARTA FOR PERIOD 2015-2021

Lestari Etika Suci[1]
Muhammad Isbad Addainuri*[2]
Maulana Abidin[3]

[1,2,3]Universitas Islam Negeri Sunan Kalijaga, DI Yogyakarta, Indonesia

ABSTRACT

This study aims to analyze the impact of economic growth, education, unemployment, and HDI on poverty in the Special Region of Yogyakarta (DIY) Province during 2015-2021. This study uses panel data linear regression analysis using data from five districts/cities in DIY Province. The Central Bureau of Statistics website was the source of information. The analysis techniques used include a model selection test, stationarity or unit root test, classical assumption test, panel data regression analysis, and hypothesis testing using a trial and coefficient of determination (R2) test. The research findings show that economic growth, education, and unemployment do not significantly affect poverty. In contrast, the Human Development Index shows a significant effect on poverty.

Keywords: *Economic Growth, Human Development Index, Education, Unemployment, Poverty*

ABSTRAK

Penelitian ini bertujuan untuk menganalisis dampak pertumbuhan ekonomi, pendidikan, pengangguran, dan IPM terhadap kemiskinan di Provinsi Daerah Istimewa Yogyakarta (DIY) selama periode 2015-2021. Penelitian ini menggunakan analisis regresi linier data panel dengan menggunakan data dari lima kabupaten/kota di Provinsi DIY. Situs web Badan Pusat Statistik menjadi sumber informasi. Teknik analisis yang digunakan meliputi uji pemilihan model, uji stasioneritas atau unit root, uji asumsi klasik, analisis regresi data panel, dan uji hipotesis dengan menggunakan uji t dan uji koefisien determinasi (R2). Temuan penelitian menunjukkan bahwa pertumbuhan ekonomi, pendidikan, dan pengangguran tidak menunjukkan pengaruh yang signifikan terhadap kemiskinan. Sebaliknya, Indeks Pembangunan Manusia menunjukkan pengaruh yang signifikan terhadap kemiskinan.

Kata Kunci: Pertumbuhan Ekonomi, Indeks Pembangunan Manusia, Pendidikan, Pengangguran, Kemiskinan

ARTICLE INFO

Received: October 28th, 2023
Revised: November 20th, 2023
Accepted: November 23th, 2023
Online: December 7th, 2023

*Correspondence:
Muhammad Isbad Addainuri

E-mail: Itsbadayenk25@gmail.com

JEL: F43; O15; E24; H75; P36

To cite this document: Suci, L. E., Addainuri, M. A., & Abidin, M. (2023). The Effect of Economic Growth, Education, Unemployment, and Human Development Index on Poverty in the Spesial Region of Yogyakarta for Period 2015-2021. *JIET (Journal Ilmu Ekonomi dan Terapan)*, 8(2), 284-296. https://doi.org/10.20473/jiet.v8.v2.51028

JIET (Jurnal Ilmu Ekonomi Terapan) p-ISSN: 2541-1470; e-ISSN: 2528-1879
DOI: 10.20473/jiet.v8.i2.51028

Introduction

Poverty is a complex problem in all regions, caused by many factors, including socio-economic, cultural, political, and other factors. In primary and secondary markets, poverty signifies that someone cannot fulfill their basic needs, such as clothing, food, and shelter. It can happen when a person's income is low, and they cannot afford to buy the things they need (Suripto & Subayil, 2020). According to Rusdarti & Sebayang (2013), poverty has four indicators: low ability, lack of security, helplessness, and lack of opportunity. Research conducted by Ridlo & Sari (2020) states that 27.77 people in the Java region experience poverty and are the most significant contributors to poverty, which reaches a value of up to 14.79 million people. According to Astuti & Lestari (2018)**,** the Special Region of Yogyakarta has the highest poverty rate and income inequality. Their study shows that the poverty rate in Yogyakarta reached 13.1%, making it the region with the highest poverty rate in Java. Yogyakarta has 474.49 thousand poor people as of September 2021, which is 11.91% of the total population in the area.

As per data from the Central Bureau of Statistics (BPS), as of March 2022, around 26.16 million individuals in Indonesia were grappling with poverty, reflecting a poverty rate of 9.54%. This number represents a 1.38 million drop since March 2021 and a decline of 0.34 million from September 2021.

Table 1: Percentage of Poor Population by District/City (%)

District/City	2015	2016	2017	2018	2019	2020	2021
D.I. Yogyakarta	14.91	13.34	13.02	12.13	11.70	12.28	12.80
Kulonprogo	**21.40**	**20.30**	**20.03**	**18.30**	**17.39**	**18.01**	**18.38**
Bantul	16.33	14.55	14.07	13.43	12.92	13.50	14.04
Gunungkidul	**21.73**	**19.34**	**18.65**	**17.12**	**16.61**	**17.07**	**17.69**
Sleman	9.46	8.21	8.13	7.65	7.41	8.12	8.64
Yogyakarta	8.75	7.70	7.64	6.98	6.84	7.27	7.64

Referring to Table 1, the Kulonprogo and Gunungkidul regions have the highest proportion of impoverished individuals, as seen from the percentage values in both regions. Although there is an overall downward trend, both regions experienced increased poverty in 2020 and 2021. Based on Malthus' theory that human needs are unlimited and not in line with the limited availability of natural resources, the inability of natural resources to meet increasing human needs makes people unable to contribute to increasingly fierce competition, thus pushing individuals closer to poverty (Lismana & Sumarsono, 2022).

The existence of individuals with limited resources and gaps in the quality of human capital are major factors in poverty. Low human capital quality results in reduced productivity, which impacts on wages received and creates inequalities in accessing capital. In addition, labor force, asset poverty, socio-political organization, knowledge, skills, and secondary elements such as inadequate social networks, capital, and information are recognized as further contributors to poverty (Ridlo & Sari, 2020).

Increasing economic growth is the government's effort to reduce poverty in cities or regencies. In this study, economic growth can be seen through Gross Regional Domestic Product (GRDP). Regions that experience higher economic growth tend to have increased welfare and income in the community. There is a strong correlation between economic growth and population, where higher economic growth is usually associated with a decrease in the number of individuals living in poverty, assuming that economic progress will benefit those living in poverty.

A region is often faced with many unemployed individuals, and the expansion of the labor force often exceeds the available employment opportunities. Unemployment has adverse consequences, including a decline in individual prosperity due to reduced income and a decline in community welfare, as the absence of income paves the way for increased poverty (Mardiyana & Ani, 2019). Resolving these factors can be done by minimizing poverty by creating more jobs, adding and expanding programs that benefit the community, and increasing the effectiveness of poverty alleviation through various policies (Giovanni, 2018). The technique that can be used to reduce poverty is the double-track strategy technique. This technique improves the mechanism and data collection system of the targeted investment (Astuti & Lestari, 2018).

Based on studies related to poverty, several factors cause people to experience poverty, namely community economic growth, education, and unemployment. So, in this study, researchers are interested in taking the title "The Effect of Economic Growth, Education, Unemployment and the Human Development Index on Poverty in the Special Region of Yogyakarta Province for the 2015-2021 Period".

Literature Review

Economic Growth

Poverty reduction in a region is closely related to economic growth, which signifies effective development and is a necessity for poverty alleviation. Poverty reduction in a region is closely related to economic growth, which signifies effective development and is a necessity for poverty alleviation. The unemployment rate in Indonesia in 2017 in the province of Java was 5.8%.

Economic growth is a quantitative indicator showing how far the economy has come in a given year relative to the previous year. The yearly percentage change in national income is a common way to measure this development. Conceptually, gross domestic product (GDP) or gross regional domestic product (GRDP) refers to national income, which is the number of goods and services generated in a nation in particular (Sukirno, 2006). There are three methods for calculating GDP: the production, income, and expenditure techniques.

Economic growth leads to heightened economic activity, contributing to an improvement in people's income. This is because economic activity involves output production, generating income for those involved. Economic growth is evidenced when the service, in the form of real income for the community in a particular year, surpasses the previous year's.

Unemployment

Losing a job can be the most challenging economic event in a person's life. Most people rely on their livelihood to maintain a standard of living. A person is called unemployed if they are not working but actively seeking work. Women who choose to be housewives, children who attend school, and university students are not classified as unemployed but belong to the non-labor force. It is important to note that individuals who choose to be homemakers, students attending school, and those pursuing higher education are not categorized as unemployed; instead, they fall under the category of non-labor force. Unemployed individuals are those who are actively seeking employment or are preparing to start a new business venture.

Individuals who have accepted a job offer but have yet to begin working or are not actively seeking employment because they find the labor market difficult are not considered

unemployed. However, a decline in unemployment can be attributed to elements like receiving a top-notch education and possessing knowledge pertinent to one's line of work.

Education

Education plays an essential role in a nation's future progress, considering that economic growth depends on the existence of educated human resources. Law of the Republic of Indonesia Number 20 of 2003 states that education is a conscious and planned effort to create a learning atmosphere and learning process so that students actively develop their potential to have intelligence, noble character, self-control, personality, and religious-spiritual strength needed by themselves, society, nation, and state.

The analysis of investment in education corresponds with the human capital perspective, which involves investing in human capital at three primary stages: childhood, adolescence, and adulthood, particularly upon entering the workforce. During childhood, the investment in human capital involves parental guidance and the impact of the child's surroundings, including the school environment. Individuals commonly invest in human capital through formal education within educational institutions in adolescence and adulthood. Upon joining the workforce, employees persist in investing in their human capital by acquiring experience, undergoing on-the-job training, developing skills, and participating in specialized programs.

Human Development Index (HDI)

The human capital advancement benchmark is the Human Development Index (HDI), a technique for evaluating the caliber of human outputs. Todaro & Smith (2013) GDP, and purchasing power parity, PPP state that the Human Development Index (HDI) evaluates human development by considering expansion, equity, and coverage in the public health, education, and welfare sectors. Lower HDI levels are linked to decreased productivity, which reduces income. The prevalence of poverty is rising as a result of the economic slump.

Prior research on related subjects has revealed that while education and unemployment have little bearing on poverty, the province's Gross Regional Domestic Product (GRDP) is associated with poverty (Fajriah, 2021; Intan et al., 2022). Giovanni, 2018; Suripto & Subayil, 2020; Rusdarti & Sebayang, 2013; Arsani et al., 2020 governments in developing countries should pay more attention to poverty, its determiners, and its impact. Based on several previous studies, there is a strong relationship between poverty, education, and health status. This study aims to scrutinize the relationship between education, health, and poverty and the way they affect each other to make the priority scale in efforts to reduce poverty. Therefore, to measure the relationship between them, monetary and non-monetary models are used. By using Two Stage Least Square (2SLS), Leonita & Sari (2019); Azriyansyah, (2022) all state that while unemployment has little bearing on poverty, the Human Development Index (HDI) and economic growth both cause poverty to rise.

Economic growth hurts poverty (Marmujiono, 2014; Sari, 2018). However, a study by Alhudhori (2017) states a positive relationship between poverty and unemployment and the Human Development Index. In contrast, economic growth (GRDP) has an insignificant positive effect, while unemployment has a sizable positive effect (Ridlo & Sari, 2020)). Real GDP per capita and education considerably impact poverty, while the open unemployment rate has no significant impact (Rahman et al., 2021; Amaluddin, 2019).

In light of these findings, the government is expected to improve and intensify various programs such as the Indonesia Smart Program (PIP), Bidikmisi, initiatives promoting inclusive

work environments, wage equality, Family Welfare Development (PKK), and the Healthy Community Movement (GERMAS). Additionally, increasing community training to foster entrepreneurial spirit, expanding small and medium enterprises, and implementing measures to alleviate poverty are crucial steps to enhance people's lives and reduce unemployment (Arsani et al., 2020) governments in developing countries should pay more attention to poverty, its determiners, and its impact. Based on several previous studies, there is a strong relationship between poverty, education, and health status. This study aims to scrutinize the relationship between education, health, and poverty and the way they affect each other to make the priority scale in efforts to reduce poverty. Therefore, to measure the relationship between them, monetary and non-monetary models are used by using Two Stage Least Square (2SLS) (Ishak, 2007).

Data and Research Methods

Quantitative techniques were used in this study. According to Imam (2011), quantitative methods are used to test specific samples and populations, collect data, and analyze data to assess predetermined hypotheses. Secondary data is used in the data collection process. This research uses a quantitative approach. Then, the data from the variables in the study were obtained from various entities, including Central Bureau of Statistics(BPS), the Ministry of Education and Culture, journals, and other supporting sources covering the period 2015 to 2021 in DIY Province. After that, Eviews 9 was used to process the data. Model selection tests, stationarity or unit root tests, classical assumption tests, panel data regression analyses, hypothesis testing with t-tests, and coefficient of determination (R2) tests are the data analysis approaches used in this study.

The following is the panel data linear regression analysis Equation:

$$POV_{it} = \beta_0 + \beta 1X1_{it} + \beta 2X2_{it} + \beta 3X3_{it} + \beta 4X4_{it} + \varepsilon \quad (1)$$

Where:

Pov	= The Poverty
$\beta 0$	= Constant
$\beta 1 \ldots \beta 4$	= Regression coefficient of independent variable
t	= Years-t
i	= Observation i
X1	= Economic growth (GRDP)
X2	= Education
X3	= Unemployment
X4	= Human resource development
ε	= Error term

Finding and Discussion

Model Selection

The model selection test results indicate that the *Fixed Effect Model* (FEM) is the most suitable model for this study, as evidenced by the probability values of both models being less than 0.05 or prob < 0.05.

Tabel 2: Result Models Selection

Model	Criteria	Prob.
Chow Test	Ho is rejected when prob < 0.05, where: - Ho is CEM - Ha is FEM	0.0000
Hausman Test	Ho is accepted when: - P-vvalue > 0.05, then the accepted model is REM Ha is accepted when: - P-value < 0.05, then the accepted model is FEM	0.0000

Stationarity Test

Table 3: Result Stationarity Test

Variable	Levels	1st deference
	Prob**	Prob**
Y	0.0040	0.8996
X1	0.0120	0.1502
X2	0.1999	0.0028
X3	0.4075	0.0030
X4	0.0000	0.6082

Table 4 shows that when the 1st deference test is used to assess the stationarity test results, the probability value is less than 0.05. However, this study's independent and dependent variables meet the stationarity requirements when evaluated using the Phillips-Perron Fisher unit root test with the 1st deference indicator, as the results are more significant than 0.05 when tested with levels.

Classical Assumption Test

Normality Test

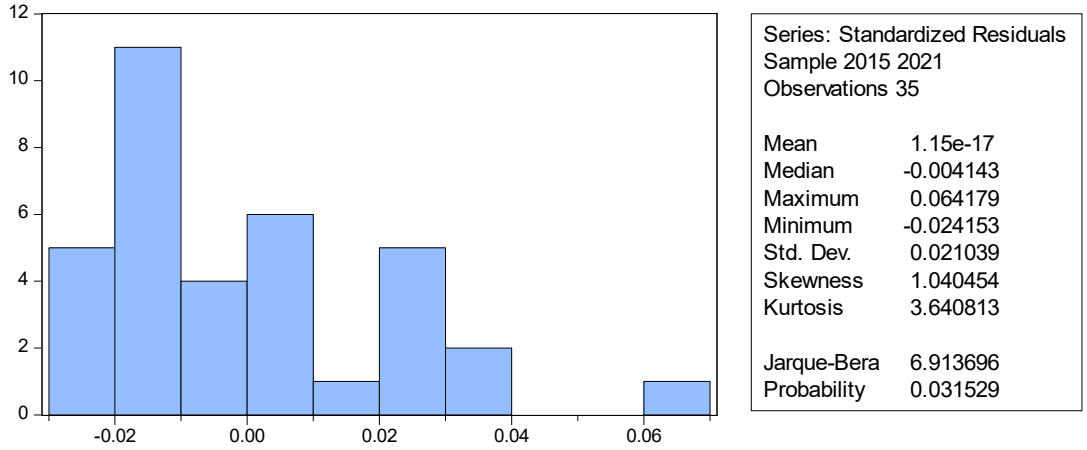

Figure 1: Result from the Normality test

When the Jarque-Bera probability value of the data is more significant than 0.05, it is regarded as regularly distributed; if it is less than 0.05, it is regarded as non-normally

distributed. According to the normality test results, the Jarque-Bera statistic was 6.913, and the probability value was 0.0315. Given that the probability value is higher than 0.05, the data is confirmed to be regularly distributed.

Mulitkolinearitas Test

Table 4: Result Multikolinearitas Test

	X1	X2	X3	X4
X1	1.000000	-0.192668	0.313994	0.635450
X2	-0.192668	1.000000	0.176984	0.044331
X3	0.313994	0.176984	1.000000	0.294868
X4	0.635450	0.044331	0.294868	1.000000

According to the assessment criteria, multicollinearity does not exist if the value is less than 0.8; conversely, symptoms of multicollinearity exist if the value is more significant than 0.8. The test results show no symptoms of multicollinearity in any of the independent variables, as they are all at values lower than 0.8.

Heteroskedastisitas Test

Table 5: Result Heteroskedastisitas Test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.793552	0.953125	-0.832579	0.4127
X1	-0.012883	0.031756	-0.405677	0.6883
X2	-0.008116	0.013035	-0.622645	0.5389
X3	0.010815	0.011893	0.909423	0.3715
X4	0.481333	0.571207	0.842660	0.4071

Based on the heteroscedasticity test, it shows that each variable has a p-value > 0.05, so the data is considered not to have Heteroscedasticity symptoms

Autocorrelation Test

Table 6: Result Autocorrelation Test

R-squared	0.994271	Mean dependent var	2.173634
Adjusted R-squared	0.992508	S.D. dependent var	0.277953
S.E. of regression	0.024059	Akaike info criterion	-4.399564
Sum squared resid	0.015050	Schwarz criterion	-3.999617
Log-likelihood	85.99236	Hannan-Quinn criterion	-4.261502
F-statistic	563.9940	Durbin-Watson stat	1.538319
Prob(F-statistic)	0.000000		

The Durbin-Watson value, derived from the Autocorrelation test results, is 1.528319. Autocorrelation issues can be identified by contrasting the Durbin-Watson value with the Durbin-Watson table. With n = 35 and k = 4, the study's dl is 1.2221, whereas the du is 1.7259. Since this number falls within the dl < d < du range, positive autocorrelation is absent.

Multiple Linear Regression Analysis

Table 7: Multiple Linear Regression Analysis Results with Fixed Effect Multiple Linear Models

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	8.204018	1.793462	4.574403	0.0001
X1_ (GRDP)	-0.033185	0.059754	-0.555366	0.5834
X2_Education	-0.009641	0.024527	-0.393060	0.6975
X3_ Unemployment	0.011182	0.022378	0.499679	0.6215
X4_IPM	-3.068771	1.074820	-2.855149	0.0083

Based on the results of multiple linear regression with the Fixed Effect model, the following equation is obtained:

$$POV_{it} = 8.204 - 0.033GRDP_{it} - 0.009Education_{it} + 0.011Unemployment_{it} - 3.0681IPM_{it} + \varepsilon$$

All economic growth factors with indicators of GRDP (X1), education (X2), unemployment (X3), and human development index (X4) have a constant value of 8.204. The coefficient value of variable X1, or GRDP, is -0.033. This indicates that assuming all other variables remain constant, a 1% increase in GRDP will lead to a 0.033 percent decrease in the poverty rate.

With other factors held constant, a one percent increase in the education variable can lead to a 0.009 percent decrease in poverty. This is indicated by the coefficient value of variable X2, education, which is -0.009. With a coefficient value of 0.011 for variable X3, or unemployment, a 1 percent increase in the education variable will lead to a 0.11 percent increase in the poverty rate, holding all other factors constant. With all other factors held constant, a 1 percent increase in the HDI variable will result in a 3.0681 percent decrease in poverty. This is the coefficient value of variable X4 or the human development index.

Hypothesis Test

Coefficient of Determination (R^2)

Table 8: Result Coefficient of Determination (R^2)

R-squared	0.994271	Mean dependent var	2.173634
Adjusted R-squared	0.992508	S.D. dependent var	0.277953
S.E. of regression	0.024059	Akaike info criterion	-4.399564
Sum squared resid	0.015050	Schwarz criterion	-3.999617
Log-likelihood	85.99236	Hannan-Quinn criterion	-4.261502
F-statistic	563.9940	Durbin-Watson stat	1.538319
Prob(F-statistic)	0.000000		

Table 9 indicates that the GRDP, education, unemployment, and HDI variables can account for 99.25 percent of the poverty rate in the Yogyakarta Special Region. This is indicated by the adjusted R-squared value of 0.992508. The remaining percentage is attributed to factors beyond the scope of this study.

T-statistic Test

Table 9 shows that only variable X4 has a significant value and a negative effect on poverty, while other variables are insignificant or p-value > 0.05.

a. The effect of economic growth on poverty

According to Table 10, the GRDP variable has a probability of 0.5834 and a t-statistic of 0.555366 < t-table of 2.04227. Because prob >0.05, the GRDP variable has no discernible impact on the poverty rate.

b. The effect of education on poverty

As per Table 10, the education variable has a t-statistic of 0.393060, less than the t-table value of 2.04227, with a probability of 0.6975. Consequently, the education variable does not significantly influence the poverty rate, given that the probability value exceeds 0.05.

c. The effect of unemployment on poverty

As shown in Table 10, the unemployment variable has a probability of 0.6215 and a t-statistic of 0.499679 < t-table, which is 2.04227. Therefore, since prob>0.05, the unemployment variable has no discernible impact on the poverty rate.

d. The effect of the human development index on poverty

Table 10 indicates that the variance of the IPM variable is 0,0083 in probability and t-statistic of -2.855149 < t-tabel, or 2.04227. Due to its probability being less than 0.05, the IPM variable significantly impacts the poverty level.

Table 9: T-Test Results

Variables	Coefisient	t-statistic	Prob.	Value Sig. < 0.05
X1_(GRDP)	-0.033185	-0.555366	0.5834	Not significant
X2_ Education	-0.009641	-0.393060	0.6975	Not significant
X3_ Unemployment	0.011182	0.499679	0.6215	Not significant
X4_IPM	-3.068771	-2.855149	0.0083	Significant

Discussion

Fixed Effect Model (FEM), which is the best model in panel data analysis. Gross Regional Domestic Product (GRDP) has a coefficient value of -0.033185 and a probability of 0.5834. Thus, it can be said that poverty in Yogyakarta Special Region Province is not significantly influenced by GRDP when viewed separately. The results of this investigation corroborate Fajriah (2021) statement that GRDP does not affect poverty. On the other hand, Didu & Fauzi (2016) education and economic growth to poverty in Lebak regency, Banten province during the period of 2003 to 2012. This research uses Ordinary Least Square (OLS stated that GRDP has a negative and significant effect on poverty, while the research of Damanik & Sidauruk (2020) indicated that GRDP has a considerable effect on poverty. Following their findings, an elevation in economic growth is linked to a reduction in the poverty rate. This emphasizes the significance of expediting economic growth to mitigate poverty. Kuznet's theory underscores a robust association between economic growth and poverty. Initially, poverty may surge due to economic expansion, but with sustained development, poverty eventually declines, as affirmed by their research outcomes.

The results of hypothesis testing indicate that the Education variable does not significantly impact the poverty rate in Yogyakarta Province. This conclusion is derived from the coefficient value of -0.009641 and the probability value of 0.6975, indicating a lack of significance (p-value > 0.05). This outcome aligns with previous research by Giovanni (2018);

Rohmah & Articles (2021); Aristina et al. (2017), all asserting that education does not significantly influence poverty. However, Arsyad (2016) opposes this viewpoint, asserting that education is crucial in alleviating persistent poverty. The assumption that education does not affect poverty in Yogyakarta Province is grounded in the possibility that government initiatives have focused on the population, training individuals in poverty to enhance their skills and productivity, thereby increasing their income. This approach is rooted in the belief that well-educated people are better equipped to improve economic well-being.

The poverty rate in Yogyakarta Province is positively, but slightly, influenced by the unemployment variable. Based on the table above, the probability value is more significant than 0.05, with a coefficient value of 0.011182 and a probability value of 0.6215. Researchers Ishak et al. (2020); Amalia (2012), observed no substantial impact on unemployment, which also aligns with this finding. The relationship between unemployment and poverty is inverse (Yacoub, 2012). It is not logical to try to reduce poverty if unemployment increases, and there will be a negative impact. Since others can fulfill the needs of the unemployed person in the family, the relationship between unemployment and poverty is more complex than previous economists assumed. Unemployed households only sometimes fall into poverty.

In Indonesia, some factors contribute to unemployment and poverty, one of which is the higher-than-average level of education seen in urban areas. People, therefore, prefer to choose unemployment over low-paying employment. Thus, it is likely that they will only search for positions that fit their preferred field and income range; they are unlikely to hunt for positions that do not fit their anticipated area and salary range (Amalia, 2012).

The hypothesis test results demonstrate that the HDI variable significantly and negatively impacts the poverty rate in DIY Province. The probability value is 0.0083, and the coefficient value is -3.068771, meaning the probability value is smaller than 0.05. Studies by Alhudhori (2017); Oktaviani & A'yun (2021) and Suripto & Subayil (2020), corroborate this finding and show that HDI has a significant effect on poverty; however, research by Leonita & Sari (2019), takes a different stance and states that HDI does not affect poverty. The findings of this study are consistent with the views of Arsyad (2016), who observed that the best way to combat poverty is through the development of human resources, as qualified human resources are more likely to find employment.

Conclusion

This study evaluates the relationship between poverty and the Human Development Index, Education, Unemployment, and Economic Growth in the Special Region of Yogyakarta for 2015–2021. Panel data regression analysis was employed as the methodology, using information from five Yogyakarta districts and cities obtained from the Central Bureau of Statistics (BPS) website. Model selection, selection for stationarity or unit root, selection for classical assumptions, panel data regression analysis, and hypothesis testing with the t-test and coefficient of determination (R2) are all steps in the analysis process. The results of this study demonstrate that poverty is not considerably impacted by unemployment, education level, or economic growth. The Human Development Index (HDI), on the other hand, significantly impacts poverty.

Government programs already in place and included in legislation that promotes poverty alleviation should be sufficient to combat poverty. These programs include social protection, access to essential services, and concern for the impoverished by forming associations or groups that offer facilities or space for those living in poverty to enhance their capacities. Another attempt may be to offer more work opportunities for those still unemployed and

scholarships to underprivileged individuals left behind in Yogyakarta province, enabling them to advance their education and create employment opportunities.

Research Limitations

This study will only discuss the effects of the economic growth, education, unemployment, and human development index on poverty in the Special Region of Yogyakarta Province during 2015-2021. It is hoped that further research can expand the range of research so that factors not included in this study can be revealed through further research.

References

Alhudhori, M. (2017). Pengaruh IPM, PDRB Dan Jumlah Pengangguran Terhadap Penduduk Miskin Di Provinsi Jambi [The Influence of HDI, GRDP and Unemployment on the Poor Population in Jambi Province]. *Ekonomis : Journal of Economics and Business*, *1*(1), 113-124. https://doi.org/10.33087/ekonomis.v1i1.12

Amalia, F. (2012). Pengaruh Pendidikan, Pengangguran Dan Inflasi Terhadap Tingkat Kemiskinan Di Kawasan Timur Indonesia (Kti) Periode 2001-2010 [The Influence of Education, Unemployment and Inflation on Poverty Levels in the Eastern Region of Indonesia (Kti) for the 2001-2010 Period]. *Jurnal Ilmiah Economsains*, *10*(2), 158–169. https://doi.org/10.21009/econosains.0102.02

Amaluddin. (2019). The Nexus Between Poverty, Education and Economic Growth in Indonesia Article Information. *Economics Development Analysis Journal*, *8*(4), 345–354. http://journal.unnes.ac.id/sju/index.php/edaj

Aristina, I., Budhi, M. K., Wirathi, I. G. A. ., & Darsana, I. B. (2017). Pengaruh Tingkat Pendidikan, Pengangguran dan Pertumbuhan Ekonomi Terhadap Kemiskinan di Provinsi Bali [The Influence of Education Level, Unemployment and Economic Growth on Poverty in Bali Province]. *E-Jurnal Ekonomi Pembangunan Universitas Udayana*, *6*(5), 677–704.

Arsani, M. A., Ario, B., & Fitra Ramadhan, A. (2020). Impact of Education on Poverty and Health : Evidence from Indonesia. *Economics Development Analysis Journal*, *9*(1), 87–96. http://journal.unnes.ac.id/sju/index.php/edaj

Arsyad, L. (2016). *Ekonomi [Economic Development]*. Yogyakarta: STIE YKPN

Astuti, M., & Lestari, I. (2018). Analisis Pengaruh Tingkat Pertumbuhan Ekonomi dan Tingkat Pengangguran Terhadap Tingkat Kemiskinan di Kabupaten/Kota Kulonprogo, Bantul, Gunung Kidul, Sleman, dan Yogyakarta [Analysis of the Effect of Economic Growth Levels and Unemployment Rates on Poverty Levels in the Districts/Cities of Kulonprogo, Bantul, Gunung Kidul, Sleman, and Yogyakarta]. *At-Tauzi: Islamic Economic Journal*, *18*(2), 149–164. http://jurnalhamfara.ac.id/index.php/attauzi/article/view/29

Azriyansyah, Z. (2022). Analisis Pengaruh IPM, PDRB, dan Pengangguran Terhadap Tingkat Kemiskinan di Indonesia Periode Tahun 2017-2021 [Analysis of the Influence of HDI, GRDP, and Unemployment on Poverty Levels in Indonesia for the 2017-2021 Period]. *Jurnal Ekonomi, Bisnis Dan Manajemen*, *1*(3), 225–238.

Choirur, R., Suratno & Kuswanto. (2021). The Effect of Education and Unemployment on Poverty in Jambi Province. *Jurnal Ekonomi Pembangunan*, *19*(01), 31–43. https://doi.org/10.22219/jep.v19i01.16817

Damanik, R. K., & Sidauruk, S. A. (2020). Pengaruh Jumlah Penduduk dan PDRB Terhadap Kemiskinan Di Provinsi Sumatera Utara [The Influence of Population and GRDP on Poverty in North Sumatra Province]. *Jurnal Darma Agung*, *28*(3), 358-368. https://doi.org/10.46930/ojsuda.v28i3.800

Didu, S., & Fauzi, F. (2016). Pengaruh Jumlah Penduduk, Pendidikan Dan Pertumbuhan Ekonomi Terhadap Kemiskinan Di Kabupaten Lebak [The Influence of Population, Education and Economic Growth on Poverty in Lebak Regency]. *Jurnal Ekonomi-Qu*, *6*(1), 102–117. https://doi.org/10.35448/jequ.v6i1.4199

Fajriah, N. A. (2021). Analysis of the Effect of Gross Regional Domestic Product, Number of Population, Regional Minimum Wage, Open Unemployment Rate, and Human Development Index on Poverty in 2010-2020 East Java Province. *Jurnal Ilmu Ekonomi Terapan*, *6*(2), 171-187. https://doi.org/10.20473/jiet.v6i2.27778

Giovanni, R. (2018). Analisis Pengaruh PDRB, Pengangguran dan Pendidikan Terhadap Tingkat Kemiskinan di Pulau Jawa Tahun 2009-2016 [Analysis of the Influence of GRDP, Unemployment and Education on Poverty Levels on Java Island 2009-2016]. *Economics Development Analysis Journal*, *7*(1), 23–31. https://doi.org/10.15294/edaj.v7i1.21922

Imam, G. (2011). *Aplikasi Analisis Multivariate Dengan Program SPSS [Multivariate Analysis Application with SPSS Program]*. Semarang: Badan Penerbitan Universitas Diponegoro.

Intan, E. M., Rahmawati, S., & Wibowo, M. G. (2022). Pengaruh Pertumbuhan Ekonomi Terhadap Tingkat Kemiskinan di Kawasan Barat Indonesia Periode 2016-2020 [The Influence of Economic Growth on Poverty Levels in the Western Region of Indonesia for the 2016-2020 Period]. *Jurnal Al-Iqtishad*, *01*(18), 65–83.

Ishak, K. (2007). Faktor-Faktor yang Mempengaruhi Pengangguran dan Inflikasinyaterhadap Indek Pembangunan Di Indonesia [Factors that Influence Unemployment and Its Inflation to Development Indexes in Indonesia]. *Iqtishaduna: Jurnal Ilmiah Ekonomi,* 7(1), 22–38.

Ishak, R. A., Zakaria, J., & Arifin, M. (2020). Pengaruh Pertumbuhan Ekonomi, Pendidikan dan Pengangguran Terhadap Tingkat Kemiskinan di Kota Makassar [The Influence of Economic Growth, Education and Unemployment on Poverty Levels in Makassar City]. *PARADOKS : Jurnal Ilmu Ekonomi*, *3*(2), 41–53. https://doi.org/10.33096/paradoks.v3i2.463

Leonita, L., & Sari, R. K. (2019). Pengaruh PDRB, Pengangguran Dan Pembangunan Manusia Terhadap Kemiskinan Di Indonesia [The Influence of GRDP, Unemployment and Human Development on Poverty in Indonesia]. *ISOQUANT : Jurnal Ekonomi, Manajemen Dan Akuntansi*, *3*(2), 1-8. https://doi.org/10.24269/iso.v3i2.252

Lismana, A. I., & Sumarsono, H. (2022). Analysis of the effect of population growth, human development index and unemployment rate on poverty in West Java Province 2017-2020. Jurnal Ekonomi Pembangunan, 20(01), 88-97. https://doi.org/10.22219/jep.v20i01.20286

Mardiyana, L. O., & Ani, H. M. (2019). The Effect of Education and Unemployment on Poverty in East Java Province, 2011-2016. *IOP Conference Series: Earth and Environmental Science*, *243*(1), 2011–2016. https://doi.org/10.1088/1755-1315/243/1/012067

Marmujiono, S. P. (2014). Analisis Faktor-Faktor Yang Mempengaruhi Tingkat Kemiskinan dan Strategi Pengentasan Kemiskinan Di Kab. Brebes Tahun 2009-2011 [Analysis of factors

influencing poverty levels and poverty alleviation strategies in Brebes Regency 2009-2011]. *Economics Development Analysis Journal*, *3*(1), 25–38. https://journal.unnes.ac.id/sju/index.php/edaj/article/download/3221/2973

Oktaviani, Y., & A'yun, I. Q. (2021). Analysis of the Effect of Unemployment Rate, RMW, and HDI on Poverty Rates in the Special Region of Yogyakarta. *Journal of Economics Research and Social Sciences*, *5*(2), 132-138. https://doi.org/10.18196/jerss.v5i2.11339

Rahman, A., Syafii, M., & Hakim, S. H. (2021). Analysis of Factors Affecting Poverty in the North Sumatra Province. *Economics Development Analysis Journal*, *10*(2), 174–183. https://doi.org/10.15294/edaj.v10i2.44164

Ridlo, M., & Sari, F. I. (2020). The Effect of Unemployment, Economic Growth on Poverty with Zakat as a Moderation Variable. *Al-Amwal : Jurnal Ekonomi Dan Perbankan Syari'ah*, *12*(1), 22-32. https://doi.org/10.24235/amwal.v1i1.5761

Choirur, R. (2021). The Effect of Education and Unemployment on Poverty in Jambi Province. *Jurnal Ekonomi Pembangunan*, 19(01), 31–43.

Rusdarti, & Sebayang, L. K. (2013). Faktor-Faktor yang Mempengaruhi Tingkat Kemiskinan di Jawa Tengah [Factors that Influence Poverty Levels in Central Java]. *Jurnal Economia*, *9*, 1–9. https://doi.org/10.21831/economia.v9i1.1371

Sari, N. I. (2018). Determinan Tingkat Kemiskinan di Daerah Istimewa Yogyakarta Tahun 2007-2014 [Determinants of Poverty Levels in the Special Region of Yogyakarta 2007-2014]. *Economics Development Analysis Journal*, *7*(2), 128–136. https://doi.org/10.15294/edaj.v8i2.23411

Sukirno, S. (2006). *Ekonomi Pembangunan Proses, Masalah, dan Dasar Kebijakan [Development Economics Process, Problems, and Policy Basis]*. Jakarta: Kencana.

Suripto & Subayil, L. (2020). Pengaruh Tingkat Pendidikan, Pengangguran, Pertumbuhan Ekonomi dan Indeks Pembangunan Manusia Terhadap Kemiskinan di D.I. Yogyakarta Periode 2010-2017 [The Influence of Education Level, Unemployment, Economic Growth and Human Development Index on Poverty in D.I.Yogyakarta for the 2010-2017 Period]. GROWTH *Jurnal Ilmiah Ekonomi Pembangunan*, *1*(2), 127-143.

Todaro, M. P., & Smith, S. C. (2013). *Economic Development. Economic Development (Elevent)*.

Yacoub, Y. (2012). Pengaruh Tingkat Pengangguran terhadap Tingkat Kemiskinan Kabupaten / Kota di Provinsi Kalimantan Barat [The Influence of Unemployment Levels on Regency/ City Poverty Levels in West Kalimantan Province]. *Jurnal EKSOS, 8(2)*, 176–185.