Vol. 6, No. 5, May 2025
E-ISSN:2723 – 6692
P-ISSN:2723– 6595
http://jiss.publikasiindonesia.id/

The Influence of Education Level, Unemployment Rate, and Health Level on Economic Growth and Poverty Rate in Indonesia from 2010 to 2023

Jeri Faizal Adi Bahtia[1]*, Munawar[2], Rachmad Kresna Sakti[3]
Faculty of Economics and Business, Universitas Brawijaya, Indonesia[1,2,3]
Email: jerifaizal70@gmail.com[1], mismail@ub.ac.id[2], kresna@ub.ac.id[3]
Correspondence: ajerifaizal70@gmail.com*

KEYWORDS
Education; Unemployment; Health; Economic Growth; Poverty

ABSTRACT
This study analyzes the effects of education level, unemployment rate, and health level on economic growth and poverty rates in Indonesia during the 2010–2023 period. Panel data from 33 provinces sourced from the Central Bureau of Statistics (BPS) were utilized. Education level was measured by average years of schooling, unemployment by the open unemployment rate, and health by life expectancy. Economic growth was assessed using Gross Regional Domestic Product (GRDP), and poverty was measured by the poverty line. Multiple linear regression analysis with two models was employed to examine direct and mediating effects. The results indicate that education and health levels have significant negative effects on poverty and a positive effect of education on economic growth. The unemployment rate showed no significant impact on either poverty or economic growth. Economic growth was not found to significantly mediate the relationship between independent variables and poverty. These findings provide important insights into the factors influencing poverty and economic growth in Indonesia, emphasizing the role of human capital development in regional economic policies.

Introduction

The Indonesian government has made efforts to address poverty issues through various programs and policies, including social assistance programs, infrastructure development, and initiatives to improve access to education and healthcare. Additionally, collaboration with international organizations such as the World Bank and the United Nations is also part of Indonesia's strategy to reduce poverty.

According to the National Socioeconomic Survey (Susenas) in March 2023, the extreme poverty rate stood at 1.12%, marking a 0.92 percentage point decrease from March 2022, the largest poverty reduction in the last five years (Amin, 2023). This data indicates a significant improvement in poverty reduction. The Susenas report from March 2023 also showed that the national poverty rate was at 9.36%, still below the 2020-2024 RPJMN (National Medium-Term Development Plan) target of 6.5-7.5%.

The poverty rate serves as a projection of a country's economic condition. Regional economic growth refers to the increase in activities related to the production of goods and services carried out by economic units in a specific area. According to data from the Central Bureau of Statistics

(BPS), Indonesia's economic growth in Q4 2023 reached 5.04% (YoY), an increase from the previous quarter's growth of 4.94% (YoY) (Bank Indonesia Communication Department, 2024). This aligns with Susenas findings, which show a decline in poverty in 2023.

Research by Safuridar (2017) suggests that economic growth negatively impacts poverty levels, whereas Nabawi (2020) found that economic growth does not significantly affect poverty rates.

According to data from the Directorate General of Population and Civil Registration (Dukcapil), Indonesia's population reached 275.36 million in June 2022, with only 6.41% attaining higher education. Specifically, D1 and D2 degree holders accounted for 0.41%, D3 for 1.28%, S1 for 4.39%, S2 for 0.31%, and only 0.02% had attained a doctoral (S3) degree (Aditiya, 2023). Additionally, in 2022, the poverty rate also declined, suggesting that lower education levels contribute to higher poverty levels.

Research by Cahyani & Muljaningsih (2022) shows that education level negatively and significantly affects poverty. However, Nabawi (2020) found that education level does not significantly impact poverty rates.

Human capital theory suggests that education is one of the key components in improving workforce quality. Higher education levels enhance individual skills and productivity, ultimately increasing economic output (Arifin, 2023). This is supported by Indonesia's Human Development Index (HDI), which rose from 66.53 in 2010 to 72.91 in 2022 (BPS, 2023). This improvement indicates better education, healthcare, and income levels. HDI growth has also been accompanied by economic growth, with Indonesia's average economic growth between 2010 and 2019 (before the pandemic) ranging between 5-6% per year (BPS, 2023). This is consistent with research by Habibi & Zabardast (2020) and Ziberi, Rexha, Ibraimi, & Avdiaj (2022), which suggests that education enhances economic growth. However, Nuţă, Lupu, & Nuţă (2023) argue that education growth does not always translate into economic growth.

According to BPS data, the number of unemployed people in Indonesia reached 7.86 million in August 2023, a decrease of 560,000 people or 6.77% compared to August 2022. The unemployment rate in Indonesia has fluctuated between 2019 and 2023. The decline in 2022 aligns with the decreasing poverty rate, indicating that lower unemployment rates contribute to poverty reduction. Research by Agustina, Syechalad, & Hamzah (2018) and Berliani (2021) shows that unemployment has a positive and significant impact on poverty. However, Safitri, Moehadi, Susilo, & Endang (2023) found that unemployment does not significantly affect poverty rates.

Okun's Law states that there is a negative relationship between unemployment and economic growth (Darman, 2013). High unemployment slows economic growth as fewer people are employed and contributing to the production of goods and services. This is supported by data on Indonesia's Open Unemployment Rate (TPT), which declined from around 7% in 2010 to 5.23% in 2019. During this period, Indonesia's economic growth averaged between 5-6% per year. These findings align with research by Bala, Ibrahim, & Bala Hadith (2020), which suggests that unemployment significantly negatively impacts economic growth. However, research by Niken, Haile, & Berecha (2023) indicates that, in the long run, unemployment does not have a significant negative impact on economic growth.

Poor public health can lead to various diseases that hinder people's ability to work, ultimately leading to poverty. BPS data shows that 26.27% of Indonesia's population reported health complaints at the end of 2023, down from 29.94% in 2022. This indicates that improving public health levels can reduce poverty rates. Research by Sihaloho et al. (2020) found that health levels

negatively impact poverty, whereas Chairunnisa & Qintharah (2022) argue that health levels do not significantly affect poverty.

Human capital theory also emphasizes that health is an essential element of human capital. Healthy individuals are more productive, have better work capacity, and contribute more to economic growth (Arifin, 2023). The COVID-19 pandemic (2020-2021) significantly impacted public health and the economy. High infection and mortality rates reduced workforce productivity and weakened aggregate demand, slowing economic growth to -2.07% in 2020. However, vaccination efforts and improvements in public health supported economic recovery in 2022, with growth reaching 5.31% (BPS, 2023). This aligns with research by Zhao & Zhou (2021), which suggests that economic growth is influenced by public health improvements. Conversely, Wu et al. (2021) found that increased healthcare services do not necessarily guarantee economic growth.

Based on the above discussion, it can be concluded that poverty in Indonesia is influenced by multiple factors, including education level, unemployment, health level, and economic growth. However, some studies reveal inconsistencies in these relationships. Moreover, previous research has not considered economic growth as a mediating variable. Therefore, this study examines whether economic growth can mediate the effects of education level, unemployment rate, and health level on poverty rates. The overall research model is presented as follows:

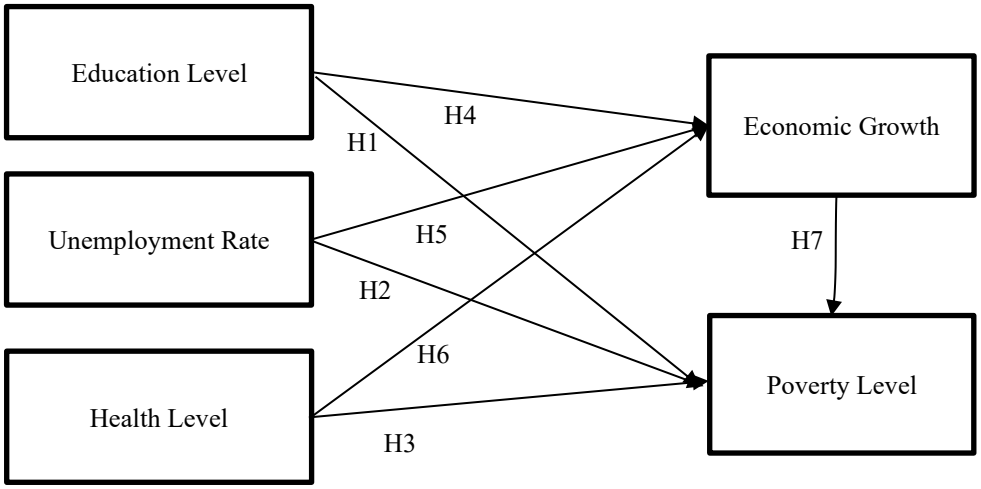

Figure 1. Research Model

Based on the figure, it can be seen that there are seven research hypotheses as follows:
H1: Education Level Has a Significant Negative Effect on Poverty Level
H2: Unemployment Rate Has a Significant Positive Effect on Poverty Level
H3: Health Level Has a Significant Negative Effect on Poverty Level
H4: Education Level Has a Significant Positive Effect on Economic Growth
H5: Unemployment Rate Has a Significant Negative Effect on Economic Growth
H6: Health Level Has a Significant Positive Effect on Economic Growth
H7: Economic Growth Has a Significant Negative Effect on Poverty Level

METHOD

This research employs a quantitative approach with a descriptive method to analyze the effects of education level, unemployment rate, and health level on economic growth and poverty levels in Indonesia. The data used is secondary data, obtained from official publications of the Central Bureau of Statistics (BPS) for the period 2010–2023. This study utilizes panel data covering 33 provinces in Indonesia during the specified period.

The primary data source is BPS, which provides information on research variables such as education level, unemployment rate, health level, economic growth, and poverty level. Data collection techniques involve documenting various official publications and relevant scientific journals.

The variables in this study consist of dependent, independent, and mediating variables. The dependent variable (Y) is poverty level, measured using the poverty line (GK), which includes the food poverty line (GKM) and the non-food poverty line (GKNM). The independent variables include education level (X1), measured by average years of schooling; unemployment rate (X2), measured by the open unemployment rate (TPT); and health level (X3), measured by life expectancy (AHH). The mediating variable (Z) is economic growth, which is assessed based on Gross Regional Domestic Product (GRDP) at constant prices.

The health level in this study was operationalized using the life expectancy indicator which reflects the average life expectancy of the population as a proxy for the quality of public health. The study period of 2010–2023 was chosen because during that time period there were a number of changes in national health and economic policies, as well as the availability of complete and consistent provincial panel data from BPS. However, this study has limitations, including the potential for bias from unobserved variables and the granularity of data that is only available at the provincial level, so that the variability of health conditions at the district/city level is not covered in detail.

This study employs two multiple linear regression models:

Model 1 analyzes the effects of education level, unemployment rate, and health level on economic growth, using the equation:

Model 1 $Z_{it} = \alpha + +\beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \mathcal{E}$

Model 2 $Y_{it} = \alpha + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 Z_{it} + \mathcal{E}$

Explanation

Y_{it} : Poverty Level in Province i at Period t
Z_{it} : Economic Growth in Province i at Period t
α : Constant
$\beta_1 – \beta_6$: Regression Coefficients
X_{1it} : Education Level in Province i at Period t
X_{2it} : Unemployment Rate in Province i at Period t
X_{3it} : Health Level in Province i at Period t

RESULTS AND DISCUSSION

Table 1. Summary of Multiple Linear Regression Test Output (Regression Results for Hypotheses H1–H7)

Path	Coefficient	t-Statistic	P-Values	Description
Education Level (X1) -> Poverty Level (Y)	-3,127	-6,633	0,000	H1 Accepted
Unemployment Rate (X2) -> Poverty Level (Y)	0,070	0,992	0,322	H2 Rejected
Health Level (X3) -> Poverty Level (Y)	0,116	3,905	0,000	H3 Accepted
Economic Growth (Z) -> Poverty Level (Y)	1,056	1,703	0,089	H7 Rejected
Education Level (X1) -> Economic Growth (Z)	0,145	3,788	0,000	H4 Accepted
Unemployment Rate (X2) -> Economic Growth (Z)	- 0,003	- 0,588	0,557	H5 Rejected
Health Level (X3) -> Economic Growth (Z)	0,001	0,435	0,664	H5 Rejected

Source: SPSS Output

The Effect of Education Level on Poverty Level

The study results indicate that education level has a negative and significant effect on poverty levels. This means that the higher the average years of schooling in a region, the lower the poverty rate. This finding aligns with human capital theory, which states that education enhances labor skills, ultimately increasing income and improving overall welfare. The results are consistent with Cahyani & Muljaningsih (2022), who found that higher education levels significantly reduce poverty rates. However, this contradicts Nabawi (2020), who argued that education does not have a significant impact on poverty, suggesting that the effects of education may vary depending on factors such as education quality and access to labor markets.

Human capital theory emphasizes that education is an investment that enhances workforce productivity. Education provides skills, knowledge, and capabilities that allow individuals to secure higher productivity jobs and better earnings. As labor productivity increases, society becomes more capable of overcoming poverty.

Okun's Law highlights the relationship between economic growth and unemployment, where increased labor productivity reduces unemployment and drives economic growth. Education plays a crucial role in enhancing workforce productivity. Higher education levels produce more skilled and competent workers, helping to reduce structural unemployment.

The Effect of Unemployment Rate on Poverty Level

The study finds that the unemployment rate has a positive and significant effect on poverty levels. In other words, higher unemployment rates in a region lead to higher poverty levels. This supports Keynesian theory, which states that a lack of labor demand increases unemployment, worsening poverty as households lose their primary income sources. This finding is reinforced by Agustina et al. (2018) and Berliani (2021), who found that higher unemployment rates significantly increase poverty. However, this contradicts Safitri et al. (2023), who found that unemployment

levels do not significantly impact poverty, possibly due to social assistance programs and the informal economy, which may mitigate the direct effects of unemployment on poverty.

According to Keynesian theory, unemployment is a major cause of poverty as it reduces household income and weakens purchasing power. However, the findings suggest that in Indonesia, this relationship is not immediately significant. This could be due to government policy interventions such as subsidies and social assistance programs, which help people meet their basic needs even when unemployed.

Human capital theory emphasizes that skills and education are essential for improving productivity and reducing unemployment and poverty. The insignificant effect of unemployment on poverty may indicate a skills mismatch between labor market needs and available workers** or limited access to quality education, preventing people from securing better jobs.

The Effect of Health Level on Poverty Level

The analysis shows that health levels have a negative and significant effect on poverty levels. This means that higher life expectancy and better healthcare access lead to lower poverty levels. This finding supports human capital theory, which states that healthy individuals have higher productivity and better job opportunities, ultimately reducing poverty. The study aligns with Sihaloho et al. (2020), who found that health levels negatively impact poverty. However, it differs from Chairunnisa & Qintharah (2022), who found that health levels do not significantly affect poverty, suggesting that health factors may have more complex long-term effects.

From a Keynesian perspective, improved health should boost productivity and consumption, which in turn stimulates economic growth and reduces poverty. However, the findings indicate that health benefits do not fully translate into poverty reduction, possibly due to high household healthcare expenses that limit their purchasing power for other necessities.

Human capital theory highlights that health is a crucial component of human capital. Better health increases individual productivity, improving economic conditions. In Indonesia, improved health may not be accompanied by adequate economic opportunities. For instance, healthier individuals without the necessary skills or education may still struggle to find well-paying jobs, limiting the positive impact of health on poverty reduction.

Okun's Law also links health levels with productivity and economic growth. Higher life expectancy increases the potential workforce over the long term. However, if economic growth is insufficient to absorb this workforce, higher life expectancy may create additional economic pressure on poor households, especially if productive jobs are unavailable.

The Effect of Education Level on Economic Growth

The study also finds that education level has a positive and significant effect on economic growth. The higher the average years of schooling, the greater the contribution of educated workers to the economy, both through increased productivity and innovation. This finding aligns with Habibi & Zabardast (2020) and Ziberi et al. (2022), who found that higher education levels drive national economic growth. However, Nuţă et al. (2023) argued that education does not always contribute to economic growth unless supported by industrial sectors capable of absorbing educated workers.

According to Keynesian poverty theory, higher education increases purchasing power and consumption. Education enhances skills, allowing individuals to secure higher-paying jobs. Higher wages lead to increased consumption, boosting aggregate demand and potentially driving economic growth.

Human capital theory explains that education is an investment in skills and knowledge that enhances individual productivity. Educated individuals contribute to workplace efficiency and economic productivity, thereby fostering economic growth. A better-educated workforce strengthens human capital, which is essential for productivity improvements. In Indonesia, this suggests that better education produces a more productive workforce, boosting economic growth in sectors such as technology, manufacturing, and services.

Okun's Law links unemployment and economic growth, stating that a 1% decrease in unemployment increases GDP by 2%. Higher education levels can reduce unemployment as more educated individuals meet labor market demands, leading to higher economic output. Rising education levels decrease unemployment, improving economic efficiency and output, ultimately driving economic growth. A more educated workforce directly contributes to economic growth, aligning with Okun's principles.

The Influence of Unemployment Rate on Economic Growth

Regression analysis indicates that the unemployment rate has a negative and significant effect on economic growth. In other words, the higher the unemployment rate, the slower the economic growth. This finding aligns with Okun's Law, which states that a 1% decrease in the unemployment rate can increase economic growth by approximately 2%. This result is also supported by research by Bala et al. (2020), which shows that unemployment negatively impacts economic growth. However, Niken et al. (2023) argue that in the long term, unemployment does not have a significant effect on economic growth, suggesting that the impact of unemployment may vary depending on a country's macroeconomic conditions.

In classical economic theory, high unemployment is generally seen as a barrier to economic growth because it reduces the number of productive workers. However, this study's findings suggest that the unemployment rate does not significantly affect Indonesia's economic growth. This may be due to factors such as the existence of economic sectors that continue to grow despite a relatively high unemployment rate. Additionally, there may be a mismatch between the skills possessed by unemployed workers and the evolving labor market demands.

According to Keynesian poverty theory, high unemployment can hinder aggregate demand in the economy. Unemployment reduces people's purchasing power, leading to decreased consumption of goods and services, which in turn lowers production and economic growth. However, in this case, despite high unemployment, Indonesia may experience relatively stable consumption due to a large informal sector, remittances from migrant workers, and fiscal stimulus policies that boost purchasing power. The insignificant impact of unemployment on Indonesia's economic growth could be attributed to government policies that successfully maintain household consumption, even in times of high unemployment. Fiscal stimulus and social assistance programs that increase people's purchasing power may mitigate the negative effects of unemployment on aggregate demand.

Human capital theory explains that high unemployment can negatively affect skill development and productivity. Individuals who remain unemployed for a long time may lose their skills or fail to develop new ones, reducing their capacity to contribute to economic growth. However, this study's results indicate that despite high unemployment, certain sectors continue to grow rapidly due to the adoption of technology and improved production efficiency. The insignificant impact of unemployment on Indonesia's economic growth may be due to the development of technology-based and highly skilled industrial sectors. Jobs in these sectors often

do not rely on a large workforce but rather on the quality and skills of individuals. As a result, even with unemployment, economic growth can be maintained.

Okun's Law establishes a link between unemployment and economic growth. According to this theory, a 1% increase in the unemployment rate is usually associated with a 2% decline in GDP. However, in Indonesia, several factors may reduce the impact of unemployment on economic growth, such as economic sectors that can grow without requiring a large labor force and a shift towards automation and technology. The study's findings, which indicate that unemployment does not significantly affect economic growth, can be explained by the presence of economic sectors that focus on high technology and production efficiency. These sectors can operate with fewer workers while producing high-value-added products, allowing economic growth to be sustained despite high unemployment rates.

The Influence of Health Levels on Economic Growth

This study finds that health levels have a positive and significant impact on economic growth. As life expectancy increases and healthcare services improve, labor productivity rises, ultimately driving economic growth. These findings are consistent with Zhao & Zhou (2021), who state that improved healthcare services positively affect economic growth. However, Wu et al. (2021) argue that increased healthcare services do not always impact economic growth if not accompanied by effective policies in managing healthcare resources and the workforce.

Keynesian poverty theory emphasizes that government investment in various sectors, including healthcare, can stimulate aggregate demand and create jobs. However, in the context of Indonesia, although the healthcare sector has improved, this progress has not been sufficient to drive a significant increase in purchasing power or household consumption, which contributes to economic growth. Keynes argued that effective demand is crucial for a healthy economy, but in this case, the healthcare sector may not yet be strong enough to support greater consumption or directly increase purchasing power.

Human capital theory also suggests that improvements in health should increase labor productivity since healthier workers are more productive. However, this study's results indicate that even with better health, productivity does not always increase significantly. This could be due to structural challenges in Indonesia, such as unequal access to healthcare services or the need for improvements in education quality to create a more skilled and efficient workforce.

According to Okun's Law, there is an inverse relationship between unemployment and economic output. As a developing country, Indonesia may face challenges in fully utilizing its workforce despite improvements in the healthcare sector. High unemployment rates, disparities in resource distribution, and a lack of skills suitable for the labor market may overshadow the potential benefits of improvements in the healthcare sector.

The Influence of Economic Growth on Poverty Levels

The study results indicate that economic growth has a negative and significant impact on poverty levels. In other words, higher economic growth leads to lower poverty rates. This finding supports the trickle-down effect concept, which suggests that economic growth will improve overall income and welfare. These results align with Safuridar (2017), who found that economic growth contributes to poverty reduction. However, they differ from Nabawi (2020), who argues that economic growth does not have a significant impact on poverty levels, possibly due to high income inequality in certain regions.

Keynesian poverty theory suggests that in macroeconomic contexts, stable and sustainable economic growth can create jobs, increase incomes, and reduce poverty. However, in Indonesia, although economic growth occurs, not all social groups experience its benefits. Social inequality and uneven income distribution can hinder poverty reduction. In many cases, recorded economic growth may be enjoyed more by certain groups, particularly those in the formal sector or specific industries, while most of the population, especially those in the informal sector, do not receive proportional benefits.

Human capital theory provides insight into this phenomenon. It argues that poverty can be alleviated through investments in education, healthcare, and skill training, which enhance individual productivity and competitiveness in the labor market. However, if economic growth is not accompanied by improvements in human capital quality, especially in terms of education and skill training, then its impact on poverty reduction can be very limited. In Indonesia, despite economic growth, a lack of access to quality education and skill training for a large segment of the population keeps many people trapped in poverty.

Okun's Law, which states that there is a negative relationship between unemployment and economic growth, suggests that as the economy grows, employment opportunities increase, and unemployment declines, ultimately reducing poverty. However, in Indonesia, even though economic growth rises, the rate of unemployment reduction is not significant enough to substantially lower poverty levels. One major reason may be the mismatch between workers' skills and industry demands, as well as structural challenges in the economy that hinder inclusive and equitable growth.

Overall, the findings indicate that although Indonesia experiences economic growth, other factors such as unequal income distribution, disparities in access to education and healthcare, and a non-inclusive economic structure can hinder the positive impact of economic growth on poverty reduction. Therefore, more integrated policies focused on improving human resource quality and equal economic opportunities are essential to ensure that economic growth effectively reduces poverty in Indonesia.

CONCLUSION

The study concludes that education and health levels significantly reduce poverty, while unemployment rate does not have a significant effect. Economic growth does not significantly mediate the relationships between education, unemployment, health, and poverty. Therefore, policymakers are recommended to prioritize improving the quality of education and public health as key strategies for poverty alleviation. Additionally, integrated efforts linking human capital development with the creation of quality employment opportunities are essential to reduce unemployment and support inclusive economic growth. Future research should consider data at a more granular level (e.g., district/city) and include other relevant variables to provide a more comprehensive understanding of poverty determinants.

REFERENCES

Aditiya, I. M. (2023, May 3). Tingkat Pendidikan Masyarakat Indonesia.

Agustina, E., Syechalad, M. N., & Hamzah, A. (2018). Pengaruh jumlah penduduk, tingkat pengangguran dan tingkat pendidikan terhadap kemiskinan di Provinsi Aceh. . Jurnal Perspektif Ekonomi Darussalam (Darussalam Journal of Economic Perspec), 4(2), 265–283.

Amin, K. H. M. (2023, December 14). Pemerintah Terus Lanjutkan Strategi Percepatan Kemiskinan Ekstrem.

Arifin, A. S. (2023). Human capital investment: meningkatkan daya saing global melalui investasi pendidikan. Jurnal education and development, 11(2), 174–179. https://doi.org/10.37081/ed.v11i2.4672

Badan Pusat Statistik. (2023). Statistik Indonesia 2023. Jakarta.

Bala, U., Ibrahim, A., & Bala Hadith, N. (2020). Impact of Population Growth, Poverty and Unemployment on Economic Growth. Asian Business Research Journal, 5, 48–54. https://doi.org/10.20448/journal.518.2020.5.48.54

Berliani, K. (2021). Pengaruh Tingkat Pengangguran, Tingkat Pendidikan dan Laju Pertumbuhan Penduduk Terhadap Tingkat Kemiskinan Penduduk Provinsi Jawa Barat Tahun 2015-2020. Syntax Literate ; Jurnal Ilmiah Indonesia, 6(2), 872. https://doi.org/10.36418/syntax-literate.v6i2.2244

Cahyani, F. N., & Muljaningsih, S. (2022). ANALISIS PENGARUH JUMLAH PENDUDUK, TINGKAT PENGANGGURAN DAN TINGKAT PENDIDIKAN TERHADAP KEMISKINAN DI KABUPATEN GRESIK. Jurnal Ekonomi Pembangunan STIE Muhammadiyah Palopo, 8(1), 1. https://doi.org/10.35906/jep.v8i1.977

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

Darman, D. (2013). Pengaruh Pertumbuhan Ekonomi terhadap Tingkat Pengangguran: Analisis Hukum Okun. The Winners, 14(1), 1. https://doi.org/10.21512/tw.v14i1.639

Departemen Komunikasi Bank Indonesia. (2024, February 5). Siaran Pers: PERTUMBUHAN EKONOMI INDONESIA TRIWULAN IV 2023 MENINGKAT.

Habibi, F., & Zabardast, M. A. (2020). Digitalization, education and economic growth: A comparative analysis of Middle East and OECD countries. Technology in Society, 63, 101370. https://doi.org/10.1016/j.techsoc.2020.101370

Nabawi, H. (2020). Pengaruh Jumlah Penduduk, Tingkat Pendidikan dan PDRB terhadap Kemiskinan di Kota Malang. OECONOMICUS: Journal of Economics, 4(2), 104–117.

Niken, K., Haile, M. A., & Berecha, A. (2023). On the nexus of inflation, unemployment, and economic growth in Ethiopia. Heliyon, 9(4), e15271. https://doi.org/10.1016/j.heliyon.2023.e15271

Nuţă, A. C. C., Lupu, D., & Nuţă, F. M. (2023). The impact of public education spending on economic growth in Central and Eastern Europe. An ARDL approach with structural break. Economic Research-Ekonomska Istraživanja, 36(1), 1261–1278. https://doi.org/10.1080/1331677X.2022.2086147

Safitri, I., Moehadi, M., Susilo, J. H., & Endang, E. (2023). Analysis Factors Influencing Economic Growth, Unemployment and Poverty in Indonesia. JEJAK: Jurnal Ekonomi Dan Kebijakan, 16(2).

Safuridar, S. (2017). Pengaruh Pertumbuhan Ekonomi Terhadap Kemiskinan di Kabupaten Aceh Timur. Ihtiyath : Jurnal Manajemen Keuangan Syariah, 1(1). https://doi.org/10.32505/ihtiyath.v1i1.674

Sihaloho, E. D., Kamilah, F. Z., Rahma, G. R., Kusumawardani, S., Hardiawan, D., & Siregar, A. Y. (2020). PENGARUH ANGKA TUBERKULOSIS TERHADAP ANGKA KEMISKINAN DI INDONESIA : STUDI KASUS 407 KABUPATEN KOTA. JIEP : Jurnal Ilmu Ekonomi Dan Pembangunan, 20(2), 123–130.

Wu, C.-F., Chang, T., Wang, C.-M., Wu, T.-P., Lin, M.-C., & Huang, S.-C. (2021). Measuring the Impact of Health on Economic Growth Using Pooling Data in Regions of Asia: Evidence From a Quantile-On-Quantile Analysis. Frontiers in Public Health, 9. https://doi.org/10.3389/fpubh.2021.689610

Zhao, J., & Zhou, N. (2021). Impact of human health on economic growth under the constraint of environment pollution. Technological Forecasting and Social Change, 169, 120828. https://doi.org/10.1016/j.techfore.2021.120828

Ziberi, B. F., Rexha, D., Ibraimi, X., & Avdiaj, B. (2022). Empirical Analysis of the Impact of Education on Economic Growth. Economies, 10(4), 89. https://doi.org/10.3390/economies10040089