



The Role of Education in Economic Growth and Breaking the Chain of Poverty in Indonesia

Adelia Azzahra^{1*}, Riska Rahayu², Nina Siti Marlina³, Nur Saebah⁴, Wahyu Eko Saputro⁵

Universitas Swadaya Gunung Jati, Cirebon, West Java, Indonesia¹

IAIN Syekh Nurjati Cirebon, Cirebon, West Java, Indonesia²

Universitas Islam Bunga Bangsa Cirebon, Cirebon, West Java, Indonesia³

Universitas Cendekia Mitra, Yogyakarta, Special Region of Yogyakarta, Indonesia⁴

STMIK WIT, Cirebon, West Java, Indonesia⁵

Email: adeliaazzahra349@gmail.com^{1*}, riskarahayu@mail.syekhnurjati.ac.id²

saebah47@gmail.com⁴, ekow47103@gmail.com⁵

Abstract This research explores the crucial role of education in improving the quality of human capital and overcoming poverty in Indonesia. Inspired by literature that emphasizes the complex relationship between education, income inequality, and economic growth on factors affecting poverty, including education, health, and internet access. Key findings show that education, especially high, has a significant positive impact on well-being, with every 1% increase in education contributing to a 1% increase in well-being, a 1% significance rate. Policy recommendations are given to governments to increase investment in education, achieve sustainable economic growth, and reduce poverty rates. Although 20% of the state budget has been allocated to education, challenges remain in providing equitable and quality education across the region, affirming that investment in education is an effective strategy to achieve inclusive and sustainable development.

Keywords: Role, Education, Economic Growth, Poverty.

INTRODUCTION

Education is widely recognized as the cornerstone of societal advancement and a fundamental driver for enhancing human capital (Edeji, 2024; Hanushek & Woessmann, 2020; Tinta, 2023; Yin et al., 2024). While previous studies acknowledge the significance of education in fostering economic development, reducing poverty, and improving income equality, the intricate relationship between education and income inequality remains contentious among scholars (Huang, 2024; Lee & Yuan, 2024; Malerba, 2020; O'Donnell, 2024; VOS & CATTANEO, 2021). Education serves as a crucial tool for enhancing the overall quality of human capital and is particularly essential for empowering individuals lacking basic skills and knowledge to uplift themselves from poverty (Hu & Zheng, 2023; Li et al., 2024; Rentería et al., 2024; Tabash et al., 2024; Van Le & Tran, 2024).

Despite Indonesia's abundant natural resources, education disparities hinder human capital optimisation. Prior research has demonstrated that natural resource abundance does not guarantee positive economic growth and may lead to political instability and conflicts. Therefore, effective governance in natural resource management and investments in human

capital becomes imperative (Charina et al., 2022; Dai & Xiong, 2023; W. Thorbecke, 2023; Triatmanto et al., 2023; Zhu et al., 2023).

Several studies have linked education levels to economic growth and the potential alleviation of poverty in the future, posing new challenges for the Indonesian government (Atella & Scandizzo, 2024; Fatimah et al., 2020; Pham et al., 2024; Schell & Rousham, 2022; Xu & Li, 2023). Enhancing the quality of human capital is thus crucial for breaking the cycle of poverty, education is regarded as a long-term investment for fostering growth across various sectors, particularly in the face of technological advancements that demand skilled labour (Atno Parluhutan Sinaga, 2022; Habibi & Zabardast, 2020; Kuntjorowati et al., 2019; Narmaditya et al., 2023; Tong & Wang, 2024).

While Arsani (2020) and Ratri (2019) offer differing perspectives on the factors influencing poverty, with Arsani emphasizing the role of education in poverty alleviation and income enhancement and Ratri considering health and internet access as significant poverty determinants, the intricate relationship between education and income inequality remains a topic of debate. Therefore, this research aims to delve into the nexus between education, economic growth, and poverty alleviation, especially within the unique context of Indonesia's challenges in natural resource management.

The primary objective of this study is to discern the impact of education levels on economic growth, particularly in breaking the cycle of poverty in Indonesia. The findings are anticipated to provide valuable policy insights to the government, advocating for increased investment in primary and adult education to foster sustainable economic growth and poverty reduction. Consequently, this research endeavours to deepen our understanding of the role of education in addressing income inequality and preparing society to tackle future poverty challenges.

METHOD

This study uses a literature review method to investigate the role of education in economic growth and breaking the chain of poverty in Indonesia. The systematic measures involve identifying the scope of the 2010-2023 literature with the keywords "education," "economic growth," "poverty," "human resources," and "Indonesia." The priority of literature selection is empirical research, current theory, and policy analysis related to Indonesia. The selection of literature is based on its relevance with a focus on the relationship between education level, economic growth, and breaking the chain of poverty. The organization of the literature is carried out based on the main themes, and synergy analysis is carried out to identify differences and similarities between the perspectives of researchers (Lame, 2019). The synthesis of findings includes a summary of trends and patterns as well as the identification of knowledge gaps that require further research. The last stage is the preparation of research methods by considering the type of research, data collection methods, and the definition of the main variables (Paré & Kitsiou, 2017). The closing of the study highlights the contribution of the review literature in understanding the complexity of the relationship between education, economic growth, and poverty chain breaking in Indonesia while identifying potential limitations. This method is expected to provide a solid foundation for an in-depth understanding of this topic.

RESULTS AND DISCUSSION

The Role of Education in Economic Growth

Education plays a crucial role in fostering economic development, a concept widely accepted and supported. Numerous academic and empirical studies have substantiated the validity of this proposition. Education serves as a pathway to societal progress and the attainment of both social and economic well-being. Conversely, the absence of a strong educational foundation gives rise to pressing issues such as unemployment, crime, drug abuse, and dependency on welfare. These challenges not only impact the social fabric but also impose economic burdens on various stakeholders, particularly the government.

A decline in unemployment rates is anticipated with higher enrollment in schools. However, this assumption hinges on the availability of sufficient job opportunities to maintain a balance between the number of educated individuals and available employment positions, rather than creating a surplus of job seekers. Low unemployment rates are indicative of reduced income inequality. The proliferation of microfinance companies contributes negatively to income inequality by involving low-income individuals in activities that boost the regional economy. Despite this, the overall impact is limited due to the relatively small number of microfinance institutions compared to other factors influencing income inequality.

The connection between regional GDP, poverty rates, and the Gini coefficient is noteworthy. A decrease in income is presumed to lead to an increase in the poverty rate. The government's strategy to alleviate poverty involves allocating resources to uplift those below the poverty line, consequently impacting GDP. However, this poverty alleviation approach is expected to yield long-term benefits by enhancing living conditions and, in turn, fostering economic growth. Ultimately, lifting people out of poverty will empower future generations to contribute to economic development and reduce both income inequality and poverty levels (Belmonte-Ureña et al., 2021; Erlando et al., 2020).

These results support that educational attainment increases an individual's earning potential, and consequently, an increase in income will definitely help them escape poverty (E. Thorbecke & Ouyang, 2022). Moreover, the computed coefficient related to the number of children within a household (Children) is both statistically significant and positive. This indicates that an increase in the count of children residing in a household leads to a roughly 11.9% rise in the total household income.

The idea of education as an investment, characterized as an intervention of economic forces (education investment), has experienced rapid growth. Every nation increasingly recognizes that the development of the education sector is a crucial prerequisite for the advancement of other sectors. The establishment and enhancement of a system and economic structure that supports quality education are imperative for building the concept of human capital investment, which, in turn, supports economic growth.

The substantial contribution of education to economic development is universally acknowledged and supported by numerous academic and empirical studies. According to human capital theory, education plays a pivotal role in fostering economic development by enhancing skills and work productivity. The surge in economic growth observed in various Asian countries and the shift towards high-tech industries and services underscores the growing demand for skilled and educated human resources. A quality education system is essential for producing such high-caliber human resources. Within the framework of human capital theory, formal education is deemed the primary instrument for generating an economic order characterized by high productivity.

The results show that the role of education in Indonesia's economic growth has

interrelated multidimensional dimensions. First of all, the positive relationship between people's education level and labor productivity was confirmed. Increasing access to equitable and quality education throughout Indonesia has a direct impact on improving the skills and competitiveness of the workforce, which in turn supports production efficiency and industrial growth.

Furthermore, research confirms that education plays an important role in encouraging innovation and technological development. The positive correlation between higher education levels and participation in research and development shows that efforts to improve higher education levels can be a major driver of technological progress in Indonesia.

In the socio-economic context, the results support the view that education can reduce poverty rates. Better access to education and the provision of relevant skills help people to enter the labor market better, thus contributing to the reduction of social inequality and the improvement of living standards.

The importance of improving the quality of labor is also confirmed in this study. It was found that education that matches the needs of the labor market has a positive impact on the competitiveness of graduates in the job market, as well as facilitates adaptation to economic changes.

Lastly, encouraging entrepreneurship and young entrepreneurs through education has also proven effective as a strategy for creating new jobs and driving economic growth. The respondents indicated that understanding business concepts and entrepreneurial skills acquired through education can open up new opportunities for business initiatives and investments. Thus, the results of this study provide a holistic picture of the contribution of education to Indonesia's economic growth, and its implications can help formulate education policies that are more effective and relevant to future demands.

The Effect of Education on Breaking the Chain of Poverty in Indonesia

Education plays a crucial role in mitigating poverty by exerting a positive impact on individual well-being. Enhancing educational opportunities, particularly at higher levels, is linked to an improvement in overall welfare. This enhancement in welfare signals a concurrent reduction in poverty levels. The substantial influence of education on poverty is evident in the findings of Awam et al's research (2011), which aligns with the conclusion that higher levels of education lead to a greater number of prosperous individuals. Pursuing advanced education not only correlates with increased educational achievements but also diminishes the likelihood of individuals falling into poverty.

The level of education attained by an individual significantly shapes their well-being. Higher education contributes to elevated resource quality, leading to heightened productivity. This heightened productivity, in turn, translates to increased income. The augmented income contributes to an enhanced state of well-being and a subsequent decrease in poverty rates. This correlation resonates with Sharp et al's theory, highlighting the profound impact of education on poverty (Association, 2017).

According to the World Bank's definition, poverty is characterized as a loss of well-being. This study posits that education has the potential to influence individual welfare, implying that an elevation in education levels can effectively reduce poverty. Another perspective aligns with this assertion, emphasizing education as human capital that enhances individual capabilities for prosperity (Weiping, 2018; Yunker, 2024). Furthermore, the notion that augmenting human resources can be achieved through educational improvements is reinforced. Human capital, as per this perspective, is distinctly measurable through the cumulative effects of formal education

and acquired skills (Akdere & Egan, 2020).

Weiping suggested that implementing five rounds of policies could serve as a strategy to alleviate poverty in China. China has achieved significant success in reducing poverty from 1981 to 2013, witnessing a remarkable decrease from the initial 88% living below the \$1.9 poverty line to 1.85%, freeing around 850 million people from poverty over the past thirty-two years.

Having a higher level of education enhances an individual's potential. Increased expertise raises the likelihood of attaining a higher income, thereby aiding in lifting individuals out of poverty. The Indonesian government is committed to enhancing education by allocating resources from the State Budget, aligning with Article 31 of the 1945 Basic Law on Education and Culture, which emphasizes prioritizing at least 20% of the state and regional budgets for education to meet national educational needs. In practice, the government has allocated 20% of the state budget specifically for education.

Furthermore, the government has augmented the state budget for infrastructure development, aiming for equitable distribution across Indonesia. This strategic investment in infrastructure is anticipated to enhance the distribution of goods, improve transportation accessibility, stimulate economic activities in remote areas, and facilitate overall access in various fields. This research focuses on exploring the important role of education in efforts to break the chain of poverty in Indonesia by detailing the views of a number of experts in this context. The researchers sought to identify factors that show how investment in education can be key in addressing the poverty challenges faced by Indonesians. One of the main findings of the study is that education plays an important role in empowering the economy of individuals. By providing relevant skills and knowledge, education creates a solid foundation for individual acceptance in the job market, increases productivity, and opens up better job opportunities.

In addition, the results of the study highlight the role of education in creating structural transformations in society. A good education can stimulate economic growth by creating a more skilled and educated workforce. The study's findings also suggest that education has a positive impact on reducing social inequality. By providing more equitable access to educational opportunities, education can be a driving force in reducing economic inequality and increasing social mobility.

The importance of education in the context of breaking the chain of poverty is also emphasized in the long-term analysis. Research shows that investing in education not only benefits the individuals concerned but also creates a positive impact that future generations can feel. Children who get a good education have a greater chance of building successful careers, reducing the risk of poverty in the long run, and making a positive contribution to the well-being of families and society as a whole.

In conclusion, the findings of this study provide strong support for the idea that increasing investment in the education sector, including improving access and quality of education, can be an effective strategy for addressing poverty in Indonesia. The implications of this research are in line with the direction of government policy that emphasizes the importance of the role of education as a key pillar in achieving inclusive and sustainable development in the country.

CONCLUSION

This research unequivocally shows that education has a significant positive role in overcoming poverty in Indonesia, especially through improving the level of education,

especially higher education. It found that each increase in education by 1% contributed to an increase in well-being by 1%, with a significance level of 1%. This finding is in line with the results of other studies that confirm that higher levels of education are associated with greater potential for well-being, because higher education plays a role in improving the quality of human capital, productivity, and income. The importance of education in reducing poverty rates is also reinforced by the World Bank's views and Sharp's theory. Although the Indonesian government has allocated 20% of the state budget for education, challenges remain, especially in achieving equitable and quality education delivery across the region. Overall, the study highlights that investment in the education sector is becoming an effective strategy in creating a strong foundation for economic growth, reducing social inequality, and delivering long-term benefits to future generations, in line with government policy directions that emphasize the leading role of education in achieving inclusive and sustainable development.

BIBLIOGRAPHY

- Akdere, M., & Egan, T. (2020). Transformational leadership and human resource development: Linking employee learning, job satisfaction, and organizational performance. *Human Resource Development Quarterly*, 31(4), 393–421. <https://doi.org/10.1002/hrdq.21404>
- Arsani, A. M., Ario, B., & Ramadhan, A. F. (2020). Impact of Education on Poverty and Health : Evidence from Indonesia. *Economics Development Analysis Journal*, 9(1), 87–96. <https://doi.org/10.15294/edaj.v9i1.34921>
- Association, B. M. (2017). Health at a price: Reducing the impact of poverty. *A Briefing from the Board of Science; British Medical Association: London, UK*.
- Atella, V., & Scandizzo, P. L. (2024). The effects on the economic systems. *The Covid-19 Disruption and the Global Health Challenge*, 227–285. <https://doi.org/10.1016/B978-0-44-318576-2.00020-2>
- Atno Parluhutan Sinaga, A. (2022). Poverty Perspectives and Reduction Strategies in Indonesia. *Three Seas Economic Journal*, 3(3), 1–9. <https://doi.org/10.30525/2661-5150/2022-3-1>
- Awan, M. S., Malik, N., Sarwar, H., & Waqas, M. (2011). *Impact of education on poverty reduction*.
- Belmonte-Ureña, L. J., Plaza-Úbeda, J. A., Vazquez-Brust, D., & Yakovleva, N. (2021). Circular economy, degrowth and green growth as pathways for research on sustainable development goals: A global analysis and future agenda. *Ecological Economics*, 185. <https://doi.org/10.1016/J.ECOLECON.2021.107050>
- Charina, A., Kurnia, G., Mulyana, A., & Mizuno, K. (2022). Sustainable Education and Open Innovation for Small Industry Sustainability Post COVID-19 Pandemic in Indonesia. *Journal of Open Innovation: Technology, Market, and Complexity*, 8(4). <https://doi.org/10.3390/JOITMC8040215>
- Dai, L., & Xiong, Y. (2023). Does the green finance development and renewable energy affect the economic recovery in Asian economies. *Renewable Energy*, 216. <https://doi.org/10.1016/J.RENENE.2023.118922>
- Edeji, O. C. (2024). Neo-liberalism, human capital theory and the right to education: Economic interpretation of the purpose of education. *Social Sciences and Humanities Open*, 9. <https://doi.org/10.1016/J.SSAHO.2023.100734>
- Erlando, A., Riyanto, F. D., & Masakazu, S. (2020). Financial inclusion, economic growth, and poverty alleviation: evidence from eastern Indonesia. *Heliyon*, 6(10).

<https://doi.org/10.1016/J.HELIYON.2020.E05235>

- Fatimah, Y. A., Govindan, K., Murniningsih, R., & Setiawan, A. (2020). Industry 4.0 based sustainable circular economy approach for smart waste management system to achieve sustainable development goals: A case study of Indonesia. *Journal of Cleaner Production*, 269. <https://doi.org/10.1016/J.JCLEPRO.2020.122263>
- Habibi, F., & Zabardast, M. A. (2020). Digitalization, education and economic growth: A comparative analysis of Middle East and OECD countries. *Technology in Society*, 63. <https://doi.org/10.1016/J.TECHSOC.2020.101370>
- Hanushek, E. A., & Woessmann, L. (2020). Education, knowledge capital, and economic growth. *The Economics of Education: A Comprehensive Overview*, 171–182. <https://doi.org/10.1016/B978-0-12-815391-8.00014-8>
- Hu, N., & Zheng, B. (2023). Natural resources, education, and green economic development. *Resources Policy*, 86. <https://doi.org/10.1016/J.RESOURPOL.2023.104053>
- Huang, R. (2024). The climate impacts and potential benefits of services export growth in developing countries. *Science of the Total Environment*, 913. <https://doi.org/10.1016/J.SCITOTENV.2023.169775>
- Kuntjorowati, E., Ikawati, I., Murtiwidayanti, S. Y., & Udiati, T. (2019). Conditional Cash Transfer Breaks the Chain of Poverty for Next Generation. *International Journal of Humanities and Social Science*, 9(3). <https://doi.org/10.30845/ijhss.v9n3p16>
- Lame, G. (2019). Systematic literature reviews: An introduction. *Proceedings of the Design Society: International Conference on Engineering Design*, 1(1), 1633–1642. <https://doi.org/10.1017/dsi.2019.169>
- Lee, C. C., & Yuan, Z. (2024). Impact of energy poverty on public health: A non-linear study from an international perspective. *World Development*, 174. <https://doi.org/10.1016/J.WORLDDEV.2023.106444>
- Li, S., Sun, H., Sharif, A., Bashir, M., & Bashir, M. F. (2024). Economic complexity, natural resource abundance and education: Implications for sustainable development in BRICST economies. *Resources Policy*, 89. <https://doi.org/10.1016/J.RESOURPOL.2023.104572>
- Malerba, D. (2020). Poverty alleviation and local environmental degradation: An empirical analysis in Colombia. *World Development*, 127. <https://doi.org/10.1016/J.WORLDDEV.2019.104776>
- Narmaditya, B. S., Sahid, S., & Hussin, M. (2023). How does family economic education foster students' economic behavior? The mediating role of economic and entrepreneurial literacy. *Heliyon*, 9(5). <https://doi.org/10.1016/J.HELIYON.2023.E15608>
- O'Donnell, O. (2024). Health and health system effects on poverty: A narrative review of global evidence. *Health Policy*, 142, 105018. <https://doi.org/10.1016/J.HEALTHPOL.2024.105018>
- Paré, G., & Kitsiou, S. (2017). Methods for literature reviews. In *Handbook of eHealth evaluation: An evidence-based approach [Internet]*. University of Victoria.
- Pham, T. H. A., Lin, C. Y., Moslehpour, M., Vo, T. T. Van, Nguyen, H. T., & Nguyen, T. T. H. (2024). What role financial development and resource-curse situation play in inclusive growth of Asian countries. *Resources Policy*, 88. <https://doi.org/10.1016/J.RESOURPOL.2023.104498>
- Ratri, T. D., & Sholeh, M. (2019). The Influence of Education, Health and the Internet on

Poverty in Indonesia. *International Conference on Social Science and Character Educations (ICoSSCE 2018) and International Conference on Social Studies, Moral, and Character Education (ICSMC 2018)*, 158–163.

- Rentería, E., Souto, G., Istenič, T., & Sambt, J. (2024). Generational economic dependency in aging Europe: Contribution of education and population changes. *Journal of the Economics of Ageing*, 27. <https://doi.org/10.1016/J.JEOA.2023.100485>
- Schell, L. M., & Rousham, E. K. (2022). Environmental effects on growth. *Human Growth and Development*, 261–315. <https://doi.org/10.1016/B978-0-12-822652-0.00013-4>
- Tabash, M. I., Ezekiel, O., Ahmed, A., Oladiran, A., Elsantil, Y., & Lawal, A. I. (2024). Examining the linkages among financial inclusion, economic growth, poverty, and inequality reduction in Africa. *Scientific African*, 23. <https://doi.org/10.1016/J.SCIAF.2024.E02096>
- Thorbecke, E., & Ouyang, Y. (2022). Towards A Virtuous Spiral Between Poverty Reduction And Growth: Comparing Sub Saharan Africa With The Developing World. *World Development*, 152. <https://doi.org/10.1016/J.WORLDDEV.2021.105776>
- Thorbecke, W. (2023). Sectoral evidence on Indonesian economic performance after the pandemic. *Asia and the Global Economy*, 3(2), 100069. <https://doi.org/10.1016/J.AGLOBE.2023.100069>
- Tinta, A. A. (2023). Education puzzle, financial inclusion, and energy substitution: Growth Scales. *Energy Policy*, 175. <https://doi.org/10.1016/J.ENPOL.2022.113391>
- Tong, J., & Wang, K. (2024). Exploring the role of higher education attainment in shaping the nexus of mineral resources dependency, business freedom, and globalization in South Asia. *Resources Policy*, 91. <https://doi.org/10.1016/J.RESOURPOL.2024.104848>
- Triatmanto, B., Bawono, S., & Wahyuni, N. (2023). The contribution and influence of total external debt, FDI, and HCI on economic growth in Indonesia, Thailand, Vietnam, and Philippines. *Research in Globalization*, 7. <https://doi.org/10.1016/J.RESGLO.2023.100163>
- Van Le, D., & Tran, T. Q. (2024). Economic growth and quality of education: Evidence from the national high school exam in Vietnam. *International Journal of Educational Development*, 104. <https://doi.org/10.1016/J.IJEDUDEV.2023.102947>
- VOS, R., & CATTANEO, A. (2021). Poverty reduction through the development of inclusive food value chains. *Journal of Integrative Agriculture*, 20(4), 964–978. [https://doi.org/10.1016/S2095-3119\(20\)63398-6](https://doi.org/10.1016/S2095-3119(20)63398-6)
- Weiping, T. (2018). China's approach to reduce poverty: taking targeted measures to lift people out of poverty. *International Poverty Reduction Center in China*.
- Xu, C., & Li, X. (2023). The efficiency of natural resource consumption and government administration concerning green economic growth in Asian countries. *Resources Policy*, 82. <https://doi.org/10.1016/J.RESOURPOL.2023.103569>
- Yin, S., Liu, X., Yang, Z., & Xing, H. (2024). The impact of green education on resource extraction and consumption sustainability for green growth. *Resources Policy*, 90, 104785. <https://doi.org/10.1016/J.RESOURPOL.2024.104785>
- Yunker, J. A. (2024). Economic growth in China and India: The potential role of population. *World Development Sustainability*, 4, 100130. <https://doi.org/10.1016/J.WDS.2024.100130>
- Zhu, J., Lin, N., Zhu, H., & Liu, X. (2023). Role of sharing economy in energy transition and

Adelia Azzahra^{1*}, Riska Rahayu², Nina Siti Marlina³, Nur Saebah⁴, Wahyu Eko Saputro⁵

sustainable economic development in China. *Journal of Innovation and Knowledge*, 8(2). <https://doi.org/10.1016/J.JIK.2023.100314>

Copyright holder:

Adelia Azzahra, Riska Rahayu, Nina Siti Marlina, Nur Saebah, Wahyu Eko Saputro
(2024)

First publication right:

Journal of Management, Economic and Financial

This article is licensed under:

