Cognitionis Civitatis et Politicae, 1(2) - April 2024 69-76

The Influence of the Human Development Index on the Economic Growth of East Java Province in 2022-2023

Nabilla Ryca Maulidiyah [1], Wily Mohammad [2]
[1] *Universitas Trunojoyo Madura*
[2] *Universitas Institut Pengembangan Wiraswasta Indonesia Jakarta, Indonesia*

Corresponding Author: Wily Mohammad, E-mail: wily17001@mail.unpad.ac.id

Received: March 24, 2024	Revised: March 26, 2024	Accepted: April 27, 2024	Online: April 27, 2024

ABSTRACT
This quantitative research aims to investigate the relationship between Human Development Index (HDI) and Economic Growth (EC GROWTH) across 38 districts in East Java, Indonesia, using data from Badan Pusat Statistik for the years 2022-2023. The study employs Structural Equation Modeling with Partial Least Squares (SEM-PLS) methodology using SmartPLS to analyze the data. The path analysis revealed a statistically significant positive relationship between HDI and Economic Growth, suggesting that improvements in human development contribute significantly to economic advancement in the region. Based on these findings, recommendations include enhancing investments in education, healthcare, and infrastructure to further strengthen human capital and stimulate economic growth in East Java.

Keywords: *HDI; Economic Growth*

Journal Homepage https://journal.ypidathu.or.id/index.php/ijnis

How to cite: Maulidiyah, N R & Mohammad, W. (2024). The Influence of the Human Development Index on the Economic Growth of East Java Province in 2022-2023. *Cognitionis Civitatis et Politicae*, 1(2), 69-76 https://doi.org/10.55849/politicae.v1i2.1116
Published by: Yayasan Pedidikan Islam Daarut Thufulah

INTRODUCTION

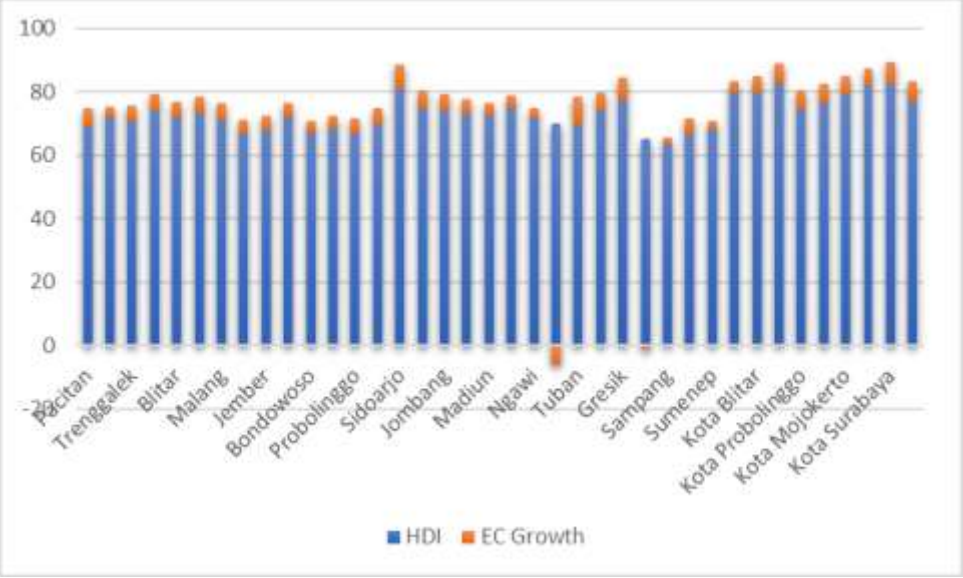
Assessing economic growth is a key indicator of a country's success. Higher economic growth in a region typically indicates a stronger economy. Economic growth is influenced by multiple factors that determine the prosperity of a region. Key factors that significantly impact a region's economic growth include the quality of human resources (HR), technological mastery, and capital availability (Lucya & Anis, 2019). Among these, the quality of human resources stands out as one of the most crucial factors influencing the economic growth of countries worldwide. Economic growth is a key variable in evaluating the economic life of all countries worldwide. As seen in developed nations, economic growth is directly linked to high levels of education. The low productivity among the lower middle class is partly due to limited access to education. Education is not just a

short-term goal for a country's economic growth; it is a long-term investment aimed at producing capable and skilled human resources (Arofah & Rohimah, 2019).

The Human Development Index (HDI), when represented by health, indicates that higher health levels in a population will enhance productivity, thereby improving human performance. Additionally, HDI represented by education levels affects the skills of a region's residents. A decent standard of living, where the population has sufficient real per capita expenditure to meet daily basic needs, also impacts the quality of life of residents in an area (Alkhoiriyah & Sa'roni, 2021).

The implications for the economy, with the higher quality of human resources that a region has due to its high level of education and health, will affect the quality of life of its inhabitants, impacting growth rates and regional welfare (Susanto, 2013). The Human Development Index (HDI) measures the proportion of basic achievements in key areas of human development: a long and healthy life, education, and having necessary resources. Human development focuses on placing humans as the ultimate goal of development. To compare HDI achievements across countries and regions, scores can be categorized into groups: HDI < 60 indicates low HDI, 60 ≤ HDI < 70 represents medium HDI, 70 ≤ HDI < 80 signifies high HDI, and HDI ≥ 80 denotes very high HDI (Yuliansyah, 2021).

Figure 1. HDI and Economic Growth in East Java in 2022



Source: BPS, 2024

A lower HDI typically indicates poorer health, lower education levels, and insufficient living standards, which can negatively impact the workforce's productivity and skills (Hendarmin & Kartika, 2019). For instance, Sampang has a low HDI of 63.39 and a low economic growth rate of 2.31%. This suggests that limited human capital development can constrain economic activities and growth. Regions with lower HDI may struggle to attract investments due to perceived lower workforce quality and inadequate infrastructure, hindering economic growth. Bangkalan has a low HDI of 65.05 and even shows negative economic growth at negative 1.12%, highlighting how poor human development can deter economic progress. Some regions might have strong economic

growth due to specific policies or booming industries that are less reliant on high HDI. For example, Tuban has an HDI of 69.67 but a high economic growth rate of 8.88%, possibly due to specific local economic activities that drive growth independently of HDI.

Economic growth can be influenced by external factors like global market trends, natural resources, or government interventions that do not immediately reflect changes in HDI (Sadeh et al., 2020). Sidoarjo has a high HDI of 81.02 and a high economic growth rate of 7.53%, indicating that while HDI is a contributing factor, other dynamics are also at play. But cities like Surabaya, with a very high HDI of 82.74, show a robust economic growth rate of 6.51%, suggesting that better health, education, and living standards contribute to economic performance. There are exceptions where economic growth does not align with HDI, such as Bojonegoro, with an HDI of 70.12 but negative economic growth (-6.16%). This indicates other factors or short-term disturbances impacting growth.

Based on the Human Development Index (HDI) scores provided, cities in East Java, Indonesia, exhibit varying levels of human development. In the medium HDI category ($60 \leq HDI < 70$), cities like Lumajang (66.95), Jember (67.97), Bondowoso (67.31), Situbondo (68.25), Probolinggo (66.96), Pasuruan (69.68), Tuban (69.67), Bojonegoro (70.12), Bangkalan (65.05), Sampang (63.39), Pamekasan (66.99), Sumenep (67.87), and Pacitan (69.37) demonstrate moderate development. Moving into the high HDI range ($70 \leq HDI < 80$), cities such as Ponorogo (71.87), Trenggalek (71.00), Tulungagung (74.06), Blitar (71.86), Kediri (73.46), Malang (71.38), Banyuwangi (71.94), Nganjuk (72.93), Madiun (72.39), Magetan (74.85), Ngawi (71.75), Jombang (74.05), Lamongan (74.02), Gresik (77.16), Kota Probolinggo (74.56), and Kota Pasuruan (76.54) show higher levels of development. Several cities stand out in the very high HDI category ($HDI \geq 80$), including Sidoarjo (81.02), Mojokerto (74.89), Kota Kediri (79.59), Kota Blitar (79.93), Kota Malang (82.71), Kota Mojokerto (79.32), Kota Madiun (82.01), Kota Surabaya (82.74), and Kota Batu (77.22). These cities typically boast advanced infrastructure, healthcare, education, and living standards, reflecting robust socio-economic progress.

The distribution of HDI scores across East Java's cities underscores regional disparities in development. While some cities like Blitar and Kediri maintain consistently high HDI scores above 70, others in the region, particularly those in the medium HDI bracket, indicate a need for targeted developmental interventions to enhance living conditions and socio-economic opportunities. The concentration of very high HDI cities primarily in the central and eastern parts of East Java highlights urban centers as key hubs of economic and social advancement, serving as models for sustainable development practices and policies in the region.

Previous research produced findings that HDI had a positive and significant effect on economic growth (Susanto, 2013). However, in other research shows that HDI has no effect on economic growth (Dewi & Sutrisna, 2014). In other research, HDI has negative and significant effect on economic growth (Muqorrobin, 2017).

The goal of this research is to analyze and understand the influence of the Human Development Index (HDI) on the economic growth of East Java Province during the

period of 2022-2023. This involves examining how variations in HDI, which encompasses factors such as health, education, and standard of living, impact the economic performance of various cities and regions within East Java using statistical method. The ultimate objective is to provide insights that can inform policy decisions aimed at enhancing both human development and economic growth in East Java Province.

RESEARCH METHODOLOGY

Hypotheses

The goal of this research is to analyze and understand the influence of the Human Development Index (HDI) on the economic growth of East Java Province during the period of 2022-2023. The implications for the economy, with the higher quality of human resources that a region has due to its high level of education and health, will affect the quality of life of its inhabitants, impacting growth rates and regional welfare (Susanto, 2013). Previous research produced findings that HDI had a positive and significant effect on economic growth (Susanto, 2013). However, in other research shows that HDI has no effect on economic growth (Dewi & Sutrisna, 2014). In other research, HDI has negative and significant effect on economic growth (Muqorrobin, 2017).

H1: HDI has positive and significant effect on Economic Development

Method

This research is using quantitative methods to analyze data sourced from Badan Pusat Statistik covering the years 2022-2023 for each district in East Java (BPS, 2024). The dataset encompasses variables such as Human Development Index (HDI) and economic growth rates, totaling 152 data points across 38 districts. Utilizing the Structural Equation Modeling method with Partial Least Squares (SEM-PLS) in SmartPLS 4.0 (Ghozali & Latan, 2015), the study aims to investigate the interplay between HDI dan economic growth.

Data Processing

Data preprocessing is crucial to ensure data integrity and reliability. Validity tests are employed to confirm that all measured variables (HDI and economic growth) exhibit loadings above 0.7, indicating robust measurement of their respective constructs. Additionally, reliability is assessed using Cronbach's alpha, ensuring internal consistency exceeds 0.6 for the constructs under examination. The model's adequacy is evaluated with R Square for model fit, followed by hypothesis testing to ascertain the significance of relationships between HDI and economic growth within East Java's districts. Hypothesis testing follows, aiming to validate relationships between HDI and economic growth. A critical aspect of this phase is determining the significance of these relationships, typically set at a p-value of less than 0.05 to establish statistical significance (Ghozali & Latan, 2015).

RESULT AND DISCUSSION

Validity, Reliability, and Model Test

Table 1. Validity, Reliability, and Model Test

Variable	Outer Loadings	Cronbach Alpha	R Square
HDI (X)	1.000	1.000	-
EC GROWTH (Y)	1.000	1.000	0.150

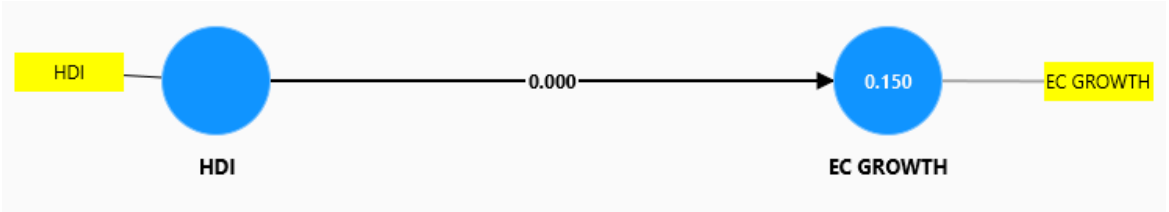
Source: SmartPLS result, 2024

The outer loading of HDI is 1.000, which signifies that HDI is perfectly measured by its indicators or items in the model. In other words, the indicators used to measure HDI are highly correlated with the underlying construct of HDI itself. The outer loading of Economic Growth (EC GROWTH) is also 1.000, indicating that the selected indicators or items used to measure economic growth are highly correlated with the underlying construct of economic growth.

The Cronbach's alpha coefficient for HDI is also 1.000, indicating perfect internal consistency among the indicators used to measure HDI. This suggests that the indicators reliably measure the concept of HDI without any measurement error. Similar to HDI, the Cronbach's alpha coefficient for Economic Growth (EC GROWTH) is 1.000, suggesting perfect internal consistency among the indicators used to measure economic growth.

The R Square value for Economic Growth is 0.150. This value represents the proportion of variance in Economic Growth explained by the predictors (which may include HDI and possibly other variables) in the model. An R Square of 0.150 indicates that approximately 15% of the variance in Economic Growth is explained by the variables included in the analysis.

Figure 2. Model



Source: SmartPLS result, 2024

Hypotheses Test

Table 2. Path Coefficient

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
HDI -> EC GROWTH	0.388	0.405	0.103	3.75	0.000

Source: SmartPLS result, 2024

The original sample value for the path coefficient from HDI to Economic Growth (EC GROWTH) is 0.388. This represents the estimated effect or relationship strength between HDI and Economic Growth in your model based on the data. It means, it has positive direction. The p-value associated with the T statistics (|O/STDEV|) is 0.000. This p-value indicates the probability of observing a relationship as strong as or stronger than what is found in the sample, assuming the null hypothesis (typically no relationship between HDI and Economic Growth) is true. A p-value of 0.000 (or < 0.05) is considered statistically significant, suggesting that the relationship between HDI and Economic Growth in the model.

Discussion

The significant and positive relationship found between Human Development Index (HDI) and Economic Growth in East Java's districts can be discussed in several key dimensions. Higher HDI scores often reflect greater investments in education and healthcare. These investments contribute to a more skilled and healthy workforce, which in turn enhances productivity and innovation. Educated individuals are better equipped to adapt to technological advancements and contribute more effectively to economic activities, thereby stimulating economic growth (Erlyn et al., 2022).

Components of HDI such as life expectancy and access to healthcare directly impact the quality of life. Improved health outcomes reduce absenteeism, increase labor force participation, and lower healthcare costs, allowing individuals to allocate more resources towards productive activities (WHO, 2016). This results in a healthier and more productive workforce, contributing to overall economic growth.

HDI components also include aspects like access to clean water, sanitation, and infrastructure development. Improved infrastructure supports economic activities by reducing transaction costs, improving market access, and attracting investments. These developments create a conducive environment for businesses to thrive, thereby stimulating economic growth (Sapkota, 2014).

Higher HDI scores often correlate with greater social cohesion and political stability. Societies with lower levels of inequality and higher levels of education tend to experience less social unrest and more predictable policy environments. This stability is attractive to investors and supports sustained economic growth over the long term (Wilkinson, 2020).

Investments in human development have multiplier effects across the economy. For example, improved education leads to higher incomes and better job opportunities, which in turn increases consumer spending and tax revenues (Budiharso & Tarman, 2020). These economic activities create a virtuous cycle of growth, reinforcing the initial positive impacts of human development investments.

CONCLUSION

In conclusion, the significant and positive relationship between Human Development Index (HDI) and Economic Growth observed in East Java's districts underscores the pivotal role of human capital and social development in fostering

economic prosperity. The findings highlight that investments in education, healthcare, and infrastructure are not only indicators of improved quality of life but also drivers of economic growth.

By improving educational attainment and healthcare outcomes, societies can cultivate a more skilled and healthy workforce capable of adapting to technological advancements and contributing effectively to economic activities. Moreover, investments in infrastructure enhance market accessibility, reduce transaction costs, and attract investments, thereby creating a conducive environment for business expansion and economic diversification. These insights are critical for policymakers in East Java and beyond, emphasizing the importance of integrated development strategies that prioritize human development alongside traditional economic policies. Continued efforts to enhance human capital, promote social inclusion, and ensure sustainable infrastructure development are essential for achieving long-term economic growth and improving overall well-being across the region.

In future research and policy formulation, a deeper exploration of specific mechanisms through which HDI influences economic growth will be beneficial. This approach can inform targeted interventions aimed at maximizing the socio-economic benefits of human development investments, ultimately contributing to more inclusive and resilient economic development in East Java and similar regions globally.

REFERENCES

Alkhoiriyah, S. F., & Sa'roni, C. (2021). Pengaruh Indeks Pembangunan Manusia (IPM) dan Pengangguran terhadap Pertumbuhan Ekonomi di Kota Banjarmasin. *JIEP: Jurnal Ilmu Ekonomi Dan Pembangunan*, *4*(2), 299–309.

Arofah, I., & Rohimah, S. (2019). Analisis jalur untuk pengaruh angka harapan hidup, harapan lama sekolah, rata-rata lama sekolah terhadap indeks pembangunan manusia melalui pengeluaran Riil Per Kapita di Provinsi Nusa Tenggara Timur. *Jurnal Saintika Unpam: Jurnal Sains Dan Matematika Unpam*, *2*(1), 76.

BPS. (2024). *Pertumbuhan Ekonomi Menurut Kabupaten/Kota (Persen), 2021-2023*. https://jatim.bps.go.id/indicator/162/527/1/-seri-2010-pertumbuhan-ekonomi-menurut-kabupaten-kota.html

Budiharso, T., & Tarman, B. (2020). Improving quality education through better working conditions of academic institutes. *Journal of Ethnic and Cultural Studies*, *7*(1), 99–115.

Dewi, N. L. S., & Sutrisna, I. K. (2014). Pengaruh komponen indeks pembangunan manusia terhadap pertumbuhan ekonomi Provinsi Bali. *E-Jurnal Ekonomi Pembangunan Universitas Udayana*, *3*(3), 44443.

Erlyn, P., Hidayat, B., Cahyo, A., & Saksono, H. (2022). Investment in Human resources to increase achievement levels of sustainable development. *Jurnal Bina Praja*, *14*(1), 135–146.

Ghozali, I., & Latan, H. (2015). *Konsep, Teknik, Aplikasi Menggunakan Smart PLS 3.0 Untuk Penelitian Empiris*. BP Undip.

Hendarmin, H., & Kartika, M. (2019). The relationship between human capital and the regional economy productivity. *JEJAK: Jurnal Ekonomi Dan Kebijakan*, *12*(1), 138–152.

Lucya, C., & Anis, A. (2019). Pengaruh teknologi dan pendidikan terhadap pertumbuhan ekonomi di indonesia. *Jurnal Kajian Ekonomi Dan Pembangunan*, *1*(2), 509–518.

Muqorrobin, M. (2017). Pengaruh Indeks Pembangunan Manusia (IPM) Terhadap Pertumbuhan Ekonomi Provinsi Jawa Timur. *Jurnal Pendidikan Ekonomi (JUPE)*, *5*(3).

Sadeh, A., Radu, C. F., Feniser, C., & Borşa, A. (2020). Governmental intervention and its impact on growth, economic development, and technology in OECD countries. *Sustainability*, *13*(1), 166.

Sapkota, J. B. (2014). *Access to infrastructure and human development: Cross-country evidence*.

Susanto, A. B. (2013). Pengaruh Indeks Pembangunan Manusia (IPM) dan Inflasi Terhadap Pertumbuhan Ekonomi di Kabupaten Lamongan. *Jurnal Pendidikan Ekonomi (JUPE)*, *1*(3).

WHO. (2016). *Global strategy on human resources for health: workforce 2030*.

Wilkinson, R. G. (2020). *The impact of inequality: How to make sick societies healthier*. Routledge.

Yuliansyah, Y. (2021). Analysis Of The Human Development Index (Hdi) In Indonesia. *Cross-Border Journal of Business Management*, *1*(2), 244–256.