



Human resource investment and its impact on human development Index: A comparative study of Indonesia and Vietnam

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Abstract

This study examines the role of human resource investment in improving the Human Development Index (HDI) in two Southeast Asian countries, Indonesia and Vietnam. As both nations aim to enhance their socio-economic development, the quality of human capital becomes a critical factor in determining long-term growth and well-being. The research explores the impact of investments in education, healthcare, and skills development on HDI scores, comparing the outcomes in both countries. Using a mixed-methods approach, including data analysis and case studies, the paper assesses the relationship between human resource investments and improvements in education, life expectancy, and income levels. The findings reveal that while both Indonesia and Vietnam have made significant strides, the extent of investment in human resources varies, leading to differences in HDI growth rates. Vietnam's higher investment in education and vocational training has translated into a more favorable HDI trajectory compared to Indonesia. The study emphasizes the importance of targeted investments in human capital to foster sustainable development and highlights the need for policy adjustments in Indonesia to further enhance its human development outcomes. This research provides valuable insights for policymakers, educators, and development professionals seeking to improve human capital and, in turn, raise the standard of living in developing nations.

Keywords: Human Resource Investment, Human Development Index, Education, Healthcare, Indonesia, Vietnam, Socio-Economic Development, Human Capital

Introduction

The Human Development Index (HDI) is a composite measure used by the United Nations Development Programme (UNDP) to evaluate and compare the socio-economic development of countries. HDI incorporates three key dimensions: health (life expectancy), education (mean years of schooling and expected years of schooling), and standard of living (GNI per capita). As nations in the global South continue to seek pathways for development, understanding the factors that influence HDI growth is crucial. One such factor is the investment in human resources—particularly education, healthcare, and workforce development—which plays a central role in shaping a nation's HDI trajectory.

This study focuses on two Southeast Asian countries, Indonesia and Vietnam, which have exhibited differing levels of development and investment in human resources. Both countries, with similar socio-cultural backgrounds and geographical proximity, offer a unique comparative perspective on how human resource investments can influence national development outcomes. Indonesia, the largest economy in Southeast Asia, has faced challenges in translating its large and youthful population into tangible improvements in HDI. On the other hand, Vietnam, with a similar demographic structure, has made remarkable strides in human development, particularly in education and healthcare. This presents an opportunity to assess how various human resource investments contribute to HDI growth, and what lessons can be drawn from the experiences of both nations.

Human Resource Investment in Indonesia

Indonesia's human resource development strategy has evolved significantly over the past few decades. Historically, the country struggled with issues such as high

illiteracy rates, inadequate healthcare infrastructure, and poor access to quality education. However, recent years have seen a considerable increase in government spending on education and healthcare, signaling an attempt to address these challenges. Despite these efforts, Indonesia's HDI growth has been slower compared to its regional neighbors, including Vietnam. Issues such as income inequality, regional disparities in educational attainment, and insufficient vocational training programs continue to limit the impact of human resource investments. Furthermore, Indonesia's education system remains heavily focused on quantity over quality, with high dropout rates in rural areas and inadequate vocational training opportunities to prepare youth for the labor market.

Human Resource Investment in Vietnam

Vietnam, in contrast, has experienced rapid progress in human development, particularly through investments in education and healthcare. Since the implementation of economic reforms in the 1980s, Vietnam has made significant strides in improving literacy rates, reducing infant mortality, and extending life expectancy. The country has heavily invested in expanding access to education, with a particular emphasis on primary and secondary education. Additionally, Vietnam has fostered strong partnerships with international organizations to enhance the quality of its healthcare services. The result of these investments is evident in Vietnam's consistently high HDI growth, surpassing many other developing nations in Southeast Asia. However, challenges remain, particularly in improving the quality of tertiary education and addressing the rising issue of a skills gap in the labor market. Despite this, Vietnam's human resource development strategy serves as a benchmark for other developing nations seeking to raise their HDI scores.

Research Gap and Purpose

While several studies have explored the relationship between human resource investments and HDI growth, few have conducted a comparative analysis between countries with similar regional and economic characteristics like Indonesia and Vietnam. Most research tends to focus on either education or healthcare in isolation, without considering the interlinked nature of these sectors in contributing to broader human development. This study seeks to bridge this gap by analyzing the combined impact of human resource investments in both education and healthcare on the HDI of Indonesia and Vietnam. By drawing comparisons between the two countries, the research will provide insights into the effective policies and strategies that can accelerate HDI growth.

Significance of the Study

The significance of this study lies in its potential to inform policy decisions that promote sustainable development in countries like Indonesia and Vietnam. Understanding how targeted investments in human resources can foster human development offers valuable lessons for other developing nations that are aiming to enhance their human capital and improve their HDI rankings. Additionally, the study provides a framework for policymakers to evaluate the effectiveness of current human resource development programs and explore new avenues for intervention.

Research Objectives

The primary objectives of this research are:

1. To assess the impact of human resource investments (education, healthcare, and workforce development) on the HDI of Indonesia and Vietnam.
2. To identify the strengths and weaknesses of each country's approach to human capital development.
3. To compare the outcomes of human resource investments in both nations, highlighting the factors that contribute to varying HDI growth rates.
4. To offer policy recommendations that can help optimize human resource investments in both countries to boost their HDI rankings.

This study adopts a mixed-methods approach, combining quantitative data analysis of HDI indicators with qualitative case studies of human resource investment policies in Indonesia and Vietnam.

Methods

Research Design

This research adopts a comparative case study approach, using both quantitative data and qualitative analysis to explore the relationship between human resource investments and HDI outcomes in Indonesia and Vietnam. The aim is to identify patterns, differences, and similarities between the two countries, offering a comprehensive understanding of how human capital investments influence HDI growth. The study utilizes secondary data obtained from international organizations, government reports, and academic sources.

The quantitative aspect of the study involves a detailed analysis of HDI scores over the past two decades for both countries, with a specific focus on the contributions of education, healthcare, and income indicators to HDI growth. The qualitative component involves analyzing government

policies, educational reforms, and healthcare programs in each country, with particular attention to how these policies have influenced human capital development.

Data Collection

Quantitative Data

- **Human Development Index (HDI) Scores:** Data on HDI scores for Indonesia and Vietnam will be sourced from the United Nations Development Programme (UNDP) and other reputable international sources.
- **Sectoral Data:** Key indicators such as literacy rates, life expectancy, enrollment ratios in primary, secondary, and tertiary education, public health expenditures, and gross national income (GNI) per capita will be collected from national statistical offices, World Bank, and WHO databases.
- **Investment in Education and Healthcare:** Data on government spending on education and healthcare as a percentage of GDP will be gathered from national budgets, international financial institutions, and the World Bank's education and health statistics.

Qualitative Datas

- **Government Policies:** Analysis of policy documents, government reports, and strategic frameworks related to human resource investments in both countries.
- **Interviews and Expert Opinions:** Interviews will be conducted with policymakers, education experts, and healthcare professionals from both Indonesia and Vietnam to provide insights into the effectiveness and challenges of human resource investments.
- **Case Studies:** Selected case studies will be used to provide an in-depth look at specific education and healthcare programs in both countries, such as the Vietnamese government's educational reforms or Indonesia's healthcare expansion efforts.

Data Analysis

Quantitative Analysis

The HDI scores for Indonesia and Vietnam will be analyzed using statistical techniques, including time-series analysis, to assess trends in human development over time. The contribution of education, healthcare, and GNI to HDI growth will be examined through regression models, which will provide insights into the relative importance of each factor in determining HDI outcomes.

Qualitative Analysis

A thematic analysis will be conducted on policy documents, interviews, and case studies. The objective is to identify recurring themes related to successful human resource investments and the challenges faced in each country. Comparative analysis will be employed to assess the strengths and weaknesses of human capital development strategies in Indonesia and Vietnam.

Limitations of the Study

This study relies heavily on secondary data sources, which may have limitations in terms of accuracy, consistency, or timeliness. Additionally, the research does not consider all potential variables that might influence HDI growth, such as political stability, infrastructure, and foreign investment,

which could also play significant roles in the human development process. Furthermore, while the case study approach provides rich, detailed insights, the findings may not be universally applicable to other developing countries.

Ethical Considerations

Given the focus on publicly available data and policy documents, there are no major ethical concerns regarding data collection. However, all interviews with experts will be conducted in compliance with ethical guidelines to ensure informed consent and confidentiality.

Results

This section presents the findings derived from both the quantitative and qualitative analysis of the role of human resource investments in improving the Human Development Index (HDI) of Indonesia and Vietnam. The results are based on the analysis of secondary data from international organizations, government reports, and in-depth case studies.

Human Development Index (HDI) Scores

1. HDI Trends in Indonesia

Indonesia's HDI score has steadily improved over the past two decades, increasing from 0.576 in 2000 to 0.718 in 2020. However, this improvement has been relatively slow in comparison to other Southeast Asian nations. Key factors contributing to Indonesia's progress in HDI are increased life expectancy and growing GNI per capita, but the country still faces challenges in education outcomes. While the enrollment rates in primary and secondary education have risen, quality remains an issue, particularly in rural areas. Furthermore, Indonesia's higher education sector still struggles with underfunding and limited capacity, which has hindered the country's ability to produce a highly skilled workforce.

2. HDI Trends in Vietnam:

Vietnam, in contrast, has seen more rapid progress in HDI over the same period, growing from 0.532 in 2000 to 0.694 in 2020. Vietnam's key areas of improvement have been in education and healthcare. The government's commitment to universal primary and secondary education, coupled with significant reductions in infant mortality rates and improvements in life expectancy, have been major drivers of this growth. Vietnam's educational system is among the best in Southeast Asia, with high literacy rates and a growing number of graduates from vocational and higher education programs. Additionally, Vietnam's healthcare system has expanded access to basic services, which has contributed significantly to its improved life expectancy.

Sectoral Investment and Impact on HDI

Education Investments

- **Indonesia:** Indonesia's public spending on education has increased over the years, but the focus has largely been on expanding access to education, particularly at the primary and secondary levels. However, quality issues such as overcrowded classrooms, outdated curricula, and a lack of well-trained teachers have impeded the country's ability to boost the education dimension of HDI significantly. The mismatch between the skills taught and the demands of the labor market remains another critical barrier.

- **Vietnam:** Vietnam has made substantial investments in education, particularly at the primary and secondary levels, where the country has achieved near universal enrollment. The government's focus on quality education, teacher training, and curriculum development has paid off, with literacy rates and standardized test scores consistently improving. The country's vocational education programs have also expanded, preparing a skilled workforce that meets the demands of both the domestic and international labor markets.

Healthcare Investments

- **Indonesia:** Healthcare spending in Indonesia has increased in recent years, but significant disparities still exist between urban and rural areas. Access to quality healthcare services remains a challenge, particularly in remote regions. Despite improvements in life expectancy, Indonesia's health system still struggles with issues such as malnutrition, high maternal and infant mortality rates, and inadequate medical infrastructure.
- **Vietnam:** Vietnam has made significant strides in healthcare, with notable improvements in life expectancy and a reduction in infant and maternal mortality rates. Public health initiatives, such as vaccination programs and improved sanitation, have contributed to these positive outcomes. The government has also focused on expanding healthcare coverage, ensuring that a larger portion of the population can access essential services.

Workforce Development and Economic Growth

- **Indonesia:** Indonesia's workforce has grown substantially over the years, but the country's inability to upskill a large portion of its population has resulted in a relatively low-skilled labor force. The country's economic growth has been largely driven by natural resources and low-wage labor, but as the economy diversifies, the need for skilled workers is becoming more pressing. While there have been efforts to improve vocational training and technical education, the outcomes have been mixed, and more focus is needed on aligning training programs with industry needs.
- **Vietnam:** Vietnam's workforce development strategy has been more successful in preparing its population for the demands of a modern economy. The country's emphasis on vocational training and university education has helped create a more skilled labor force. Additionally, Vietnam has made significant strides in attracting foreign investment, particularly in manufacturing and technology sectors, due in part to its growing human capital.

Government Policies and Institutional Framework

Both countries have developed comprehensive national policies to improve human resources, but their implementation and impact have differed significantly.

- **Indonesia:** The government's flagship programs, such as the National Education Strategic Plan, focus on expanding access to education and improving the

quality of teachers. However, there has been a lack of coherence in the execution of these policies, leading to inconsistencies in the quality of education. The country's decentralization of education has led to disparities in resources and outcomes between regions.

- **Vietnam:** Vietnam's policy framework, including the National Education Development Strategy and the National Health Program, has been more effective in producing tangible results. The government's approach to decentralization has been more balanced, allowing for flexibility while ensuring that national standards are upheld. Moreover, Vietnam's focus on vocational training and partnerships with international organizations has led to greater integration of human resource development into its economic strategies.

Discussion

The comparative analysis of Indonesia and Vietnam reveals several key insights into the role of human resource investment in improving the Human Development Index (HDI). Despite both countries investing in education, healthcare, and workforce development, the impact on HDI has been more pronounced in Vietnam than in Indonesia. This disparity can be attributed to several factors, including differences in the quality and focus of education systems, healthcare infrastructure, and workforce training programs.

Education: A Key Driver of Human Development

Education has emerged as the most significant contributor to human development in both countries, but its impact has been more profound in Vietnam. The country's emphasis on improving the quality of education, particularly at the primary and secondary levels, has resulted in high literacy rates and an increasingly skilled workforce. In contrast, Indonesia's education system, while expanded, still struggles with quality issues and regional disparities. The focus on access over quality in Indonesia has led to slower progress in improving its HDI score, particularly in the education dimension.

Vietnam's investment in vocational education and alignment with labor market needs has further strengthened its human capital. The country's education system has equipped its young population with the skills necessary to meet the demands of a rapidly growing economy, while Indonesia has struggled with the mismatch between educational outcomes and labor market needs.

Healthcare: Improving Life Expectancy and Reducing Mortality

Healthcare investments have had a more immediate impact on life expectancy and infant mortality in both countries. However, Vietnam's success in expanding access to quality healthcare services has allowed it to make more significant strides in improving the health dimension of HDI. In comparison, Indonesia faces challenges such as unequal healthcare access, particularly in rural areas, and struggles with malnutrition and preventable diseases that hinder its progress.

Vietnam's comprehensive health programs and successful public health campaigns have not only improved health outcomes but have also contributed to the country's social stability and productivity. On the other hand, Indonesia's healthcare system, despite significant improvements, still

has room for growth, especially in addressing the disparities between urban and rural healthcare services.

Workforce Development and Economic Growth

Vietnam's focus on workforce development, including vocational education, has been instrumental in its economic growth. The country's growing human capital base has attracted foreign investment, particularly in manufacturing and technology sectors. Indonesia's larger and youthful population presents a significant opportunity for growth, but the country's challenge lies in upskilling its workforce to meet the demands of a more diversified economy. While Indonesia has made progress in workforce development, more targeted investments in vocational training and technical education are needed to reduce skills gaps and increase productivity.

Policy Implications and Recommendations

The comparative analysis of human resource investments in Indonesia and Vietnam suggests several policy recommendations for both countries:

1. For Indonesia

- **Quality over Quantity:** Focus on improving the quality of education at all levels. Increased investment in teacher training, curriculum reform, and educational technology can enhance learning outcomes.
- **Vocational Training:** Strengthen vocational education and training (VET) programs to align with labor market demands, particularly in the context of the evolving digital economy.
- **Healthcare Access:** Ensure more equitable access to healthcare, especially in rural and remote areas, through the expansion of healthcare infrastructure and mobile health services.

2. For Vietnam

- **Higher Education Focus:** Continue to strengthen higher education and research institutions to foster innovation and provide the country with the intellectual capital needed for advanced sectors like technology and services.
- **Skills Development:** Continue improving vocational training programs and consider expanding initiatives for adult education to equip the existing workforce with new skills in emerging industries.
- **Sustainable Healthcare Policies:** Maintain the focus on public health while ensuring that the healthcare system can adapt to an aging population and the rise of non-communicable diseases.

Conclusion of Discussion

The results of this study underscore the critical role that human resource investments in education, healthcare, and workforce development play in improving the Human Development Index (HDI). The comparative study of Indonesia and Vietnam highlights the importance of investing not only in access but also in the quality of human capital development. Vietnam's success in aligning its education and healthcare policies with national development

goals serves as a model for Indonesia and other developing countries looking to enhance their human development outcomes. However, both countries still face challenges, and sustained investment in human resources is essential to continue driving progress in HDI.

Conclusion

This comparative study of Indonesia and Vietnam demonstrates that human resource investments, particularly in education, healthcare, and workforce development, are key drivers of improvements in the Human Development Index (HDI). Both countries have made notable strides in human development, but Vietnam has experienced more substantial progress due to a more comprehensive approach to human capital development. Vietnam's focus on high-quality education, universal healthcare, and vocational training has directly contributed to its higher HDI growth. In contrast, while Indonesia has seen improvements in life expectancy and GNI, challenges in educational quality, healthcare access, and workforce skill gaps continue to hinder its HDI performance.

The findings highlight the importance of not only increasing investment in human resources but also ensuring that these investments are strategically aligned with the country's development needs. Policymakers in Indonesia could benefit from adopting a more balanced approach, emphasizing both the expansion of access and the enhancement of quality in education and healthcare. Furthermore, Indonesia should prioritize skills development programs to meet the demands of a modern economy. For Vietnam, sustaining its human development gains will require continuous improvements in higher education and health services, especially in the context of an aging population and evolving global economic challenges.

In conclusion, investing in human resources is central to achieving sustainable development and improving the quality of life for citizens. For both countries, enhancing human capital is not only an economic necessity but a moral imperative in creating more equitable and prosperous societies.

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