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Human Development in ASEAN Countries: A Comparative Semilogarithmic Analysis Between Countries

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ABSTRACT

This study compares the effectiveness of human development policies across ASEAN countries by analyzing each nation's unique context and characteristics. The goal is to identify the most suitable policies for improving human development and achieving the SDGs, particularly in narrowing disparities in human development in ASEAN countries. Therefore, the primary approach is to compare the estimation results of human development determinants for each ASEAN country using semilogarithmic equations. The data for this study were sourced from the World Bank and the United Nations Development Programme. This study finds that the effectiveness of policies varies significantly across countries. While economic growth has generally been associated with improved human development in most ASEAN countries, population growth has a negative impact in countries with large populations. Government spending has only been effective in Vietnam, and external factors such as trade openness and foreign direct investment have not yielded optimal results across all ASEAN sample countries.

1. INTRODUCTION

The SDGs target various aspects of human well-being, including health and education. Economists emphasize that these two aspects instrumentally increase the productive capacity of human resources. A qualified human being is comparable to expensive machinery. In other words, human resource development is equally as valuable as physical capital investment. This supports the idea that human development is essentially an investment in the future well-being of humanity, enabling individuals to earn higher incomes, which can ultimately boost overall community income. In this context, the Human Development Index (HDI) can be a crucial indicator for measuring success in achieving the SDGs [1].

Figure 1, based on the Human Development Reports produced by the United Nations Development Programme, reveals that while the HDI (measured by life expectancy, education, and gross national income per capita, scaled from 0 to 1) in ASEAN countries has generally shown an upward trend, the progress has been uneven and the effectiveness of policies to promote human development differs across the region. Therefore, a more in-depth comparative analysis of policies is needed [2, 3]. By comparing the effectiveness of policies implemented in various ASEAN countries, each nation can identify policies that best suit its specific characteristics and context. It is crucial to remember that policies that have been successful in one country may not necessarily be successful in another [4]. The diversity of cultures, economies, and politics within the ASEAN contributes to this variability.

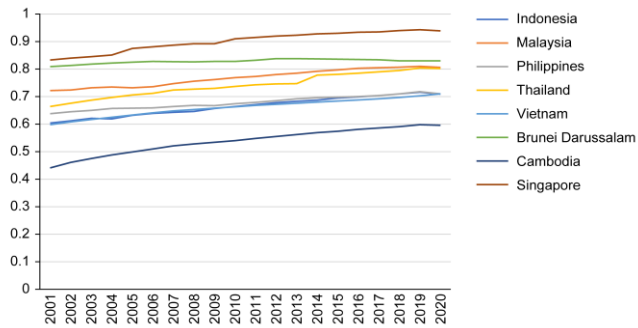

Figure 1. HDI

This diversity makes comparative policy analysis complex but highly intriguing. Through comparative studies, ASEAN member states can learn from each other and adopt best practices to improve their human development. This way, any regional cooperation can be targeted and serve as a means to narrow the human development gap between countries and accelerate the achievement of the SDGs in the ASEAN region.

By understanding the factors that influence human development, ASEAN countries can also design more effective policies.

Previous research relied on panel data analysis to measure the impact of policies on human development in the ASEAN has faced certain limitations [5]. While this approach is effective in obtaining large samples, it assumes homogeneity among ASEAN countries, which may not be entirely accurate. Therefore, this study proposes a more in-depth approach by analyzing each ASEAN country individually. The aim is to identify the most relevant and effective human resource development policies within the unique context of each country.

The primary and most significant determinant of a country's human development is economic growth. Robust domestic production activities serve as a source of national income. Governments can subsequently invest more in the education and health sectors. The increased job opportunities that accompany economic growth boost overall public income. The cumulative effects of economic expansion ultimately elevate human development. However, it is crucial to note that the correlation between economic growth and human development is not universally consistent. The quality of economic growth can influence the strength and direction of this relationship [4].

Meanwhile, government policies to control population growth can also influence human development. Population growth can increase pressure on natural resources such as water, land, and energy [6]. This can potentially lead to environmental degradation due to pollution and habitat destruction, for example. The impact will undoubtedly reduce societal productivity, hindering human development. The relationship between population and human development may also vary across countries. Factors such as a younger population structure tend to have better quality. Additionally, countries with abundant natural resources tend to have more environmental experts, such as scientists, technicians, and environmental managers. These skills are essential for designing and implementing effective environmental rehabilitation programs.

Another crucial policy for human development is government expenditure, particularly allocations for education and health. Such spending plays a vital role in equitable resource distribution, thereby improving the quality of life for citizens. Investments in education and health can help reduce socioeconomic disparities and enhance overall well-being. This undoubtedly contributes significantly to human development [7, 8]. While in developing countries, increased government spending on social sectors such as health and education often has a direct and substantial impact on human development due to unmet basic needs, in more developed countries, these needs are largely met. Consequently, government spending is generally directed toward improving service quality, fostering innovation, or addressing more complex inequalities.

Let us now shift our focus to external factors that influence human development. Free trade allows countries to specialize in producing goods and services most efficiently, thereby boosting overall productivity. Through trade, nations can also access new technologies and knowledge from abroad, further enhancing productivity and innovation. The increased competition resulting from free trade compels firms to become more efficient and innovative. Collectively, these impacts directly contribute to the enhancement of human development [9, 10].

The impact of free trade policies on human development can also vary significantly across countries. Countries lacking adequate infrastructure will find it difficult to reap the benefits of free trade. Similarly, countries with economies heavily reliant on one or a few export commodities are vulnerable to global price fluctuations. Government policies that either promote or hinder trade can also influence the impact of trade openness on human development. Additionally, institutional quality, such as law enforcement and property rights protection, as well as geographic location and access to international markets, play a crucial role in determining the effects of free trade.

Similar to free trade, foreign direct investment can introduce new technologies and enhance productivity, leading to an increase in per capita income and quality of life [11]. Furthermore, foreign investments can create new jobs and improve the skills of the local workforce. Foreign companies, which often invest in infrastructure such as roads, ports, and energy, can also elevate the standard of living for the population. While foreign direct investment can theoretically contribute positively to human development, its practical impact can vary across countries. Several factors can account for these differences, including macroeconomic stability and political conditions. The type of investment, the targeted sector, and the scale of investment can also yield varying results.

2. METHODOLOGY

This research uses the method of Ordinary Least Square (OLS) to identify the comparative influence of economic growth, population, government expenditure, trade openness, and foreign direct investment on human development in each ASEAN country. The comparative semilogarithmic equations [12] used are as follows:

$$\text{HDE} = \alpha + \beta_1 \ln \text{GDP} + \beta_2 \ln \text{POP} + \beta_3 \ln \text{GEX} + \beta_4 \text{TOP} + \beta_5 \text{FDI} + \mu \quad (1)$$

where, *HDE* is human development, measured using the HDI; *GDP* is gross domestic product (GDP), measured in U.S. dollar (USD); *POP* is population, measured in individuals; GEX is government expenditure, measured in USD; *TOP* is trade openness, measured in percent (the ratio of total exports and imports to GDP); *FDI* is foreign direct investment, measured in percent (the ratio of foreign direct investment to GDP); α is a constant; β_i represents each parameter to be estimated; μ is the random error term; and *ln* is the natural logarithm.

This study focuses exclusively on correlation to ensure consistency in the discussion, specifically examining the determinants of human development in ASEAN countries. For example, when analyzing the correlation between economic growth and human development, accounting for the reverse effect would shift the primary focus of the study to economic growth. These, in turn, would disrupt the coherence of the research by broadening its scope to include the determinants of economic growth, rather than maintaining its intended focus on the determinants of human development.

Semilogarithmic analysis is critical in studying human development policies in ASEAN countries because it allows for a nuanced understanding of the relationships between

variables, especially when dealing with diverse socioeconomic contexts. Unlike models that assume homogeneity such as fixed-effects panel regression, semilogarithmic analysis accommodates variations in data by capturing the proportional effects of independent variables on the dependent variable. This is especially useful in examining human development indicators, where small changes in policy variables can have varying impacts across countries with differing levels of development, infrastructure, and social systems. By taking the natural logarithm of specific variables, this approach transforms nonlinear relationships into linear ones, simplifying the interpretation of elasticity and growth effects. This ensures that the analysis reflects the unique characteristics of each ASEAN country, providing tailored insights into the effectiveness of human resource development policies rather than relying on generalized assumptions.

The HDI data for Indonesia, Malaysia, Philippines, Thailand, Vietnam, Brunei, Cambodia, and Singapore were sourced from the United Nations Development Programme. Supplementary data for other variables were acquired from the World Bank. Myanmar, East Timor, and Laos were omitted from the analysis due to data insufficiencies in the period 2001–2020. Although this study generally discusses ASEAN countries, the regression analysis focuses on examining the determinants of human development separately for each country. Therefore, the exclusion of Myanmar, East Timor, and Laos due to data insufficiencies does not interfere with the regression results for the included ASEAN countries. Each country's analysis remains independent, ensuring that the findings accurately reflect the specific determinants of human development without being affected by the absence of certain nations.

This study is designed so that if the β_1, β_3, β_4, and β_5 coefficients are significant and positive across all ASEAN countries, then to achieve better human development, sustained increases in economic growth, government expenditure, trade openness, and foreign direct investment are necessary in each nation. Conversely, if the β_2 coefficient is significant and negative across all countries, population growth should be controlled in each nation. However, if any of the coefficients in one or more countries are either significant in the opposite direction or not statistically significant at the 5% level, ASEAN member states should re-evaluate what drives human development within their borders.

3. RESULTS

This section begins with an overview of all data variables in the study. Singapore recorded the highest HDI of 0.94 in the final period of the research, while Cambodia had the lowest at 0.44 in the initial period. This significant disparity indicates a wide gap in human development across ASEAN member states.

In 2019, Indonesia boasted the largest GDP in ASEAN, exceeding USD 1 trillion, while Brunei Darussalam recorded the smallest GDP in 2001 at a mere USD 11.6 billion. Vietnam and Cambodia experienced significant economic growth over the past two decades. While the COVID-19 pandemic in 2020 caused GDP contractions in many countries, Vietnam defied the trend with continued positive growth.

Indonesia, Southeast Asia's most populous nation, has seen its population soar from 217 million in 2001 to 271 million in 2020. This rapid growth continues to pose challenges in ensuring equitable human development across the country. Conversely, Brunei Darussalam, with the smallest population in the region, has achieved a remarkably high standard of living through the prudent management of its natural resources. This stark contrast underscores the importance of effective resource management in achieving high standards of living. While Indonesia and the Philippines grapple with the challenge of improving the quality of life for their large populations, Brunei's success serves as a testament to what can be achieved with careful planning and limited resources.

Indonesia also recorded the highest government expenditure in 2020 at USD 94.62 billion, reflecting its economic size and COVID-19 response, while Cambodia recorded the lowest at USD 1.42 billion, highlighting its public sector challenges. Higher expenditure generally correlates with better human development, as exemplified by Singapore's high-quality public services despite moderate spending.

ASEAN member states exhibit varying degrees of trade openness, with Singapore consistently leading the pack. Its high trade openness, reaching 425.36% in 2006 and 332.77% in 2020, should have fostered human development through increased market access and technological advancements. Conversely, Indonesia's trade openness declined from 69.79% in 2001 to 32.97% in 2020, indicating a greater focus on domestic markets. This trend suggests that countries with higher levels of trade openness should tend to experience a better quality of life.

Singapore also recorded the highest foreign direct investment in the ASEAN in 2017, reaching 29.76%, while Indonesia experienced the lowest foreign investments at −1.86% in 2001. Vietnam and Cambodia exhibited significant investment growth, making them attractive investment destinations. Overall, foreign investments in the ASEAN have fluctuated due to political, economic, and global crises, with the dominant role of Singapore. Here, investment should have the potential to create jobs, transfer technology, and improve public services for a better standard of life.

Moving on to the estimation results of the human development function, the high R^2 value for human development across all countries, as shown in Table 1, indicates that the five explanatory variables used in the model successfully account for most of the variation in human development. The probability F-statistic value of 0.000 (significant at the 5% level) in all countries means that the five explanatory variables simultaneously have a massive influence. Therefore, the model is a good fit for explaining the relationship between independent and dependent variables in this study.

Table 2 presents the estimation results for human development function, particularly regarding the influence of economic growth. The coefficients of economic growth on human development in Indonesia, Malaysia, Philippines, Vietnam, Brunei Darussalam, and Singapore are positive and statistically significant (probability t-statistic value less than 0.05). It means that an increase of 1% in economic growth will increase human development by each country's coefficients, and vice versa. Meanwhile, Thailand and Cambodia have coefficients that are not statistically significant (probability t-statistic value greater than 0.05), so any change in economic growth in these two countries does not affect human development.

The estimation results of the impact of population on human development are presented in Table 3. Indonesia and Vietnam exhibited a negative and statistically significant relationship

between population and human development (probability t-statistic value less than 0.05). This implies that a 1% increase in population would lead to a decrease in human development by the respective coefficient for each country. Meanwhile, the other countries in the study showed no statistically significant relationship (probability t-statistic value greater than 0.05), indicating that population size did not influence changes in human development in these nations.

Another estimation of the human development function, as shown in Table 4, reveals that the coefficient of government expenditure in Vietnam is positive and statistically significant (probability t-statistic value less than 0.05). A 1% increase in government expenditure is associated with a 0.08% increase in human development. In contrast, other countries in this study sample do not exhibit a significant relationship between government expenditure and human development.

Table 1. Model fit

Country	R^2	F-Statistic	Probability F-Statistic	Observation
Indonesia	0.998	1333.880	0.000	20
Malaysia	0.995	546.733	0.000	20
Philippines	0.992	356.278	0.000	20
Thailand	0.990	273.698	0.000	20
Vietnam	0.993	394.742	0.000	20
Brunei Darussalam	0.859	17.099	0.000	20
Cambodia	0.989	261.505	0.000	20
Singapore	0.994	468.371	0.000	20

Table 2. Estimation results for the effects of ln GDP on HDE

Country	Coefficient	t-Statistic	Probability
Indonesia	0.215 *	5.17	0.000
Malaysia	0.077 *	3.99	0.001
Philippines	0.072 *	3.30	0.005
Thailand	0.081	0.97	0.347
Vietnam	0.148 *	2.23	0.043
Brunei Darussalam	0.098 *	3.20	0.006
Cambodia	0.052	0.97	0.348
Singapore	0.117 *	4.76	0.000

Notes: * Significant at the 5% level

Table 3. Estimation results for the effects of ln POP on HDE

Country	Coefficient	t-Statistic	Probability
Indonesia	−0.573 *	−2.86	0.013
Malaysia	−0.126	−1.35	0.199
Philippines	0.045	0.58	0.572
Thailand	1.316	1.57	0.139
Vietnam	−0.919 *	−2.38	0.032
Brunei Darussalam	0.012	0.47	0.646
Cambodia	0.211	0.80	0.437
Singapore	0.034	0.68	0.509

Notes: * Significant at the 5% level

Table 4. Estimation results for the effects of ln GEX on HDE

Country	Coefficient	t-Statistic	Probability
Indonesia	0.018	1.82	0.089
Malaysia	0.026	1.01	0.329
Philippines	−0.007	−0.73	0.478
Thailand	−0.093	−1.68	0.116
Vietnam	0.080 *	2.70	0.017
Brunei Darussalam	0.019	1.60	0.132
Cambodia	0.006	0.39	0.706
Singapore	−0.009	−0.63	0.537

Notes: * Significant at the 5% level

The estimation results in Table 5 show a negative and statistically significant (probability t-statistic value less than 0.05) impact of trade openness on human development in Indonesia and Malaysia. These results suggest that a 1% increase in trade openness is associated with a decline in human development by the respective coefficient. The insignificant impact in other countries implies that free trade activities are not related to the quality of human development.

Lastly, Table 6 shows an estimation of the impact of foreign direct investment on human development. Here, foreign investment in all countries exhibits a similar but statistically insignificant effect (probability t-statistic value greater than 0.05). These results imply that the level of investment, whether high or low, does not significantly influence human development across all countries in the sample. The justification of the overall research findings and their implications will be discussed further in the following section.

Table 5. Estimation results for the effects of TOP on HDE

Country	Coefficient	t-Statistic	Probability
Indonesia	−0.0004 *	−2.39	0.032
Malaysia	−0.0005 *	−6.25	0.000
Philippines	0.000	0.049	0.631
Thailand	−0.000	−1.23	0.241
Vietnam	0.000	0.61	0.555
Brunei Darussalam	−0.000	−1.37	0.192
Cambodia	0.000	1.04	0.318
Singapore	0.000	1.97	0.069

Notes: * Significant at the 5% level

Table 6. Estimation results for the effects of FDI on HDE

Country	Coefficient	t-Statistic	Probability
Indonesia	0.001	2.00	0.065
Malaysia	0.000	0.32	0.754
Philippines	−0.002	−1.38	0.188
Thailand	−0.002	−1.29	0.218
Vietnam	−0.000	−0.27	0.788
Brunei Darussalam	−0.001	−0.87	0.402
Cambodia	0.001	0.96	0.354
Singapore	−0.000	−0.51	0.615

4. DISCUSSION

This section begins by examining the varying impacts of economic growth on human development across ASEAN countries. While Indonesia, Malaysia, the Philippines, Vietnam, Brunei Darussalam, and Singapore have successfully leveraged economic growth to enhance human development, Thailand and Cambodia present a different scenario. In these two countries, economic growth has not shown a significant correlation with improvements in human development.

While Thailand has experienced relatively stable economic growth, significant social inequality and income disparities have resulted in an uneven distribution of the benefits of economic growth across different segments of society [13]. Cambodia faces a similar situation, where sectoral disparities have increasingly mitigated the positive impacts of economic growth on human development [14]. Despite continued economic growth, Cambodia's heavy reliance on the manufacturing and tourism sectors renders its economy highly susceptible to global economic fluctuations.

These findings align with the initial hypothesis suggesting that the quality of economic growth in each country can significantly influence the effectiveness of economic growth in enhancing human development [4, 15]. The implication is that Thailand and Cambodia should intensify policies focused on creating inclusive employment and providing equitable access to education to narrow disparities and ensure more sustainable and equitable economic growth. For policymakers in Cambodia, the urgency to reduce reliance on specific sectors is undeniable. Efforts to promote investment in other sectors such as high-tech agriculture, diversified manufacturing, and technology-based industries should be intensified.

One form of ASEAN regional cooperation that can be undertaken to address the issues in Thailand and Cambodia is through enhancing labor policy harmonization. Initiatives such as the ASEAN Qualifications Reference Framework (AQRF) can facilitate labor mobility and improve access to decent work in both countries. Educational cooperation, such as through the ASEAN University Network (AUN), can also expand access to education in remote areas of Thailand and Cambodia. To reduce Cambodia's dependence on specific sectors, cooperation in research and innovation can accelerate the adoption of new technologies, thereby effectively promoting diversification [16].

A study on the relationship between population and human development in ASEAN countries has revealed interesting disparities. While Indonesia and Vietnam experienced negative correlations, other nations, particularly those with younger populations such as Malaysia, the Philippines, Brunei, and Cambodia, demonstrated a more stable human capital quality. The negative effect of the population on human development in Indonesia and Vietnam can be explained by mediating factors such as urbanization and workforce participation rates. Rapid urbanization in these countries has led to overcrowded cities, strained public services, and disparities in access to education and healthcare. Additionally, lower workforce participation rates, particularly among certain demographic groups, may limit the potential benefits of a growing population on human development.

These results also suggest that a younger demographic can serve as a buffer against negative population effects. Singapore, on the other hand, provides a contrasting case. Despite a less youthful population, its sustained focus on education, research, and technological advancement has yielded a highly skilled workforce, underscoring the importance of quality over quantity in human capital development.

From a natural resource perspective, Brunei Darussalam's abundant oil and gas reserves have made the country heavily reliant on this sector. However, the government has demonstrated an awareness of the importance of economic diversification and sustainability. Efforts include developing human capital in environmental and renewable energy technologies to manage the impacts of resource exploitation and prepare for the future economy. Interestingly, resource constraints have driven Thailand and Singapore to become increasingly innovative in environmental management and sustainable technology development [16].

These findings align with our initial hypothesis that population growth can have varying impacts on human development across nations [6]. Singapore serves as a compelling case study, demonstrating how sustained investments in education, research, and technology can help maintain a high-quality human capital base, even in the face of an aging population. Similar policies should be implemented in countries with large youth populations, such as Indonesia and Vietnam, to ensure that their young people not only possess numerical strength, but also possess the skills relevant to future industries.

As demonstrated by Brunei Darussalam, an overreliance on natural resources cannot sustain a long-term economy. Brunei has since embarked on economic diversification and invested in renewable energy expertise. Indonesia, similarly endowed with abundant natural resources, should adopt a similar diversification strategy to mitigate the impact of commodity price fluctuations. Furthermore, both Indonesia and Vietnam must address emerging challenges posed by pressures on infrastructure, healthcare, and education systems. Improved quality of life can be achieved through policies focused on population management, such as effective family planning programs and enhanced public health initiatives. Indonesia and Vietnam can learn from the experiences of Thailand and Singapore by developing innovative and environmentally friendly environmental management policies.

The ASEAN can enhance regional cooperation by developing cross-border education and training programs to improve human capital, particularly in technology, research, and entrepreneurship. Additionally, it can foster collaboration in economic diversification through sharing best practices in innovation and sustainable natural resource management, as well as strengthening cooperation in addressing environmental challenges through joint projects that support green development, water management, and climate change mitigation.

Furthermore, the impact of government expenditure on human development varies across ASEAN countries, reflecting differences in public sector efficiency. Vietnam is the only nation that has successfully enhanced human development through increased government spending, aligning with its long history of prioritizing investments in social sectors such as education and health [17]. This suggests that Vietnam demonstrates high efficiency in effectively allocating government spending into social development. On the other hand, Indonesia and the Philippines, with their large populations, still face challenges in ensuring the equitable distribution of public services. Consequently, government spending in these countries is primarily directed towards addressing complex social inequalities [18, 19], which may limit its overall impact on human development and reflect lower public sector efficiency compared to Vietnam.

Meanwhile, Malaysia, Thailand, Brunei Darussalam, and Singapore have established relatively sound healthcare and education systems. Therefore, their focus has shifted towards improving service quality and innovation. The limited fiscal capacity poses a significant challenge for Cambodia in allocating its budgetary resources to health and education [20].

These findings align with the notion that the impact of government spending on human development can vary across countries [8]. In this context, Cambodia should prioritize efficient and strategic spending, focusing on programs that directly impact human development. Furthermore, other ASEAN member states can share knowledge on fiscal management, tax collection, and public expenditure efficiency. ASEAN countries can also collaborate with regional financial institutions such as the Asian Development Bank (ADB) and the ASEAN Infrastructure Fund to provide financing for strategic infrastructure projects and social programs in Cambodia.

In terms of the determinants of human development from external factors, we also find differences in the influence of free trade policies on human development. While Indonesia and Malaysia have experienced negative impacts, other nations show insignificant effects. This disparity is affected by several factors particularly domestic absorptive capacity and institutional quality.

In Indonesia, particularly in remote areas, underdeveloped infrastructure limits the full utilization of free trade benefits, reflecting low absorptive capacity. The Philippines faces similar constraints. Malaysia and Thailand, despite better infrastructure, remain vulnerable to global price fluctuations due to their reliance on specific commodity exports. Vietnam still faces institutional challenges, such as the quality of governance, especially in rural areas. Meanwhile, Brunei Darussalam and Singapore have similarities in that neither relies heavily on free trade to develop their people. Free trade is aimed more toward maintaining economic stability in these countries.

These findings also align with our initial hypothesis. Policy implications include infrastructure improvements in Indonesia and the Philippines and increased economic diversification, particularly in export commodities, for Malaysia, Thailand, and Cambodia. Vietnam needs to improve its governance, especially in rural areas. To mitigate the negative impacts of free trade on human development in Indonesia and Malaysia, the ASEAN can strengthen social safety nets, enhance education and workforce skills in both countries, and collaborate on fair labor standards and balanced trade policies to protect local industries. Additionally, the ASEAN can enhance cooperation in technology, innovation, and social infrastructure to ensure the sustainable benefits of trade for people.

Finally, regarding other external factors such as foreign direct investment, none of the ASEAN countries in this study demonstrated a significant relationship between foreign investment and human development [11]. This is because the sectoral composition of foreign direct investment plays a crucial role in determining its impact. Not all types of foreign investment directly contribute to human development. Investment concentrated in labor-intensive manufacturing, mining, or energy sectors will not significantly enhance education, health, or social welfare. In many ASEAN countries, substantial investments are allocated to these sectors, limiting their broader impact on the well-being of the general population.

The implication is that a diversification of investment sectors is needed. ASEAN countries should attract foreign investment that focuses on the sectors supporting human development, such as education, information technology, health, and social infrastructure. Moreover, governments must develop complementary policies such as vocational education, skill enhancement for the workforce, and social programs that enable the public to take advantage of opportunities from foreign investment. Without these complementary policies, large investments in certain sectors may only benefit a select few without having a broad impact on overall human development.

To this end, ASEAN member states should strengthen regional cooperation to attract investments in education, technology, health, and social infrastructure that support human development. This can be achieved through a sustainable investment framework, skills enhancement and labor mobility programs, and the development of digital infrastructure. Furthermore, inclusive social programs and regional policy forums are essential to ensure that the benefits of investments are widely distributed across ASEAN societies.

5. CONCLUSIONS

The impact of economic growth, population, government spending, free trade policies, and foreign direct investment on human development in ASEAN countries varies significantly, influenced by the specific internal conditions of each nation. While economic growth in most ASEAN countries has positively contributed to human development, in some countries such as Thailand and Cambodia, growth has been less impactful due to social and economic inequalities. On the other hand, sustained investments in education and technology, as seen in Singapore, have proven effective in maintaining the quality of human capital, even amid an aging population.

However, government spending plays a crucial role in driving human development, as seen in Vietnam, which is known for prioritizing social sectors. However, countries such as Indonesia and the Philippines still face challenges in distributing public services, while fiscal constraints hinder Cambodia. Moreover, free trade does not yield uniform effects. Nations with an uneven infrastructure, such as Indonesia and the Philippines, and those overly reliant on specific commodities, including Malaysia and Thailand, experience negative impacts on human development.

Foreign direct investment has not shown a significant impact on human development in ASEAN countries because most investments are still concentrated in sectors that are not directly related to public welfare, such as manufacturing and energy. Therefore, to achieve equitable human development, ASEAN countries need to diversify their economies, increase investment in education and technology, and improve governance. Complementary policies such as vocational education and skill enhancement for the workforce are crucial to ensure that foreign investment benefits a wider range of people, not just a select few. Collaboration in fiscal management, spending efficiency, and environmental innovation also need to be enhanced. Ultimately, all of these efforts need to be strengthened by continuously improving regional cooperation among ASEAN countries.

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