

The Role of Higher Education in Economic Growth in ASEAN: Systematic Literature Review

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Abstract

This study aims to provide a comprehensive understanding of the impact of higher education, education investment, and human capital on economic growth in ASEAN countries. Systematic Literature Review (SLR) using the PRISMA approach underlying the methodology in this study. A total of 22 articles have been identified for analysis to answer the research objectives. Thematic analysis is employed as an analytical strategy for a qualitative approach. The result reveals that two major themes that would be the subject of the discussion were identified. The study will provide valuable information regarding the nexus of dimensions in higher education, investment, and economic growth. Also, a valuable resource for policymakers, educators, and researchers as they work to promote economic development in ASEAN countries. Overall, this study will contribute to the existing literature on the impact of education on economic growth in ASEAN countries, and provide insights for policymakers and educators to develop effective education policies and programs to promote economic development in the region.

Keywords: Higher Education, Education Investment, Human Capital, Economic Growth, Systematic Literature Review.

Introduction

Education plays a crucial role in the development and growth of any economy (Abd. Majid, et al., 2022). Higher education has been recognized as a key driver of economic growth and a major contributor to the development of human capital (Dahal, 2017). Education investment, including investments in higher education, has been shown to have a positive impact on economic growth and productivity (Zakari et al., 2022). The relationship between education and economic growth has been extensively studied in the literature. Higher education is positively associated with economic growth and productivity (Abd. Majid, et al., 2022). This is because higher education provides individuals with the knowledge, skills, and abilities necessary to participate in a modern economy. Furthermore, higher education is a key driver of innovation and technological advancement, which are critical for economic growth. Education investment, including investments in higher education, has also been found to have a positive impact on economic growth. Education investment not only increases the number of educated individuals in the workforce but also improves the quality of education and the

skills of the workforce. This, in turn, leads to increased productivity and economic growth (Abd Majid, et al., 2022).

In the ASEAN context, the relationship between higher education, education investment, human capital, and economic growth is a critical issue that needs to be further studied. Countries in ASEAN are striving to improve economic development and job opportunities through investments in education and human capital. However, there is still a mismatch between employability and academic qualifications, which is a challenge faced by countries in this region (Abd Majid, et al., 2022). Thus, this study aims to explore the relationship between higher education, education investment, human capital, and economic growth in the context of ASEAN countries and provide relevant recommendations for the nations in the region. Human capital is another important factor in economic development. Human capital refers to the knowledge, skills, and abilities of individuals. A well-educated and skilled workforce is a critical component of economic development. Education is the primary means of developing human capital, and higher education is particularly important in this regard.

However, while the importance of education, education investment, and human capital in economic growth is well established, there is still much to be understood about the specifics of how these factors interact and the role of education planning in promoting economic growth. This paper aims to explore this relationship in more detail and to examine the implications for education policy and planning. Furthermore, the relationship between education and economic growth is not just limited to the individual level, but it also has implications for society. A well-educated population can lead to a more informed and engaged citizenry, which can contribute to more effective government and more stable political institutions (Dahal, 2017). Education can also lead to a more equitable distribution of income and wealth, which can promote social cohesion and reduce poverty (Ha et al., 2022). Additionally, in today's globalized world, the importance of education and human capital has become even more pronounced. Countries that invest in education and human capital are better able to compete in the global economy and attract investment. They are also better equipped to address the challenges of the 21st century, such as climate change and technological disruption (Prasetyo & Kistanti, 2020).

The relationship between higher education, education investment, human capital, and economic growth is a complex one, with many different factors at play (Abd Majid, et al., 2022). However, what is clear is that education, and higher education, is a key driver of economic growth and development. The role of education planning in promoting economic development is also crucial. The paper will explore the interconnection between these factors in-depth and provide insights and recommendations for education policy and planning. Moreover, the relationship between education, education investment, human capital, and economic growth is not limited to developed countries but is also important for developing countries. Developing countries are facing a lot of challenges such as poverty, lack of infrastructure, and high unemployment rates (Mahmood et al., 2020; Yoopetch et al., 2021). By investing in education, these countries can lay the foundation for economic development and reduce poverty. Moreover, investing in higher education can help to build a skilled workforce that can attract foreign investment and promote economic growth.

In conclusion, education, and higher education plays a vital role in the economic development and growth of a country. Education investment and human capital are also critical factors in this process. The paper will explore the relationship between these factors and the role of education planning in promoting economic development. This will provide valuable insights for policymakers and educators who are working to promote economic growth and improve the be in this world of citizens in their countries.

Material and Methods

There are thousands of systematic literature reviews conducted worldwide. In contrast, there is a lack of systematic reviews on the mismatch between the role of higher education, education investment, and human capital and economic growth. Thus, this study adopted the PRISMA method to conduct the systematic literature review following the step-by-step recommended by Moher et al (2009) (See figure 2). Firstly, the author identifies the several key work and synonyms based on the objective of the study represented in Table 1.1. Then follow the step for searching using the Scopus database, identification, screening, eligibility (data abstraction and analysis), and including (the final article selected).

Table 1.1

The search strings

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|---|
| TITLE-ABS-KEY (("Impact" OR "Effect*" OR "Implication*" OR "Association") AND ("higher education" OR "education investment" OR "human resource*" OR "human capital" OR "education plan") AND ("economic growth")) |
|---|

Screening

The screening phase started by identifying and excluding duplicate articles. Ten articles were excluded during the first round of screening. Then, the remaining articles were evaluated to determine whether they fit the inclusion criteria, which is the articles should report findings of research studies as they are the primary source of practical information. Consequently, articles that present findings of meta-analyses, systematic reviews, article reviews, meta-synthesis, book series, book volumes, book chapters, or conference proceedings were excluded. Moreover, the articles should be written in English and published between 2018 and 2022. Lastly, only studies conducted in ASEAN countries were included to meet the analytic goal. Based on the researchers' inclusion and exclusion criteria, a further 22 articles were excluded from the review.

Table 1.2
The Inclusion and Exclusion criteria

| Criterion | Inclusion | Exclusion |
|-----------------|----------------------------------|---|
| Language | English | Non-English |
| Timeline | 2018 | < 2022 |
| Literature type | Journal (only research articles) | Journal (book chapter, conference proceeding) |
| Subject Area | SS, B, E, AH | Besides SS, B, E, AH |
| Countries | ASEAN only | Besides ASEAN |

Data Abstraction and Analysis

An inductive thematic analysis was used to identify relevant themes as recommended by (Braun & Clarke, 2006). The analysis yielded two primary themes spanning three broad thematic areas: The impact of higher education on economic growth in ASEAN countries and the association between human capital and economic growth in ASEAN countries. There were six steps in this process: data familiarization, data coding, identifying themes, reviewing themes, defining, and labeling themes, and reporting the findings.

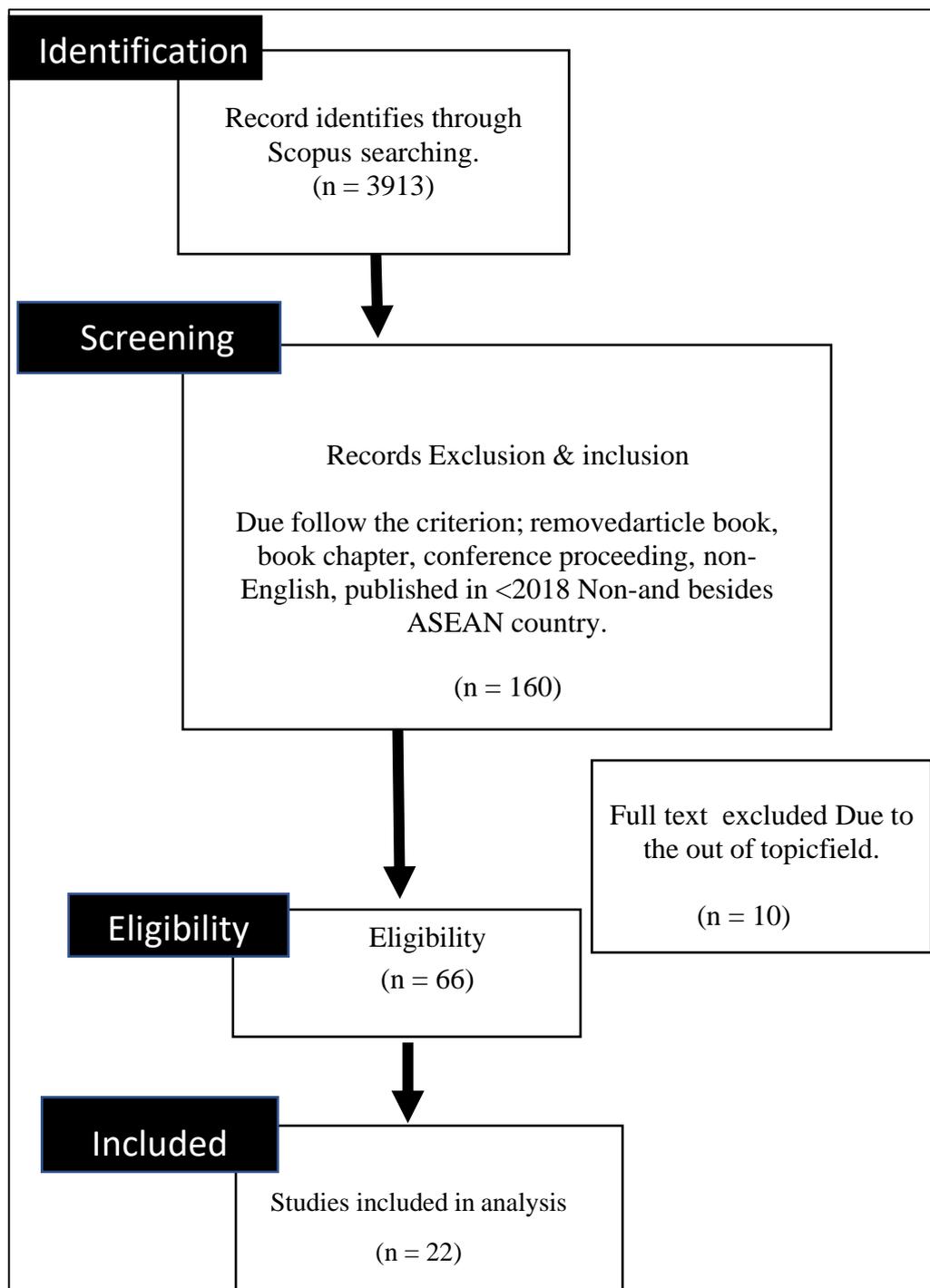


Figure 2. Flow Diagram of Systematic Literature Searching

Result and Finding

The impact of higher education on economic growth in ASEAN countries of higher education is expected to increase productivity and economic growth, as well as reduce the mismatch between employability and academic qualifications and the association between human capital and economic growth in ASEAN countries. Next, in the ASEAN context, human capital is expected to increase productivity and economic growth. This study will explore how human capital affects economic growth in ASEAN countries and provide relevant recommendations. Based on the search technique, 22 articles were extracted and analyzed. All articles were categorized based on two main themes, which are the impact of higher education on

economic growth in ASEAN countries, (9 articles), and the association between human capital and economic growth in ASEAN countries (12 articles). (Refer to Table 4).

Table 4

Finding based on the search criteria.

| No | Author/Year | Journal | Title | Country | Remarks |
|-----------|---------------------------|---|---|----------------|--|
| 1 | Muhamad et al., (2022) | Journal of Applied Research in Higher Education | Economic and social impact of Malaysian higher education: stakeholders' perspectives | Malaysia | The impact of higher education on economic growth in ASEAN countries |
| 2 | Rambeli et al., (2021) | International Journal of Business and Society | The dynamic impact of government expenditure in education on economic growth | Malaysia | The impact of higher education on economic growth in ASEAN countries |
| 3 | Yoopetch et al., (2021) | Sustainability (Switzerland) | The Effects of employee learning, knowledge, benefits, and Satisfaction on employee performance and career growth in the hospitality industry | Thailand | The impact of higher education on economic growth in ASEAN countries |
| 4 | Maneejuk & Yamaka, (2021) | Sustainability (Switzerland) | The impact of higher education on economic growth in ASEAN-5 countries | Thailand | The impact of higher education on economic growth in ASEAN countries |
| 5 | Bawazir et al., (2021) | Journal of Economic Cooperation and Development | Gender, Education Levels, and Economic Growth in the Middle East | Malaysia | The impact of higher education on economic growth in ASEAN countries |

| | | | | | |
|----|------------------------|---|--|-----------|--|
| 6 | Firman et al., (2021) | Academy of Strategic Management Journal | Efforts In Increasing The Economic Growth In Sulawesi | Indonesia | The impact of higher education on economic growth in ASEAN |
| 7 | Mahmood et al., (2020) | Asian Journal of University Education | The Impact of Entrepreneur Education on Business Performance | Malaysia | The impact of higher education on economic growth in ASEAN |
| 8 | Law et al., (2020) | Malaysian Journal of Economic Studies | Impact of Innovation on economic growth: Evidence from Malaysia | Malaysia | The impact of higher education on economic growth in ASEAN countries |
| 9 | Sieng & Yussof, (2018) | Jurnal Ekonomi Malaysia | Impact of higher education on income and economic growth: A cross-country evidence | Malaysia | The impact of higher education on economic growth in ASEAN countries |
| 10 | Ngoc & Hai, (2022) | Applied Economics Letters | Time-frequency nexus between tourism development, economic growth, human capital, and income inequality in Singapore | Vietnam | The association between human capital and economic growth in ASEAN countries |

| | | | | | |
|----|-------------------------|---|--|-----------|--|
| 11 | Ha et al., (2022) | Journal of Asia Business Studies | Does financial development affect human capital? Evidence from Vietnam | Vietnam | The association between human capital and economic growth in ASEAN countries |
| 12 | Ha & Ngoc, (2022) | Journal of International Trade and Economic Development | The asymmetric effect of financial development on human capital: Evidence from a nonlinear ARDL approach | Vietnam | The association between human capital and economic growth in ASEAN countries |
| 13 | Etty & Caroline, (2021) | Frontiers in Sociology | How Does Human Capital Spillover Inflow of Foreign Workers Affect Economic Growth? | Indonesia | The association between human capital and economic growth in ASEAN countries |
| 14 | Etty & Caroline, (2021) | Sustainability (Switzerland) | Economic business sustainability and strengthening human resource capacity based on increasing the productivity of small and medium enterprises (SMEs) in Makassar City, Indonesia | Indonesia | The association between human capital and economic growth in ASEAN countries |

| | | | | | |
|----|-----------------------------|--|--|-----------|--|
| 15 | Haeruddin et al., (2020) | Journal of Open Innovation: Technology, Market, and Complexity | The role of natural and human resources on economic growth and regional development: With discussion of open innovation dynamics | Indonesia | The association between human capital and Economic growth in ASEAN countries |
| 16 | Prasetyo & Kistanti, (2020) | Entrepreneurship and Sustainability Issues | Human capital, institutional economics, and entrepreneurship as a driver for quality & sustainable economic growth | Indonesia | The association between human capital and economic growth in ASEAN countries |
| 17 | Prasetyo, (2020) | International Journal of Advanced Science and Technology | Human capital as the main determinant of regional economic growth | Indonesia | The association between human capital and economic growth in ASEAN countries |
| 18 | Abidin et al., (2020) | International Journal of Business and Society | Total factor productivity shock and economic growth in selected asean+3 countries: A new evidence using a panel VAR | Malaysia | The association between human capital and economic growth in ASEAN countries |
| 19 | Indra et al., (2020) | Journal of Asian Finance, Economics, and | Human Capital, Income | Indonesia | The association between |

| | | | | | |
|----|-------------------------|---|--|-----------|--|
| | | Business | Inequality and Economic Variables: A Panel Data Estimation from a Region in Indonesia | | human capital and economic growth in ASEAN countries |
| 20 | Feriyanto, (2019) | International Journal for Quality Research | The effect of the quality of human development factors on the rate of economic growth in Yogyakarta Special Province | Indonesia | The association between human capital and economic growth in ASEAN countries |
| 21 | Muhamad et al., (2018) | Economic Malaysia Journal | The Role of human capital and innovation capacity on economic growth in ASEAN 3 | Malaysia | The association between human capital and economic growth in ASEAN countries |
| 22 | Caroline et al., (2018) | International Journal of Civil Engineering and Technology | Spatial human capital interaction pattern to Indonesian economic growth | Indonesia | The Association between human capital and economic growth in ASEAN Countries |

Themes

The impact of higher education on economic growth in ASEAN countries

Education factors in Malaysia were shown to contribute to the production of better human capital according to numerous studies performance of government spending on education spanning 2010 to 2020 (Abdullah & Majid, 2022). Data from the Department of Statistics, Malaysia (DOSM) shows an upward trend from 2014 to 2017, with a peak in 2016 at 20.94%. The motivation of this empirical study is to explore the relationship between government spending on education and the country's economic growth (Dahal, 2017).

The high level of education could contribute to digitalization which results in economic development. Graduates' skills can contribute to about 20 percent of the UK GDP growth during the period 1982–2005. Higher education plays a vital role in generating essential knowledge for technological progress and innovation. Most of the previous studies do not doubt the essential role of education in economic growth. Increasing unemployment with a high-level degree is expected to produce a negative impact on the growth of the country (Muhamad et al., 2022).

The education levels are disaggregated by gender to examine influences on the countries economic growth. Analysis by gender reveals that female education levels were highly related to economic growth compared to male education levels. Malaysian researchers have found that education enrollment rates for both males and females need to be increased to boost the country's economic growth. The most important policy recommendation is to position human capital development at the center of the government's development strategy (Ngoc & Hai, 2022).

The analysis of the development performance of the economy from 2015 to 2019 saw an increase in performance in all sectors. Southeast Sulawesi Province's development planning needs to focus on the development of an integrated and integrated economic infrastructure based on competitive advantages in various regions supported by quality and competitive human resources. Strengthening social capital is very important in efforts to increase economic growth and improve development performance (Firman et al., 2021; Dahal, 2017; Rambeli et al., 2021). A knowledge-based typology of university spin-offs in the context of regional economic development (Muhamad et al., 2022; Prasetyo & Kistanti, 2020; Firman et al., 2021).

According to Prasetyo & Kistanti (2020); Mahmood et al (2020) impress that entrepreneurship has rapidly increased and is crucial to turn into a priority for developing countries including Malaysia. This study examined the effects of entrepreneurship education in influencing business performance among ITM/UiTM graduates. It found that university curriculum, relational factors, societal factors, and entrepreneurship values were found to have significant influences on business performance. Entrepreneurship education is vital for the socio-economic landscape, as it could play an influential role in changing one's attitude to becoming an entrepreneur (Rambeli et al., 2021). A study concludes that university entrepreneurship education is vital for successful entrepreneurship.

Innovation is postulated to be the main driver for robust economic growth in a knowledge-based economy (Muhamad et al., 2022; Hernita et al., 2021; Law et al., 2020; Muhamad et al., 2018). The finding indirectly reveals the crucial impact of quality innovation rather than quantity concern. Neglecting both the quality and the commercial-inaction process of these new technologies may not solve the knowledge-commercialization paradox. Finding a feasible growth driver is of utmost importance. Malaysia, as an emerging economy, also redefines its growth strategy via the New Economic Model (NEM) and Economic Transformation Program. The empirical results indicate that total patents granted are a statistically significant determinant of economic performance (Muhamad et al., 2021). Middle-income nations are investing less in higher education compared to high-income nations. Higher education leads to higher individual income and earnings and thus contributes to income and economic

growth. Middle-income nations should allocate more funds to the expansion of higher education to produce more labor with higher education (Hasan, 2020).

The association between human capital and economic growth in ASEAN countries

Significantly related. In addition, the joint effect between human capital and financial development supports economic growth for emerging economies. Ngoc & Hai, (2022) state that both market size and financial development are the main drivers of human capital accumulation. The results also argue that human capital is enhanced by financial development, which positively affects economic growth. Moreover, Ha et al (2022) confirm a bi-directional relationship between economic growth and human development (Muhamad et al., 2022; Prasetyo, 2020).

These findings are consistent and support previous studies that the duration of the school year as an indicator of knowledge encourages a decrease in income inequality (Indra et al., 2020). This is supported by previous reviewers a positive relationship between financial development, economic growth, and human capital has been reported in previous studies (Ha et al., 2022; Ety & Caroline, 2021). In contrast, an inverse relationship between human capital, financial development, and economic growth is also detected (Prasetyo, 2020; Prasetyo & Kistanti, 2020). However, Abidin et al (2020) also indicate that a large market size and a faster degree of financial development meant to result in better human capital formation. also finds a long-term relationship between life expectancy and investment in education, health care, and income.

Caroline et al (2018) confirm that an inefficient banking system with inadequate facilities and resources negatively impacts human development. Similarly, view of Feriyanto (2019) considers that the local banking sector's underdevelopment is associated with slower growth at India's district level. The results indicate that the presence of human capital may decouple this relationship in some districts. Nevertheless, Prasetyo (2020) argues that public spending on female education and social services has played a crucial role in the relationship between human capital and economic growth. Also Haeruddin et al., (2020) state that public expenditures on health and education, especially for females, play an important role in economic growth and human development. Also, investment and income distribution affect the relationship between human development and economic growth.

Discussion

This paper aims to explore the issue regarding higher education, education investment, and human capital toward planning and economic growth in ASEAN countries through a systematic literature review. It is interesting to see the different approaches and findings on improving graduate employability in higher education in Indonesia, Malaysia, and Thailand. The study conducted by Muhamad et al (2022); Indra et al (2020) highlights the importance of developing effective teaching abilities to improve graduate employability. Such as (1) specifically, (2) cooperative relationship competency, (3) interflow communication abilities, and (4) teaching resource distribution of resource satisfaction competency were identified as key competencies that can help enhance graduate employability and employment rate. This suggests that not only the content of the courses but also the quality of teaching and teacher-student interaction play a crucial role in preparing graduates for the job market.

On the other hand, the percentage of business administration or economics classes taken, total GPA, and participation in study abroad programmes were important factors that positively influenced employability. This indicates that the curriculum design and academic performance of students also have a significant impact on their job prospects (Yoopetch et al., 2021). Overall, these studies highlight the importance of a holistic approach to improving graduate employability in higher education. The quality of teaching, curriculum design, academic performance, and international exposure are all essential factors that can contribute to preparing graduates for the job market and enhancing their employability.

The studies reviewed suggest that there is a positive relationship between human capital, financial development, and economic growth. Human capital can be enhanced by financial development, which positively affects economic growth. Nevertheless, large market sizes and faster financial development led to better human capital formation. In contrast, an inverse relationship between human capital, financial development, and economic growth is also found in some studies. Public spending on education, health care, and social services, especially for females, play a crucial role in the relationship between human capital and economic growth. Investment and income distribution also affect the relationship between human development and economic growth. An inefficient banking system with inadequate facilities and resources negatively impacts human development. The joint effect between human capital and financial development supports economic growth for emerging economies. In conclusion, all the studies highlight the importance of investing in human capital, financial development, and public services to promote economic growth and also rebuilding human development goals.

Conclusion

As a conclusion, the thematic results reveal that two main themes from previous study it is (1) The impact of higher education on economic growth in ASEAN countries, and (2) The association between human capital and economic growth in ASEAN countries. Based on the two main theme category exposed that education, innovation, and financial development play a vital role in economic growth in ASEAN countries. Thus, the empowerment of element of education, innovation, and financial development need to be highlighted in the government policy as the main indicator to be achieved. Interesting results from past study reveal that gender as the dominant factor that influences the economic growth, which is, female education level has a higher influence on the country's economic growth compared to the male education level. Nevertheless in spite of that, the education should be provide fairness to all society without discrimination.

The studies recommend that human capital development should be the focus of the government's development strategy. The studies also suggest that middle-income nations should allocate more funds to expanding higher education to produce more labour with higher education. The association between human capital and economic growth in ASEAN countries is significantly related. Additionally, the nexus effect between human capital and financial development supports economic growth for emerging economies. Furthermore, the studies indicate that the future of human capital may decouple the relationship between an inefficient banking system with inadequate facilities and resources and slower growth in some localities.

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