

An Analysis of Foreign Direct Investment, Human Capital Dynamics, and Policy Imperatives in Indonesia

Kajian Dampak: Investasi Langsung Asing, Dinamika Ketenagakerjaan, dan Kebijakan Penting di Indonesia

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Abstract

The primary purpose of this research is to provide a comprehensive understanding of the interplay between FDI and human capital in Indonesia. It seeks to fill gaps in the existing literature by adopting a regional perspective, conducting industry-level analysis, and evaluating multiple dimensions of human capital. Additionally, this study aims to offer tailored policy recommendations to assist Indonesia in escaping the middle-income trap and realizing its full economic potential. This research employs a literature approach. Our analysis reveals that FDI has distinct impacts on human capital dimensions, with variations across regions and industries. While Indonesia has attracted substantial inward FDI, disparities in wages and educational outcomes persist. The changing demand for skilled labor necessitates targeted policies for skills development. Territorial disparities in FDI attraction and human capital development also need to be addressed. The study culminates in a set of tailored policy imperatives aimed at guiding Indonesia towards sustained economic growth, reduced inequalities, and escaping the middle-income trap. These insights and recommendations are timely and essential as Indonesia charts its path in the evolving global economic landscape.

Keywords: Economic Development; Foreign Direct Investment (FDI); Human Capital; Indonesia; Middle-Income Trap.

Abstrak

Tujuan utama dari penelitian ini adalah untuk memberikan pemahaman menyeluruh tentang interaksi antara Investasi Langsung Asing (FDI) dan aspek ketenagakerjaan di Indonesia. Penelitian ini bertujuan untuk mengisi celah dalam literatur yang ada dengan mengadopsi perspektif regional, melakukan analisis tingkat industri, dan mengevaluasi berbagai dimensi sumber daya manusia. Selain itu, penelitian ini bertujuan untuk menawarkan rekomendasi kebijakan yang disesuaikan untuk membantu Indonesia keluar dari jebakan pendapatan menengah dan mewujudkan potensi ekonominya menuju Indonesia maju. Penelitian ini menggunakan pendekatan literatur. Analisis kami mengungkapkan bahwa FDI memiliki dampak yang berbeda pada dimensi modal manusia, dengan variasi antar wilayah dan industri. Perubahan permintaan tenaga kerja terampil menuntut kebijakan yang ditujukan untuk pengembangan keterampilan. Disparitas wilayah dalam daya tarik FDI dan pengembangan modal manusia juga perlu diatasi. Studi ini menghasilkan serangkaian kebijakan yang disesuaikan sebagai peta jalan Indonesia menuju pertumbuhan ekonomi berkelanjutan, pengurangan ketidaksetaraan, dan keluar dari jebakan pendapatan menengah. Temuan dan

rekomen-dasi ini sangat penting dan tepat waktu mengingat Indonesia berada dalam ekonomi global dan hubungan internasional yang semakin membaik.

Kata Kunci: Pengembangan Ekonomi; Investasi Langsung Asing; Modal Manusia; Indonesia; Jebakan Pendapatan Menengah

Introduction

Foreign Direct Investment (FDI) has emerged as a pivotal force driving economic interdependence across the globe, reshaping the economic landscapes of both home and host economies.¹ It stands as a critical determinant of a nation's trajectory towards economic development, with far-reaching implications for human capital accumulation. In the Indonesian context, a nation marked by its rich diversity of subnational regions, the dynamics of FDI and human capital present an intricate tapestry of challenges and opportunities. Indonesia has long stood as a magnet for inward FDI, attracting substantial capital investments. However, over the past two decades, a noteworthy shift has occurred within its economic structure. The services sector has risen in prominence, while manufacturing has ceded some ground. Simultaneously, Indonesia has begun sending outward flows of FDI to various corners of the world. This transformation has unfolded against the backdrop of persistent wage inequalities, educational disparities, and a shifting demand for skilled labor within the country. Within Indonesia, territorial disparities remain palpable, with certain regions enjoying greater economic prosperity while others grapple with underdevelopment. In light of these complex changes, this paper delves into the intricate relationships between FDI and three vital dimensions of human capital accumulation: wages, educational attainment, and skills. Employing a regional- and industry-level lens,

we seek to illuminate the multifaceted effects of bidirectional FDI on these crucial human capital dimensions.

The objective of this paper is twofold: first, to unravel the nuanced interactions between FDI and human capital accumulation in Indonesia's subnational regions, and second, to draw policy implications that can guide the nation in harnessing its untapped economic potential. Indonesia, though making significant strides towards development, still finds itself caught in the perilous middle-income trap. As we navigate through the intricate web of FDI and human capital, it becomes apparent that comprehending and effectively managing these forces is indispensable for Indonesia's journey towards sustained economic growth and escape from the middle-income trap.

Our research brings several novel contributions to the field of Foreign Direct Investment (FDI) in Indonesia and its impacts on human capital. These contributions can be summarized as follows: While existing studies often focus on the national level, our research adopts a regional perspective. We explore how FDI influences human capital accumulation in diverse Indonesian subnational regions, considering the unique economic dynamics and disparities within the country. We delve into the effects of FDI at an industry-level, recognizing that different sectors may exhibit distinct patterns of FDI influence on wages, educational attainment, and skills development. This granularity allows for more targeted policy recommendations. Our study comprehensively examines three critical dimensions of human capital: wages, educational outcomes, and skills. By analyzing how FDI impacts these aspects individually

¹ Michael A. Witt et al., "Decoupling in international business: Evidence, drivers, impact, and implications for IB research." *Journal of World Business* 58, no. 1 (2023): 109. <https://doi.org/10.1016/j.jwb.2022.101399>

and collectively, we offer a holistic view of its consequences on human capital development. Drawing from our findings, we provide policy imperatives tailored to Indonesia's unique context. These recommendations aim to guide the nation in overcoming challenges, harnessing opportunities, and ultimately progressing towards a higher-income status. Given the recent shifts in Indonesia's economic landscape, our research is timely and relevant. It provides insights into how Indonesia can navigate the evolving global economic order, especially in the post-pandemic era. Our study yields several insights and perspectives that contribute to a deeper understanding of the FDI-human capital nexus in Indonesia: We highlight the transformation of Indonesia's FDI landscape, where the services sector gains prominence over manufacturing. This shift underscores the need for targeted strategies to attract and retain FDI in evolving sectors while ensuring sustainable job creation and skill development. Our analysis reveals the persistence of wage inequalities and lagging educational outcomes, despite FDI inflows. This suggests that FDI alone may not suffice to address these challenges, necessitating broader policy interventions to enhance the quality and inclusivity of education. We uncover evidence of changing demand for skilled workers in Indonesia. To bridge the skills gap, policies should align with evolving industry needs through vocational training, curriculum reforms, and collaboration between educational institutions and businesses. The study underscores the need to address regional disparities in FDI attraction and human capital development. Tailored policies can help less-developed regions tap into FDI opportunities and improve their human capital outcomes. To escape the middle-income trap, we emphasize the importance of policy synergy. Coordinated efforts across sectors, including trade, education, and industry, can maximize

the positive impact of FDI on human capital and economic growth. Our research offers fresh perspectives on the interplay between FDI and human capital in Indonesia, with a focus on regional nuances and industry-level dynamics. By providing tailored policy recommendations, we aim to assist Indonesia in charting a path towards sustained economic growth, reduced inequalities, and the realization of its full economic potential. These insights and policy imperatives are essential as Indonesia navigates its way forward in the global economic landscape.

Our essay aims to address several notable gaps in the existing literature on the interplay between Foreign Direct Investment (FDI) and human capital in Indonesia: Much of the existing literature tends to treat Indonesia as a single entity, overlooking the substantial regional disparities within the country.² Our analysis takes a regional perspective, acknowledging that the effects of FDI on human capital can vary significantly from one Indonesian subnational region to another. By doing so, we provide a more nuanced understanding of how different regions are impacted by FDI and can benefit from tailored policies. While some studies have examined FDI impacts at a broad sectoral level, there is a lack of industry-specific analyses.³ Our research dissects the effects of FDI at the

2 Tessa Talitha, Tommy Firman, and Delik Hudalah. "Welcome two decades of decentralization in Indonesia: a regional development perspective." *Territory, Politics, Governance* 8, no. 5 (2020): 690. <https://doi.org/10.1080/21622671.2019.1601595> ; Hasbi Hasan and Cecep Mustafa, "The Politics of Law of Sharia Economics in Indonesia," *Lex Publica : Jurnal Ilmu Hukum Forum Pimpinan Pendidikan Tinggi Hukum Indonesia/ Lex Publica: Jurnal Ilmu Hukum Forum Pimpinan Pendidikan Tinggi Hukum* 9, no. 1 (January 30, 2022): 57, <https://doi.org/10.58829/lp.9.1.2022.30-57>.

3 Henning Mühlén and Octavio Escobar, "The role of FDI in structural change: Evidence from Mexico." *The World Economy* 43, no. 3 (2020), 557. <https://doi.org/10.1111/twec.12879> ; Rita Komalasari, Nurhayati Nurhayati, and Cecep Mustafa, "Insider/ Outsider Issues: Reflections on Qualitative Research," *the Qualitative Report*, January 1, 2022, <https://doi.org/10.46743/2160-3715/2022.5259>.

industry level, recognizing that different sectors may have unique requirements in terms of human capital development. This granularity allows us to offer more precise policy recommendations based on the specific needs of industries. Many studies tend to focus primarily on a single aspect of human capital, such as wages or educational attainment, without considering the interrelationships between these dimensions.⁴ Our research comprehensively evaluates three crucial human capital dimensions: wages, educational outcomes, and skills development. This holistic approach provides a more comprehensive view of how FDI influences human capital and economic development in Indonesia. While the literature often highlights the challenges of middle-income countries, it can sometimes fall short in providing actionable policy recommendations. Our essay not only identifies gaps and challenges but also offers tailored policy imperatives aimed at helping Indonesia escape the middle-income trap. These recommendations bridge the gap between academic research and practical policy implementation. Given the dynamic nature of the global economy, there is a need for timely and context-specific analyses. Our research is situated in the current economic landscape, taking into account recent shifts in FDI patterns and their implications for Indonesia. This timeliness ensures that our insights and recommendations are relevant and applicable to the challenges and opportunities Indonesia faces today. Our essay seeks to fill these gaps by offering a region-specific, industry-level, and comprehensive analysis of the interplay between FDI and

human capital in Indonesia. By providing actionable policy recommendations, we aim to contribute to the ongoing dialogue on how Indonesia can achieve sustained economic growth, reduce inequalities, and unlock its full economic potential, particularly as it navigates the evolving global economic landscape.

Theoretical Framework

A suitable theory to guide a comprehensive analysis of the interplay between Foreign Direct Investment (FDI) and human capital in Indonesia, along with the policy imperatives necessary for economic growth and reduced inequalities, could be the "Human Capital Theory" and its extension, the "New Human Capital Theory." This theory, developed by economists like Gary Becker, posits that individuals and societies can increase their productivity and overall economic well-being through investments in education, training, and health.⁵ In the context of Indonesia, this theory could be used to analyze how FDI affects the development of human capital and skills within the workforce. It can help in understanding how FDI can lead to skill accumulation and increased labor productivity, which in turn contributes to economic growth. Building upon the Human Capital Theory, the New Human Capital Theory takes into account the multidimensional nature of human capital and its interaction with technological advancements and globalization. It emphasizes the importance of skills, adaptability, and innovation in a rapidly changing world economy. In the Indonesian context, this theory can help analyze how FDI influences not just the quantity but also the

4 Julian Christensen et al., "Human capital and administrative burden: The role of cognitive resources in citizen/state interactions." *Public Administration Review* 80, no. 1 (2020): 127. <https://doi.org/10.1111/puar.13134> ; Cecep Mustafa, "The Challenges to Improving Public Services and Judicial Operations," in *Advances in Public Policy and Administration (APPA) Book Series*, 2021, 32, <https://doi.org/10.4018/978-1-7998-4978-0.ch007>.

5 Robert Barro, and Gary Becker. "A reformulation of the economic theory of fertility." In *A Reformulation of the Economic Theory of Fertility*: Barro, Robert J. | uBecker, Gary S. [SI]: SSRN, 2022. Rita Komalasari and Cecep Mustafa, "Combating International Cyber Conflict: A Healthy Just War and International Law Analysis of NATO and Indonesian Policies," *Jurnal Pertahanan/Jurnal Pertahanan* 9, no. 3 (December 31, 2023): 559, <https://doi.org/10.33172/jp.v9i3.16867>.

quality and adaptability of the labor force. It can guide policy recommendations on fostering innovation, lifelong learning, and the development of high-value skills to stay competitive in the global market.

From the perspective of the Human Capital Theory, the variables to be measured or analyzed include: 1. Investments in Education, Training, and Health: This refers to the allocation of resources towards enhancing human capital through formal education, vocational training programs, and healthcare initiatives. 2. Human Capital Accumulation: This entails measuring the stock of knowledge, skills, and abilities possessed by the workforce, which can be enhanced through FDI-driven initiatives. 3. Labor Productivity: This variable assesses the efficiency of labor in producing goods and services, influenced by the quality and quantity of human capital. 4. Economic Growth: This indicator measures the increase in the production and consumption of goods and services in the economy over time.

The causal relationship between FDI and economic growth, based on the Human Capital Theory, can be conceptualized as follows: FDI inflows lead to increased investments in education, training, and health, which contribute to the accumulation of human capital. Higher levels of human capital enhance labor productivity, leading to increased output and economic growth. FDI can directly stimulate economic growth through the creation of employment opportunities, technology transfer, and access to global markets. Building upon the Human Capital Theory, the New Human Capital Theory emphasizes the multidimensional nature of human capital and its interaction with technological advancements and globalization. In this context, the variables and causal relationships to consider include: 1. High-Value Skills and Adaptability: This refers to the acquisition of specialized skills and the

ability to adapt to changing market demands, influenced by FDI-driven initiatives. 2. Innovation: This variable assesses the capacity for creativity and technological advancement within the workforce, crucial for maintaining competitiveness in the global economy. 3. Lifelong Learning: This entails promoting continuous skill development and knowledge acquisition throughout one's career to remain relevant in evolving industries. 4. Global Market Competitiveness: This indicator measures the ability of firms and industries to compete effectively in international markets, influenced by the quality and adaptability of the labor force. Overall, applying the Human Capital Theory and its extension to the analysis of FDI and economic growth in Indonesia allows for a comprehensive examination of how investments in human capital can drive sustainable economic development and reduce inequalities

Method

In our endeavor to dissect the complex interplay between Foreign Direct Investment (FDI) and human capital in Indonesia, we have relied significantly on a comprehensive literature study. This method involved a thorough examination of existing academic research, reports, and policy documents. By drawing from a wealth of prior scholarship, we were able to contextualize Indonesia's experiences within the broader global economic landscape and identify gaps and nuances in the existing literature. This approach allowed us to build upon established knowledge and contributed to the depth and rigor of our analysis.⁶

6 Rita Komalasari, Nurhayati Nurhayati, and Cecep Mustafa, "Insider/Outsider Issues: Reflections on Qualitative Research," *the Qualitative Report*, January 1, 2022, <https://doi.org/10.46743/2160-3715/2022.5259>.

The Changing Landscape of FDI in Indonesia

Foreign Direct Investment (FDI) has played a pivotal role in shaping Indonesia's economic landscape.⁷ In this section, we delve into the evolving trends of FDI within Indonesia, highlighting a discernible shift from the manufacturing sector to the burgeoning services sector. Moreover, we discuss the emergence of outward FDI flows from Indonesia to the global market, underlining the significance of these changes in the context of our study on FDI's impact on human capital dynamics. Historically, Indonesia has been an attractive destination for inward FDI. The nation's appeal is underpinned by several factors, including its expansive consumer base, rich natural resources, and strategic geographical location in Southeast Asia. These factors have contributed to a steady influx of foreign capital, fueling economic growth and development. However, the composition of FDI has undergone a notable transformation over the past two decades. The once-dominant manufacturing sector has seen a gradual decline in its share of FDI. In contrast, the services sector has witnessed a remarkable surge in investment. This shift mirrors global economic trends where services such as information technology, finance, and e-commerce have gained prominence in the wake of technological advancements and changing consumer preferences. Understanding this transition is paramount to comprehending the dynamics of FDI's influence on human capital in Indonesia. As the services sector

continues to rise in importance, it brings with it distinctive employment patterns, skill requirements, and wage structures. Equally crucial is the emergence of outward FDI flows from Indonesia, as the nation expands its economic footprint beyond its borders. This transformation of FDI patterns within Indonesia holds significant implications for our exploration of how FDI impacts wages, educational attainment, and skills development across the nation's diverse subnational regions and industries.

Persistent Wage Inequalities

In examining the interplay between Foreign Direct Investment (FDI) and human capital development in Indonesia, one glaring issue comes to the forefront: the persistence of wage inequalities despite substantial FDI inflows. In this section, we delve into this critical aspect of the Indonesian economic landscape and highlight its far-reaching implications for human capital development. Indonesia, like many emerging economies, has attracted significant FDI, contributing to its overall economic growth. However, the distribution of the benefits of this investment is far from uniform. Wage inequalities remain a persistent challenge, and these disparities often mirror the urban-rural divide. In urban centers, where much of the FDI tends to concentrate, higher-paid positions flourish, attracting skilled workers and professionals. On the contrary, rural areas, which often receive less attention from FDI inflows, often struggle with lower wage levels. This disparity not only raises questions about social and economic equity but also has direct consequences for human capital development. The implications of these wage inequalities are profound. First and foremost, they exacerbate social and economic disparities within the country, hindering progress towards a more equitable society. The concentration of

⁷ Edmund Ntom Udemba and Lucy Davou Philip. "Policy insight from renewable energy, foreign direct investment (FDI), and urbanization towards climate goals: insight from Indonesia." *Environmental Science and Pollution Research* 29, no. 36 (2022), 54. <https://doi.org/10.1007/s11356-022-19599-9> ; Rita Komalasari, N Nurhayati, and Cecep Mustafa, "Professional Education and Training in Indonesia," in *Advances in Public Policy and Administration (APPA) Book Series*, 2022, 125, <https://doi.org/10.4018/978-1-7998-8243-5.ch008>.

well-paying jobs in urban areas can lead to rural-to-urban migration, straining urban infrastructure and creating imbalances in regional development. Moreover, these wage inequalities have implications for human capital development. Access to quality education and skill development opportunities is often determined by one's economic status. Those in higher-paying jobs may have easier access to educational resources and opportunities for skill enhancement, further perpetuating the gap in human capital between different segments of the population. Addressing wage disparities, therefore, becomes a critical component of fostering broader human capital development in Indonesia. Policymakers must consider measures that not only attract FDI but also ensure a more equitable distribution of its benefits. This may involve targeted investments in education and skill development programs in regions that have been historically marginalized.

Educational Outcomes and Skills Development

In our exploration of the intricate relationship between Foreign Direct Investment (FDI) and human capital in Indonesia, one of the key facets that demands attention is the state of educational outcomes and the evolving demand for skilled labor.⁸ In this section, we shed light on the challenges Indonesia faces in these domains and their profound implications for the nation's human capital development. Educational outcomes in Indonesia continue to lag behind, presenting a significant hurdle to enhancing the overall quality of the labor force. Despite commendable

progress in expanding access to education, issues such as educational quality, curriculum relevance, and regional disparities persist. This has led to a gap between the skills acquired by the workforce and the skills demanded by the evolving job market. A crucial aspect of this evolving job market is the changing demand for skilled labor, driven by the shift towards service-oriented industries. While Indonesia has traditionally relied on labor-intensive industries such as manufacturing, the rapid growth of the services sector, which encompasses fields like information technology, finance, and e-commerce, has created a heightened need for a skilled and adaptable workforce. This shift accentuates the importance of aligning education and skills development with the evolving needs of the job market. To bridge the skills gap and enhance human capital, Indonesia's education system must adapt proactively. This entails a multifaceted approach, including: Updating and modernizing educational curricula to ensure relevance to the demands of the services sector and emerging industries. Expanding vocational training programs to equip students with practical, job-ready skills that are in demand by employers. Fostering partnerships between educational institutions and businesses to facilitate knowledge transfer and real-world skill development. Prioritizing science, technology, engineering, and mathematics (STEM) education to address the increasing demand for these skills in a technology-driven economy. Ensuring that educational opportunities and resources are distributed equitably across regions, reducing disparities in educational outcomes. By addressing these challenges and implementing these strategies, Indonesia can enhance its human capital development, making its workforce more competitive in the global economy. These efforts will not only meet the demands of the evolving job market but also

⁸ Thi Bich Thuy Dao and Quy Van Khuc. "The Impact of Openness on Human Capital: A Study of Countries by the Level of Development." *Economies* 11, no. 7 (2023), 175. <https://doi.org/10.3390/economies11070175> ; Rita Komalasari, Nurhayati, and Cecep Mustafa, "Meningkatkan Pelayanan Administrasi Publik Di Indonesia," *Jurnal Pengabdian Kepada Masyarakat* 1, no. 1 (September 23, 2021): 27, <https://doi.org/10.54259/pakmas.v1i1.29>.

harness the potential benefits of FDI, which increasingly gravitates towards sectors that require a skilled labor force.

Territorial Disparities in FDI and Human Capital Development

As we continue our examination of the intricate relationship between Foreign Direct Investment (FDI) and human capital in Indonesia, it becomes evident that regional disparities play a pivotal role in shaping the nation's economic landscape.⁹ In this section, we delve into the persistent territorial disparities in FDI attraction and human capital development, underscoring the pressing need for tailored policies to address these imbalances. Territorial disparities remain a significant and deeply entrenched challenge in Indonesia. While some regions, typically urban and well-connected areas, enjoy the lion's share of FDI, others, particularly rural and less-developed regions, struggle to attract substantial investments. This disparity in FDI distribution is influenced by factors such as infrastructure, connectivity, and historical patterns of development. As a result, these regions are often left behind in terms of economic opportunities and development prospects. The implications of this uneven distribution of FDI extend to human capital development. Regions with greater FDI tend to benefit from better educational and skill development opportunities, given the presence of industries that demand a skilled workforce. Conversely, regions with limited FDI find themselves at a disadvantage, facing challenges in accessing quality education and

⁹ Sri Harnani, Diah Rusminingsih, and Lina Damayanti. "The role of human capital in education, environment, and economic." *Asia Pacific Journal of Management and Education (AJPME)* 5, no. 2 (2022): 87. <https://doi.org/10.32535/apjme.v5i2.1620> ; Rita Komalasari and Cecep Mustafa, "An Exploration Of Healthy Agricultural Product Development Strategies Within Indonesian Small And Medium-Sized Enterprises (Smes)." *Cefars: Jurnal Agribisnis Dan Pengembangan Wilayah* 6.2 (2023): 71. <https://doi.org/10.33558/cefars.v6i2.7357>

skill development programs. To address these disparities and foster more inclusive human capital development, a multifaceted approach is required: Policymakers should actively promote FDI in less-developed regions to spur economic growth and provide employment opportunities. Incentives and infrastructure development can attract investors to these areas. Ensuring that all regions have equitable access to quality education is crucial. This involves building and upgrading educational infrastructure in underserved areas, improving the quality of teaching, and providing financial support to students in need. Implementing skills development initiatives tailored to the needs of specific regions. This could include vocational training centers and industry partnerships that focus on the strengths and opportunities unique to each region. Expanding digital infrastructure in underserved regions can facilitate online education and skills training, reducing geographical barriers to learning. By addressing these disparities and tailoring policies to meet the unique needs of each region, Indonesia can promote more equitable human capital development. This, in turn, will contribute to reducing regional economic disparities and enhancing the overall competitiveness of the nation.

Policy Imperatives for Escaping The Middle-Income Trap

In the preceding sections of this essay, we have dissected the complex interplay between Foreign Direct Investment (FDI) and human capital in Indonesia, with a particular focus on regional nuances and industry-level dynamics. We have explored the changing landscape of FDI, persistent wage inequalities, educational outcomes and skills development, and territorial disparities in FDI attraction and human capital development. We turn our attention to the critical policy imperatives

that can propel Indonesia towards escaping the middle-income trap and fully realizing its economic potential. Escaping the middle-income trap, characterized by stagnant growth rates and a struggle to transition to high-income status, requires a holistic and coordinated approach.¹⁰ Drawing from the evidence presented in this essay, we outline key policy imperatives: Policymakers should prioritize targeted regional development initiatives to address territorial disparities. Encouraging FDI in underserved regions and providing them with the necessary infrastructure and support can stimulate economic growth and human capital development. Table 1 illustrates some examples and cases that illustrate how this prioritization has occurred in Indonesia:

Table 1.
FDI Attraction And Their Impact On Human Capital Development In Indonesia

FDI Attraction Initiatives	Regions Affected	Impact on Human Capital Development
Special Economic Zones (SEZs)	Riau Islands (Batam-Bintan-Karimun SEZ), Banten (Tanjung Lesung SEZ)	Tax incentives and streamlined regulations attract FDI. Improved infrastructure leads to economic growth. Job creation fosters skills development.
Infrastructure Development	North Sumatra (Kuala Tanjung Port)	Investment in ports and transportation networks attracts FDI. Enhanced trade opportunities lead to skills development and economic diversification. Promotes FDI in the renewable energy sector.
Renewable Energy Projects	South Sulawesi, West Nusa Tenggara	Wind farms and solar plants create jobs and skill development opportunities.
Tourism Development	East Nusa Tenggara (Labuan Bajo), Southeast Sulawesi (Wakatobi)	Diversifies tourism beyond major cities. Investments in resorts and infrastructure drive economic growth and local workforce development.
Education Initiatives	Yogyakarta, Surabaya	Attracts FDI in the education sector. - Foreign universities establish campuses, expanding higher education access. - Contributes to skilled workforce development.

Sumber: Tables called "FDI Attraction And Their Impact On Human Capital Development In Indonesia" tables condense the key results of a research study.

Table 1 illustrates how strategic FDI attraction initiatives in various regions of Indonesia have positively impacted human capital development by creating jobs, improving infrastructure, and diversifying

¹⁰ Luiz Carlos Bresser-Pereira, Eliane Araújo, and Samuel Costa Peres. "An alternative to the middle-income trap." *Structural Change and Economic Dynamics* 52 (2020): 294. <https://doi.org/10.1016/j.strueco.2019.11.007>; Rita Komalasari, "Navigating the Digital Frontier," in *Advances in Healthcare Information Systems and Administration Book Series*, 2024, 174, <https://doi.org/10.4018/979-8-3693-1463-0.ch012>.

economic opportunities. Indonesia has established Special Economic Zones (SEZs) in various regions across the country, including areas outside major urban centers like Jakarta. For instance, the Batam-Bintan-Karimun SEZ in Riau Islands and the Tanjung Lesung SEZ in Banten have attracted FDI by offering tax incentives, streamlined regulations, and improved infrastructure.¹¹ These zones have spurred economic growth and job creation in underserved regions, leading to increased human capital development. Investment in infrastructure projects, such as ports, airports, and transportation networks, in less-developed regions has attracted FDI. For example, the construction of the Kuala Tanjung Port in North Sumatra has not only facilitated trade but also encouraged investment in the surrounding areas, leading to skills development and economic diversification.¹² Indonesia's efforts to promote renewable energy projects have attracted FDI to rural and remote regions. Wind farms and solar power plants in areas like South Sulawesi and West Nusa Tenggara have created jobs and provided opportunities for skills development in the renewable energy sector. The government's push to develop tourism beyond Bali and Jakarta has attracted FDI to regions with untapped potential. For instance, investments in resorts and infrastructure in places like Labuan Bajo in East Nusa Tenggara and Wakatobi in Southeast Sulawesi have

stimulated economic growth and provided employment opportunities, driving human capital development in the local workforce.¹³ Some regions have actively attracted FDI in the education sector. For example, foreign universities have established campuses in cities like Yogyakarta and Surabaya, offering higher education opportunities that were previously limited to urban areas.¹⁴ This has contributed to the development of a skilled workforce in these regions. These examples demonstrate how prioritizing FDI in underserved regions outside urban centers has the potential to stimulate economic growth and human capital development. By strategically targeting investments, improving infrastructure, and promoting key sectors in these regions, Indonesia can work towards reducing regional disparities and enhancing the overall competitiveness of the nation.

Education and skills development programs should be aligned with the evolving demands of industries. This involves close collaboration between educational institutions and businesses to ensure that graduates possess the skills required in the job market. Expanding vocational and technical training programs can equip individuals with practical skills and certifications that are in high demand. This can improve employability and bridge the skills gap. Aligning educational curricula with industry demands, with a particular emphasis on vocational and technical training, is a

11 Adiwani Aritenang and Aryani Candramidi. "The impact of special economic zones and government intervention on firm productivity: The case of Batam, Indonesia." *Bulletin of Indonesian Economic Studies* 56, no. 2 (2020), 229. Rita Komalasari and Alex Khang, "An Integrated Approach to Next-Generation Telemedicine and Health Advice Systems Through AI Applications in Disease Diagnosis," in *Advances in Medical Diagnosis, Treatment, and Care (AMDTC) Book Series*, 2024, 258, <https://doi.org/10.4018/979-8-3693-3679-3.ch016>.

12 Yose Rizal Damuri et al., "Perceptions and readiness of Indonesia towards the Belt and Road Initiative." Jakarta: CSIS Indonesia (2019); Rita Komalasari, "Biospheric Reverie," in *Advances in Computational Intelligence and Robotics Book Series*, 2024, 227, <https://doi.org/10.4018/979-8-3693-2073-0.ch013>.

13 Deasy Damayanti Putri Pane et al., "Blue economy development framework for Indonesia's economic transformation." (2021); Rita Komalasari, "In Pursuit of Excellence," in *Advances in Healthcare Information Systems and Administration Book Series*, 2024, 133, <https://doi.org/10.4018/979-8-3693-0928-5.ch005>.

14 Ahmad Zainul Hamdi. "The radicalization of contemporary educated Indonesian: A case study of university students in Yogyakarta." *Kasetsart Journal of Social Sciences* 44, no. 1 (2023): 152. <https://doi.org/10.34044/j.kjss.2023.44.1.17> ; Rita Komalasari, "Trust Dynamics in Remote Patient-Expert Communication," in *Advances in Medical Technologies and Clinical Practice Book Series*, 2024, 198, <https://doi.org/10.4018/979-8-3693-2141-6.ch010>.

crucial step to ensure that the workforce is equipped with the skills needed in the job market. In Indonesia, several initiatives and examples demonstrate how this alignment has been pursued. Table 2 summarizing the examples of vocational and technical training initiatives in Indonesia:

SMKs). These schools offer specialized programs that align with industry needs.

Table 2. Vocational And Technical Training Initiatives In Indonesia

Initiatives	Description	Impact on Human Capital Development
Vocational Schools (SMKs)	Specialized programs aligned with industry needs. Courses in automotive technology, hospitality, agriculture, and IT. Practical training and internships prepare students for careers.	Equips students with industry-specific skills. Provides practical experience and job readiness. Directly prepares students for careers in high-demand sectors.
Polytechnic and Technical Universities	Hands-on, industry-relevant education. Collaboration with businesses to develop industry-aligned curricula. Programs like automotive engineering and manufacturing.	Fosters collaboration between academia and industry. Ensures curricula are up-to-date and meet industry demands. Prepares graduates for careers with practical skills.
Public-Private Partnerships	Collaborations between educational institutions and private companies. Curricula emphasizing practical skills. Development of industry-specific programs.	Bridges the gap between education and industry. Provides students with skills directly applicable in the workforce. Ensures relevance of education to current industry needs.
Skills Training Centers	Located in different regions, focusing on specific industries. Offers short-term, intensive training programs. Provides practical skills for high-demand sectors.	Provides rapid skills development for individuals. Addresses immediate needs of specific industries. Enhances employability in sectors with skill shortages.
Industry-Academia Collaboration	Collaboration between universities and industries. Research projects, joint programs, and guest lectures. Ensures curricula are aligned with industry advancements.	Keeps educational curricula up-to-date with industry developments. Offers students exposure to real-world industry challenges. Enhances students' adaptability and industry readiness.
Government Initiatives	Government programs like "Maju Bersama Vokasi" focusing on vocational and technical training. Aimed at meeting industry needs in various sectors.	Supports the growth of vocational education and training. Addresses skills gaps in critical industries. Strengthens the link between education and industry in the country.

Sumber: Tables called "FDI Attraction And Their Impact On Human Capital Development In Indonesia" tables condense the key results of a research study.

Table 2 illustrates initiatives that collectively contribute to human capital development in Indonesia by ensuring that the workforce is equipped with practical skills that align with the needs of various industries and sectors. Indonesia has been actively promoting vocational education through Vocational Schools (Sekolah Menengah Kejuruan or

For instance, SMKs offer courses in fields such as automotive technology, hospitality, agriculture, and information technology.¹⁵ Students receive practical training and often have opportunities for internships or apprenticeships, which directly prepare them for careers in these sectors. Indonesia has established polytechnic institutions and technical universities that focus on providing hands-on, industry-relevant education. These institutions collaborate closely with businesses and industries to develop curricula that meet current industry demands. For instance, the Bandung State Polytechnic, in partnership with the automotive industry, offers programs in automotive engineering and manufacturing.¹⁶ Various public-private partnerships have been formed to bridge the gap between education and industry. These partnerships involve collaboration between educational institutions and private companies to design curricula that emphasize practical skills. An example is the collaboration between the Ministry of Education and Culture and several multinational companies to develop industry-specific curricula. Indonesia has established skills training centers in different regions, focusing on areas such as construction,

manufacturing, and agriculture. These centers offer short-term, intensive training programs that provide individuals with practical skills that are in high demand in specific industries. Many universities and educational institutions in Indonesia have strengthened their collaboration with industries through research and development projects, joint programs, and guest lectures by industry experts. This collaboration ensures that educational curricula remain up-to-date and aligned with industry advancements. The Indonesian government has launched initiatives to promote vocational and technical training, such as the "Maju Bersama Vokasi" (Advancing Together with Vocation) program.¹⁷ This program focuses on enhancing vocational education and training to meet the needs of various industries, including manufacturing, tourism, and creative industries. These examples demonstrate Indonesia's commitment to aligning educational curricula with industry demands, especially through vocational and technical training. By doing so, the country aims to bridge the skills gap, enhance employability, and ensure that its workforce is well-prepared to contribute to the nation's economic development.

Fostering an environment conducive to innovation and entrepreneurship is crucial for economic growth. This includes supporting startups, facilitating research and development, and providing incentives for innovation. Table 3 summarizing the examples of initiatives and cases in Indonesia that promote innovation and entrepreneurship:

15 Silvia Silvestri et al., "Going digital in agriculture: How radio and SMS can scale-up smallholder participation in legume-based sustainable agricultural intensification practices and technologies in Tanzania." *International Journal of Agricultural Sustainability* 19, no. 5-6 (2021): 583. <https://doi.org/10.1080/14735903.2020.1750796> ; Rita Komalasari and Maya Puspitasari, "Medical Educators (ME) and Their Continuous Professional Development (CPD)," in *Advances in Medical Education, Research, and Ethics (AMERE) Book Series*, 2024, 76, <https://doi.org/10.4018/978-1-6684-6756-5.ch003>.

16 Siti Dwi Setiarini and Sri Ratna Wulan. "Analysis Software Engineering Team's Soft Skills Learning using Online Learning Platform with Project-Oriented Problem-Based Learning (POPBL)." *Inform* 6, no. 2 (2021). <https://doi.org/10.25139/inform.v6i2.3986> ; Rita Komalasari, "Exploring the Potential of Augmented Reality in Schools for the Health and Safety of Teenagers," in *Advances in Medical Education, Research, and Ethics (AMERE) Book Series*, 2024, 159, <https://doi.org/10.4018/979-8-3693-5493-3.ch010>.

17 Yozi Vidiastuti and Nurtanio Agus Purwanto. "Teaching factory management during the Covid-19 pandemic." *Jurnal Pendidikan Vokasi* 11, no. 3 (2021): 294. <https://doi.org/10.21831/jpv.v11i3.39668>

Table 3. Initiatives In Indonesia That Promote Innovation And Entrepreneurship

Initiatives	Description	Impact on Economic Diversification
Startup Incubators and Accelerators	Organizations like GK-Plug and Play and NextDev provide mentorship, resources, and funding to startups. Fosters an environment for innovative ideas to thrive.	Encourages the growth of startups exploring new business models and technologies. Diversifies industries as startups enter various sectors.
Co-Working Spaces	Co-working spaces in major cities offer affordable workspaces and networking opportunities. Facilitates collaboration and creativity among entrepreneurs and startups.	Creates a sense of community and innovation among entrepreneurs. Encourages collaboration and cross-pollination of ideas.
Government Initiatives	"Making Indonesia 4.0" initiative focuses on technology adoption and innovation in key sectors. Offers tax incentives and grants for R&D activities.	Advances technology adoption in traditional industries, reducing reliance on legacy sectors. Supports innovation through financial incentives.
Technology Hubs	Hubs like Bandung Techno Park and Bandung Digital Valley nurture tech-based startups. Provide infrastructure and research facilities for collaboration. Focus on tech innovation.	Fosters tech innovation and startups in emerging sectors. Promotes collaboration between academia and industry in tech.
Startup Competitions and Challenges	Competitions like Gojek Xcelerate offer funding, visibility, and mentoring to startups. Encourage solutions for various sectors.	Identifies and supports innovative startups in diverse industries. Encourages entrepreneurship and problem-solving in key sectors.
University-Industry Collaboration	Collaboration between universities and industries for research and development activities. Commercializes innovations.	Transforms research into marketable products and services. Strengthens the link between academia and industry.
Creative Economy Development	Initiatives like BEKRAF support creative industries such as fashion, film, and design. Promotes creativity and innovation.	Diversifies the economy by expanding creative sectors. Encourages creative entrepreneurship and artistic endeavors.
Tech and Innovation Festivals	Events like Tech in Asia Jakarta and the Indonesia Innovation Festival showcase innovations. Foster collaboration and idea sharing.	Provides a platform for startups and innovators to showcase new ideas. Encourages networking and collaboration among stakeholders.

Sumber: Tables called "Initiatives In Indonesia That Promote Innovation And Entrepreneurship" tables condense the key results of a research study.

Table 3 illustrates initiatives that collectively contribute to creating an ecosystem that promotes innovation and entrepreneurship in Indonesia. They play a vital role in diversifying the economy by supporting startups, encouraging technological advancements, and fostering collaboration between different stakeholders in the innovation ecosystem. Fostering an ecosystem conducive to innovation and entrepreneurship is vital for driving economic diversification in Indonesia. Such an ecosystem encourages the growth of startups, the development of new technologies, and the expansion of industries beyond traditional sectors. Here are examples of initiatives and cases that have occurred in Indonesia to promote innovation and entrepreneurship: Indonesia has witnessed the emergence of numerous startup incubators and accelerators, such as Jakarta's GK-Plug and Play and Bandung's NextDev.¹⁸ These organizations provide mentorship, resources, and funding opportunities to early-stage startups. They create an environment where innovative ideas can flourish, leading to the diversification of industries as startups explore new business models and technologies. The proliferation of co-working spaces in major Indonesian cities, including Jakarta and Bali, has facilitated collaboration and innovation among entrepreneurs and startups. These spaces offer affordable workspaces, networking opportunities, and access to events and workshops, fostering a sense of community and creativity. The Indonesian government has introduced various policies and programs to support innovation and entrepreneurship. The "Making Indonesia 4.0" initiative, for example, focuses on advancing key sectors like manufacturing through technology adoption and innovation.¹⁹ Additionally, tax incentives

18 Yuliana Rakhmawati. "ICT for Youth Philanthropy: A Study towards Kitabisa. com and GandengTangan. co. id." *Jurnal Ilmu Komunikasi* 17, no. 2 (2020): 145. <https://doi.org/10.24002/jik.v17i2.2012>

19 Zainal Ilmi. "Independence in learning, education

and grants are offered to startups engaged in research and development. Indonesia has established technology hubs like Bandung Techno Park and Bandung Digital Valley, aimed at nurturing tech-based startups.²⁰ These hubs provide infrastructure, access to research facilities, and opportunities for collaboration with academic institutions, driving innovation in the tech sector. Organizations and corporations host startup competitions and innovation challenges. For instance, the Gojek Xcelerate program encourages startups to develop solutions for various sectors, from transportation to finance.²¹ These competitions not only provide funding but also offer visibility and mentoring to innovative entrepreneurs. Universities in Indonesia are increasingly collaborating with industries to foster innovation. For example, the Institut Teknologi Bandung (ITB) collaborates with businesses to support research and development activities, leading to innovations that can be commercialized. Indonesia has placed a significant focus on developing its creative economy. Initiatives like the Creative Economy Agency (BEKRAF) support creative industries, including fashion, film, and design.²² This focus on creativity and innovation promotes economic diversification beyond traditional sectors. Indonesia hosts tech and innovation festivals such as Tech in Asia Jakarta and the Indonesia Innovation Festival. These events bring together entrepreneurs,

management, and industry 4.0: habitat Indonesia during COVID-19." *Journal of Anthropology of Sport and Physical Education* 4, no. 4 (2020): 63.

20 Jangkung Raharjo et al., "Policies support and obstacles in developing electrical power innovation products in Indonesia." In *AIP Conference Proceedings*, vol. 2795, no. 1. AIP Publishing, 2023. <https://doi.org/10.1063/5.0121517>

21 Amorita et al., "Peran Startup Gojek dalam Statecraft Indonesia di Singapura." *Balcony* 5, no. 2 (2021): 113.

22 Hilda Fachrizah et al., "Financing Creative Industries in Indonesia." *Creative Economy 2030* (2022). Rita Komalasari, "Harmonizing Minds and Machines," in *Advances in Hospitality, Tourism and the Services Industry (AHTSI) Book Series*, 2024, 20, <https://doi.org/10.4018/979-8-3693-2248-2.ch002>.

Table 4. Enhancing Digital Infrastructure For Skill Development In Indonesia

Initiatives	Description	Impact on Equitable Access
Indonesia Digital Learning Network (Jardiknas)	Government initiative connecting schools and institutions through high-speed internet. Facilitates access to digital educational resources and online courses. Enables collaboration among students and educators nationwide.	Ensures students and teachers in remote areas have access to digital learning resources. Promotes collaboration and knowledge sharing among educational institutions across the archipelago.
Polytechnic and Technical Universities	Various e-learning platforms offer diverse educational content and courses. Platforms like Ruangguru, Quipper, and Sekolah.mu provide access to video lessons and study materials. Reduces geographical disparities in educational resources.	Offers students access to quality educational content regardless of their location. Helps bridge the gap in educational opportunities between urban and rural areas.
Virtual Classrooms	Adoption of virtual classroom solutions by educational institutions, particularly during the pandemic. Enables real-time interaction between teachers and students regardless of location. Ensures uninterrupted learning.	Ensures students can continue their education during challenging times. Overcomes geographical barriers to learning and interaction with educators.
Online Skill Development Programs	Launch of online skill development programs reaching individuals in remote areas. Courses cover various fields like digital marketing and coding. Equips learners with practical skills for the job market.	Provides opportunities for skill development in underserved regions. Addresses the need for job-relevant skills in both urban and rural areas.
Digital Libraries	The National Library of Indonesia digitizes its collection of books, research papers, and historical documents. Makes digital resources accessible via the internet. Benefits students and researchers in remote areas.	Ensures access to educational and research materials for individuals without access to physical libraries. Promotes academic and knowledge development across the country.
Mobile Learning Apps	Popular mobile learning apps like Duolingo and Khan Academy offer free educational content. Accessible via smartphones, reducing the need for physical infrastructure. Widely available to users across regions.	Enables individuals in remote areas to access educational content through their smartphones. Provides a cost-effective means of learning without the need for specialized devices.
Internet Connectivity Expansion	Government and private sector collaboration to expand internet access to remote areas. Initiatives like the Palapa Ring Project improve connectivity to remote islands. Ensures reliable internet access for all.	Reduces the digital divide by ensuring remote regions have access to the internet. Enables online learning and digital communication for residents in underserved areas.
Community Internet Centers	Establishment of community internet centers in remote villages and islands. Provides residents with internet access and digital educational resources. Supports formal and informal learning.	Offers a communal space for residents to access online resources. Promotes digital literacy and education in remote communities. Enhances opportunities for self-improvement and skill development.

Sumber: Tables called "Enhancing Digital Infrastructure For Skill Development In Indonesia" tables condense the key results of a research study.

investors, and innovators to showcase new ideas and foster collaboration. These examples illustrate how Indonesia is actively creating an ecosystem that encourages innovation and entrepreneurship. By nurturing startups, promoting technological advancements, and fostering collaboration between academia, industry, and government, Indonesia aims to diversify its economy, reduce reliance on traditional sectors, and drive sustainable economic growth.

Investing in digital infrastructure, especially in underserved regions, can democratize access to education and skill development programs, reducing geographical barriers. Encouraging diversification of industries can reduce dependency on a single sector, making the economy more resilient to external shocks. Here are examples of initiatives and cases in Indonesia that have focused on enhancing digital infrastructure to overcome geographical constraints. Table 4 summarizing the initiatives and cases in Indonesia that have focused on enhancing digital infrastructure for education and skill development.

Table 4 illustrates initiatives that collectively contribute to reducing geographical barriers to education and skill development in Indonesia. By investing in digital infrastructure and leveraging technology, Indonesia aims to ensure that all its citizens, regardless of their location, have access to quality education and skills enhancement opportunities. Jardiknas is an initiative by the Indonesian government aimed at improving digital infrastructure in education.²³ It connects schools and educational institutions across the archipelago through high-speed internet access. This network enables students and teachers in remote areas to access digital educational resources, online courses, and

collaborate with their peers and educators nationwide. Various e-learning platforms have emerged in Indonesia, offering a wide range of educational content and courses. Platforms like Ruangguru, Quipper, and Sekolah.mu provide students with access to video lessons, quizzes, and study materials, reducing geographical disparities in educational resources.²⁴ Virtual classrooms have gained popularity in Indonesia, particularly during the COVID-19 pandemic. Educational institutions, both public and private, have adopted virtual classroom solutions to ensure uninterrupted learning for students in different regions. These platforms enable real-time interaction between teachers and students, regardless of their geographical location. Organizations in Indonesia have launched online skill development programs to reach individuals in rural and remote areas. These programs offer courses in areas like digital marketing, coding, and entrepreneurship, empowering learners with practical skills for the job market. The National Library of Indonesia has digitized its collection, making books, research papers, and historical documents accessible to anyone with an internet connection. This initiative benefits students and researchers in remote areas who may not have access to physical libraries. Mobile learning apps have become popular tools for education in Indonesia. Apps like Duolingo for language learning and Khan Academy for math and science offer free educational content that can be accessed from smartphones, reducing the need for physical infrastructure.²⁵ The Indonesian

23 Elva Retnawati. "Efforts to support and expand the use of educational technology as a means of delivering learning." *IJIET (International Journal of Indonesian Education and Teaching)* 3, no. 1 (2019): 128. <https://doi.org/10.24071/ijiet.v3i1.1725>

24 Maichel Chinmi and Rustono Farady Marta. "RuangGuru as an Ideation of Interaction and Education Revolution during COVID-19 Pandemic in Indonesia." *Revista Românească Pentru Educație Multidimensională* 12, no. 2Sup1 (2020): 118. <https://doi.org/10.18662/rrem/12.2sup1/297>

25 Minda Jiang. "The Impact and Potential of Educational Technology: A Comprehensive Review." *Research and Advances in Education* 2, no. 7 (2023): 32; Rita Komalasari, "Exploring the Potential of Augmented Reality in Schools for the Health and Safety of Teenagers," in *Advances in Medical Education*,

government, in collaboration with private telecommunications companies, has been working to expand internet connectivity to remote and underserved areas. Initiatives like the Palapa Ring Project aim to provide reliable internet access to even the most remote islands of the country.²⁶ Some local governments and NGOs have established community internet centers in remote villages and islands. These centers provide residents with access to the internet and digital educational resources, supporting both formal and informal learning. These examples illustrate how Indonesia has been actively investing in digital infrastructure to bridge geographical barriers to education and skill development. By leveraging digital technologies and the internet, the country is making significant strides toward providing equal educational opportunities to its diverse population, regardless of their location.

Designing policies and incentives that promote inclusive growth is essential. This involves measures to ensure that the benefits of economic growth are distributed equitably across society. Inclusive growth aims to ensure that the benefits of economic development are shared widely across the population, reducing income inequality and improving living standards for all. The table 5 illustrates Indonesia's active engagement in global economic opportunities:

The table 5 illustrates initiatives highlighting Indonesia's proactive efforts to engage with the global economy, fostering economic diversification and competitiveness. Active engagement in global economic opportunities is a strategy that involves a country's proactive participation in international trade, investment, and

cooperation to diversify its markets and enhance its competitiveness on the global stage. For Indonesia, this approach has been instrumental in expanding its economic reach and promoting economic diversification. Here are examples of active engagements with other countries that have occurred: Indonesia has entered into various bilateral and regional trade agreements to expand its market access and promote exports. For example, Indonesia is a member of the ASEAN Free Trade Area (AFTA), which facilitates trade among ASEAN member countries.²⁷ Additionally, Indonesia has signed trade agreements with countries like Australia, Japan, and South Korea, which provide preferential access to these markets for Indonesian goods. Indonesia actively participates in global value chains, particularly in sectors such as textiles, electronics, and automotive. Companies in Indonesia collaborate with international firms, supplying components and products to global markets. This participation enhances Indonesia's competitiveness and broadens its economic footprint. Indonesia actively seeks foreign direct investment (FDI) to promote economic diversification and technology transfer. The government offers incentives to attract foreign investors, particularly in sectors such as manufacturing, renewable energy, and digital technology. For instance, Indonesia has attracted investments from China in various infrastructure projects and manufacturing facilities. Indonesia actively promotes its tourism industry to attract international visitors. The "Wonderful Indonesia" campaign showcases the country's diverse tourist destinations, from Bali's beaches to cultural attractions in Yogyakarta.²⁸ This effort diversifies the

Research, and Ethics (AMERE) Book Series, 2024, 159, <https://doi.org/10.4018/979-8-3693-5493-3.ch010>.

26 Galih A. Yohanes et al., "Optical fiber network design in east nusa tenggara based on palapa ring project." In 2019 International Conference on Information and Communications Technology (ICOICT), pp. 212. IEEE, 2019. <https://doi.org/10.1109/icoiact46704.2019.8938417>

27 Rakhmat Syarip. "Defending foreign policy at home: Indonesia and the ASEAN-based Free Trade Agreements." *Journal of Current Southeast Asian Affairs* 39, no. 3 (2020): 405. <https://doi.org/10.1177/1868103420935556>

28 Herien Natasya Santoso, Christy Widyawati, and Rizki Adityaji. "The Role of The Promotional Video Wonderful Indonesia: A Visual Journey" *On Brand*

Table 5. Indonesia's Active Engagement In Global Economic Opportunities

Active Engagement Initiatives	Description and Impact
Bilateral and Regional Trade Agreements	Participation in ASEAN Free Trade Area (AFTA) and bilateral agreements with countries like Australia and Japan expand market access and promote exports.
Participation in Global Value Chains	Collaboration with international firms in sectors like textiles, electronics, and automotive enhances competitiveness and economic footprint.
Investment Attraction	Attracting foreign direct investment (FDI) in manufacturing, renewable energy, and digital technology promotes diversification and technology transfer.
Tourism Promotion	"Wonderful Indonesia" campaign showcases diverse tourist destinations, generating revenue and diversifying the economy through tourism.
Participation in International Organizations	Active engagement in the UN, G20, and ASEAN fosters economic cooperation, development assistance, and global collaboration.
Foreign Aid and Assistance	Providing aid to Southeast Asian nations fosters cooperation and opens doors for economic collaboration and trade.
Cooperation in Renewable Energy	Collaboration with countries like the Netherlands and Japan in renewable energy projects diversifies energy sources and enhances energy security.
Joint Ventures and Technology Transfer	Engaging in joint ventures with international companies facilitates technology transfer, improving capabilities and competitiveness.
Participation in Multilateral Trade Forums	Active involvement in organizations like the WTO allows negotiation of trade agreements, dispute resolution, and promotion of global trade rules.
Investment in Higher Education	Collaboration with countries like the ASEAN in higher education enhances knowledge exchange and human capital development.

Sumber: Tables called "Indonesia's Active Engagement In Global Economic Opportunities" tables condense the key results of a research study.

economy by generating revenue from the tourism sector. Indonesia actively engages in international organizations such as the United Nations, G20, and ASEAN. Through its participation, Indonesia seeks opportunities for economic cooperation, development assistance, and collaboration on global challenges. Indonesia provides foreign aid and assistance to other countries, particularly in the Southeast Asian region. This engagement not only fosters goodwill but also opens doors for economic cooperation and trade with

partner nations. Indonesia collaborates with countries like the Netherlands and Japan in renewable energy projects. This includes wind and solar energy initiatives, which not only contribute to global environmental goals but also diversify Indonesia's energy sources and improve energy security. Indonesia has engaged in joint ventures with international companies in various sectors, such as automotive manufacturing and aerospace. These partnerships often involve technology transfer, enhancing Indonesia's capabilities and competitiveness. Indonesia actively participates in multilateral trade forums like

Image and Tourist Visiting Interest To Wakatobi." *Journal of Tourism, Culinary and Entrepreneurship (Jtce)* 1, no. 1 (2021): 48. <https://doi.org/10.37715/jtce.v1i1.1799>

the World Trade Organization (WTO).²⁹ These forums provide opportunities to negotiate trade agreements, resolve disputes, and promote a rules-based global trading system. Indonesia collaborates with countries like the ASEAN to improve its higher education sector. This includes partnerships between universities and research institutions, facilitating knowledge exchange and human capital development. These examples illustrate how Indonesia's active engagement in global economic opportunities has allowed the country to diversify its markets, attract investments, enhance competitiveness, and broaden its economic base. By pursuing international cooperation and leveraging its position in the global economy, Indonesia continues to seek new opportunities for economic growth and development.

Conclusion

In conclusion, the analysis of Foreign Direct Investment (FDI), human capital dynamics, and policy imperatives in Indonesia underscores the critical need for a comprehensive approach to address the complexities and challenges facing the nation's economic development. While Indonesia has seen significant inward FDI, disparities in wages, educational outcomes, and regional development persist, posing obstacles to sustained growth and prosperity.

To effectively navigate these challenges and escape the middle-income trap, Indonesia must implement a multifaceted policy framework. This framework should prioritize attracting FDI to underserved regions, thereby fostering economic growth and human capital development outside of major urban centers. Additionally, aligning educational curricula with industry demands, particularly

emphasizing vocational and technical training, is crucial for ensuring a skilled workforce that meets the needs of a rapidly evolving economy.

Furthermore, fostering an ecosystem conducive to innovation and entrepreneurship is essential for driving economic diversification and reducing reliance on traditional sectors. Investing in digital infrastructure is paramount to reducing geographical barriers to education and skill development, ensuring that all Indonesians have access to opportunities for advancement.

Equally important is the design and implementation of policies that ensure the equitable distribution of economic benefits, thereby promoting inclusive growth and reducing income inequalities. Finally, active engagement in global economic opportunities is vital for diversifying markets, enhancing competitiveness, and positioning Indonesia as a key player in the evolving global economic landscape.

In essence, the recommendations outlined in this analysis provide a roadmap for Indonesia to realize its full economic potential, foster sustained growth, and build a more inclusive and prosperous society. By embracing these policy imperatives, Indonesia can chart a path towards economic prosperity and escape the middle-income trap, positioning itself as a dynamic and resilient player in the global economy.

29 Abdul Maasba Magassing et al., "The Efforts to Make a Free World Trade and Justice Through Trading Disputes and Indonesian Interest." *IOSR Journal Of Humanities And Social Science* 25, no. 1: 56.

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