

Unveiling Indonesia's Challenges in Attracting Foreign Direct Investment: The Case of Apple Inc and the Electronic Manufacturing Industry

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ABSTRACT

Foreign Direct Investment (FDI) plays a pivotal role in advancing economic growth, industrial modernization, and technology transfer in emerging economies. This study explores Indonesia's persistent challenges in attracting high-technology FDI within the electronic manufacturing sector, focusing on the case of Apple Inc. as a reflection of broader policy dynamics. Employing a qualitative case study approach, the research analyzes secondary data from official reports, government publications, and scholarly literature to uncover the intersection between Indonesia's economic ambitions, political diplomacy, and security considerations. The findings reveal that although Indonesia possesses significant potential—characterized by abundant resources, a large domestic market, and an expanding digital ecosystem—its investment climate remains hindered by bureaucratic inefficiencies, inconsistent regulations, and limited technological infrastructure. The study highlights that Apple Inc., while fulfilling its Local Content Requirement (TKDN) through software-based initiatives such as the Apple Developer Academy, continues to refrain from establishing local manufacturing facilities. This decision underscores the broader structural constraints faced by multinational corporations operating in Indonesia's regulatory environment. Economically, the research demonstrates that FDI remains central to Indonesia's goal of transitioning from resource-based exports toward high-value manufacturing. Politically, it shows that FDI functions as an instrument of economic diplomacy, enhancing Indonesia's international credibility. From a security perspective, strengthening the electronic manufacturing sector through FDI is vital for achieving technological sovereignty and resilience amid global supply chain disruptions. The study concludes that Indonesia's success in attracting sustainable FDI depends on its ability to harmonize economic liberalization with institutional reform and industrial readiness. Addressing these structural challenges is imperative for Indonesia to fully integrate into the global value chain and achieve its vision under the Making Indonesia 4.0 roadmap.

Keywords: Foreign Direct Investment (FDI), electronic manufacturing, Apple Inc., TKDN, economic diplomacy, Indonesia

1. Introduction

Economic growth serves as the driving force for national development, motivating countries to pursue strategies that enhance productivity and welfare. Among the key mechanisms to achieve this goal is the attraction of Foreign Direct Investment (FDI), which not only provides capital but also facilitates technology transfer, managerial skills, and knowledge diffusion (Mahadiansar et al., 2019). FDI is regarded as a central element of global economic integration, creating enduring linkages among national economies and contributing to sustainable development in emerging markets.

Indonesia, endowed with rich natural resources (SDA) and a large human capital base (SDM), possesses substantial potential to attract foreign investors. According to the Badan Koordinasi Penanaman Modal (BKPM, 2023), realized investment in the first half of 2023 reached IDR 678.7 trillion, a 16.1% increase from the previous year, with foreign investment (PMA) accounting for more than half of the total. This reflects growing confidence in Indonesia's political and economic stability. Major investors include Singapore, China, Hong Kong, Japan, and Malaysia.

Within this investment landscape, the manufacturing industry particularly the electronic manufacturing sector, plays a pivotal role in Indonesia's economic transformation. Manufacturing contributes roughly 20% to Indonesia's GDP and acts as a multiplier sector that generates employment, strengthens value chains, and reduces reliance on raw material exports (Agus Gumiwang, 2021; ASEAN Briefing, 2021). As part of the Making Indonesia 4.0 initiative, the government aims to develop a robust manufacturing ecosystem through industrial digitalization and innovation.

However, despite its potential, Indonesia continues to face structural and regulatory challenges that deter multinational corporations (MNCs) from investing in local manufacturing facilities.

These obstacles include bureaucratic complexity, inadequate infrastructure, regulatory inconsistency, and skill gaps among the workforce. In contrast, neighboring countries such as Vietnam and Thailand have emerged as more attractive destinations for high-tech FDI due to their streamlined regulations and efficient production ecosystems (ASEAN Investment Report, 2022).

The case of Apple Inc. exemplifies these challenges. Despite being one of Indonesia's largest smartphone importers responsible for roughly 85% of total premium handset imports Apple has not yet established a manufacturing base in Indonesia. The company's investment remains limited to the Apple Developer Academy, which focuses on education and human resource development rather than production. One major constraint is the *Tingkat Kandungan Dalam Negeri* (TKDN) regulation, which requires 35% local content for smartphone sales in Indonesia (Airin et al., 2020). Apple has opted to meet this requirement through software and application development rather than local manufacturing, a choice that diverges from the government's expectation for physical investment in production facilities.

Indonesia's government continues to engage Apple through economic diplomacy, through direct negotiation between the Ministry of Industry with Apple Inc. (Mediana, 2025), aiming to overcome these barriers and attract deeper industrial participation. The 2024 meeting between President Joko Widodo and Apple CEO Tim Cook, in which Apple pledged an investment of IDR 1.6 trillion, represents a renewed effort to strengthen bilateral cooperation in technology and investment. Yet, Indonesia must still address persistent "artificial and natural barriers" that limit FDI inflows, including policy inconsistency and limited supply-chain readiness.

Thus, this research explores the economic, political, and security motivations behind Indonesia's FDI strategy and analyzes the obstacles that hinder foreign investment, with Apple Inc. serving as a case study of

negotiation dynamics between state policy and multinational corporate strategy. Using liberalism as the primary analytical framework, the writing team examines how state and non-state actors pursue shared interests, supported by concepts such as diplomacy, economic cooperation, foreign direct investment, and public interest. Strengthening Indonesia's electronic manufacturing sector through effective FDI policies is essential for achieving industrial modernization and ensuring long-term economic resilience.

2. Literature Review

This section presents a systematic review of prior studies and relevant academic sources covering the economic, political, and security dimensions of Foreign Direct Investment (FDI) in Indonesia, particularly in the electronic manufacturing sector. For clarity, the literature review is divided into four thematic subsections.

2.1 FDI as an Instrument of Indonesia's Economic Development

Foreign Direct Investment (FDI) has long been understood as one of the most influential instruments shaping global economic development and industrial transformation. In the contemporary international system, FDI represents more than just capital mobility, it embodies the transfer of technology, knowledge, and managerial expertise that enable developing countries to integrate into global production networks. For Indonesia, FDI serves as both an engine of growth and a test of policy capability in managing the complex interplay between domestic needs and global competitiveness. The attraction of foreign capital has been central to Indonesia's economic planning since the New Order era, when the government first adopted an outward-looking industrialization model. Yet, as Mahadiansar, Ramadhani, Eki, and Fitri (2019) observe, while FDI inflows have helped stabilize macroeconomic performance, their contribution to technological advancement remains uneven

due to persistent regulatory and structural challenges.

FDI's importance extends beyond simple investment figures. It functions as a conduit for technology transfer, industrial modernization, and human capital formation. Mahadiansar et al. (2019) emphasize that investment in the information and communication technology (ICT) sector is particularly strategic, given that ICT now ranks among Indonesia's top three import categories after oil and food commodities. By attracting FDI into ICT-related industries, the government can simultaneously enhance technological capacity and reduce the country's trade deficit. The same logic applies to the electronic manufacturing sector, where multinational corporations (MNCs) such as Apple Inc., Samsung, and Oppo play an outsized role in shaping industrial policy through their technology, scale, and global supply networks.

The relationship between FDI and growth, however, is not linear. James, Mario, and Yoto (2018), in their structural estimation of trade liberalization and FDI dynamics, argue that foreign investment decisions are influenced by a combination of economic fundamentals, political stability, and governance quality. In other words, macroeconomic indicators alone cannot determine investment attractiveness. The political environment encompasses legal consistency, institutional credibility, and bureaucratic efficiency which profoundly affects investor confidence. This argument is particularly relevant to Indonesia, where governance complexity and overlapping regulations have long been cited as deterrents to large-scale FDI, even in high-potential sectors like electronics. James et al. (2018) further note that the interdependence of economics and politics in FDI flows underscores the necessity for coherent policymaking that bridges these two domains.

2.2 Indonesia's Efforts to Attract Investors in the Manufacturing Industry

Indonesia's government has long recognized the strategic role of FDI in national

development and has undertaken numerous reforms to improve its investment climate. As noted by the ASEAN Briefing (2021), Indonesia's manufacturing sector contributes roughly one-fifth of the country's GDP, making it a core driver of industrial growth. Within this sector, electronic manufacturing has emerged as a priority area for modernization, particularly under the Making Indonesia 4.0 roadmap launched in 2018. This initiative envisions a digitally integrated, innovation-driven industrial base, where technology-intensive industries such as electronics, automotive, and machinery will lead export diversification. According to Azwina, Wardani, Sitanggang, and Silalahi (2021), the government has established the Indonesia Digital Industry Center 4.0 to support innovation, facilitate research collaboration, and attract investors through tax incentives and infrastructure support.

Despite these efforts, Indonesia continues to encounter barriers that constrain its ability to compete with regional peers such as Vietnam, Malaysia, and Thailand. These countries have succeeded in attracting high-tech FDI due to their streamlined regulations, targeted industrial zones, and efficient logistics systems (ASEAN Investment Report, 2022). Azwina et al. (2021) point out that Indonesia's bureaucratic inefficiency and inconsistent policy enforcement often discourage investors from committing to long-term projects. For instance, while the government provides fiscal incentives and simplified licensing procedures through the Online Single Submission (OSS) system, investors still face difficulties navigating local-level administrative processes. The result is a disconnection between central policy aspirations and on-the-ground implementation.

In analyzing Indonesia's efforts to attract FDI, scholars have also examined the country's industrial structure and the readiness of its human resources. Muhammad Siktiyana and Djumadi Anwar (2020) identify political stability, market potential, and competitive labor costs as

crucial determinants influencing foreign investors. Yet, they emphasize that Indonesia's labor advantage remains largely quantitative rather than qualitative. The lack of skilled technical workers constrains the shift toward high-value manufacturing, where precision and technological literacy are required. Consequently, while Indonesia remains attractive as a consumer market, it struggles to position itself as a manufacturing base for high-end electronic products.

2.3 Apple Inc.'s Interests and Strategies in the Indonesian Domestic Market

The role of multinational corporations (MNCs) in shaping Indonesia's industrial landscape cannot be overstated. Among these, Apple Inc. stands as a key case in understanding the dynamic between state policy and corporate strategy. As a global technology giant, Apple's operations reflect complex considerations that go beyond cost and market size; they also involve brand protection, supply chain reliability, and regulatory predictability. According to Wistiasari and Safitri (2020), Apple's global strategy relies heavily on its ability to maintain a consistent premium brand image while optimizing production efficiency through global outsourcing. This strategy has led Apple to develop extensive partnerships in China and, more recently, to diversify production into Vietnam and India.

Within Indonesia, Apple's strategy has been characterized by cautious engagement. The company has established Apple Developer Academies in collaboration with the government and local universities, focusing on software development and digital entrepreneurship. However, it has refrained from establishing a manufacturing base. Syafira and Indra (2018) explain that Apple's market in Indonesia primarily targets the upper-middle class, relying on brand prestige and product differentiation rather than localized production. This approach enables Apple to maintain exclusivity and high profit margins but also limits the depth of its economic integration within the Indonesian industrial ecosystem.

The challenges facing Apple's manufacturing investment in Indonesia illustrate broader structural issues in the country's FDI environment. According to Vendy Sasmita (2021), multinational firms face a range of risks including political instability, currency volatility, inflation, and bureaucratic delays. Although Indonesia is viewed as politically stable relative to other emerging economies, administrative uncertainty and fluctuating regulations continue to raise transaction costs. From an investor's perspective, these risks undermine long-term planning and make alternative locations like Vietnam more attractive.

2.4 The Impact of the Domestic Component Requirement (TKDN) on Apple's Sales in Indonesia

A critical dimension shaping Apple's decision-making in Indonesia is the government's Local Content Requirement (TKDN) regulation. Introduced as part of Indonesia's industrial policy to boost domestic participation in the ICT and electronics industries, the TKDN rule mandates that at least 35% of smartphone components or value must be locally produced to qualify for sale in the domestic market (Airin, Muhammad, & Eleonora, 2020). This policy was intended to stimulate local manufacturing, create employment, and encourage technology transfer. However, its implementation has yielded mixed results.

Airin et al. (2020) argue that while the TKDN policy succeeded in increasing domestic participation, it also imposed high compliance costs on foreign firms. Many companies adapted by meeting the requirement through non-hardware contributions, such as software development, application ecosystems, or after-sales services, rather than establishing factories. Apple followed this path by fulfilling its TKDN obligations through educational and software initiatives rather than physical production. This approach allowed the company to maintain market access without committing to capital-intensive manufacturing investment.

The TKDN policy also highlights tensions between industrial nationalism and global production realities. Adelia and Maria (2020) observe that the stringent requirements have inadvertently led to a rise in black market imports of second-hand iPhones and unauthorized devices, undermining formal sector compliance. This indicates that protectionist measures, when not accompanied by adequate enforcement and supply chain readiness, can generate unintended market distortions. Despite these limitations, the local content policy reflects Indonesia's aspiration to assert economic sovereignty in an increasingly globalized market. By mandating domestic involvement, the government seeks to ensure that FDI produces tangible benefits for national development rather than remaining confined to foreign enclaves. Yet, as Airin et al. (2020) note, the effectiveness of such regulations depends on complementary investments in infrastructure, education, and institutional reform. Without these, policies like TKDN risk becoming symbolic rather than transformative.

The broader literature also situates Indonesia's FDI policy within the framework of economic diplomacy. As a G20 member and a leading voice in ASEAN, Indonesia employs investment cooperation as an instrument of international engagement. According to Azwina et al. (2021), this strategy aligns with liberal internationalist principles that emphasize collaboration, openness, and multilateralism. At the same time, Indonesia faces the challenge of reconciling its global commitments with domestic priorities. The case of Apple exemplifies this tension: while the government seeks to attract investment to enhance global competitiveness, it also insists on maintaining sovereignty over industrial policy.

Collectively, the reviewed studies reveal that Indonesia's obstacles to attracting FDI are multidimensional. Economic constraints stem from infrastructural and human capital deficiencies, while political and regulatory barriers arise from institutional inefficiencies.

In the case of Apple, these challenges are compounded by global strategic considerations such as supply chain optimization, brand positioning, and risk management. Nonetheless, the literature also underscores Indonesia's immense potential: a large domestic market, rich natural resources, and growing digital literacy make it an increasingly attractive long-term destination for technology-driven investment.

In summary, the existing body of research paints a nuanced picture of Indonesia's FDI landscape. Mahadiansar et al. (2019) and James et al. (2018) emphasize the importance of political stability and governance quality in sustaining foreign investment. Azwina et al. (2021) and the ASEAN Investment Report (2022) highlight the need for coherent industrial strategies and policy enforcement. Airin et al. (2020) and Adelia and Maria (2020) demonstrate how regulatory instruments like TKDN can both empower and constrain investors. Meanwhile, Wistiasari and Safitri (2020), Syafira and Indra (2018), and Sasmita (2021) provide insights into Apple's strategic calculus, showing how multinational corporations weigh local benefits against global efficiencies.

Taken together, these perspectives form the theoretical and empirical foundation for understanding Indonesia's struggle to attract FDI in the electronic manufacturing industry. They reveal that Indonesia's investment environment operates within a complex nexus of economic ambitions, political realities, and global corporate strategies. This literature review thus sets the stage for the following analysis by positioning Apple Inc. as both a participant in and a mirror of Indonesia's evolving approach to industrial development, foreign investment policy, and economic diplomacy.

3. Research Method

To explore the topic of Foreign Direct Investment (FDI) in the information and communication technology industry, this

study employs a qualitative research approach. The qualitative approach is appropriate for understanding and explaining the meaning embedded within a social and contextual reality in depth. Qualitative research involves collecting detailed data through various techniques such as interviews, observation, content analysis, and case studies. It emphasizes interpretive processes that aim to uncover the underlying nature of a phenomenon rather than measure it statistically (Cresswell, 2007). Thus, this approach aligns with the researcher's objective to analyze trade and investment policy dynamics related to FDI in Indonesia by utilizing secondary data derived from academic literature, books, journals, and official reports. The qualitative design allows for comprehensive interpretation, contextual insight, and analytical flexibility in understanding the multi-dimensional aspects of investment and policy.

The research method used in this study is the case study method. This method enables the researcher to connect micro-level and macro-level perspectives through a broad and exploratory analysis enriched with various contextual details. A case study is a detailed investigation of a specific phenomenon, situation, group, or individual within its real-life context. Data are typically drawn from multiple sources such as documents, reports, and visual or textual materials to construct a holistic understanding of the subject (Cresswell, 2007).

By applying the case study method, the researcher seeks to explore FDI as a complex issue that encompasses economic, political, and security dimensions, involving multiple stakeholders and intersecting motivations. In this research, Apple Inc. serves as the focal case study representing the challenges and opportunities of attracting high-value FDI in Indonesia. Apple's investment negotiations with the Indonesian government highlight the urgency of policy strategy and institutional coordination. The study also integrates Indonesia's domestic economic objectives and foreign policy considerations, illustrating

the interaction between national interests and corporate decision-making.

4. Result and Discussion

The manufacturing industry has long been a cornerstone of Indonesia's economic structure, serving as a major contributor to both gross domestic product (GDP) and national employment (Badan Koordinasi Penanaman Modal [BKPM], 2023). Within this sector, the electronic manufacturing industry holds a particularly strategic position as the driver of Indonesia's transition toward a digital and innovation-based economy (ASEAN Briefing, 2021). Indonesia's demographic advantage, with over 279 million inhabitants, and its geostrategic location in Southeast Asia offer both a vast domestic market and an advantageous regional production base. The increasing societal dependence on electronic and digital devices amplifies the significance of this sector for both domestic consumption and export performance.

Historically, since the New Order era, Indonesia's industrial policy has evolved from dependence on labor-intensive sectors such as textiles and agriculture to a greater emphasis on technology-oriented manufacturing, aligning with global trends in automation and industrial digitalization (Azwina, Wardani, Sitanggang, & Silalahi, 2021). Despite notable growth, Indonesia's electronic manufacturing still lags behind Vietnam, Thailand, and Malaysia, which have established themselves as regional production hubs for electronics.

Indonesia's Electronic Manufacturing Industry

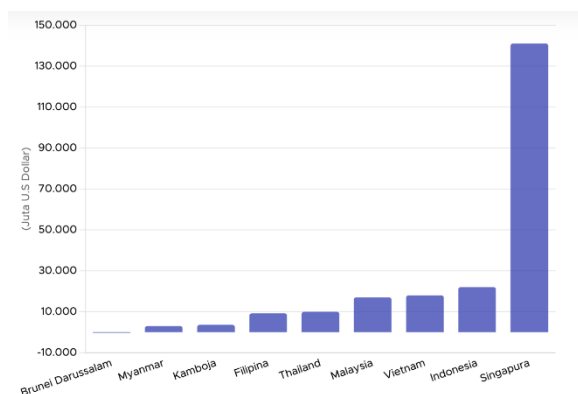
Indonesia's electronic manufacturing comprises various sub-sectors, including component fabrication, device assembly, and consumer electronics production. Although this sector grew by between 12.5% and 17.3% quarterly in 2022, its domestic capacity remains limited (ASEAN Investment Report, 2022). Most electronic components are still imported, with only two out of 360 smartphone components

currently produced locally (Airin, Muhammad, & Eleonora, 2020).

To address this, the government introduced the Local Content Requirement (*Tingkat Komponen Dalam Negeri*/TKDN) and Indonesian National Standard (SNI) policies to enhance local participation and product quality. However, these policies face implementation inconsistencies, and many firms report prolonged licensing processes and regulatory uncertainty (Airin et al., 2020). Indonesia nevertheless holds structural advantages: abundant raw materials such as nickel and tin, a young and sizable workforce, and strategic access to maritime trade routes. The government's Making Indonesia 4.0 initiative reflects a long-term vision to modernize industry and increase value-added exports (Agus Gumiwang, 2021).

During the 2024 presidential debate, President Prabowo Subianto reiterated a national commitment to expand domestic smartphone production, viewing it as essential to enhancing Indonesia's technological sovereignty. If the country succeeds in integrating industrial policy, human resource development, and investment incentives, it could rank among the world's top 10 manufacturing economies by 2030 (BKPM, 2023). Yet, this progress depends on coherent policy coordination and infrastructure readiness to attract sustained foreign investment.

Figure 1. FDI Inflow in ASEAN Countries 2022



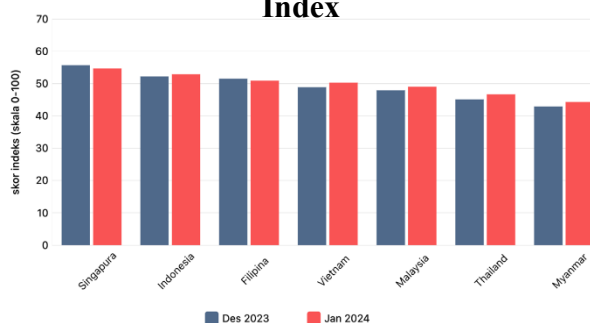
Source: ASEAN Investment Report, 2022

Regionally, Indonesia's manufacturing FDI inflows are improving, though still below those of Singapore and Vietnam. According to Diagram 4.1, Indonesia received approximately US\$22 billion in FDI in 2022, half of which went to manufacturing industries (ASEAN Investment Report, 2022). Malaysia secured US\$17 billion, Vietnam US\$18 billion, and Singapore maintained dominance at US\$141 billion. Despite this, Indonesia leads in Manufacturing Value Added (MVA) with US\$255 billion in 2023, surpassing Thailand (US\$128 billion) and Vietnam (US\$102 billion) (ASEAN Briefing, 2021). This demonstrates Indonesia's deeper industrial base, though its production ecosystem remains fragmented.

Diagram 2. (Purchasing Managers' Index) shows that Indonesia's manufacturing activity continued to expand through January 2024, reflecting positive momentum. However, human capital limitations and inconsistent policy enforcement remain significant barriers (Mahadiansar, Ramadhani, Eki, & Fitri, 2019). In contrast, Vietnam's streamlined investment procedures, competitive labor costs, and export-oriented clusters make it more appealing to multinational corporations (MNCs). For Indonesia to

compete effectively, it must enhance digital infrastructure, vocational education, and regulatory transparency. With ASEAN's projected US\$330 billion digital economy by 2025, Indonesia could become a leading investment destination—if it overcomes structural inefficiencies (ASEAN Investment Report, 2022).

Figure 2. Purchasing Managers' Index



Source: Databoka, 2019

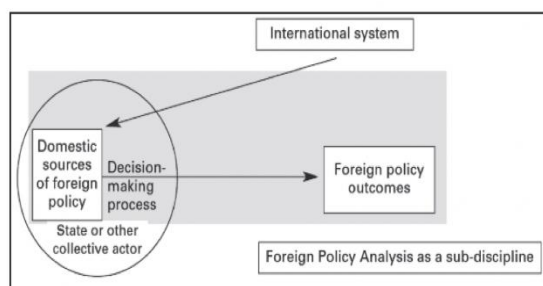
Indonesia's Motives for Attracting FDI in the Electronic Manufacturing Industry

Every national policy reflects underlying economic, political, and security motives. Indonesia's FDI attraction strategy in electronic manufacturing demonstrates a convergence of these interests. Theoretically, FDI acts as a mechanism for international economic integration and domestic development (James, Mario, & Yoto, 2018). It serves as an instrument of economic diplomacy, linking internal industrial goals with external cooperation. As illustrated in Figure 4.1 ("Foreign Policy Analysis Framework"), Indonesia's external engagements and domestic policy interests interact dynamically in shaping its investment diplomacy.

Economically, FDI is instrumental in technology transfer, job creation, innovation diffusion, and industrial upgrading. For Indonesia, investment in electronics represents a shift from raw material exports to value-added production (Mahadiansar et al., 2019). FDI stimulates supply chain integration, strengthens supporting

industries, and contributes to macroeconomic stability through capital inflows. The manufacturing sector's 20% share of GDP underscores its potential as an economic engine (Agus Gumiwang, 2021). Apple Inc.'s potential investment exemplifies this expectation. The government views Apple as a strategic partner capable of boosting the national digital ecosystem through technological expertise and innovation culture (Wistiasari & Safitri, 2020).

Figure 3. Foreign Policy Analysis Framework



Source: Wistiasari & Safitri, 2020

However, Apple's current investment—mainly the Apple Developer Academy—focuses on education and software development, not physical manufacturing. While beneficial for skill enhancement, it falls short of national industrialization goals. Indonesia's long-term vision is to combine FDI attraction with industrial capacity-building, ensuring that investment leads to sustainable domestic production and competitiveness.

Politically, attracting FDI supports Indonesia's foreign policy diversification and economic diplomacy. As a G20 and ASEAN member, Indonesia employs liberal economic engagement to reinforce global partnerships (Azwina et al., 2021). Inviting high-profile corporations such as Apple enhances Indonesia's international credibility as an investment destination and signals regulatory stability. FDI also reinforces policy legitimacy by reflecting successful bureaucratic reforms and strengthening investor trust. The 2024

meeting between President Joko Widodo and Apple CEO Tim Cook, where Apple pledged an IDR 1.6 trillion investment, symbolizes the use of economic diplomacy to build stronger bilateral ties with the United States (BKPM, 2023). This aligns with Indonesia's broader strategy of promoting a knowledge-based economy through global partnerships.

From a security perspective, FDI contributes to economic resilience and technological sovereignty. A robust manufacturing base mitigates vulnerability to import dependency and global supply chain disruptions, particularly amid the U.S.–China trade tensions (ASEAN Investment Report, 2022). By attracting high-tech FDI, Indonesia seeks to enhance technological capacity and safeguard national interests in critical sectors like electronics, semiconductors, and communications. Apple's gradual diversification from China toward Southeast Asia presents Indonesia with a strategic opportunity to position itself as a neutral production base balancing major powers. Thus, FDI operates not only as an economic instrument but also as a strategic tool that strengthens Indonesia's position in the evolving geopolitical order.

Findings

The findings indicate that Indonesia's ability to attract FDI in electronic manufacturing depends on three interconnected dimensions: economic competitiveness, institutional reform, and international credibility. Economically, Indonesia holds strong potential in resources and market size but must strengthen its technological and human capital base. Institutionally, success requires consistent regulations and efficient bureaucracy. Internationally, Indonesia's image as a reliable investment partner must be reinforced through predictable and transparent governance. Apple Inc.'s case encapsulates both the promise and pitfalls of Indonesia's investment landscape: while the country offers vast potential, its regulatory rigidity and infrastructural limitations

impede full-scale manufacturing FDI.

5. Conclusion

This study has examined Indonesia's challenges in attracting Foreign Direct Investment (FDI) in the electronic manufacturing sector, using the negotiation between the Indonesian government and Apple Inc. as a representative case. The research employed a qualitative case study method, supported by secondary data from official reports, journals, and government publications. The findings reveal that while Indonesia possesses significant economic potential, its structural and institutional weaknesses continue to hinder its attractiveness to multinational investors. The interplay between economic motives, political diplomacy, and security interests defines Indonesia's approach to foreign investment, yet the implementation gap between policy design and execution remains a persistent obstacle (Pattinussa, 2021).

Economically, Indonesia's manufacturing sector serves as the backbone of national growth, contributing nearly 20% of the country's GDP (BKPM, 2023). The government's Making Indonesia 4.0 roadmap reflects its ambition to develop a globally competitive industrial base (Agus Gumiwang, 2021). However, the transition from resource-based exports to high-value manufacturing remains incomplete due to insufficient infrastructure, skill shortages, and import dependence (Airin, Muhammad, & Eleonora, 2020). The electronic manufacturing industry, although strategic, faces difficulties in achieving vertical integration. Indonesia's domestic production still relies heavily on imported components, limiting the benefits of technology transfer and value chain participation (ASEAN Briefing, 2021).

FDI is recognized as a key instrument to address these gaps. The entry of multinational firms like Apple Inc. could strengthen Indonesia's digital ecosystem and accelerate technology diffusion.

However, Apple's current engagement remains limited to human capital development through the Apple Developer Academy, rather than physical production investment. This indicates that Indonesia's investment incentives and local content policies while well intentioned do not yet provide a sufficient balance between national protectionism and corporate flexibility. As such, Indonesia continues to compete with neighboring countries like Vietnam and Thailand, which offer clearer regulations, stronger infrastructure, and targeted industrial clusters (ASEAN Investment Report, 2022).

Politically, Indonesia's FDI strategy functions as a component of its broader economic diplomacy. As a G20 member and a leading economy in ASEAN, Indonesia aspires to project a stable, open, and cooperative image to the international community (Azwin, Wardani, Sitanggang, & Silalahi, 2021). The state's willingness to engage major multinational corporations such as Apple reflects its use of FDI as a tool of foreign policy legitimization. By fostering investment cooperation, the government signals political stability, regulatory reform, and commitment to innovation-led development (James, Mario, & Yoto, 2018).

The 2024 meeting between President Joko Widodo and Apple CEO Tim Cook, resulting in Apple's pledge of IDR 1.6 trillion, exemplifies the use of diplomacy to encourage private-sector collaboration (BKPM, 2023). This event also underscores the shift in Indonesia's foreign policy orientation toward technology-oriented partnerships and human capital advancement. However, Indonesia's political and bureaucratic structures still display fragmentation between central and local authorities, creating policy inconsistencies that discourage long-term investor confidence. Thus, despite diplomatic successes, domestic coordination remains the most critical determinant of policy effectiveness.

From a security perspective, Indonesia views industrial development and

technological advancement as integral to national resilience. The ability to produce electronic goods domestically enhances economic security, reduces import dependence, and safeguards national interests in a volatile global environment (ASEAN Investment Report, 2022). Global geopolitical dynamics—particularly the U.S.–China technology rivalry—have redefined FDI flows, encouraging multinational firms to diversify production bases. Indonesia seeks to capitalize on this shift by presenting itself as a neutral, strategic partner for multinational investors (Sasmita, 2021).

Yet, the limited capacity of Indonesia's technological infrastructure and supply chain ecosystems prevents it from fully benefiting from these global realignments. The absence of large-scale production by global technology firms such as Apple illustrates how security objectives and industrial policy goals remain only partially achieved. In sum, Indonesia's FDI policy in the electronic manufacturing industry reflects a complex interaction between economic ambition, diplomatic engagement, and strategic self-reliance. The main constraint lies not in the lack of opportunity, but in the inefficiency of domestic policy implementation and the absence of a unified national strategy for high-technology investment.

REFERENCES

- Adelia, S., & Maria, A. (2020). *Black market practices in the sale of second-hand iPhones in Indonesia (2016–2020)*. *Journal of Business and Trade Studies*, 7(1), 54–68.
- Agus Gumiwang, K. (2021). *Indonesia's manufacturing sector as the main driver of national economic growth*. Ministry of Industry of the Republic of Indonesia.
- Airin, D., Muhammad, H., & Eleonora, S. (2020). *Analysis of the Impact of Local Content Requirement (TKDN) Regulation on the ICT Industry in Indonesia*. *Journal of Information Technology and Development Studies*, 5(2), 45–58.
- ASEAN Briefing. (2021). *Indonesia's manufacturing sector and its role in ASEAN economic development*. ASEAN Briefing, Dezan Shira & Associates.
- ASEAN Investment Report. (2022). *ASEAN Investment Report 2022: Foreign Direct Investment and Digital Economy*. ASEAN Secretariat.
- Azwina, R., Wardani, P., Sitanggang, F., & Silalahi, P. R. (2021). *Apple Inc.'s strategy to relocate manufacturing contractors under Indonesia's foreign investment policy*. *Journal of Global Business and Policy Studies*, 9(2), 34–49.
- Azwina, R., Wardani, P., Sitanggang, F., & Silalahi, P. R. (2021). *Manufacturing industry strategy to accelerate economic growth in Indonesia*. *Indonesian Journal of Economics and Industry Policy*, 12(3), 102–115.
- Badan Koordinasi Penanaman Modal (BKPM). (2023). *Laporan realisasi investasi triwulan II tahun 2023*. Jakarta: BKPM.
- Creswell, J. W. (2007). *Qualitative inquiry and research design: Choosing among five approaches* (2nd ed.). SAGE Publications.
- James, A., Mario, L., & Yoto, V. (2018). *Trade liberalization, growth and FDI: A structural estimation framework*. *Journal of International Economics and Policy Research*, 14(2), 210–229.
- Mahadiansar, M., Ramadhani, S., Eki, D., & Fitri, K. (2019). *The reality of foreign direct investment development in Indonesia in 2019*. *Jurnal Ekonomi dan Bisnis Indonesia*, 34(1), 72–85.

- Medina, C. (2025, January 7). *Negosiasi Apple dan Kemenperin Berlangsung 2,5 Jam* . Retrieved from Kompas.com: <https://www.kompas.id/artikel/negosiasi-25-jam-dengan-kementerian-perindustrian-apple-inc-sebut-diskusi-berjalan-baik>
- Pattinussa, J. M. Y. (2021). Pengaruh Presiden Joko Widodo pada penguatan peran diplomasi ekonomi di Indonesia. *Papua Journal of Diplomacy and International Relations*, 1(2), 85–104. <https://doi.org/10.31957/pjdir.v1i2.1734>
- Sasmita, V. (2021). *Risks of Apple's investment plan in Indonesia*. *Journal of International Business and Risk Studies*, 5(1), 25–41.
- Siktiyana, M. N., & Anwar, D. M. (2020). *Determinants of OPPO's foreign direct investment in Indonesia*. *Jurnal Ekonomi dan Kebijakan Bisnis*, 8(3), 77–91.
- Syafira, A., & Indra, P. (2018). *Apple Inc.'s interest in Indonesia's mobile market (2011–2015)*. *Journal of Global Trade and Policy Analysis*, 4(2), 88–104.
- Wistiasari, D., & Safitri, Y. A. (2020). *An analysis of international business perspective on Apple Inc*. *International Journal of Global Commerce and Management*, 6(1), 56–70.