

Analysis of Indonesia International Trade Policy on Domestic Component Level Policies in The Import Licensing of Iphone 16 in Indonesia

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ABSTRACT

This study analyzes Indonesia's international trade policy through the implementation of the Domestic Component Level (Tingkat Komponen Dalam Negeri/TKDN) requirement in the import licensing of the iPhone 16. The TKDN policy represents a form of protectionism aimed at strengthening domestic industries, reducing dependence on imported products, and encouraging foreign investment to contribute to local value creation. However, the enforcement of this policy has generated significant challenges, particularly for multinational corporations such as Apple, as reflected in the delay of iPhone 16 distribution in Indonesia in October 2024 due to non-compliance with TKDN standards. This research employs a qualitative descriptive approach using secondary data, including government regulations, policy documents, official reports, and relevant literature, supported by institutional perspectives from the Ministry of Industry and regional trade authorities. The analysis focuses on regulatory frameworks, implementation mechanisms, and the economic implications of TKDN enforcement in the smartphone sector. The findings indicate that while the TKDN policy has contributed to promoting local production, technology transfer, and workforce involvement, it also poses administrative, regulatory, and market challenges that may affect investment attractiveness and supply chain efficiency. The study highlights the need for regulatory refinement, improved certification processes, and enhanced policy coordination to ensure that TKDN effectively balances domestic industrial protection with openness to international trade and innovation.

Keywords: Domestic Component Level (TKDN), Trade Policy, Protectionism, Regulation, Smartphone Industry.

I. Introduction

International trade policy has become a central instrument for governments in balancing market openness with the protection of domestic industries. In many developing countries, non-tariff measures such as Local Content Requirements (LCRs) are increasingly adopted as strategic tools to promote industrial development, enhance technological capability, and reduce dependency on imported products. Indonesia represents a prominent example of this approach through the implementation of the Tingkat Komponen Dalam Negeri (TKDN) policy, which mandates a minimum percentage of domestically produced components in selected products marketed within the country, particularly in strategic sectors such as telecommunications and electronics. The enforcement of TKDN reflects Indonesia's broader protectionist orientation aimed at strengthening national industries while encouraging foreign direct investment (FDI) that contributes to technology transfer and local value creation. However, this policy has also generated significant debate at

both domestic and international levels. As a member of multilateral economic forums such as the G20, ASEAN, and APEC, Indonesia is simultaneously expected to uphold principles of trade liberalization and regulatory transparency. This dual commitment has resulted in policy tensions, particularly when domestic industrial regulations are perceived as restrictive by foreign firms and trading partners.

These tensions became evident in October 2024, when the Indonesian government blocked the distribution of Apple's iPhone 16 due to the company's failure to meet the mandatory 40 percent TKDN requirement. Despite Apple's substantial global market presence and prior non-physical investment commitments in Indonesia, such as the Apple Developer Academy, the company was deemed non-compliant with TKDN regulations applicable to smartphone products. This decision not only disrupted market access for a major multinational enterprise but also triggered unintended consequences, including price increases, market uncertainty, and the proliferation of illegal or black-market smartphones. While the primary objective of the TKDN policy is to protect and develop domestic industries, its implementation has raised critical questions regarding policy effectiveness, regulatory consistency, and investment attractiveness. Challenges persist in the readiness of local industries to supply high-quality components at scale, as well as in the transparency and standardization of TKDN assessment mechanisms. Moreover, the restriction of officially imported products has created incentives for informal trade channels, undermining consumer protection and state revenue collection.

Despite the growing relevance of this issue, empirical and analytical studies that examine the intersection of international trade policy, local content requirements, and import licensing—particularly through concrete case studies such as the iPhone 16 ban—remain limited. Existing literature often addresses TKDN from legal, industrial, or consumer perspectives but pays insufficient attention to its broader implications for international trade relations and foreign direct investment strategies. Therefore, this study aims to analyze Indonesia's international trade policy as reflected in the implementation of TKDN requirements in the import licensing of the iPhone 16. Specifically, this research seeks to examine the strategic rationale behind the policy, identify regulatory and operational constraints faced by multinational enterprises, and evaluate the broader economic and trade-related impacts arising from the enforcement of TKDN. By situating the iPhone 16 case within the frameworks of protectionism and foreign direct investment theory, this study contributes to a deeper understanding of how domestic industrial policies shape market access, investment decisions, and trade dynamics in emerging economies.

II. Literature Review and Hypothesis Development

2.1. Literature Review

International trade policy plays a strategic role in shaping domestic industrial development, particularly in developing countries that seek to balance market openness with national economic interests. One of the most widely adopted policy instruments in this context is protectionism, which aims to safeguard domestic industries from excessive foreign competition through tariff and non-tariff measures. Among non-tariff measures, Local Content Requirements (LCRs) have emerged as a prominent policy tool to encourage domestic production, technology transfer, and industrial upgrading. The theoretical foundation of protectionism is strongly influenced by Friedrich List's National System of Political Economy, which argues that developing countries require temporary protection to nurture infant industries until they achieve sufficient competitiveness in global markets. Unlike classical free trade theorists such as Adam Smith and David Ricardo, List emphasized that unrestricted trade may disadvantage late-industrializing economies by exposing them to unequal competition. In modern trade policy, this protectionist logic is frequently operationalized through LCR policies, which mandate the use of locally produced components in goods sold within domestic markets.

In Indonesia, Local Content Requirements are institutionalized through the Tingkat Komponen Dalam Negeri (TKDN) policy, which obliges firms—both domestic and foreign—to meet minimum local

content thresholds in strategic sectors, including telecommunications and smartphones. Previous studies indicate that TKDN is intended to reduce import dependency, stimulate domestic manufacturing, and strengthen Indonesia's participation in global value chains. Empirical evidence suggests that TKDN has contributed positively to domestic industrial capacity in certain sectors; however, its implementation has also generated regulatory rigidity and compliance challenges for multinational enterprises. Several studies highlight that overly stringent LCR policies may create trade-offs between industrial protection and investment attractiveness. Lin and Weng (2020) demonstrate that stricter LCRs do not simultaneously increase productivity and output, particularly when domestic supplier capacity remains limited. Similarly, Al-Fadhat and Handana (2023) argue that while

TKDN strengthens domestic participation in manufacturing, it can also discourage foreign direct investment (FDI) if regulatory flexibility and policy clarity are insufficient. This condition becomes particularly critical in high-technology industries, where global supply chains rely heavily on efficiency, scale, and technological specialization. Foreign Direct Investment theory provides further insight into the interaction between domestic regulation and multinational firm behavior. According to the eclectic (OLI) paradigm, multinational enterprises engage in FDI when ownership, location, and internalization advantages outweigh regulatory and operational costs. However, when host-country policies impose high compliance costs—such as mandatory local content thresholds without adequate supporting infrastructure—firms may delay investment, reduce market participation, or shift production to alternative countries. Empirical research consistently shows that regulatory uncertainty and restrictive trade policies negatively affect FDI inflows, particularly in technology-intensive sectors.

The case of Apple's iPhone 16 distribution in Indonesia illustrates this policy tension. The enforcement of a minimum 40% TKDN requirement in 2024 resulted in the suspension of official iPhone 16 sales due to Apple's failure to renew its TKDN certification. Prior studies on similar cases reveal that such regulatory barriers can generate unintended consequences, including market distortions, increased prices, and the expansion of illegal or black-market products. Research on consumer protection and digital device regulation further confirms that weak enforcement capacity combined with high consumer demand creates incentives for smuggling and informal distribution channels. Existing literature also documents polarized public responses to TKDN enforcement. While some consumers support the policy as a form of economic nationalism and industrial protection, others perceive it as limiting access to technological innovation. These findings suggest that TKDN effectiveness depends not only on policy design but also on institutional coordination, regulatory transparency, and alignment with industrial readiness. Despite extensive discussion on TKDN and LCR policies, limited studies specifically examine their direct impact on import licensing outcomes, multinational compliance behavior, and the emergence of illegal markets within the Indonesian smartphone industry. This study addresses this gap by analyzing Indonesia's TKDN policy through the case of iPhone 16 import restrictions, integrating protectionism theory and FDI perspectives to assess policy effectiveness and unintended economic effects.

2.2. Hypothesis Development

Based on the protectionism framework and Foreign Direct Investment theory, stricter Local Content Requirements are expected to influence multinational firms' market access strategies and investment decisions. When TKDN thresholds increase without proportional improvements in domestic industrial capacity, foreign firms may face compliance constraints that directly affect import licensing and product distribution.

H1: Stricter implementation of the TKDN policy has a negative effect on the import licensing of foreign smartphone products in Indonesia.

Furthermore, regulatory rigidity and uncertainty associated with TKDN compliance are expected to influence foreign direct investment decisions. Multinational firms may postpone or reduce investment when policy costs exceed expected market benefits.

H2: The enforcement of higher TKDN requirements negatively affects foreign direct investment in Indonesia's smartphone and electronics sector.

Finally, the literature suggests that restrictive import policies, when combined with high consumer demand and limited legal access, can stimulate informal markets and illegal product distribution.

H3: The restriction of official smartphone imports due to TKDN non-compliance increases the prevalence of illegal or black-market smartphone circulation in Indonesia.

III. Research Method

3.1. Research Design

This study employs a qualitative descriptive research design with a case study approach. The research focuses on analyzing Indonesia's international trade policy, particularly the implementation of the Local Content Requirement (LCR) policy—known domestically as Tingkat Komponen Dalam Negeri (TKDN)—in the import licensing of the iPhone 16. The qualitative approach is chosen to capture policy dynamics, regulatory interpretations, and the broader political–economic implications of TKDN on foreign direct investment and market access for multinational corporations.

3.2. Research Object and Scope

The object of this research is Indonesia's TKDN policy as a non-tariff trade measure and its application in the case of Apple Inc.'s iPhone 16 import restriction in 2024. The scope of analysis includes:

- a. The regulatory framework governing TKDN in the smartphone and telecommunications sector;
- b. The impact of TKDN enforcement on Apple's market access and foreign direct investment decisions in Indonesia;
- c. The indirect consequences of the policy, including the emergence of black-market smartphones and investment uncertainty.

3.3. Data Sources

This study relies on secondary data obtained from credible and verifiable sources. The data include:

- a. Official government regulations and policy documents issued by the Ministry of Industry, Ministry of Trade, and Ministry of Communication and Informatics;
- b. Reports and press releases from relevant government institutions;
- c. Academic journal articles, books, and policy papers related to trade policy, protectionism, and foreign direct investment;
- d. News articles and market reports discussing the iPhone 16 import ban, TKDN compliance issues, and investment developments.

Primary data collection was not conducted, as the research emphasizes policy analysis and regulatory evaluation based on documented sources.

3.4. Data Collection Technique

Data were collected through documentary analysis, involving systematic review and classification of legal documents, academic literature, official reports, and reputable media publications. The collected data were organized according to research objectives to ensure relevance and analytical coherence.

3.5. Data Analysis Technique

The data were analyzed using qualitative content analysis. This method involves interpreting policy texts and secondary sources to identify patterns, policy intentions, regulatory inconsistencies, and economic implications. The analysis is guided by the theoretical framework of protectionism and foreign direct investment (FDI) to explain how TKDN functions as a non-tariff barrier and how it influences multinational corporate behavior and investment flows.

3.6. Data Validation

To ensure data credibility and validity, this study applies source triangulation by comparing information across multiple references, including academic literature, official government statements, and independent media reports. This approach minimizes bias and enhances the reliability of the findings.

3.7. Research Location and Time Frame

The research is conceptually located in Indonesia, with emphasis on national trade and industrial policy. The study examines policy developments and empirical events occurring between 2020 and mid-2025, with particular focus on the iPhone 16 import restriction implemented in October 2024.

IV. Result And Discussion

4.1. Results

This study examines the implications of Indonesia's international trade policy through the implementation of the Domestic Component Level (Tingkat Komponen Dalam Negeri, TKDN) requirement on the import licensing of the iPhone 16. Using qualitative descriptive analysis based on secondary data, the results reveal several key outcomes related to market access, foreign direct investment (FDI), industrial readiness, and unintended market distortions. First, the enforcement of the TKDN requirement, which mandates a minimum of 40% local content for certain smartphone products, directly resulted in the suspension of the official distribution permit for the iPhone 16 in Indonesia in October 2024. Apple Inc. was unable to renew its TKDN certification because its committed investment obligations—primarily through non-physical investment schemes such as developer academies—were assessed by the government as incomplete. Consequently, the iPhone 16 could not obtain the necessary technical certifications, including postel and IMEI registration, to be marketed legally.

Second, the policy had a measurable impact on market dynamics. While Apple has historically maintained a stable position in Indonesia's premium smartphone segment, sales data from 2020 to mid-2025 indicate a significant decline in 2023, coinciding with tighter TKDN enforcement. Although sales partially recovered in 2024 due to strategic adjustments and negotiations, the temporary ban on the iPhone 16 disrupted supply chains, reduced consumer access to the latest technology, and created uncertainty among distributors and retailers. Third, the results show that the TKDN policy influenced foreign investor perceptions. The rigidity and perceived lack of transparency in TKDN calculation discouraged Apple's immediate expansion of manufacturing activities in Indonesia. The government's rejection of Apple's Batam AirTag facility as a valid

contribution to iPhone TKDN further reinforced the perception that compliance costs were high and policy interpretation remained subjective. This condition led to delayed investment decisions and reduced Indonesia's relative attractiveness compared to neighboring countries with more flexible industrial policies. Finally, the study finds strong evidence of unintended consequences, particularly the growth of illegal markets. The absence of officially distributed iPhone 16 units led to an increase in black market imports and the circulation of unregistered devices. These products bypassed TKDN requirements, taxation, and consumer protection standards, undermining the original objectives of the policy and posing risks to both consumers and state revenue.

4.2. Discussion

The findings highlight a complex trade-off inherent in Indonesia's TKDN policy. From a protectionist perspective, the policy aligns with Friedrich List's argument that developing countries may legitimately protect domestic industries to build productive capacity. By requiring local content, the government seeks to stimulate domestic manufacturing, encourage technology transfer, and reduce dependence on imports. In theory, TKDN functions as a non-tariff barrier designed to strengthen national industry and enhance long-term economic resilience. However, the results suggest that the effectiveness of TKDN in the smartphone sector is constrained by structural limitations. Domestic industries currently lack the technological depth and production scale required to supply high-quality components for advanced smartphones such as the iPhone 16. As a result, the policy places disproportionate pressure on foreign firms without providing sufficient domestic alternatives, leading to market distortions rather than genuine industrial upgrading.

From the perspective of Foreign Direct Investment (FDI) theory, the study's findings indicate that regulatory certainty and policy consistency are critical determinants of investment decisions. While Indonesia offers a large and attractive consumer market, the strict and inflexible application of TKDN reduces location advantages for multinational enterprises. In line with the eclectic (OLI) paradigm, Apple's hesitation to expand physical manufacturing reflects concerns over internalization costs and regulatory risk, which outweigh potential market benefits in the short term. Moreover, the emergence of black market activity illustrates a policy paradox. Instead of reducing imports, the restriction on official channels has shifted demand toward informal and illegal distribution networks. This outcome contradicts the intended goals of consumer protection, fiscal revenue enhancement, and industrial development. Similar to findings in prior studies on Local Content Requirements, the Indonesian case demonstrates that overly rigid protectionist measures can generate efficiency losses and weaken policy credibility. Overall, the discussion underscores the need for a more adaptive and transparent TKDN framework. While the policy remains strategically important for national industrial development, its implementation must be aligned with domestic industrial capacity, global value chain realities, and investor behavior. Without such alignment, TKDN risks becoming a barrier that limits technological diffusion and investment rather than a catalyst for sustainable industrial growth.

V. Conclusion

This study concludes that Indonesia's Local Content Requirement (LCR) policy, implemented through the Tingkat Komponen Dalam Negeri (TKDN) regulation, plays a strategic yet controversial role in the country's international trade and investment framework. The case of the import restriction and distribution blockage of the iPhone 16 illustrates the complex interaction between protectionist industrial policies and the dynamics of global value chains in the technology sector. While the TKDN policy is designed to strengthen domestic industries, reduce import dependency, and encourage technology transfer, its rigid implementation has generated unintended economic and market distortions. The findings indicate that the inability of Apple to comply fully with the TKDN requirements resulted not only in the suspension of official product distribution but also contributed to higher market prices, reduced consumer access to advanced technology, and the expansion of illegal smartphone markets. Furthermore, the policy has created uncertainty for foreign direct

investment (FDI), particularly in high-technology industries that rely on integrated global production networks. This condition suggests that strict local content obligations, when not supported by adequate domestic industrial capacity, may weaken investment attractiveness and disrupt formal trade channels. Overall, the study highlights that the effectiveness of TKDN as a protectionist instrument depends on policy coherence, transparency in implementation, and the readiness of domestic industries to meet global quality standards. The Indonesian experience with the iPhone 16 case demonstrates that local content policies must balance national industrial objectives with international trade commitments and market realities to avoid counterproductive economic outcomes.

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