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ARTICLE

XI JINPING'S TECHNOCRATIC LEADERSHIP AND CHINA'S NATIONAL RESOURCE MOBILIZATION: IMPLICATIONS FOR THE TNI'S DEFENSE STRATEGY AND DIGITALIZATION

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Abstract

Geopolitical changes and accelerating technological transformation have placed national leadership style as a key variable in a country's ability to mobilize strategic resources. This article examines Xi Jinping's technocratic leadership style and China's national resource mobilization mechanisms, particularly the whole-of-nation system and military-civil fusion, and then assesses their implications for the reformulation of Indonesia's defense strategy, focusing on the digitalization of the Indonesian National Armed Forces (TNI), the development of the domestic defense industry, and the development of superior human resources (HR). The research employs a qualitative-descriptive approach based on literature studies and policy document analysis. Procedures include systematic searches in academic databases and policy repositories, thematic coding, source triangulation, and synthesis using the PESTEL analytical framework to formulate operational policy options. The analysis shows that Xi's leadership combines strategic vision with bureaucratic instruments and institutional controls, enabling him to rapidly focus funding, talent, and industrial capacity on strategic technology priorities. The whole-of-nation and military-civil fusion mechanisms have proven effective in accelerating the translation of research into dual-use applications, but their successful implementation depends on governance, industrial capacity, and external factors such as restrictions on technology exports. For Indonesia, the relevant lesson lies not in institutional imitation, but rather in the selective adoption of policy principles such as R&D prioritization, targeted incentives for industry, the establishment of a defense innovation fund, and talent development programs that must be implemented within the framework of democratic accountability, civil rights protection, and Pancasila values. In conclusion, the integration of research, industry, and defense can accelerate the modernization of Indonesia's defense capabilities if implemented in a gradual, transparent manner, accompanied by strengthened governance and human resource investment. Further research recommendations include field studies, stakeholder interviews, and pilot project evaluations to test the effectiveness of proposed policy instruments.

Keywords: Asta Cita 2045, TNI Digitalization, Technocratic Leadership, National Resource Mobilization, Defense Strategy, Whole-Of-Nation.

A. INTRODUCTION

Changes in the global geopolitical and geostrategic configuration in recent decades have demonstrated that national policy is no longer solely shaped by economic or military material capacity but also by how top leadership structures priorities, mobilizes resources, and organizes the state. The Chinese leadership has long viewed technological mastery as a core

task of economic and national development. This view stems from the "Self-Strengthening Movement," launched in the mid-19th century in response to the trauma of China's defeat in the Opium Wars of 1839-1842 and 1856-1860. Proponents of self-strengthening argued that the cause of these defeats lay in the gap in military technology between China and European colonial powers, and that Chinese policy should focus on investments that could bridge this gap. Executive leadership style plays a central role in determining the direction of a country's strategic capacity-building policies, including military modernization and the allocation of high-tech priorities (Kroeber, 2024).

In the Chinese context, Xi Jinping's leadership emphasizes a blend of technocratic orientation and political centralization, placing scientific and technological innovation at the heart of national policy. Wang Zhigang, Minister of Science and Technology, said, "We must tailor our organizational approach to specific scientific, technological, and innovation issues" rather than following a "one-size-fits-all" mentality. He emphasized that "the government is not the primary entity for S&T innovation, nor is it the one that solves major core technological problems" (Liu, 2023). Academic policy experts have gone further: "This new national system differs significantly from the past because China's market economy has grown substantially, and not all issues need to be addressed through the national system. For example, in areas like artificial intelligence applications, market players are very active and have played a significant role, and we need to protect this driving force." (Wang, 2023). (Kroeber, 2024; Naughton et al., 2023). The party-state's military modernization doctrine places the goal of transforming the PLA into a "world-class military" within strategic deadlines (2035 and 2049), making the mobilization of technological and human resources crucial to the success of this agenda (U.S. Department of Defense, 2024).

The two most prominent policy mechanisms in Xi's approach are (1) the development of a "whole-of-nation" system, a centralized coordination effort to direct capital, research, and industrial capacity toward national priorities, and (2) the Military-Civil Fusion (MCF) strategy, which explicitly aims to blur the functional boundaries between the civilian and military sectors so that dual-use innovation can move rapidly from laboratories and commercial industries to defense applications (Kania & Laskai, 2021; Kroeber, 2024; McFaul et al., 2025). The implementation of these two mechanisms is supported by strong party-government institutions, state funding instruments, and systemic incentive policies. However, the extent of their effectiveness varies by sector and depends on local bureaucratic capacity, industry capabilities, and external constraints such as restrictions on technology exports (Groenewegen-Lau, 2024; Naughton et al., 2023).

For Indonesia, China's experience raises two important theoretical and practical questions. Theoretically, China's case enriches the literature on the relationship between leadership style (transformational/technocratic) and the success of national technology mobilization in authoritarian contexts, offering a model for rapid mobilization but also carrying the risk of centralization and weak accountability (Groenewegen-Lau, 2024; Kania & Laskai, 2021). Practically, China's advancement in defense technology capabilities underscores the need to strengthen the defense digital backbone, enhance cyber capabilities, and develop Indonesian military (TNI) human resources capable of utilizing integrated information systems and artificial intelligence for multi-domain operations (Chan et al., 2025; U.S. Department of Defense, 2024).

However, academic studies examining the direct correlation between Xi's leadership style, technology mobilization mechanisms, and policy implications for a democratic country like Indonesia are relatively limited. Most studies focus on describing Chinese policies or their

macro-geopolitical implications; few formulate operational recommendations that take into account Indonesia's institutional characteristics, values (Pancasila), and democratic context in absorbing these lessons. This gap underpins this study: an interdisciplinary analysis combining leadership theory (transformational and adaptive), technology policy studies, and defense doctrine studies is needed to formulate recommendations that can be operationalized by Indonesian defense policymakers. This statement is not an attempt to promote a mechanical imitation of the Chinese model, but rather examines the principles of strategic resource mobilization relevant to accelerating national defense modernization in a democratic and ethical manner.

Based on this description, this study focuses on: (1) describing the characteristics of Xi Jinping's technocratic leadership style within the framework of technological and human resource mobilization; (2) analyzing the key policy mechanisms of the whole-of-nation system and military-civil fusion in the context of China's defense modernization; and (3) assessing the practical implications of these findings for the reformulation of Indonesia's defense strategy, particularly regarding the digitalization of the Indonesian National Armed Forces (TNI), the development of the domestic defense industry, and the development of superior human resources in accordance with the values of Pancasila. The research questions raised are: How does Xi Jinping's technocratic leadership style structure the mobilization of research and technology in China, and what lessons can Indonesia adapt to accelerate digitalization and strengthen defense doctrine without sacrificing the principles of democracy and accountability?

B. LITERATURE REVIEW

Technocracy

Friedman's definition of technocracy is "a government that aims to solve, alleviate, or prevent social and economic problems among its people" (5). This is reminiscent of the role assigned to policy experts and political analysts in the 1980s: "speaking truth to power" (Wildavsky, 1987), revealing the truth about the causes of people's problems so that those in power can resolve, prevent, or alleviate them, and the importance of evaluating public policies and programs, an agenda proposed by Evert Vedung (Vedung, 1997). In this epistemic aspect, technocracy naturally lends itself to governance by elite scientific advisors to politicians.

The concept of technocracy first emerged in the early 20th century alongside the rapid development of technology and science. During this era, the idea emerged that the management of society should be left to experts with a deep understanding of technical and scientific fields. In 1919, the term "technocracy" was first used by William Henry Smyth, an American engineer, in his article "Technocracy" in Industrial Management. Smyth defined technocracy as "the management of industry, society, and government by scientists and engineers." (Smyth, 1919)

Technocracy is based on the following principles**:**

a. Data-Driven Decisions: Policies are made based on scientific data, empirical facts, and rational analysis, not on ideology or political interests.

b. Expert Leadership: Leadership positions are held by individuals with technical expertise in specific fields.
c. Efficiency and Productivity: Technocracy focuses on achieving maximum results with available resources, through a rational and methodical approach.
d. Ideological Neutrality: This system seeks to avoid ideological, religious, or group-interest bias in decision-making.

Resource Mobilization

Resource mobilization is the process of acquiring resources from resource providers, using various mechanisms, to achieve the predetermined goals of an organization (Seltzer, 2014). This theory, used in the study of social movements, argues that the success of social movements depends on resources (time, money, skills, etc.) and the ability to use them (Crossman, 2019). Resource mobilization is concerned with acquiring needed resources in a timely and cost-effective manner. Resource mobilization advocates having the right type of resources, at the right time, and at the right price, while utilizing the acquired resources appropriately, thus ensuring their optimal utilization.

Resource mobilization theory was first introduced by Antony Oberschall. Oberschall criticized Kornhauser's mass society theory, which at the time was the dominant perspective in the study of social movements. According to Oberschall, mass society theory failed to explain what actually occurred in anti-democratic movements, such as the Nazi movement in Germany (Locher, 1923). Resource mobilization theory focuses on the social processes that enable the emergence and success of a movement. Resource mobilization theory focuses more on economic and political factors, with less attention paid to the psychological characteristics of movement members. Resource mobilization theory is also not based on the assumption that individuals are motivated to join a movement.

This is a key sociological theory in the study of social movements, emerging in the 1970s (Morris & Mueller, 1992). This theory emphasizes the ability of movement members to acquire resources and mobilize others to achieve movement goals. Unlike traditional collective behavior theory, which views social movements as deviant and irrational, resource mobilization theory views them as rational social institutions created and populated by social actors with the goal of carrying out political action.

C. RESEARCH METHODOLOGY

This section explains the research design, case study and material selection procedures, data collection techniques, analysis procedures, and steps to ensure the validity and reliability of the findings. The research is qualitative-descriptive with a literature-document study approach, chosen because the study's objective is to understand and interpret policy patterns and leadership styles at the macro level and formulate policy implications that can be applied by policymakers in Indonesia.

Research Design

This research uses a qualitative-descriptive design based on a systematic literature study and policy document analysis. This approach is appropriate for exploring complex socio-political and policy phenomena such as state leadership styles and national resource mobilization mechanisms, as represented in official documents, academic literature, and policy studies (Yin, 2018) (Bowen, 2009). The primary objectives of the design are (1) to identify the characteristics of Xi Jinping's technocratic leadership style; (2) to map policy

mechanisms (whole-of-nation system, military-civil fusion); and (3) to assess their practical relevance for the reformulation of Indonesia's defense strategy. This research emphasizes the quality and diversity of written sources and the transparency of the selection procedure.

Case study selection and inclusion/exclusion criteria

The primary case study is China's strategic policies under Xi Jinping's leadership related to research mobilization, technology, defense industry, and human resource development (official party-government policy documents, defense white papers, initiatives such as Made in China 2025, the New Generation AI Development Plan, and the MCF instrument). The inclusion and exclusion criteria are formulated as follows:

1. Inclusion criteria: (1) official Chinese government or party documents (white papers, strategic plans), (2) peer-reviewed scientific journal articles covering relevant topics (Xi's leadership, military-civil fusion, whole-of-nation, PLA modernization, technology policy), (3) reports from leading think tanks and publications from credible international research institutions (RAND, Brookings, CSET, CNAS), (4) publications in English, Mandarin, or Indonesian, and (5) a temporal focus primarily on the period 2010–2025.
2. Exclusion criteria: (1) popular opinions without analytical basis (non-peer blogs), (2) documents whose sources cannot be verified, and (3) publications that are purely propagandistic without critical analysis or supporting evidence.

The document selection process followed a stepwise selection procedure (title screening -> abstract -> full text) to ensure the relevance and quality of the sources (Booth et al., 2016). For gray literature, quality assessment was conducted using the AACODS (Authority, Accuracy, Coverage, Objectivity, Date, Significance) checklist to ensure that non-peer-reviewed sources still met analytical standards (Tyndall, 2010).

Data Collection Techniques

Data collection was conducted systematically with a documented search protocol to allow for replication. The databases and repositories used included Scopus, Web of Science, Google Scholar, ProQuest, JSTOR, CNKI (for Chinese-language sources), official government document portals (State Council, Central Military Commission, Ministry of National Defense of the People's Republic of China), and reputable think-tank websites (RAND, Brookings, CSET, CNAS, MERICS).

Data Analysis Techniques

Text analysis was conducted stepwise using reference management tools and qualitative analysis tools. The coding process began with open coding to identify key concepts (party roles, funding instruments, dual-use technology, human resource development), followed by axial coding to group major themes (Yin, 2018) (Miles et al., 2014). Thematic analysis followed the approach of Braun & Clarke (2006) to extract central themes related to leadership style, mobilization mechanisms, and policy impact (Braun & Clarke, 2006). Content analysis was combined with document triangulation to compare normative claims with empirical indicators (R&D investment, defense budget, publication output) (Bowen, 2009) (Krippendorff, 2013). Once themes were identified, the PESTEL framework was used to map the external context. The results were synthesized into operational policy options and an implementation roadmap that considers Pancasila values and accountability principles (Yüksel, 2012). Validity and Reliability

To maintain the validity and reliability of qualitative interpretations, the study employed Yin's strategies, such as evidence triangulation, audit trails, and the use of a shared coding rubric; as well as the principles of trustworthiness (credibility, dependability, confirmability, and transferability) in thematic analysis. The results are presented in an analytical narrative

format, accompanied by summary tables to facilitate readers' assessment of the interrelationships between leadership styles, science-technology policies, and national resource mobilization mechanisms (Yin, 2018). Draft analyses were discussed through peer debriefing with colleagues/defense policy experts for critical input (Lincoln & Guba, 1985), along with reflective notes from the researcher on theoretical assumptions that might influence interpretations. The quality of sources, particularly gray literature, was assessed using a checklist (AACODS) to assess authority, objectivity, and relevance (Tyndall, 2010). Although the study was conducted by a single researcher, coding reliability was enhanced through intra-coder consistency (re-examining after a time lag) and, where possible, code review by an independent reviewer to assess consistency of interpretation (Miles et al., 2014).

D. RESULT AND DISCUSSIONS

Characteristics of Xi Jinping's Technocratic Leadership Style in Mobilizing Technological Resources and Human Resources

The analysis of documents and literature shows that Xi Jinping's leadership style possesses several distinctive characteristics that collectively form a technocratic model oriented toward performance and strategic outcomes. These characteristics include: (a) prioritizing technology as a national strategic issue; (b) centralizing decision-making and political control over the implementation of technical policies; (c) a clear target/output orientation (roadmap 2035/2049); (d) utilizing state instruments (funding, regulations, party directives) to accelerate the translation of research into practical applications, particularly dual-use research; and (e) emphasizing the recruitment and mobilization of scientific talent as a strategic resource. This description appears consistently in white papers, science and technology development policy documents, and third-party analyses assessing China's post-Xi S&T bureaucratic reforms (the restructuring of the MOST and the assertion of a “new-style whole-of-nation”), which together emphasize both the technocratic and political dimensions of Xi's leadership (Naughton et al., 2023) (Groenewegen-Lau, 2024).

Theoretically, this pattern reflects a combination of transformational leadership (strategic vision and targets that inspire organizational action) and technocratic leadership (the use of technical/bureaucratic instruments to achieve those goals). In practice, this combination allows China to direct significant resources in a relatively short time to priority technology campaigns, although it also poses the risk of allocation distortions (overconcentration) and accountability issues if political control dominates independent scientific evaluation mechanisms (criticisms of the effectiveness and efficiency of resource allocation are also noted in the literature).

Understanding these characteristics is crucial for Indonesian policymakers to identify practical elements (centralized research priorities, industry incentives) that are worth adopting, while avoiding practices that erode democratic accountability.

Policy Mechanisms: Whole-of-Nation System and Military-Civil Fusion (MCF) Implementation Structure and Dynamics

Whole-of-Nation: Structure and Driving Mechanisms

Analysis of policy documents and academic studies shows that the whole-of-nation concept is not merely rhetoric, but rather a coordinating framework that combines national planning, centralized financing, and other policy instruments to focus human and material capital on specific strategic objectives (e.g., semiconductor independence, AI, space). Its implementation involves restructuring S&T institutions (such as changes to the ministry of science/technology), national financing schemes, and party oversight mechanisms to ensure alignment between national targets, industry priorities, and research efforts. The sources analyzed emphasize that the effectiveness of this model depends on the state's managerial

capacity to coordinate local and private actors and on the quality of the economic incentive instruments designed to attract industry participation (Naughton et al., 2023).

Military-Civil Fusion (MCF): A Civil-Military Bridge for Dual-Use Technologies

MCF is positioned as an operational tool to accelerate technology transfer between the civilian and military sectors, reduce transfer barriers, and integrate strategic supply chains. Analysis of CNAS, NBR, and other documents shows that MCF encompasses a range of policies: opening government contracts to civilian companies, establishing a joint project management agency, fiscal incentives and priority-based financing, and a talent program connecting civilian researchers with defense projects (including a talent policy recruitment mechanism). However, studies also identify practical limitations, such as challenges with industrial capacity to meet military standards, bottlenecks in critical technologies (semiconductors), and external responses (technology export restrictions) that impact the speed of translation (Bitzinger et al., 2021) (Kania, 2023) (Kania & Laskai, 2021).

Supporting Tools: Centralized Financing, Talent, and Institutional Control

Policy documentation identifies three operational pillars of the MCF: (1) financing and incentives (subsidies, preferential credit, public investment programs), (2) talent recruitment (national "talent" programs, scientific diaspora recruitment schemes), and (3) strengthening party/government institutions that ensure synergy between ministries and between the central and regional governments. However, critical literature cautions that success also depends on transparent project management, the availability of world-class research infrastructure, and adequate collaboration between private companies and research institutions (Chan et al., 2025).

This mechanism demonstrates how the country can accelerate the development of strategic technological capabilities, but its success is not implicit; it requires good governance, a robust industrial ecosystem, and external risk management. For Indonesian policymakers, this suggests that partial adoption (research incentives, national integration of R&D) may be more realistic than replicating an entirely centralized model without institutional guarantees**.**

Practical Implications for Reformulating Indonesia's Defense Strategy: TNI Digitalization, the Domestic Defense Industry, and Human Resource Development

Based on findings on leadership characteristics and policy mechanisms in China, the following discussion outlines structured and tiered practical recommendations for Indonesia. These recommendations seek to balance the expansion of technological capabilities with democratic principles and the values of Pancasila.

Strategic priorities for TNI digitalization

Short-term policy direction (0–3 years): strengthening the digital backbone through the development of a national defense data architecture, an integrated platform for geospatial intelligence, logistics, and C4ISR (Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance). This includes: harmonization of data standards between units, enhanced secure (mil-grade) connectivity, and pilot projects for information systems integration at the brigade/command level. Official documents from the Indonesian Ministry of Defense encourage a similar transformation and consider data infrastructure a key lever (Kemenhan RI) (Kemenhan RI, 2024) (Safitri, 2020).

Medium-term policy direction (3–8 years): adopting AI systems for intelligence analytics, predictive maintenance of defense equipment, and decision-support systems. Here,

Indonesia needs to prioritize the development of interpretable AI models to maintain command accountability and legal compliance. International cooperation on technology transfer and human resource training is crucial, but must be accompanied by a step-by-step roadmap for technological independence to avoid creating dependency (Chan et al., 2025; U.S. Department of Defense, 2024).

Regarding cyber governance and security, digitalization must be accompanied by a robust cybersecurity layer, including system hardening policies, red-team exercises, and resilience protocols to maintain operational continuity in the event of a cyberattack. Modern defense policy documents identify cybersecurity as a non-negotiable element of military digital systems (Dwipratama, 2025).

Domestic defense industry development (adaptive industrial policy strategy)

Lessons from the whole-of-nation and MCF that are relevant and worth adapting for Indonesia include: (1) targeted industrial policy for priority technology categories (e.g., sensors, military communications, small avionics, autonomous systems), (2) fiscal incentives for military-civilian R&D (matching grants, tax incentives), and (3) public-private partnership (PPP) schemes for manufacturing and prototyping capacity. However, adaptation must take into account the Indonesian market context, local industrial scale, supply chain capabilities, and competition rules to prevent policies from creating market distortions that harm long-term efficiency. RHG and MERICS analysis show that large-scale schemes without basic industrial feasibility risk low returns (Boullenois et al., 2025).

A pragmatic implementation model: establish a transparently managed national defense innovation fund with independent review; utilize open design/research competitions for startups and universities; and strengthen domestic intellectual property through research commercialization incentives (licensing, spin-offs). This balances mobilization needs with market principles.

Developing superior TNI human resources: curriculum, recruitment, and organizational culture

The need for digital human resources is key. Operational recommendations: (1) integrate cyber, data science, and AI curricula into TNI training institutions; (2) establish a sustainable reskilling/upskilling program for active personnel; (3) establish a research scholarship program to support defense talent; (4) establish attractive technical career paths (competitive with the civilian sector) to prevent talent leakage. International experience shows that without adequate career paths and competitive incentives, talent programs quickly weaken (Prakosa et al., 2024).

Organizational culture: Modernization is not just about technology; it also demands a more adaptive culture, tolerant of innovation and measured failure (experiment-learn cycles). This requires leaders who combine strategic vision with personnel policies that motivate innovation. This approach aligns with transformational and adaptive leadership theories. Relevance to Indonesian Defense Doctrine: Connecting Xi's Leadership Style with Pancasila, the Value of Struggle, and Asta Cita 2045

An analysis of the translation of Chinese lessons into Indonesian defense doctrine must maintain two normative requirements: (1) alignment with the state philosophy (Pancasila) and the TNI's values of struggle; and (2) synchronization with the country's long-term vision (Asta Cita 2045). Three important points emerge from this study:

1. Technological sovereignty and independence: efforts to strengthen defense technology capabilities (in response to multi-domain threats) align with the principle of national sovereignty, which is integral to state resilience. However, its implementation must adhere to the principles of Pancasila, particularly those concerning humanity, social

justice, and the rule of law, so that modernization does not diminish civil rights or public transparency.

2. The SISHANKAMRATA system and digital modernization: Indonesian defense doctrines, such as SISHANKAMRATA (the total people's defense and security system), can benefit from digitalization, for example by improving early detection capabilities and integrating national resources. However, mechanisms for safeguarding civil rights and civilian accountability for the use of defense data and systems are needed. Local studies emphasize the importance of balancing capacity and democratic principles.
3. The value of struggle as a deterrent to authoritarian centralization: the values of the TNI (Indonesian National Armed Forces) and Pancasila can serve as a normative foundation guiding the technology adoption process, for example by emphasizing social responsibility, civilian control, and the use of technology for the benefit of the people. Adopting technocratic aspects (targets, incentives, national priorities) remains possible, but must be accompanied by strengthening oversight, transparency, and legal mechanisms to avoid centralization that erodes democratic principles.

The transformation of defense strategy toward digital and high-tech is not an automatic, value-neutral process; it requires alignment of norms so that policy outcomes strengthen sovereignty while upholding human rights and accountability.

The analysis shows that Xi's technocratic leadership model utilizes state instruments to accelerate the mobilization of technology and talent, through whole-of-nation mechanisms and the MCF. For Indonesia, the most relevant lesson is not to imitate political structures or central control, but rather to adapt policy principles that enhance synergy between research, industry, and defense within the framework of democratic accountability. The resulting recommendations emphasize strengthening the TNI's digital backbone, developing a market-based defense industry guided by strategic incentives, and sustainable investment in human resources, all implemented under the foundation of Pancasila, the principle of struggle, and the Asta Cita 2045 vision.

E. CONCLUSION

This research demonstrates that Xi Jinping's technocratic leadership style, which combines strategic vision with bureaucratic instruments and centralized political control, effectively mobilizes research resources, technology, defense industry, and scientific talent rapidly through whole-of-nation and military-civil fusion mechanisms. However, the main finding is not a call to institutionally replicate the Chinese model entirely, but rather an affirmation that certain policy principles such as prioritizing strategic technologies, targeted incentives for dual-use R&D, and strengthening talent development pathways can be selectively adapted by Indonesia. This adaptation must be implemented in a gradual, measured manner, and accompanied by accountability mechanisms and the protection of civil rights, so that defense modernization contributes to strengthening national sovereignty without eroding democratic values and Pancasila. In other words, the essence of the relevant lesson is how to synergize research, industry, and the defense apparatus within a governance framework that is open and responsive to Indonesia's institutional context toward long-term strategic goals such as Asta Cita 2045.

To strengthen the empirical and applicability of these findings, further research should adopt a mixed-methods design that combines field studies, in-depth interviews with policymakers, defense industry leaders, and military analysts, and quantitative analysis of R&D and operational capability indicators. Comparative studies comparing experiences of

adapting defense technology reforms in similar democratic countries will help formulate adoption models more appropriate to the Indonesian context. Furthermore, future research should test hypotheses about the effectiveness of specific policy instruments through pilot project evaluations and longitudinal studies that monitor implementation processes, technical outcomes, and impacts on governance and civil rights. Research that explores Chinese-language primary sources and internal Chinese policy documents, as well as ethical and legal studies related to the use of AI and data in the defense context, will also enrich understanding and enhance the precision of policy recommendations.

This research is based on a literature review and document analysis and is therefore interpretive in nature. Consequently, some aspects of policy implementation at the operational level have not been empirically validated. Furthermore, limited access to sensitive internal documents and reliance on open sources can lead to information bias, particularly regarding detailed technical and budgetary dimensions. Efforts to incorporate Chinese-language sources have been made through repository access and secondary translations, but language limitations and primary verification remain obstacles. Therefore, the findings and recommendations should be viewed as a conceptual framework and initial policy direction that require further testing through empirical research and intensive consultation with national stakeholders.

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