



STRENGTHENING NATIONAL RESILIENCE THROUGH DEFENSE ENTREPRENEURSHIP IN THE ERA OF GLOBALIZATION

By

Jimmy R. A. Torar & Guntur Eko Saputro

Republic of Indonesia Defense University

Jimmytorar21@gmail.com, Guntur.saputro@idu.ac.id

Abstract

This study aims to analyze the role of defense entrepreneurship in strengthening national resilience in the era of globalization. Globalization demands that countries be independent in the **defense sector, particularly through innovation, strategic industrial independence, and** strengthening the defense entrepreneurship ecosystem. The research method used is a qualitative case study approach. Primary data was obtained through in-depth interviews with academics, defense industry practitioners, and policymakers, while secondary data was collected from policy documents, official reports, and related scientific publications. Data analysis was conducted using NVivo 12 Plus software for coding, categorizing, and thematic analysis. Within the theoretical framework, this study uses the National Resilience Theory, which emphasizes the importance of ideological, political, economic, socio-cultural, and defense and security aspects (Asta Gatra), and is supported by the concept of Entrepreneurial Ecosystem Theory to explain the dynamics of defense innovation development. The results show that defense entrepreneurship plays a strategic role in increasing the independence of the defense industry through collaboration between the government, academics, and business actors. In addition, the emergence of defense technology start-ups can strengthen national competitiveness amidst the pressures of globalization. This study concludes that strengthening national resilience requires the integration of defense innovation policies, entrepreneurial support, and the use of digital technology. Research recommendations are directed at establishing a defense entrepreneurship ecosystem that is inclusive, sustainable, and adaptive to global dynamics.

Keywords:

National resilience, defense entrepreneurship, globalization, NVivo, qualitative.

How to cite: Torar, J., & Saputro, G. (2025). STRENGTHENING NATIONAL RESILIENCE THROUGH DEFENSE ENTREPRENEURSHIP IN THE ERA OF GLOBALIZATION. *GPH-International Journal of Social Science and Humanities Research*, 8(8), 33-42. <https://doi.org/10.5281/zenodo.17098967>



This work is licensed under Creative Commons Attribution 4.0 License.

Introduction

Globalization has had a significant impact on various aspects of national life, including the defense sector. Global dynamics are driving countries, including Indonesia, to strengthen national resilience through defense industry independence and technological innovation. The establishment of DEFEND ID as a defense industry holding by the Indonesian government is a strategic step to strengthen national defense independence while boosting global competitiveness. This holding houses strategic companies such as PT Pindad, PT PAL, PT Dirgantara Indonesia, and PT Dahana, with the goal of becoming one of the world's 50 largest defense companies and increasing the use of local components in the defense industry (Defend ID, 2024).

In addition to modernizing the defense industry, Indonesia also faces new challenges in the cyber realm. The establishment of the Indonesian Cyber Force in 2024 underscores the government's commitment to responding to non-traditional threats, particularly cyberattacks that have the potential to weaken critical infrastructure and national stability (Indonesian Cyber Force, 2024). This situation demonstrates that threats to national resilience come not only from conventional military aspects, but also from the information technology, economic, and socio-cultural spheres.

The challenges faced in strengthening national resilience are quite complex. First, globalization increases risks to national sovereignty through the rapid flow of information, culture, and intense economic competition, which can undermine socio-cultural values and open the way for radical ideologies and transnational crime (An-Nur, 2023). Second, disparities in economic and infrastructure development between regions remain obstacles to solid national cohesion (Liputan6, 2023). Third, cyber vulnerability and dependence on foreign technology increase the risk of data leaks and digital defense vulnerabilities (Studocu, 2024).

Furthermore, national defense governance still faces challenges in inter-agency coordination. Collaboration between the government, academia, and the industrial sector has not been fully optimized in creating a sustainable defense innovation ecosystem (QuestionAI, 2023). Furthermore, national values are also under pressure from the rapid flow of globalization. The Indonesian Minister of Defense emphasized that national identity and strengthening Pancasila values through national defense are key to facing global disruption (Ministry of Defense of the Republic of Indonesia, 2017).

Globalization has had a significant impact on various aspects of national life, including the defense sector. Global dynamics are driving countries, including Indonesia, to strengthen national resilience through defense industrial independence and technological innovation. The establishment of DEFEND ID as a defense industry holding by the Indonesian government is a strategic step to strengthen national defense independence while boosting global competitiveness. This holding houses strategic companies such as PT Pindad, PT PAL, PT Dirgantara Indonesia, and PT Dahana, with the goal of becoming one of the

world's 50 largest defense companies and increasing the use of local components in the defense industry (Defend ID, 2024).

In addition to modernizing the defense industry, Indonesia also faces new challenges in the cyber realm. The establishment of the Indonesian Cyber Force in 2024 underscores the government's commitment to responding to non-traditional threats, particularly cyberattacks that have the potential to weaken critical infrastructure and national stability (Indonesian Cyber Force, 2024). This situation demonstrates that threats to national resilience come not only from conventional military aspects, but also from the information technology, economic, and socio-cultural spheres.

The challenges faced in strengthening national resilience are quite complex. First, globalization increases risks to national sovereignty through the rapid flow of information, culture, and intense economic competition, which can undermine socio-cultural values and open the way for radical ideologies and transnational crime (An-Nur, 2023). Second, disparities in economic and infrastructure development between regions remain obstacles to solid national cohesion (Liputan6, 2023). Third, cyber vulnerability and dependence on foreign technology increase the risk of data leaks and digital defense vulnerabilities (Studocu, 2024).

Furthermore, national defense governance still faces challenges in inter-agency coordination. Collaboration between the government, academia, and the industrial sector has not been fully optimized in creating a sustainable defense innovation ecosystem (QuestionAI, 2023). Furthermore, national values are also under pressure from the rapid flow of globalization. The Indonesian Minister of Defense emphasized that national identity and strengthening Pancasila values through national defense are key to facing global disruption (Ministry of Defense of the Republic of Indonesia, 2017).

Research Method

This study uses a qualitative approach with descriptive analytical methods to deeply understand the role of defense entrepreneurship in strengthening national resilience. The qualitative approach was chosen because it is able to explore the meanings, views, and experiences of informants involved in the national defense ecosystem (Creswell & Poth, 2018). Primary data was obtained through in-depth interviews with key informants including academics, defense industry practitioners, and policymakers in strategic sectors. In addition, secondary data was collected from official government documents, defense industry reports, academic publications, and relevant online news. The data analysis process was carried out with the help of NVivo 12 Plus software, which allows researchers to systematically code, categorize, and thematic analysis. The use of NVivo helps researchers organize complex qualitative data and identify key patterns and themes relevant to the research focus (Zamawe, 2015). To maintain data validity, this study uses source triangulation and method triangulation techniques. Validity is strengthened by comparing data from various informants

and document sources, while reliability is maintained through a member checking process with informants to ensure the appropriateness of data interpretation (Lincoln & Guba, 1985).

Discussion

1. Data Collection

Data for this study were obtained from three primary sources to ensure the depth and diversity of information. First, in-depth interviews were conducted with five informants: two Ministry of Defense officials, one academic from a state university, and two defense industry practitioners. Interviews were chosen because this method allows for exploring the informants' experiences, perspectives, and interpretations of the strategic issues under study (Creswell & Poth, 2018). Second, field observations were conducted at a state-owned defense industry factory affiliated with DEFEND ID, focusing on production processes and technological innovation. These observations are crucial for understanding the phenomenon directly in a real-world context (Angrosino, 2007). Third, a documentary study was conducted through the collection of government policy reports, academic publications, and news from online media relevant to developments in the defense industry and strategic entrepreneurship. Documentation serves as a secondary data source that can strengthen the findings from the interviews and observations (Bowen, 2009).

2. Data Processing in NVivo (Initial Coding Stage)

During the data processing stage, all interviews were transcribed verbatim to ensure the authenticity of the information, while observation data was recorded in field notes to capture the detailed field situation. Furthermore, relevant official documents were uploaded into NVivo 12 Plus software as additional material to strengthen the research findings. All data was then processed using open coding techniques, which involved assigning initial codes to data pieces deemed important and relevant to the research focus. This process served as the initial step in organizing qualitative data to make it more systematic and easier to analyze in subsequent stages.

An interview excerpt with a Ministry of Defense official stating, "We still face dependence on foreign technology in strategic weapons production," was categorized as "dependence on foreign technology." Meanwhile, an observation indicating that "Some production machines still use foreign licenses" was coded as "import license." The national strategy document, which targets 50% local components in defense production by 2025, was coded as "industrial independence target." This coding served as the basis for developing key categories and themes, allowing for a more comprehensive description of the phenomenon of defense entrepreneurship in the context of strengthening national resilience. An interview excerpt with a Ministry of Defense official stating, "We still face dependence on foreign technology in strategic weapons production," was categorized as "dependence on foreign technology." Meanwhile, an observation indicating that "Some production machines still use foreign licenses" was coded as "import license." The national strategy document, which targets 50% local components in defense production by 2025, was coded as "industrial independence target." This coding served as the basis for developing key categories and

themes, allowing for a more comprehensive description of the phenomenon of defense entrepreneurship in the context of strengthening national resilience.

3. Categorizing (Code Grouping)

The qualitative data analysis process in this study was conducted by grouping initial codes into thematic categories. This approach refers to the basic principles of thematic analysis, which emphasize the importance of organizing data to create coherent meaning (Braun & Clarke, 2006). Codes with similar meanings were combined to form broader categories, making it easier for researchers to identify patterns, relationships, and the direction of the analysis. For example, the codes for dependence on foreign technology, import licensing, and industrial independence targets were grouped into the Industrial Independence category, reflecting the government's efforts to strengthen national capacity in the defense sector. Furthermore, there is a Defense Technology Innovation category, which includes codes such as joint research, collaboration with universities, and technology start-ups. This category demonstrates the important role of synergy between the government, universities, and the private sector in accelerating the advancement of defense technology. This kind of cross-sector collaboration not only supports the creation of strategic products but also drives national independence in facing the challenges of globalization (Ritchie et al., 2013). Furthermore, defense technology innovation is also linked to the development of defense entrepreneurship, namely strategic entrepreneurship in the defense sector that can generate creative and competitive solutions to strengthen national competitiveness. Another emerging category is Cyber Resilience and Identity and National Defense.

Cyber Resilience encompasses the threat of cyber attacks, the formation of the Indonesian Cyber Force, and the need for digital human resources. This emphasizes that modern defense is no longer solely physical but also encompasses a digital dimension that requires prepared human resources and technological infrastructure (Hansen & Nissenbaum, 2009). Meanwhile, the Identity and National Defense category encompasses the instillation of Pancasila, the spirit of nationalism, and the influence of foreign cultures. This category underscores the importance of ideological and socio-cultural aspects in maintaining national cohesion amidst globalization. Thus, the results of this thematic code grouping demonstrate that national resilience through defense entrepreneurship must encompass the dimensions of industry, technology, cyberspace, and national identity in an integrated manner.

4. Thematic Analysis (Theme Development)

The results of the research data categorization indicate that the independence of the national defense industry remains weak. Interviews with Ministry of Defense officials and field observations revealed that most strategic components in the production of weapons and military equipment still rely on foreign technology. Although the government has targeted increasing the use of local components to 50% by 2025, the gap between normative policy (*das sollen*) and actual reality (*das sein*) remains quite wide. This condition aligns with previous findings that the independence of the defense industry in developing countries is often hampered by technological dependence, limited capital, and low knowledge transfer

(Bitzinger, 2009). This underscores the need for a more comprehensive strategy to build the capacity of the domestic defense industry.

The second theme that emerged was defense innovation through defense entrepreneurship. Academic informants emphasized that the involvement of technology start-ups in the defense ecosystem can be a catalyst for innovation, particularly in the areas of digital technology, drones, and communication systems. Industry practitioners also highlighted the importance of government incentives to encourage collaborative research between defense state-owned enterprises, universities, and the private sector. Documentation supports this, with several joint research initiatives facilitated through national research consortium schemes. This type of cross-sector collaboration has been proven to accelerate technology diffusion and strengthen national competitiveness in the era of globalization (Mowery et al., 2015). Thus, defense entrepreneurship can be seen as a strategic instrument linking defense interests with the dynamics of innovative entrepreneurship.

Furthermore, the research also emphasizes the importance of cyber resilience and strengthening national identity as new pillars of national defense. Interview data revealed concerns about the increasing number of cyber attacks targeting strategic national infrastructure. The formation of the Indonesian Cyber Force is seen as an appropriate step, but further strengthening of digital human resource capacity and the development of a cybertechnology-based entrepreneurial ecosystem is needed (Hansen & Nissenbaum, 2009). Furthermore, non-military threats such as the degradation of national values due to globalization are also a concern. Observations of national defense programs on campuses indicate that the internalization of Pancasila and the spirit of nationalism are not yet fully effective. This aligns with previous studies that emphasize that ideological resilience and social cohesion are fundamental elements of modern defense (Acharya, 2017). Therefore, national defense in the era of globalization does not only rely on military aspects, but also demands strengthening national identity as a foundation for maintaining unity.

5. Interpretation of Results

The analysis of this study confirms that strengthening national resilience through defense entrepreneurship can only be achieved through the integration of three main aspects: strategic industrial independence, research-based technological innovation and entrepreneurship, and strengthening cyber resilience and the nation's ideology. Strategic industrial independence is necessary to eliminate Indonesia's reliance on imported technology for the production of key defense equipment. Research-based technological innovation and entrepreneurship, particularly through the involvement of technology startups and cross-sector research collaboration, play a crucial role in generating adaptive solutions to the dynamics of global threats. Meanwhile, strengthening cyber resilience and the nation's ideology is necessary to confront non-conventional threats, whether originating from digital attacks or the penetration of foreign cultural values that can weaken national identity.

Furthermore, these findings support the National Resilience theory, which emphasizes the importance of integrating ideological, political, economic, social, cultural, defense, and security (Asta Gatra) aspects in maintaining national sovereignty. National resilience is not solely related to military strength but also concerns the resilience of society and the national system in the face of global pressures. In this context, defense entrepreneurship serves as a link between economic strength and national defense, thereby strengthening both the economic dimension and the defense and security dimension. This aligns with Suryohadiprojo's (1997) view, which emphasizes that national resilience is comprehensive and multidimensional, ensuring that every element of the nation plays a role in supporting national sovereignty.

Furthermore, this finding is also relevant to Entrepreneurial Ecosystem Theory, which asserts that innovation can only thrive in a supportive, collaborative environment. This theory emphasizes that a synergistic relationship between government, academia, and the industrial sector (the triple helix) is a key prerequisite for building a healthy entrepreneurial ecosystem (Isenberg, 2011). In the defense context, this synergy is realized through government regulations and incentives, contributions of knowledge and research from academia, and the application of technology and innovation from the industrial sector. Thus, defense entrepreneurship can be a strategic instrument that not only strengthens the competitiveness of the national defense industry but also ensures the sustainability of national resilience in the era of globalization.

Conclusion

This research demonstrates that strengthening national resilience through defense entrepreneurship requires integration between defense industry independence, research-based technological innovation and entrepreneurship, and strengthening cyber resilience and the nation's ideology. Interviews, observations, and documentation reveal that although the government has targeted increased use of local components, dependence on foreign technology remains high, thus preventing full independence in strategic industries. This highlights the gap between normative policies (*das sollen*) and actual conditions on the ground (*das sein*).

Furthermore, the research findings underscore the importance of defense innovation stemming from the involvement of technology startups, universities, and research collaborations with the defense industry. Triple helix synergy between the government, academia, and the industrial sector is a key prerequisite for fostering a defense entrepreneurship ecosystem that adapts to global dynamics. At the same time, cyber resilience has emerged as a new pillar of national defense, where the threat of digital attacks demands the strengthening of human resources and the development of information technology-based entrepreneurship.

Finally, this research confirms that strengthening national identity through the internalization of Pancasila values and the national defense program remains fundamental in

addressing non-military threats in the era of globalization. Thus, defense entrepreneurship not only functions as an instrument for strengthening industry and technology, but also as a comprehensive strategy in strengthening national resilience in a multidimensional manner in accordance with the theoretical framework of National Resilience (Asta Gatra) and Entrepreneurial Ecosystem Theory.

Recommendations

For the government, it is necessary to strengthen regulations and incentives that encourage the independence of the national defense industry. This can be done through offset policies, increasing the defense research budget, and supporting local technology startups. Furthermore, a comprehensive policy that integrates industry, innovation, and cyber resilience, including the development of a digital entrepreneurship ecosystem in the defense sector, is needed. The government must also strengthen the national defense program with a more adaptive approach to the younger generation so that ideological and nationalistic values are further ingrained amidst globalization.

For the defense industry, the defense industry, both state-owned and private, is expected to be more active in establishing research collaborations with universities and research institutions. This collaboration will not only accelerate strategic product innovation but also create space for the emergence of innovative defense startups. The industry also needs to invest in cutting-edge defense technologies, including cyber technology and artificial intelligence, to reduce dependence on imports and strengthen global competitiveness.

For academics and universities, universities are expected to play a strategic role as centers of defense innovation through applied research, defense business incubators, and the development of competent human resources in the fields of strategic technology and cybersecurity. Academics can also contribute to strengthening national ideology by integrating national defense education into the curriculum, while also becoming critical partners with the government and industry in ensuring that defense policies are implemented in accordance with the principles of national independence and resilience.

References

- Angrosino, M. (2007). *Doing ethnographic and observational research*. SAGE.
- An-Nur. (2023). *Ketahanan nasional Indonesia: Pengertian, sejarah, konsepsi, asas, unsur, dan tantangan globalisasi*. An-Nur. <https://an-nur.ac.id/blog/ketahanan-nasional-indonesia-pengertian-sejarah-konsepsi-asas-unsur-dan-tantangan-globalisasi.html>
- Bowen, G. A. (2009). Document analysis as a qualitative research method. *Qualitative Research Journal*, 9(2), 27–40. <https://doi.org/10.3316/QRJ0902027>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). SAGE Publications.
- Defend ID. (2024). *Defend ID*. Wikipedia. https://en.wikipedia.org/wiki/Defend_ID

- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. SAGE Publications.
- QuestionAI. (2023). *Membangun ketahanan nasional di era disrupsi: Peran...*. QuestionAI. <https://www.questionai.id/essays-eNAAmqMjhj7/membangun-ketahanan-nasional-di-era-disrupsi-peran>
- Senberg, D. J. (2011). *The entrepreneurship ecosystem strategy as a new paradigm for economic policy: Principles for cultivating entrepreneurship*. Babson Entrepreneurship Ecosystem Project, Babson College.
- Suryohadiprojo, S. (1997). *Ketahanan nasional*. Jakarta: Balai Pustaka.
- Zamawe, F. C. (2015). The implication of using NVivo software in qualitative data analysis: Evidence-based reflections. *Malawi Medical Journal*, 27(1), 13–15. <https://doi.org/10.4314/mmj.v27i1.4>
- Ketahanan Nasional melalui Defense Entrepreneurship di Era Globalisasi” dari berbagai aspek seperti kemandirian industri, inovasi pertahanan, kolaborasi lintas sektor, dan ketahanan digital/ideologis:
- Sudirman, A., Djuyandi, Y., & Pratama, F. S. G. (2022). Memahami dinamika kerjasama industri pertahanan dalam kerangka Indonesia – Australia Defence Security Dialogue. *Jurnal Political Issues*, 4(2). <https://doi.org/10.33019/jpi.v4i2.82>
- Yulivan, I., Mahroza, J., Rianto, R., Prakoso, L. Y., & Setiadi, M. I. (2024). Defense entrepreneurship as a solution to RI’s limited defense budget. *Indonesian Journal of Interdisciplinary Research in Science and Technology*, 2(1), 71–80. <https://doi.org/10.55927/marcopolo.v2i1.7710>
- Surahman, S., Putra, I. N., Khaerudin, K., & Asvial, M. (2025). The independence of the Indonesian defense industry and challenges in defense budget allocation. *International Journal Of Humanities Education and Social Sciences*, 3(4). <https://doi.org/10.55227/ijhess.v3i4.738>
- Quirinno, R. S., Suwito, S., & Prakoso, L. Y. (2024). Optimizing national security: The importance of private sector involvement in the Indonesia defense industry. *International Journal Of Humanities Education and Social Sciences*, 4(1). <https://doi.org/10.55227/ijhess.v4i1.1068>
- Tarjana, R., Bahari, S., & Yudho, L. (2025). Domestic defense industry policy in Indonesia to realize independence in TNI AU defense systems. *Contemporary Journal of Applied Sciences*, 3(7). <https://doi.org/10.55927/cjas.v3i7.45>
- Haryadi, A., Sulistyadi, E., & Asmoro, N. (2025). Driving innovation in the defense sector: Unlocking the power of industry, academia, and government collaboration. *Formosa Journal of Multidisciplinary Research*, 4(2). <https://doi.org/10.55927/fjmr.v4i2.48>
- Susanto, S. H., Supriyadi, A. A., & Harefa, F. (2025). National defense policy based on readiness against non-military threat. *Lebah (ABDimas)*, 18(4). <https://doi.org/10.35335/lebah.v18i4.361>
- Anu, S., Hadisancoko, R. E., & Suwito, S. (2024). Defense economic strategy in creating the independence of the Indonesian defense industry: Case study of the independence of the Chinese defense industry. *AURELIA: Jurnal Penelitian dan Pengabdian Masyarakat Indonesia*, 2(1). <https://doi.org/10.57235/aurelia.v2i1.246>
- Fathun, L. M., Maharani, T. P., & Angkotasana, N. A. S. P. (2024). Opportunities and challenges of the state defense paradigm in the era of globalization. *Jurnal*

Torar, J., & Saputro, G. (2025). STRENGTHENING NATIONAL RESILIENCE THROUGH DEFENSE ENTREPRENEURSHIP IN THE ERA OF GLOBALIZATION. *GPH-International Journal of Social Science and Humanities Research*, 8(8), 33-42. <https://doi.org/10.5281/zenodo.17098967>

Pertahanan: Media Informasi tentang Kajian dan Strategi Pertahanan, Identity, Nationalism, and Integrity.

<https://jurnal.idu.ac.id/index.php/DefenseJournal/article/view/6675>

Dolonseda, N. A. (2022). The strategic role of the defense industry in answering the needs of KRI capability C4ISR to achieve maritime security in Indonesian national jurisdictions. *Jurnal Ekonomi, Bisnis & Entrepreneurship (e-Journal)*, 16(2), 99–106. <https://doi.org/10.55208/jebe.v16i2.251>