MANDALA
Jurnal Hubungan Internasional

Vol.7 No.1
Januari-Juni
2024

Received: April 5, 2024
Accepted: June 3, 2024
Published: June 4, 2024

THE ANALYSIS OF THE NICHE MODEL IN THE DEFENSE INDUSTRY: SEEKING SELF-SUFFICIENCY IN INDONESIA'S MAIN EQUIPMENT AND WEAPONRY SYSTEMS (ALUTSISTA)

Rizki Marman Saputra[1], Gumilar Rusliwa Somantri[2], Athor Subroto[3], Marsetio[4]

[1] School of Strategic & Global Studies, Universitas Indonesia, Indonesia
[2] School of Strategic & Global Studies, Universitas Indonesia, Indonesia
[3] School of Strategic & Global Studies, Universitas Indonesia, Indonesia
[4]Management of Defense, Universitas Pertahanan, Indonesia

rizki.marman11@ui.ac.id[1*], gumilar.rusliwa@ui.ac.id[2], athor.subroto@ui.ac.id[3], marsetio@idu.ac.id[4]

Abstract

The niche industry model in Indonesia's defense industry refers to the development and specialization strategies adopted by defense companies in the country. In response to global dynamics and national defense needs, this model emphasizes focusing on specific market segments or technologies to achieve competitive advantages. This study explains how the niche industry model can enhance the competitiveness of Indonesia's defense industry through specialization in the development, production, and marketing of products or services tailored to specific defense needs. The analysis of this niche industry model involves evaluating various aspects, including technological sustainability, price competitiveness, security, and the ability to meet specific military needs. In the context of Indonesia, where the defense budget is limited, this model creates opportunities for local companies to focus on specific areas such as non-traditional weapon systems, intelligence technology, or cyber security equipment. The success of the niche industry model in Indonesia's defense industry is also closely related to collaborative efforts between the government, industry, and research institutions. This synergy facilitates the exchange of information, resources, and policy support necessary to foster technological development and innovation within this framework. While the niche industry model offers potential competitive advantages, challenges such as developing high-quality human resources, policy changes, and risk management need to be addressed. This study provides an in-depth view of the niche industry model in the context of Indonesia's defense industry, highlighting the opportunities and challenges faced and providing recommendations to support the sustainability and growth of this sector.

Keywords: Niche Industry Model, Indonesia Defense Industry, Defense Equipment (ALUTSISTA)

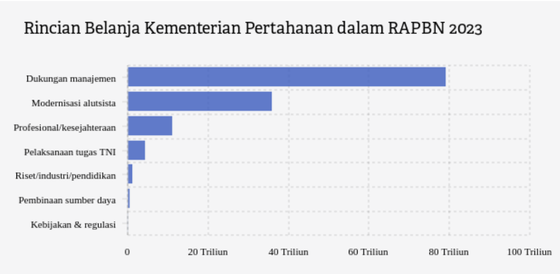
INTRODUCTION

In the National Medium-Term Development Plan (RPJMN) IV document for 2020–2024, one of the key points outlined is to strengthen political, legal, defense, and security stability (polhukhankam) and to transform public services through increased security, enhanced capabilities, including defense and the defense industry. The defense industry itself is a crucial element in supporting a country's defense system. A strong defense industry is also reflected in the continuous availability of guaranteed supplies of defense equipment (ALUTSISTA) and defense facilities. Looking at the domestic defense industry, Indonesia's defense industry is still not optimal, and for several types of defense equipment, it is still heavily dependent on foreign products.

According to data from the Stockholm International Peace Research Institute (SIPRI) (2020), during the years 2015-2019, Indonesia ranked on average as the 17th largest importer of defense equipment, accounting for 1.8% of the global total. The main suppliers of national defense equipment to Indonesia were dominated by the United States at 20%, the Netherlands at 18%, and South Korea at 16% of Indonesia's total defense equipment imports.

Looking at the defense industry in the country, we can also reflect on the total number of active military personnel. According to data from Military Balance in 2022, Indonesia is ranked among the top 10 countries in terms of the number of active military personnel. Indonesia ranks 7th with a total of 395.5 thousand active military personnel, which is below Vietnam with 482 thousand personnel, and slightly above Thailand with 356 thousand personnel. The active military personnel are predominantly from the army, despite Indonesia's geographical condition as an archipelagic country.

According to the Compilation of Work Plans and Budgets of Ministries/Agencies 2023, the Ministry of Defense's budget has increased by an average of 3.1% from 2018 to 2022. The Ministry of Defense's budget allocation was Rp 106.68 trillion in 2018, rising to Rp 115.4 trillion in 2019, and then significantly jumping to Rp 136.9 trillion in 2020. However, in 2021, the Ministry of Defense's budget decreased to Rp 125.9 trillion, and in 2022, the Ministry of Defense received a budget allocation of Rp 133.4 trillion, with an allocation of Rp 131.9 trillion for 2023.



Source: Katadata 2023

The details of Indonesia's defense budget for 2023 are primarily dominated by management support and secondly by the modernization of defense equipment (ALUTSISTA). This budget is allocated to purchase defense equipment for the Indonesian National Armed Forces (TNI) to modernize all three branches of the TNI and achieve the Minimum Essential Force (MEF). A significant portion of this defense equipment is still imported from abroad. It should be recognized that, due to the limited capabilities of Indonesia's defense industry to meet the challenges of providing modern and sophisticated defense equipment, Indonesia is compelled to purchase a substantial amount of defense equipment from foreign countries, including the United States, the Netherlands, and South Korea. If this situation persists, as a major country in Southeast Asia, Indonesia will remain dependent on foreign nations.

In line with the data obtained from SIPRI in 2021, the United States, which has numerous arms supplier companies, accounted for almost 51% of global arms sales, followed by China, the United Kingdom, and France. Major American arms companies such as Lockheed Martin and Raytheon Technologies are currently the largest suppliers of defense equipment (ALUTSISTA) in the world. In China, companies like Norinco and CASC have also become major global producers.

In Indonesia itself, the Defense Industry has recently undergone government-led consolidation efforts, with PT Len Industri (Persero) being incorporated into one of the state-owned enterprises (SOEs) chosen to become the parent holding company for the Defense Industry, named DEFEND ID. The hope is that through this consolidation process, Indonesia's defense industry can dominate the domestic market, address domestic defense needs, and compete in the global market.

There are four companies contributing to the export of Indonesian defense equipment production under DEFEND ID: PT Dirgantara Indonesia (an aerospace company), PT PAL (shipbuilder), PT Lundin, and PT Pindad (land defense equipment specialist). Export revenues totaling $161 million originate from PT Dirgantara Indonesia through the sale of transport aircraft types CN-235 and NC-212 to Senegal, Vietnam, and Thailand. Additionally, export revenues amounting to $86.9 million originate from PT PAL through the sale of two Strategic Sealift Vessels to the Philippines.

Export revenues totaling $32.6 million originate from PT Pindad through the sale of ammunition, weapons, and combat vehicles to Southeast Asian, African, Arab, South Korean, Nigerian, and Timor-Leste markets. Additionally, export revenues amounting to $3.6 million originate from PT Lundin through the sale of small patrol ships to Sweden and Russia. Therefore, from 2015 to 2018, Indonesia recorded exports from the domestic defense industry amounting to $284.1 million. This condition is relatively favorable, indicating that Indonesia has been able to produce defense equipment with market demand for export. However, compared to larger countries, Indonesia still lags behind significantly.

Based on the Stockholm International Peace Research Institute (SIPRI) report, the United States (US) dominates global arms exports. The US controlled 37.1% of arms exports from 2016 to 2020, with export values reaching $51.9 billion. Meanwhile, China, as a rival to the US, ranks among the top five largest arms exporters in the world. China dominates 5.2% of global arms exports, with export values totaling $7.2 billion from 2016 to 2020.

METHODS

This research employs a qualitative method. According to Moleong (2018), qualitative research examines phenomena by involving various methods. Moleong (2013:3) argues that qualitative research is a specific tradition in social science that fundamentally relies on observing human phenomena within their own context, interacting with those individuals in their language and terms. The researcher adopts a descriptive analytical approach to elucidate, interpret, and analyze the Indonesian defense industry. McMillan & Schumacher (2003:3) suggest that qualitative research is an investigative approach because researchers typically gather data through direct face-to-face interaction with individuals in the research setting.

Therefore, the researcher employs a descriptive research method with a qualitative approach. Descriptive research involves writing that depicts the actual state of the researched object, based on the actual conditions observed during direct research. The data collected are not in numerical form but rather derived from manuscripts, interviews, field notes, personal documents, memo records, and other documents. The qualitative approach in this research involves matching the actual data with applicable theories using descriptive methods.

There are various definitions related to the niche market. Kotler (2003), as cited in Parrish (2003), defines a niche market as a narrower group identified by dividing segments into sub-segments with specialization being the key focus of the niche market. Phillips and Peterson (2001), as cited in Toften (2009), interpret niche market strategy as a marketing strategy that uses product differentiation to attract a more focused group of customers. Teplensky (1993), as cited in Sarker and Begum (2013), defines a niche market as a focus on specific needs, or emphasis on geographic, demographic, and product segmentation. Kara and Kaynak (1997), as cited in Sarker and Begum (2013), interpret a niche market as a further step from market segmentation in creating distinct groups of customers.

According to Kotler (2003), as cited in Parrish (2006), niche markets have the following characteristics:

a) Consumers have different needs
b) Consumers are willing to pay a premium price to fulfill their needs to the best company
c) Niche markets are not attractive to competitors
d) Companies gain certain advantages through specialization
e) Niche markets have potential size, profit, and growth

Based on Kotler (2003), the traditional characteristics of niche markets include opportunities for success using a push marketing approach (developing products and then finding markets for those specific products).

Dalgic and Leeuw (1994) regard niche markets as small markets consisting of individual customers or small groups of customers. In niche markets, two approaches can be distinguished:

1. Marketing as a creative process, Chalasani and Shani view niche as nichemanship, which is the process of carving out a small portion of the market with unmet needs. Through market specialization, customer, product, or marketing mix specialization, companies can tailor to unique needs.

2. Marketing as the final step of segmentation, Seen from the sequential stages of segmentation, targeting, positioning, and niching. Shani and Chalasani (1992) distinguish between market segmentation and niche market.

They characterize market segmentation as a top-down approach, which involves breaking down a large market into smaller, more manageable segments. Meanwhile, a niche market is a bottom-up approach where marketers start from the needs of a few customers and gradually build a larger customer base.

Meanwhile, according to Fitzsimmons, J. A., & Fitzsimmons, M. J. (2013), the Niche model in the defense industry refers to industry segments that focus on the development, production, and marketing of highly specific products or services concentrated on narrow and specialized market needs or demands within the defense sector. Essentially, this model illustrates a business strategy where companies strive to become experts or leaders in specific areas by offering highly specialized solutions to limited problems or needs.

Some characteristics of the niche model industry in the defense sector include:

1. Leadership in Specific Areas: Companies in the niche model industry tend to focus on specific areas such as sensor systems, communication equipment, or other specialized military gear. They strive to become leaders or experts in these areas.
2. Need-Oriented Innovation: Focusing on limited market needs allows companies to direct their innovation efforts directly toward the most relevant solutions to the problems faced by clients in the defense market.
3. Managed Risk: Although limited markets can pose risks, niche model companies in the defense industry often have well-managed risks because they have a deep understanding of their market needs and are highly specialized.
4. Strategic Partnerships: To enhance their capabilities and expand market reach, niche model companies tend to build strategic partnerships with other companies in the defense supply chain.
5. Adaptability to Change: Because the markets they serve tend to change rapidly due to evolving needs or new technologies, niche model companies must have the ability to adapt quickly to remain relevant.

RESULT AND DISCUSSION

There are many obstacles and challenges to building an independent, modern, and sophisticated defense industry. Difficulties in advancing independence include technological limitations, even though technology and the defense industry are currently evolving rapidly, as seen in the Cold War era between the United States and the Soviet Union. During that period, the world witnessed how the two superpowers raced to enhance their weapons (arms race), leading to a "Bipolar" world condition. However, with the end of the Cold War and the subsequent change in global political constellations, some defense analysts argue that the arms race will cease, and technology and the defense industry will not develop as rapidly as during the Cold War era.

Francis Fukuyama also argues in his writing that with the end of the Cold War, the world will become more peaceful, and armament will no longer be the main focus as countries worldwide concentrate on achieving national security. However, the current global condition is quite the opposite. Even in the rivalry between the two superpowers, the development of technology and defense industries remains paramount in the defense policies of countries, especially for major countries like the United States, Russia, China, and others.

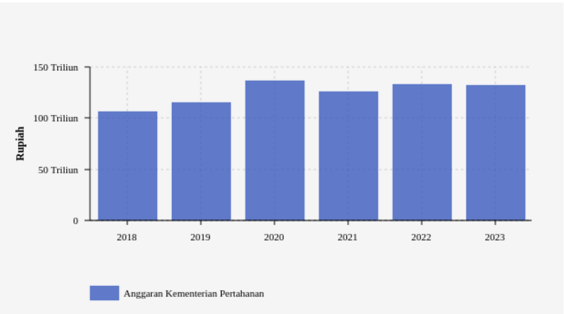
With the advancement of technology and defense industries continuing to evolve after the Cold War, this situation cannot be separated from two factors. First, the liberalization of the defense industry, particularly in Western countries. Second, significant changes in the scope of warfare that bring about the application of technological discoveries combined with fundamental changes in military doctrine, operations, and organizational concepts, which are fundamentally related to the character and conduct of military operations. These changes are generally known as the Revolution in Military Affairs.

The Revolution in Military Affairs (RMA) occurs when a country's military seizes the opportunity to transform its strategy, such as military doctrine, training, education, organization, equipment, operations, and tactics, to achieve decisive military victories through fundamentally new means. This implies that warfare is no longer about conventional aspects like before, such as battlefield confrontation or open head-to-head conflict, but rather focuses on complex and superior capabilities such as proxy wars or the strategic use of cutting-edge robotic technology like drones, and so forth.

Currently, the state of weapon technology includes capabilities like stealth and unmanned weaponry such as Unmanned Aerial Vehicles (UAVs), which have become flagship products of the defense industries of advanced countries.

While domestic products have yet to meet these technological specifications, there is still a limited number of engineers capable of high technology within the country, and the scope of Research and Development (R&D) remains small to meet the comprehensive technological needs, requiring substantial, if not significant, costs.

Despite all these challenges and conditions, if Indonesia does not start with all its aforementioned limitations to build a self-reliant defense industry, Indonesia will increasingly sink into dependence on foreign countries in terms of national defense. Despite efforts to enhance the capabilities of the defense industry, including through joint research and development and joint production, and special cooperation strategies with external parties, one form of which is Transfer of Technology (ToT), where ToT is an integral and sustainable part of defense technology. However, it is regrettable that concrete efforts in technology transfer are hampered by weak initiatives. Indonesia is often cornered into the condition of "how to use, not how to build."



Source: Katadata 2023

The second challenge is the Limited Budget. It is acknowledged that every country has its own ideal conditions regarding how their defense industry should operate and grow, having a market for both national and international scales. In larger countries, we can see significant support for the defense budget. On average, 20-30% of the defense budget of these larger countries is allocated to the defense industry. However, this is far from the case in Indonesia, where support for defense industry development and defense spending is relatively small compared to other countries. The limited budget is a crucial factor for the development of the defense industry because building a strong defense industry requires a substantial Research & Development (R&D) budget. To achieve a robust defense industry, Indonesia must overcome budget constraints. In reality, Indonesia's financial capacity to support the defense industry is still very limited.

The analysis will focus on several typological theories of defense industry models described in the article titled "Current Trends in Asia Pacific Defense Industries" found in the Military Balance 2009. It is explained that there are at least three typological models of defense industries adopted by Asia Pacific countries. The first model is the "autarky" model, which refers to a country's defense industry that can independently produce military equipment and fulfill most of its domestic defense needs and some for export markets. The second model is the "niche" industry model, where a country's defense industry seeks to produce some of its military equipment independently to reduce dependence on foreign-made equipment. Countries following this model have been able to produce some equipment whose technology they control to meet domestic and export needs, although the majority of their equipment needs still rely on foreign-made equipment. The third model is the defense industry model within the Global Supply Chain (GSC). This model is adopted by countries that have not yet achieved autarky in meeting their defense needs.

CONCLUSIONS

Indonesia can be considered a country that adopts the Niche industry model, namely the national defense industry (Defend ID), which seeks to produce some of Indonesia's defense equipment to reduce dependence on foreign defense equipment and also attempts to export the results of its defense industry, albeit only a small portion. In total, the majority of Indonesia's defense equipment needs still depend on foreign-made equipment.

The implications of the analysis on Indonesia's defense industry with a niche industry model approach are as follows:

1. Strength in Specialization: Indonesia's defense industry has great potential to become a key player in specific segments of the global defense market. By focusing on specialization in the production of specialized defense equipment, such as non-lethal weapon systems or air surveillance technology, Indonesia can build a strong competitive advantage.
2. Challenges in Scale: Although the niche industry model offers opportunities for growth and competitive advantage, the biggest challenge faced by Indonesian companies is the issue of production scale. Larger economies of scale can be key to improving efficiency and competitiveness, but this requires significant investment that may be difficult for small and medium-sized enterprises to access.
3. Government Support and Partnerships: It is important for the Indonesian government to provide strong support to the local defense industry, including fiscal incentives, infrastructure development, and workforce training. Additionally,

strategic partnerships with foreign companies can help enhance access to technology and larger global markets.

4. Increased Innovation and Technological Excellence: To remain competitive in the global market, Indonesian companies need to increase innovation and technological development in their defense products. This involves investment in research and development as well as collaboration with research institutions and universities.
5. Flexibility and Adaptability: Indonesia's defense industry must be able to quickly adapt to changes in market needs and technological developments. Flexibility in changing production focus and the ability to follow global market trends will be key to long-term success.

In conclusion, the implementation of the niche industry model in Indonesia's defense industry has the potential to enhance the country's competitiveness and economic contribution. However, challenges such as production scale issues and the need for government support and strategic partnerships must be addressed to maximize the potential of this industry. With the right commitment and effective strategies, Indonesia can strengthen its position as a key player in the regional and global defense industry.

REFERENCES

Creswell, Jhon W. 2016. Research Design Pendekatan Kualitatif, Kuantitatif, dan Mixed. Yogyakarta: Pustaka Pelajar.

Fitzsimmons, J. A., & Fitzsimmons, M. J. (2013). Service Management: Operations, Strategy, Information Technology. McGraw-Hill Higher Education. (Bab 3 membahas strategi bisnis, termasuk model niche dalam strategi industri.)

Fukuyama, Francis. 2006. "After Neocons : America and the Crossroads." (London : Yale University Press

https://databoks.katadata.co.id/datapublish/2022/08/21/belanja-kementerian-pertahanan-capai-rp13192-trilun-dalam-rapb-2023-buat-apa-saja

https://databoks.katadata.co.id/datapublish/2024/01/04/anggaran-kementerian-pertahanan-2024-terbesar-untuk-manajemen

International Institute for Strategic Studies (IISS), "Current Trends in Asia-Pacific Defense Industries," The Military Balance 2009 (London: Routledge, 2009).

Kotler, P. 2003. Marketing Management (11 ed.). NJ: Prentice-Hall, Upper Saddle River.

Kotler, Philip. (2002). Manajemen Pemasaran, Analisis, Perencanaan Dan Pengendalian, Edisi5, Jakarta: Erlangga.

Moleong, L. J. (2018). Metodologi Penelitian Kualitatif. Bandung: PT. Remaja Rosdakarya.

Prihandoko, Reine, et. al. 2023. "Optimasi Industri Pertahanan Nasional Guna Mendorong Transformasi Militer Indonesia." LAB 45 Monograf. Jakarta: Laboratorium Indonesia 2045.

Toften, K., Hammervoll, T., (2009) Niche Firms and Marketing Strategy: an exploratory study of an internationally oriented niche firms, Europan Journal of Marketing, Vol. 43 No. 11/12, pp.1378—1391