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Competitive Analysis of Indonesian Defense Industry SOE: Opportunities and Challenges Post-Holding of Indonesian Defense Industry SOE

Bayu Prasetiyo, Posma SJK Hutasoit, Sri Sundari
Defense Economic Study, Faculty of Defense Management
Republic of Indonesia Defense University
Jakarta, Indonesia

Abstract:- Indonesia has carried out defense industry state-owned enterprises holding to create a strong and independent defense industry. This study aims to examine the opportunities and challenges of the Indonesian defense industry after holding. This qualitative research uses interviews and literature studies as a method of collecting data that originates from primary and secondary data, and analyzed using the competitive strengths model. By holding the defense industry holding, defense independence will be more easily realized because the state-owned defense industry is much more consolidated so that it is better prepared to compete in the global market and can generate economic benefits for Indonesia. However, there are a number of challenges that must be overcome by the Indonesian government, including fulfilling domestic component level and becoming the top 50 in the world's defense industry. A number of these challenges need to be resolved and pursued so that Indonesia's dependence on defense and security from abroad is reduced.

Keywords:- *Competitive Analysis, Defense Industry, State Owned Enterprises, Holding, Opportunities And Challenges.*

I. INTRODUCTION

Globalization has pushed the world to become more competitive, especially in the economic field of industry and trade. In Indonesia, the defense industry had been contraction but was able to survive and grow amid the COVID-19 pandemic crisis. This is caused by the defense industry's business processes which tend to have no direct connection with meeting the needs of the community, thus encouraging optimism among various groups that the national defense industry will be able to become the world's Top 50 in 2024 [1]. This condition also supports the trend of the defense industry which has been able to survive amid global shocks, because most countries in the world tend to rely on domestic producers to meet their needs. As with global industrial lines, the supply chain of the defense industry has also been diversified due to the fact that most companies in this sector prefer to become "systems integrators" rather than being industrial producers. [2]. This condition makes the defense industry even more vulnerable due to the wide production network.

In addition to responding to customer needs, the escalation of global threats and transnational issues has indirectly impacted on the increasing need for state and non-state entities to produce and strengthen their respective regional defense and security systems. This condition then contributed to the stretching of the defense industry growth globally in various countries, including Indonesia.

The Indonesian defense industry is currently faced with the challenge of fulfilling the minimum essential force/MEF. Efforts to fulfill the national defense force at the MEF level in Indonesia have not been fully realized. The development of new national defense forces and capabilities results in a national defense posture with limited powers [3]. The management of strategic and defense industries in several countries is almost always faced with the main issues: development of defense technology that relies on two schemes, strengthening research and development of the defense industry, and through offset and technology transfer schemes [4].

The Defense Industry is one of the vital components of defense capabilities. A strong defense industry has two main effects, a direct effect on the development of defense capabilities, and an effect on national economic and technological development. In the field of defense capability development, a strong defense industry guarantees a sustainable supply of defense equipment and defense facilities. Availability of the supply of main weapon system tools on an ongoing basis is an absolute prerequisite for the flexibility and certainty to draw up long-term defense capability development plans, without any concerns over political and economic factors, such as embargoes or restrictions.

The defense industry can have an effect on national economic and industrial growth, that is participating in stimulating national industrial growth on an international scale, absorbing a significant number of workers, transferring technology that can stimulate the research and development sector while meeting the needs of the national education sector in the fields of science and technology [5] . The more advanced the defense industry will automatically open new jobs, encourage the growth of other industries because it has many multiple linkages from upstream to downstream, encourage the acceleration of technological progress, thereby reducing the size of the budget that is usually spent on importing various defense equipment from abroad.

There needs to be a national consensus in favor of developing the capacity of the national defense industry so that it can have core competencies that are competitive at the regional and global levels. This consensus is realized in optimizing cooperation between institutions directly related to the procurement of defense equipment, especially the Ministry of Defense, the TNI, and domestic producer parties in the context of building defense facilities based on the domestic defense industry.

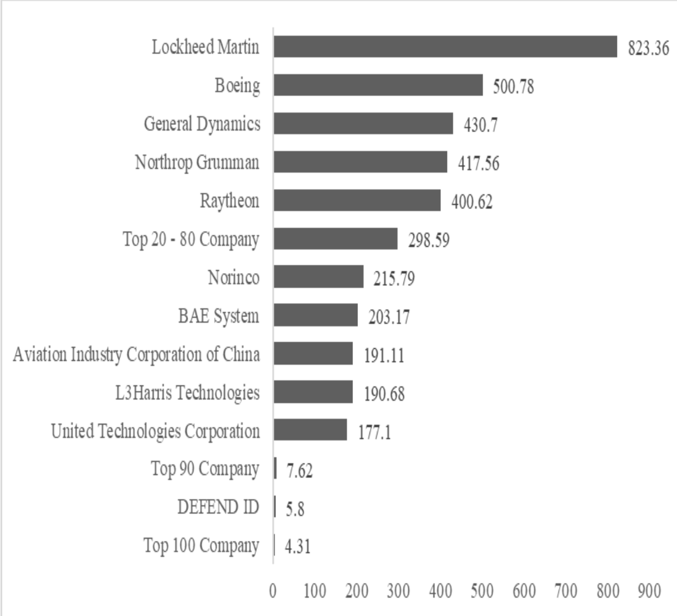
The implementation of national defense and security is the responsibility of the Indonesian National Armed Forces/*Tentara Nasional Indonesia* (TNI) as the main component in the national defense system. For this reason, TNI must have optimal strength and combat capability. The development of the TNI's strength is carried out in stages and continuously which is compiled in a five-year strategic plan, and adjusted to national systems and policies, state capabilities, and global, regional, and of course national strategic environmental situations. Achieving the embodiment of professional capabilities and skills, as well as the TNI's force structure which is characterized by technology, automatically requires qualified personnel and the main weapons system. This defense equipment requires a certain level of technology that is needed and needs to be mastered, and capable of being developed for the next 5 to 10 years, so that it can adapt to the demands of operational needs[6] .

Based on the objectives for the quality level of capabilities and the structure of the TNI's operational forces that are conceptualized for the next 5 to 10 years, it appears that each element is always related to the role of technology in all objectives, both strength targets and capability objectives. These targets will continue to increase in line with the progress and development of existing technology. Facing the challenges of the TNI's future tasks, a clear manifestation of technological domination which is very decisive in the TNI system, especially in the form of the weapon system used includes the main equipment and all its supporters, as well as the capabilities and skills of TNI soldiers in a professional manner[6] .

This certain level of technology certainly requires a strong and independent national defense industry. One way to get a strong and independent defense industry is for the government to unify/hold state-owned enterprises (SOE) in the defense industry sector consisting of PT. LEN Industri, PT. Pindad, PT. PAL, PT. Dahana, and PT Dirgantara, which is named DEFEND ID. The unification of a number of Defense Industry SOE in Defend ID is a form of Indonesia's efforts to realize the creation of defense Iindustry independence. However, keep in mind that in the current era realizing the independence of defense equipment to reach 100% is something that is almost impossible, due to the existence of devices or technology that are only controlled by certain countries and must be imported[7] .

In its development, the national defense industry represented by this cluster has achieved quite impressive achievements because it is able to compete globally, by entering the top 100 world defense entities as illustrated in the following graph.

Fig 1 Top 100 Global Defense Companies 2020 (Viewed from Defense Sector Revenue in trillion Rupiah)



Source: Indonesian Ministry of Defense (2021)

Even though it is not optimal, this achievement certainly brings fresh air to efforts to develop the national defense industry, especially to be able to increase the global ranking and make national entities part of the global supply chain.

In the plan to develop the defense equipment posture and the defense technology industry, the government links the development plan for the defense equipment posture with the program to achieve the independence of the defense industry. During 2010-2014, the stages of stabilizing and optimizing the defense industry, preparing defense industry regulations, and preparing new defense equipment in the future were deliberately directed to support the posture according to MEF. Whereas in the second phase of 2015-2019, the development of the defense industry is deliberately aimed at having the ability to cooperate in the production and development of new products, such as medium tanks, rockets and submarines, in order to support MEF achievement and achieve an ideal defense force posture. Finally, the 2020-2024 phase, to support an ideal military posture, the industry must be significantly capable and able to produce high-tech defense equipment through international cooperation.

With a number of problems in the defense industry and the development of defense technology, it is hoped that the presence of Defend ID can support the government's efforts to build domestic defense independence. In addition, Defend ID must also be able to compete with other countries' defense industries, so that it can provide economic value for Indonesia which ultimately supports the welfare of the people. Therefore,

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this research seeks to dig deeper into the prospects and challenges for the development of the Indonesian defense industry amidst increasingly fierce competition following the holding of the Indonesian defense industry.

II. RESEARCH METHOD

This research is a descriptive qualitative research that is intended to describe existing and ongoing phenomena as well as in the past, for then linked to analysis and competitive environment. This research uses primary data originating from 4 research sources (Directorate of Defense Industry Technology – Defense Industry Policy Committee, and defense industry players) related to the development of the defense industry, particularly regarding the general description, dynamics, regulations, to the value chain of the national defense industry. This research also uses secondary data sourced from books, indexed journals, official releases, and mainstream media coverage. The data analysis technique is carried out by compiling and integrating, as well as investigating and finding specific relationship patterns from the data that has been collected related to competitive forces, in order to see prospects and challenges in the development of the national defense industry. and Defense Industry – Ministry of Defence, Committee Implementation Team Policy.

A. *Competitive Force Model*

Talking about competitiveness, cannot be separated from the competitive concept intelligence / CI which is commonly used to assess the behavior and capabilities of competitors as well as potential competitors, by engaging analysis and intelligence from open sources to then be processed into knowledge [8] . Therefore, an important aspect of CI lies in efforts to direct the ability to think broadly in discovering new and unexpected things in corporate strategy [9] . While in conducting a CI analysis, there are several techniques that are commonly used, including SWOT analysis (Strengths, Weaknesses, Opportunities, and Threats), PEST analysis (Political, Economic, Socio-Cultural and Technology), supply chain analysis (value chain analysis), scenario analysis, as well as industry analysis or known as Porter's Five Forces analysis [10] .

As one of the techniques commonly used to view industrial images, Porter's Five Forces analysis became a fairly popular analysis technique after Michael E. Porter introduced it in a book entitled “Competitive Advantage: Creating and Sustaining Superior Performance” in 1985. This concept is then increasingly used to understand competition and the competitive environment in determining industry dynamics, increasing profitability, and anticipating possible threats that are difficult to prove [9] . The five forces are 1) competition in the industry, 2) bargaining power of suppliers, 3) bargaining power of buyers, 4) threat of new entrants, and 5) threat of substitute products.

B. *Competitive Environment*

The implementation of business strategy is generally inseparable from the business entity's view of competitive environmental conditions, especially in a heterogeneous business environment. Competition between companies in a heterogeneous environment will face many requests, tastes and customer needs. This condition requires companies to be more aggressive and innovative, thereby increasing opportunities as well as new threats for the company [11] . The competitive environment itself can be seen from various aspects, including customers, competitors, suppliers, distributors, substitutes, and technology. In addition, it also includes demographics, culture, economy, government/industry regulations, prospects, and other industries [12]

On the other hand, the competitive environment also requires all existing elements to be considered important and need attention to support company performance. However, in the CI context, the customer is a top priority that needs special attention. Therefore, understanding and providing what customers want is a must in supporting a sustainable business, although companies must not ignore competitors and other aspects [12] .

III. RESULT AND DISCUSSION

President Joko Widodo has inaugurated the Defense Industry SOE holding namely Defend ID on 20 April 2022 at PT PAL Indonesia, Surabaya. During the inauguration, the President hoped that Defend ID could become a bridge for an independent defense industry ecosystem and be able to maintain Indonesia's sovereignty. The independence of the defense industry is urgently needed so that Indonesia can immediately transform and be able to enter a new era of competition with better preparedness. As an effort to realize this independence, Indonesia through Defend ID targets to enter the top 50 defense industries in the world by 2024. In addition, the president hopes that Indonesian defense industry products can maximize the level of domestic component to reach 100%. According to the President, the domestic component level of the Indonesian defense industry is currently only 41%. Therefore, with Defend ID, Indonesia can maximize the use of domestic components so that dependence on imports of defense and security equipment can be reduced [13] .

Defend ID consists of PT. LEN Industri, PT. Pindad, PT. PAL, PT. Dahana, and PT Dirgantara, with each company's mainstay product portfolio, including:

➢ PT. LEN Industri
- Medium range radar
- Starstreaks
- Gunnery firing ranges
- Tactical data link
- Communication system

➢ PT. Pindad
- Anoa 6x6 APC
- Komodo 4x4 APC
- Rhino 6x6 combat
- Maung 4x4
- SS2 V5-A1 assault rifle
- Excava 40 (50 tonnes)
- PTM-90 tractor

➢ PT. PAL
- Missile fast ship
- Light frigate 105 m
- Strategic sealift vessel
- Submarine
- Barge-mounted power plant

➢ PT. Dahana
- Dayangel series
- Shaped charges
- Dayage silver
- P100L bomb
- Blast effect bomb

➢ PT. Dirgantara
- CN-235-220
- NC212i
- N219
- H225/215M
- Bell 412 EPI

- *AS365 N3+ Dauphin*

The Ministry of SOE has appointed PT LEN Industri as the main holding company for the defense industry SOE. The reason for appointing LEN as the holding company is based on consideration of the company's business network covering all fields of defence. LEN is expected to be able to integrate technology between sectors and have capabilities in the fields of command, control, communication, computer, cyber, intelligence, surveillance, and reconnaissance (C5ISR) as interoperability and brain systems for all electronics-based platforms. Another reason is because LEN's position is strategic and does not lean towards one dimension, but is able to accommodate and integrate all three dimensions, land, sea and air. In addition, LEN is also considered to have experience as a holding company in managing its four subsidiaries [14] .

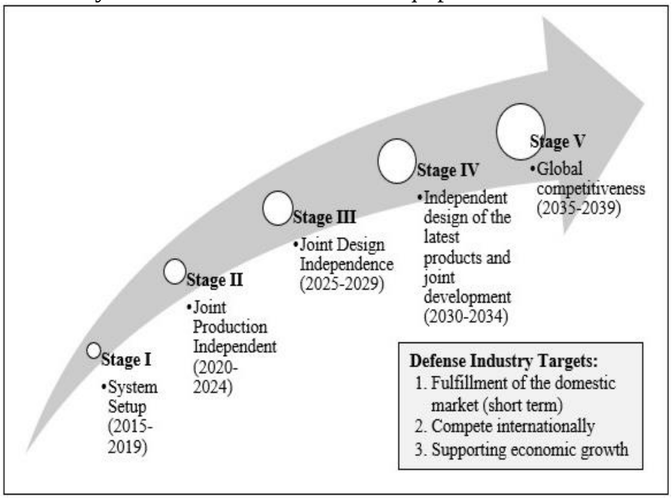
The all five defense industry SOE each have diverse business fields, so the holding form or model chosen is the strategic holding model. Holding formation was chosen as the most optimal consolidation option compared to the consolidation option. This option was chosen by taking into account the factors of increasing revenue, cost savings, capital optimization, brand reputation, process and time of establishment, control, dilution, operational disruption and regulations [14] .

A. Opportunities

With the formation of the defense industry SOE holding, it is hoped that defense independence will be more easily realized and at the same time encourage the domestic defense industry to be fully prepared to enter a new era of competition and be able to fulfill the minimum essential force to maintain the sovereignty of the Republic of Indonesia. It is hoped that with Defend ID, the defense industry will be much more consolidated, the ecosystem will be stronger, able to compete in a healthy and profitable manner [13] .

The national defense industry is currently entering a consolidation stage which leads to efforts to achieve joint production independence in 2020 – 2024. This stage is stage II of the Defense Industry Independence Grand Design related to the fulfillment of security defense equipment 2015 – 2039, where collectivity is the core of the development of the national defense industry, before being directed to compete in the global market.

Fig 2 Grand Design for the Independence of the Defense Industry in Fulfillment of Defense Equipment 2015 – 2039



Looking at the scheme above, it can be seen that the national defense industry is gradually focusing on inter-entity consolidation to achieve the main target of fulfilling the domestic market, as well as international competition, and supporting national economic growth. This condition made the consolidation process tight, colored by competition between entities within it to support production needs and ensure the continuity of the business of each entity. Moreover, this plan is supported by efforts to strengthen defense capabilities contained in the 2020-2024 National Medium-Term Development Plan, there are namely supporting 100% of the Essential Force whose operational strength is ready in 2024, maturing the readiness of the main security-defense equipment, as well as increasing the capability of state-owned defense industry to support security-defense equipment independence [15] .

On the bargaining power side of buyers, the defense industry tends to have limited consumers, where government organizations, especially military and security agencies, are the main users of defense industry products. [16] . This allows defense industry consumers to monopolize the products they produce, although they also have the opportunity to take advantage of imported products from various countries. However, strict regulations on imported products are expected to be able to support the growth and development of the national defense industry, especially through the mandatory use of domestically produced security-defense equipment which is supported by regulations related to the obligation to fulfill the domestic component level and company benefit weight .

In its development, the dynamics of the defense industry itself are inseparable from the large allocation of a country's defense budget, considering that the main customers of defense products are the state's military institutions. Therefore, the size of a country's defense budget can indirectly affect the dynamics of the defense industry in a country, including Indonesia.

Table 1 Military Expenditure In Asean Countries 2017-2021

No	Country	Military Expenditure (in billion US dollars)				
		2017	2018	2019	2020	2021
1	Indonesia	8.80	7.56	7.66	9.49	9.20
2	Malaysia	3.70	3.38	2.77	3.91	3.85
3	Singapore	10.43	10/52	10.66	11.02	10.7
4	Thailand	6.32	6.88	7.31	7.36	7.20
5	Philippines	4.30	2.96	3.47	3.49	4.25
6	Brunei Darussalam	0.35	0.35	0.41	0.44	0.45
7	Vietnamese	4.70	5.00	4.70	5.60	6.39
8	Laos	n/a	n/a	n/a	n/a	0.18
9	Myanmar	3.65	2.36	2.22	3.14	2.00
10	cambodia	0.48	0.55	0.59	0.63	0.60

As one of the powers in Southeast Asia, Indonesia has a relatively large defense budget when compared to other countries in the region, although it is still below Singapore. This condition makes Indonesia a potential market for the regional and global defense industry. However, in practice, countries in the region often become potential markets for the Indonesian defense industry, which are actively able to record significant export values. Apart from PT PAL which managed to export $86.9 million from the sale of two units of Strategic Sealift Vessels to the Philippines several years ago, PT Pindad was also able to record exports of combat vehicles and spare parts worth US$495.97 million in 2019, an increase of 37.02% from the previous year. Likewise, Vietnam and Thailand were successful as export destinations for similar products from Indonesia in 2019, where the respective sales value reached US$234.79 million and US$100.36 million (Indo Defense Expo & Forum, 2019). This condition has indirectly increased the company's competitiveness, as well as an impact on increasing market prospects and the development of the national defense industry, the trend of which is still ongoing today. In addition, the characteristic differences with other industries are allegedly able to have a significant influence on the development of the national defense industry.

Defend ID has also signed a collaboration between Defend ID and the Ministry of Defense and between Defend ID and global partners. The signing of the cooperation included the procurement contract for 13 GCI Radar units and their supporters between PT Len Industri and the Ministry of Defense, the procurement of small caliber munitions between PT Pindad and the Ministry of Defense, the MRO contract for the modernization of 12 C 130 aircraft between PT Dirgantara Indonesia and the Ministry of Defense, agreement for MRO cooperation for capacity building and modernization of Indonesian Navy warships between PT PAL Indonesia and the Ministry of Defense, Heads of Agreement (HoA) for defense electronics technology between PT Len Industri and Thales International SAS, France, and Memorandum of Understanding (MoU) for joint product production Armored Amphibious Assault Vehicle between PT Pindad and FNSS [13]

B. Challenges

Holding defense industry SOE in Defend ID is a form of Indonesia's efforts to create defense industry independence. However, keep in mind that in the current era realizing the independence of defense equipment to reach 100% is something that is almost impossible, due to the existence of devices or technology that are only controlled by certain countries and must be imported, but Indonesia can try to increase the content of local payloads to reach at least more than 60% of the total defense system components built.

The Ministry of SOE is targeting the defense industry holding to become a Top 50 Defense Company in 2024, which is planned to be achieved through increasing capabilities and increasing revenue and income through a planned business, technology and financial strategy. Referring to the 2019 audited financial reports belonging to PT Pindad, PT LEN Industri, PT Dahana and PT PAL Indonesia, the revenue value from the defense business lines of the four BUMNs is around IDR 4.6 trillion. While data on the revenue value of PT Dirgantara defense business line is not available, except for the company's total revenue of US $ 257.9 million in the 2019 audited financial report. Assuming that PT Dirgantara earns IDR 1 trillion from the defense business line, the total revenue of the five BUMNs the defense industry in 2019 was around IDR 5.6 trillion or the equivalent of the current US$ 386 million. Meanwhile, ranked 50th in the Top 100 Global Defense Companies for 2021, TransDigm is a United States firm with a revenue value from the defense business line of US$ 2.1 billion. It is a big challenge for the BUMN Defense holding to be able to increase revenue from the defense business line which in 2019 was valued at US$386 million to at least US$2 billion in 2024.

On the other hand, the problem of financing and technology development is also still an obstacle for the national defense industry, in addition to efforts to achieve independence which are still ongoing. Therefore, improving the quality of professional management and competitiveness is a challenge as well as an opportunity for the national defense industry. As for other issues related to the availability of raw materials, it is hoped that it will become a consideration for the Government to immediately build an upstream industry in the defense sector that is well established and integrated, in order to meet domestic production needs. Data from the Ministry of SOE even show that the import value of the defense industry SOE reaches IDR 1.7 trillion, and the domestic component level ratio is still below 15% for most of the equipment produced domestically, so that the defense industry ecosystem clearly needs to be further integrated [15].

Realizing the grand vision of making Defend ID enter the top 50 in the defense sector in the world and realizing the independence of the national defense industry is indeed a necessity that Indonesia should pursue, so that it will reduce Indonesia's dependence on imported defense equipment. Even so, keep in mind that realizing independence requires a long time and costs are not cheap. In addition to increasing market potential nationally and internationally, it is necessary to increase and more comprehensively study in the field of research and development for certain security-defense equipment technologies and platforms by all members of the holding. Defend ID can be a hope to pursue Indonesia's ideals of independence, but this certainly needs to be accompanied by strong will and determination by all relevant stakeholders.

IV. CONCLUSION

Holding defense industry SOE is a strategic move by the government, especially the Ministry of Defense of the Republic of Indonesia to achieve defense independence through the defense industry. Fulfilling the needs of modern defense equipment is the main program of the TNI in carrying out its main tasks according to the mandate of the applicable laws and regulations. With the formation of the defense industry SOE holding, it is hoped that defense independence will be more easily realized because the defense industry SOE are far more consolidated. Thus the domestic defense industry is expected to be able to play a role in meeting MEF targets and be ready to compete in the global market and can generate economic benefits for Indonesia.

However, there are a number of challenges in meeting the targets set by the government for Defend ID. These challenges include fulfilling domestic component level and the target of becoming the top 50 in the world's defense industry. A number of these challenges need to be resolved and pursued by Defend ID so that Indonesia's dependence on defense and security from abroad is reduced.

With the formation of the holding, the defense industry SOE are expected to be able to move quickly, be agile, and keen to see opportunities and enter global supply chains. Nevertheless, the fulfillment of domestic needs must still be prioritized. The launch of the holding is also expected to be a momentum to transform and build a modern defense industry ecosystem. SOE in the defense industry that are strong, independent and able to compete in the global market will spearhead the independence of Indonesia's defense industry. For that, technology must be mastered. The latest component manufacturing based on dual used technology must also be mastered. The widest possible global partnership also needs to be built with parties willing to share/transfer of technology

In addition, in order for a national defense ecosystem to be formed, there needs to be consistency and a serious commitment from the government in purchasing defense equipment through state-owned defense companies. The goal is to have a sustainable and sustainable policy.

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