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# Defense Industry Management In Defense Equipment Procurement Offset Contracts To Improve The Defense Economy

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***Abstract***

*This research aims to contribute ideas to policy makers in managing the defense industry, especially through offset contracts for defense equipment procurement. Using a descriptive-qualitative analysis method, data is collected from secondary and primary sources, then analyzed qualitatively to draw conclusions regarding the management of the defense industry to improve the defense economy. The results show that the implementation of offset contracts requires a large initial investment and often exceeds the available budget, and faces the challenge of a technology gap between Indonesia's defense industry and developed countries. Sustainability of offset programs requires long-term maintenance of investments and technological capabilities. Case studies in Turkey, India, Brazil and France show success in increasing local defense industry capacity and reducing import dependency. In Indonesia, cooperation with France in MEF phase II 2015-2019 was effective in meeting TNI's defense equipment needs and technology transfer, although improvements in the sea and air defense sectors are still needed. With the right incentives, strategic partner selection, and human resource enhancement, the local defense industry can develop and reduce the technology gap.*

***Keywords: Defense Equipment, Economy, Defense Industry, Offset Contracts***

## INTRODUCTION

In the 21st century the defense industry has become one of the most important sectors for the security and independence of a country (Mas et al., 2016). Then, with increasing threats and pressures from various sources, countries around the world continue to increase their investment in defense. Although the management of the defense industry does not only focus on the security aspect, but also on the economic aspect.

The geographical location of the Unitary State of the Republic of Indonesia has a strategic position that is crossed between two continents and two oceans, has a large potential content of natural resources, both on land and water, making it very vulnerable to conflicts of interest (Zulkifli et al., 2023). The development of globalization, liberation, and industry supported by technological development, makes all countries seem to have no boundaries. The negative impact that can arise is that countries intersect with each other, which has the potential to cause conflict (Juliswara & Muryanto, 2022). Facing these conditions requires a strong national defense equipped with adequate defense and security equipment (Alpalhankam) to anticipate the various forms of Threats, Disruptions, Obstacles, and Challenges (AGHT) that occur.

Based on Indonesian Law No. 16/2012 on Defense Industry, procurement of Defense and Security Equipment (Alpalhankam) from abroad must meet the requirements of trade-offs, local content, and/or offsets with certain minimum limits, which increase every five years. This law opens opportunities for the national defense industry (indhan) to play an active role in the procurement of defense equipment from abroad according to their capabilities. This law also regulates four tiers in national defense production, where private industries can only be in Tier 3 and 4. The Job Creation Law then revises several rules, allowing the national defense main equipment industry to be not only BUMN but also BUMS, with the government still playing a role as lead integrator. The revision also allows capital ownership of the main equipment industry by BUMS with the approval of the Minister of Defense (Nulhakim et al., 2022).

Today, the national defense industry only plays a complementary role in the defense equipment procurement offset contract, without really pursuing the government's target to participate in the global supply chain (PERMEN Pertahanan RI No. 17/2014 on the Implementation of Procurement of Major Weapon System Equipment within the Ministry of Defense and the Indonesian National Army). To increase the role of indhan in the national economy through employment and increasing the export value of defense equipment products, efforts are needed to improve indhan management in offset contracts. It is hoped that, in the future, the procurement of defense equipment can be managed by Indonesia's own defense industry, so that the productivity of defense industry can further boost the national economy.

The management of the defense industry in the defense equipment procurement offset contract has several benefits. First, the offset contract can improve the domestic economy by building a stronger and more independent defense industry. Second, offset contracts can increase technological independence and innovation in the country. Third, offset contracts can improve the quality and quantity of domestic defense equipment production. Fourth, offset contracts can increase employment opportunities and income for citizens (Lutfiyanah et al., 2017).

This research aims to contribute ideas to policy makers in an effort to solve problems related to the management of the defense industry, especially in the defense equipment procurement offset contract. With this research, it is hoped that an effective solution can be found to improve the defense economy, so that the national defense industry can be more independent and competitive.

## RESEARCH METHODS

This research uses a descriptive-qualitative analysis method, with data collection from secondary and primary sources. Secondary data was obtained from literature studies such as books and research reports, while primary data came from the main equipment industry. The research was conducted at the Defense University Library from October 24, 2023 to October 31, 2023. The subject of the research was the Minister of Defense and staff handling the Defense Economy, while the object of the research was the management of the defense industry. Data were collected from laws and regulations, websites, digital books, libraries, and scientific journals, as well as through interviews. The data were analyzed qualitatively by linking primary and secondary data, then presented systematically to draw conclusions about the management of the defense industry in the defense equipment procurement offset contract to improve the defense economy.

## RESULT AND DISCUSSION

Managing the defense industry in the context of offset contracts involves increasing production capacity, developing supply chains, and research and development. Increasing production capacity includes modernization of production facilities, workforce training, and adoption of new technologies. Modernization of production facilities is carried out using advanced technology to improve productivity and product quality (Hidayaturahmi & Farida, 2022). Workforce training is important to improve skills in the design, integration and maintenance of defense equipment (Sarjito, 2023) Adoption of new technologies helps to update production facilities and improve efficiency and production capabilities of more advanced defense equipment.

Supply chain development involves engaging local small and medium industries and encouraging strategic partnerships with global companies (Chatra et al., 41:2023). Local small

and medium industries can provide the necessary components and raw materials, while strategic partnerships with global companies allow access to greater technology and resources, thereby increasing production capacity and expanding market reach.

Research and development in the defense industry involves investment in R&D and collaboration with universities and research institutions. Investment in R&D is important to develop new technologies and increase industrial capacity, while collaboration with universities and research institutions helps access educated human resources and advanced technologies (Ayu & Eko, 2022).

The implementation of offset contracts in futures trading can provide significant economic benefits. One of the main benefits is the creation of new jobs. The futures trading industry requires a lot of professional labor, such as exchange managers, clearing houses, futures brokerage companies, futures traders, futures advisors, and futures fund center managers, which opens up new job opportunities for the community.

In addition, offset contracts can increase exports of agricultural products. Futures markets allow farmers and producers to better manage price risks, increase their income stability, and allow them to focus on production and exports, resulting in increased exports of agricultural products. The implementation of offset contracts also contributes to foreign exchange savings (Lina Sudarwati & Nasution, 2024). With the existence of a domestic futures exchange, foreign investors are attracted to invest in Indonesia, increasing the country's foreign exchange earnings and helping foreign exchange savings, especially if the futures exchange is able to become one of the international reference exchanges (Nasfi & Suhatman, 2021).

The implementation of offset contracts can enhance national technological capabilities. The futures trading industry requires advanced technology to manage transactions and risks, thereby encouraging investment in technology and the development of national technological capacity, which in turn improves national economic competitiveness.

**Discussion**

The implementation of offset contracts requires a large initial investment to purchase defense equipment from foreign manufacturers. This includes the cost of purchase, training and equipment required to start an offset program. This investment often exceeds the available budget, making it a challenge for the country to finance.

The technology gap between Indonesia's defense industry and the defense industry of developed countries is a major challenge (Abd Batau et al., 2022). Indonesia's defense industry must be able to meet the needs of defense equipment in accordance with the development of world defense equipment technology. This includes purchasing technology from major global manufacturers and applying it in the domestic defense industry. However, this technology gap causes risks of delays, penalties and uncertainties in the implementation process.

The long-term sustainability of the offset program is a challenge as the Indonesian defense industry must be able to maintain the investment and technological capabilities acquired over an extended period of time. This includes maintaining cooperation with strategic partners, maintaining acquired technologies, and developing local capabilities for self-production.

In research (Pratiwi, 2020) with technology-based service development, such as e-government in local government, can be used as an example to improve efficiency and transparency. The implementation of information technology not only helps in achieving the goals of good governance but also strengthens accountable and participatory administrative frameworks. This requires commitment from all relevant parties to adapt to technological developments and the demands of an open society, so that the offset program can provide significant and sustainable economic benefits for national defense.

The government can provide fiscal and non-fiscal incentives to support offset programs. These incentives can be in the form of tax discounts, subsidies or financial assistance to facilitate

large initial investments. These incentives can also be provided to motivate the local defense industry to upgrade their technological skills and capabilities.

The government should invest in sustainable human resources improvement programs. This includes training, education and skills development for defense industry workers. This program is important to reduce the technology gap and ensure that the local defense industry can maintain and improve their technological capabilities.

Selection of the right strategic partner is key to a successful offset program. The strategic partner should have high technological capabilities and a commitment to invest in the local defense industry. The selection of the right partner can also help in reducing risks and ensuring the long-term sustainability of the offset program.

Case studies on the implementation of offset contracts in several countries have shown success in the development of the defense industry and sector. There are three interesting examples of countries that have implemented offset contracts with significant results, the three countries are Turkey, India, France and Brazil.

President Susilo Bambang Yudhoyono (SBY) continued efforts to restore the dignity of the domestic defense industry after it was stalled due to the economic crisis that hit Indonesia in 1998. A delegation of the Indonesian Government, led by President SBY and including Defense Minister Purnomo Yusgiantoro, went to Ankara and agreed to cooperation in the defense industry (Nugroho, 2021).

Then in 2008, Turkey, which was recovering its economy after the global financial crisis, had to face regional political turmoil due to the Arab Spring and the prolonged conflict in Syria. To demonstrate its strength and secure its position in transnational politics, Turkey needed to develop defense capabilities independently.

Turkey has successfully implemented offset contracts in the development of its fighter aircraft industry. By using this model, Turkey can increase the capacity of the local industry and reduce dependence on imports. Turkey's offset contracts have helped in the development of the TAI TFX fighter, which is a fifth-generation jet fighter, and the aircraft is a collaboration between Turkey and Spain (Chrisna et al., 2017). The model has also been used in the development of other defense systems, such as radars and weapons.

As a manifestation of the agreement on defense industry cooperation, Law Number 19 of 2014 on the Ratification of the Agreement on Defense Industry Cooperation between the Government of the Republic of Indonesia and the Government of the Republic of Turkey was enacted (Haryadi, 2024).

India has also successfully implemented offset contracts in the defense electronics sector. These offset contracts have helped in developing local industries and increasing production capacity. An interesting example is the development of defense systems such as radars, weapons and communication systems (Suryokusumo et al., 2016). These offset contracts have also helped in the development of more advanced electronics industries, such as in the production of more complex electronics components.

Brazil has implemented offset contracts in the civil and military aircraft industry (Sampurno, 2021). These offset contracts have helped in the development of the civil aircraft industry, such as in the production of commercial aircraft. In addition, offset contracts have also been used in the development of the combat aircraft industry, such as in the development of the F-39 Gripen fighter. It has also been used in the development of other defense systems, such as radars and weapons (Pereira & Hadmann Jasper, 2023).

Brazil has implemented offset contracts in the civil and military aircraft industry, which has helped in the development of the civil aircraft industry, such as in the production of commercial aircraft. In addition, offset contracts have also been used in the development of the combat aircraft industry, such as in the development of the F-39 Gripen fighter. This model has also been used in the development of other defense systems, such as radars and weapons. A

prominent example is the cooperation between the Indonesian Army and the Brazilian Army in training Astros MLRS operators. General Mulyono's visit to Brazil in 2018 to receive a medal of honor award and review the MLRS Astros operator training in Formosa, Brazil, is one example of the cooperation that has been carried out. In addition, the visit of Lt. Gen. Tatang Sulaiman, Deputy Chief of Army to Brazil in 2019 to inspect the procurement of rockets and special chains for Armed AVRMD and AVFCU is also part of this cooperation. With this cooperation, technology transfer and technical assistance in the defense industry have been carried out, which is expected to make an important contribution to cooperation efforts in other fields.

The research (Santiko & Agustien, 2022) concluded that Indonesia's defense industry cooperation with France during MEF phase II 2015-2019 was quite effective. In addition to meeting 45% of the TNI's defense equipment needs, this cooperation also provides non-physical benefits such as technology transfer that supports the development of an advanced and independent defense industry. However, there is still a need to increase cooperation in the sea and air defense sectors. Although France offers support, the Indonesian government is still considering this offer. In the air sector, Indonesia continues to use products from Russia and the United States, while in the sea sector, Indonesia still relies on products from the Netherlands. The condition of the domestic defense industry is also not strong enough to meet the needs of sea and air defense.

Defense cooperation between Indonesia and France in MEF phase II 2015-2019 has proven effective in meeting TNI's defense equipment needs and implementing technology transfer. Nonetheless, improvements are still needed in the sea and air defense sectors. Indonesia is considering the offer from France while continuing to use products from Russia, the US, and the Netherlands, given that the domestic defense industry is not yet strong enough to meet these needs independently.

The implementation of offset contracts in various countries, such as Turkey, India, Brazil and France, has proven effective in developing local defense industries and sectors. Turkey successfully developed the TAI TFX fighter aircraft and reduced import dependence, while India increased production capacity of defense systems and electronics. Brazil utilized offset contracts for civilian and military aircraft industries and technology transfer in military training. In Indonesia, cooperation with France in MEF phase II 2015-2019 helped meet TNI's defense equipment needs and supported technology transfer, although improvements are still needed in the sea and air defense sectors. While considering the French offer, Indonesia continues to use products from Russia, the US and the Netherlands, as the domestic defense industry is not yet strong enough to meet these needs independently.

## CONCLUSION

The implementation of offset contracts requires a large initial investment and often exceeds the available budget, making it challenging for the state to finance. The technology gap between Indonesia's defense industry and developed countries poses risks and uncertainties in the implementation process. Sustainability of offset programs also requires long-term maintenance of investments and technological capabilities. Examples of successful implementation of offset contracts are seen in Turkey, India, Brazil and France, which have increased the capacity of the local defense industry and reduced dependence on imports. In Indonesia, cooperation with France in MEF phase II 2015-2019 proved effective in meeting TNI's defense equipment needs and technology transfer, although improvements in the sea and air defense sectors are still needed. With the right incentives and selection of strategic partners, as well as improving human resources, the local defense industry can develop and reduce the technology gap.

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