

Military-Industrial Complex on Indonesian Defense Industry Cooperation – South Korea to Support The Defense Economy

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Abstract

The approval of the discussion of the Draft Bill on Defense Cooperation between Indonesia and South Korea to become a Law at the DPR RI Plenary Meeting is a new chapter for the sustainability of the joint development program of KFX / IFX fighter aircraft. The government's policy for cooperation with South Korea in the defense industry is centered on developing the Changbogo class submarine and developing the KFX / IFX fighter aircraft. The joint development of the KFX / IFX and Chanbogo Class programs is the first project to master combat aircraft and submarine technology to achieve independence for the Indonesian defense industry. This collaboration shows the potential and challenges that domestic industrial companies must make to support the independence of the defense industry. The research objective is to provide input to the government about the potential and challenges of Defense Industry cooperation in cooperation with South Korea. This research uses qualitative methods to understand social phenomena from the participants' perspectives. The results achieved are by the economic-political view of the Military-Industrial Complex to demonstrate an effective and efficient defense acquisition process.

Keywords

defense economy; defense industry; join program



I. Introduction

Defense is fundamental to the survival of a country. Without a robust defense system, threats from outside parties will more easily disrupt the country's stability. Therefore, various elements are needed to create a robust defense system. One of them is having a defense industry capable of meeting the needs of the armed forces. The defense industry is a national industry consisting of State-Owned Enterprises (BUMN) and Private-Owned Enterprises (BUMS), either individually or in groups determined by the government to partially or wholly produce defense and security equipment and maintenance services to fulfill strategic interests in defense and security sector (Ministry of Defense of the Republic of Indonesia, 2015).

Defense Economy is national economic management related to the impact of military spending, economic management related to the economic impact and military spending, economic management during wartime, and military budget management during peacetime (Purnomo Yusgiantoro, 2014). Law No. 16 of 2012 concerning the Defense Industry is a government effort through the domestic industry in 2012 to develop Indonesian defense equipment due to the weakened state of the defense equipment. In detail, this is stated in Articles 3 and 4, which regulate the functions and objectives of the defense industry (Romansyah, 2015: 2)

The cooperation between South Korea and Indonesia was formed based on diplomatic relations that have existed since September 17, 1973. However, comprehensive cooperation was only agreed upon in December 2006, when the Heads of the State of Indonesia and South Korea signed a Strategic Partnership agreement, the Joint Declaration on Strategic Partnership to Promote Friendship and Cooperation in the 21st Century. The contents of the agreement are the formation of The Eminent Persons Group (EPG) which contains cooperation in the fields of trade and investment; forestry; nuclear power plant; small and medium industrial technology; anti Corruption; defense and security; cultural center; and tourism.

On this basis, the Government of Indonesia wants to sign a Memorandum of Understanding (MOU) regarding the cooperation in the development of the KF-X fighter aircraft on July 15, 2010, in Seoul, which is then followed by a contract regarding the Technology Development Phase Program or the development of the KF-X / IF Combat Aircraft. X on April 20, 2011, in Daejeon. Based on the Ministry of Defense Republic of Indonesia Regulation No. 6 of 2016 concerning the Implementation of the IF-X Combat Aircraft Development Program, the implementation of the joint development cooperation for the KFX / IFX fighter aircraft consists of three stages, namely: the first phase of the Technology Development Phase / TDP (2010-2012); The second phase, Engineering and Manufacture Development Phase / EMDP (2015-2023); The third stage, Production Phase / PP (2025-2026) (Aulia Fitri, 2018). In addition to cooperating in developing combat aircraft in cooperation between Indonesia and South Korea, it is also cooperation in developing the Changbogo class submarine. These two projects focus on strategic cooperation between Indonesia and South Korea. Changbogo class submarines have several cutting-edge technologies such as the Latest Combat System, Enhanced Operating System, Non-hull penetrating mast, and Comfortable Accommodation. In this case, the purchase of the Changbogo submarine aims to meet the needs of the Indonesian Navy (Jalo, 2015).

We are seeing the implications of government cooperation currently occurring due to the unpreparedness of the industry to support the development of the National Defense Industry. This unpreparedness can be caused by the absence of supporting infrastructure or financial support for the mass production of defense and security equipment. In addition, the involvement of third countries can also be an obstacle in developing defense equipment. The government itself has issued a policy of Government Regulation no. 76/2014 concerning the Trade Return Mechanism in the Procurement of Defense and Security Equipment from Abroad. Article 1; trade returns are defined as reciprocal trading activities between Indonesia and foreign parties as measured in the value of the contract transaction for the procurement of defense and security equipment. Trade rewards are a mechanism for procuring defense and security equipment from abroad in addition to local content and offsets. Can the issuance of this regulation support the growing national defense industry?

II. Review of Literature

2.1 Definition of Cooperation

Cooperation is a form of social interaction. According to Abdulsyani, cooperation is a form of social process in which certain activities achieve common goals by helping each other and understanding each other's activities (Abdulsyani, 1994). *Cooperation* is also an activity carried out jointly by various parties to achieve common goals (Purwadarminta, 1985). As quoted by Abdulsyani, Roucek and Warren, said that

cooperation means working together to achieve common goals. It is one of the most basic social processes. Usually, cooperation involves the division of tasks, where everyone does every job that is his responsibility for achieving common goals.

2.2 Benefit Cost Ratio (BCR)

According to Rinaldi (2013), BCR analysis is an analytical approach with a systematic procedure to compare relevant costs and benefits with an activity or project. The final goal of this analysis is to compare the two values between benefits and costs, which one is more significant. Furthermore, from the results of the comparison of the two benefits and costs, the decision-maker can decide whether the project is feasible or not. Meanwhile, in evaluating an ongoing project or program of activities, the results of the BCR analysis can be used to determine its sustainability.

In the field, the Benefit-Cost Ratio (BCR) analysis has developed a lot. Benefit-Cost Ratio (BCR) analysis is not only on investment issues. The BCR analysis can also be used on other problems, such as analyzing the sustainability of policy programs in an organization. Benefits can be interpreted as all things that are beneficial to a project, while costs are all things that can be detrimental to a project.

In this study, researchers interpret benefits as all things related to this cooperation that can provide added value/benefits or not to the Indonesian.

In general, the formula to count this Benefit-Cost Ratio (BCR) value is as follows :

$$BCR = \frac{\text{Benefit}}{\text{Cost}}$$

Where:

Benefit : Advantage
Cost : Charge
Ratio : Comparison

If

BCR value ≥ 1 , then the project is worth to be continued.

BCR value < 1 , then the project needs to be stopped.

2.3 Literature Review

Faris Al Fadhat (2019). The Indonesia-South Korea cooperation policy is an effort to strengthen the vision for procuring Indonesian submarines by 2024. Different from several similar collaborations, which are purely the purchase of defense equipment, the agreement signed in 2011 also includes a technology transfer process to ensure the sustainability of Indonesia's maritime independence. Bilateral cooperation has obstacles that need to be resolved, especially in the readiness sector of Indonesian human resources and the limited budget.

Semmy Tyar Armandha (2017) South Korea is a government agency with the most significant interest (80% of investment) in projects. Indonesia, in this regard, tends to be seen as a contractor, does not have a sizable interest (20% investment), and is highly dependent on the dynamics of the relationship between South Korea and the United States.

Utomo (2017). There is an increase in the independence of the Indonesian defense industry in the future. There is also an increase in Indonesia's defense force, especially in Indonesia's deterrence strategy and defense posture. Increasing Indonesia's defense power also further secures Indonesia's National Interest in rejuvenating defense equipment.

III. Research Method

The research method used in this study used a descriptive qualitative approach. Descriptive research is research conducted to describe and describe the current state of the research object as it is based on facts. (Moleong, 2008: 6). Denzin distinguishes four kinds of triangulation as a technique for checking the validity of the data that utilizes sources, methods, investigators, and theory (Moleong Lexy J, 1994: 178). Data analysis in this article was carried out through 1. Data reduction, namely by summarizing, sorting out the primary data, then focusing and compiling the data systematically. 2. Display data, which presents specific data in the form of matrices, graphs, charts, or networks if needed. 3. Data verification. James Buchanan believes that the state (with political dynamics in it) is the source of inefficiency (Hindmoor in Hay et al., 2006, 79-80).

Politics is considered one of the factors of failure in creating efficiency (the science of political failure). That is because selecting partners is not based entirely on comparative and competitive advantages as well as objective economic criteria. That shows that political factors cannot be ruled out even though the cost factor is a significant factor for a country to cooperate with other countries, especially in acquiring weapons that are very expensive compared to other products (Hartley & Braddon, 2014, 535).

From this contradiction, a political economy perspective was born, revealing that a Military-Industrial Complex (MIC) would occur in a collaboration. This MIC illustrates that collaboration will not escape the analysis of political factors, although ideally, a public choice should be based on cost-effectiveness considerations or preferences. MIC is derived from a term coined in 1961 by the 34th President of the United States, Eisenhower, referring to the political economy relationship between legislators, the national armed forces, and the arms industry. These relationships are related to political contributions, political approval of military spending, lobbying to support the bureaucracy, and industry (Higgs 1995, 5).

IV. Results and Discussion

The Memorandum Of Understanding (MoU) between the Ministry of Defense, the Republic of Indonesia, and the Ministry of National Defense, the Republic of Korea, was signed on July 15, 2010. The MoU contains an agreement regarding joint development, research, production, and marketing between South Korea and Indonesia to build Korean fighter aircraft (KFX) with the 4.5 generation multi-role capability. South Korea will bear 80% and Indonesia 20% of the total cost.

In building KFX / IFX, the Government of the Republic of Korea is collaborating with Korean Aerospace Industry (KAI) as a contractor. KAI is partnering with a US defense equipment company, Lockheed Martin. Lockheed Martin's role was to provide the necessary technology transfer for developing KFX / IFX. The aircraft produced from the KFX / IFX project is a continuation of the T-50 Golden Eagle, an aircraft developed by South Korea and the United States. In addition, South Korea has an offset agreement with the United States to purchase the most advanced fighter of the century, the F-35 JSF. From this offset, it is hoped that the 25 technologies that have been successfully implemented on the F-35 JSF can be applied to aircraft resulting from the KFX / IFX project. The following chart shows the critical actors in the KFX / IFX development cooperation:

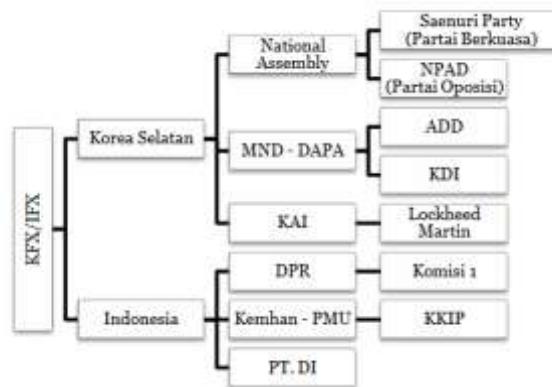


Figure 1. Flow Diagram of Military-Industrial Complex in KFX/IFX Project

It can be seen that the KFX / IFX project is not only a collaboration between the two countries of South Korea and Indonesia, but the United States is also taking part. In elaborating the aspects of the KFX / IFX project request, it has been mentioned that the United States is the country that has the most significant influence on South Korea, especially in the defense sector. That is made the United States included in the MIC area in the KFX / IFX project. Although the United States is not directly interested in this project, one of the arms development companies, Lockheed Martin, has a relationship with KAI as a KFX / IFX contractor. South Korea bought 40 F-35 fighters with offset facilities. That is, it will get 25 F-35 technology. These 25 technologies will be adopted into the F-33 aircraft resulting from the KFX / IFX project. After describing the actors, the next step is to describe the defense iron triangle that plays a role in the KFX / IFX project. The defense iron triangle is a more specific concept than MIC because it describes the actors involved and their relationships. Based on the elaboration of the demand and supply aspects of the KFX / IFX project, it can be concluded that three countries have a significant share in the project, namely South Korea, Indonesia, and the United States.

In the MIC KFX / IFX scheme, the United States is the actor with the slightest interest but significantly influences the sustainability of the KFX / IFX project. The United States does not have a share in cost-share and work share and is also not involved in JPMO. However, the KFX / IFX embryo originated in the United States. The T-50 Golden Eagle aircraft developed in collaboration with the United States and South Korea was used as the initial frame. In addition, South Korea has agreed to purchase 40 F-35 aircraft with a 25 technology offset agreement facility for KFX / IFX adaptation. That makes the position of the United States quite crucial in addition to the strong alliance ties with South Korea.

In 2015, it was seen that the United States government had only recently responded to South Korea due to the cancellation of the transfer of four leading F-35 technologies (Code: AS-Govt-Diplo). The four core technologies that did not receive the Technical Assistance Agreement (TAA) approval from the US are AESA Radar, Infrared Search, and Track (IRST), Electronic Optics Targeting Pod (EOTGP), and Radio Frequency Jammers (The Jakarta Post, 2018). The fact that Indonesia is increasingly interested in global supply chains shows that Indonesia is adapting to changes that are full of globalization in the defense industry (Yusgiantoro, 2014). That is like a tit-for-tat with South Korea's "self-defense" program. The context of South Korea inviting Indonesia to join the KFX project is that South Korea is trying to create friends whose level of progress is still below them while looking for a market for their arms trade (Weitz in Hamisevicz, 2014, 49-50).

Unlike the KFX / IFX case in the case of the Chanbogo Class submarine development, it has problems related to the readiness of the national defense industry and

the national industry related to the development and construction of national defense equipment. That happened because of Law No. 16 of 2012 concerning the Defense Industry. Article 43 states that the priority for the procurement of the main weapon systems must come from the domestic industry. However, if the domestic industry has not been able to meet these needs, then procurement from abroad is possible as long as it meets several requirements. The essential requirements referred to are defense offsets in the form of technology transfer, trade returns, local content, and an offset of at least 85%, calculated from the value of the defense equipment procurement.

Problems are related to submarine materials that cannot be made domestically and technology that still depends on other countries. The original skeleton of this submarine was the U-Boat Submarine from Germany. South Korea's submarine battery technology is still considered lacking for future submarine technology. Some of the obstacles that cause the construction of submarines are still not implemented apart from technological factors, namely the submarine material. The steel plate used in a submarine building is a material that the national industry still cannot produce. Korea itself still depends on the steel plate import sector from Germany. Roll against steel can be done by PT. Krakatau Steel, but the material in the form of steel plate still has to be imported" (Prasetyo et al., 2017: 99). The sustainability of defense equipment development does not only refer to understanding the development of the defense industry expertise in building submarines. In addition, several obstacles, such as PT. Krakatau Steel has been unable to produce submarine materials in the form of steel and inadequate technology.

V. Conclusion

The Cooperation Project for South Korea and Indonesia forms an iron triangle relationship with an international defense that cannot be separated from the roles and interests of the United States and Germany. The influence of developed countries with great powers cannot be separated from the independent efforts of the defense industry in developing countries. MIC is necessary for every defense equipment procurement, and cooperation between countries allows the developed countries to influence these developing countries profoundly.

In the KFX / IFX Project, the United States tends to act as a regulator, which has no direct interest but has a strong influence and determines the pace of project development (with mastery of technology). South Korea tends to act as the government agency with the most significant interest (80% of investment) in the project. Indonesia, in this regard, tends to be seen as a contractor: it does not have a sizable interest (20% investment). It heavily depends on the dynamics of the relationship between South Korea and the United States.

In the DSME Submarine Project, the Ministry of BUMN, in charge of BUMN, as a material for implementing and procuring infrastructure that will carry out the transfer of technology process, should make an inventory of national companies engaged in the defense and industrial sectors. That is intended to anticipate delays in the revitalization process of the defense industry due to the inadequacy of the national industry to support the national defense industry.

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