



SHIFTING SANDS: INDONESIA'S TRANSITION TO FRENCH DEFENCE TECHNOLOGY AND EXPERTISE

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ABSTRACT

Over the past three years, Indonesia has shifted its defence industry cooperation partners and defence technology producers to France. Indonesia agreed to purchase Rafale F4 fighter jets and Scorpene Evolved submarines from France. The procurement of Rafale F4 fighter jets represents Indonesia's largest ever acquisition of fighter jets to date and the first purchase from France. The acquisition of Scorpene Evolved submarines marks the ending of Indonesia's procurement of the U-209 class, which had been the favoured option and might potentially be manufactured domestically. Therefore, this study aims to analyse the reasons behind Indonesia's shift in defence technology producer countries using the opportunity and willingness frameworks and the causal process tracing (CPT) method. This article argues that Indonesia's shift to France is driven by the presence of opportunities in the international system, including the geopolitical competition in the Indo-Pacific that led France to emphasise the region and Indonesia in its foreign policy, along with the risks associated with the Countering America's Adversaries Through Sanctions Act (CAATSA). Furthermore, By engaging in modernising its defence technology and seeking self-sufficiency, Indonesia prioritises nations that offer the most attractive technology transfer and offset, a proposal put forth by France. Moreover, France has become one of Indonesia's strongest partners in defence industrial cooperation to date. This result is noteworthy, as it demonstrates how external geopolitical issues and internal strategic preferences jointly affect defence procurement choices in growing middle powers like Indonesia.

Keywords: Opportunity and willingness frameworks, arms trade, Indonesia, defence industry, strategic realignments

INTRODUCTION

Survival, a term that requires merely three seconds to read, emerges as a principal issue in international politics, particularly when referring to neorealist thought. According to Kenneth Waltz and John Mearsheimer—two leading neorealist thinkers—all efforts and endeavours undertaken by states within the anarchic international system are directed towards survival

(Mearsheimer 2001). To achieve this end, states ensure that they possess sufficient power to secure themselves (Waltz 1979). Mearsheimer even posits a more extreme view, asserting that states must continuously maximise their power, even to the extent of becoming a hegemon (Mearsheimer 2001).

Despite differences regarding the magnitude or degree of power that states should wield, the thoughts of Waltz and Mearsheimer clearly illustrate that power is a crucial element for every state. Consequently, it is unsurprising that states strive to possess power capacity, which can be assessed through various indicators. Referring to Waltz's (1959; 1979) assertions, a state's power capacity can be observed through its wealth of natural resources, population, territorial size, political stability, and military capabilities. Among these indicators, military strength garners significant attention. Annually, various countries opt to procure new weaponry technology to bolster their military, including Indonesia (SIPRI [Stockholm International Peace Research Institute] 2023a).

Currently, Indonesia is vigorously acquiring weaponry technology, both produced by the national defence industry and imported from other countries. In line with the neorealist thought previously discussed, this is rational and business as usual. In Indonesia's context, acquiring advanced weaponry technology becomes even more urgent for two reasons. First, the weakness of Indonesia's defence posture. The majority of weaponry technology operated by the Indonesian National Armed Forces (TNI) consists of outdated defence equipment. Based on data possessed by the authors and used in previous research, the proportion of Indonesia's advanced weaponry technology in 2021 only reached 31.14% of the total armament (Gindarsah et al. 2021). The obsolescence of this technology inevitably results in capabilities lagging behind modern weaponry technology.

Quantitatively, Indonesia's defence posture is also far from ideal. This is evident from the launch of the minimum essential forces (MEF) programme, aimed at ensuring Indonesia's defence posture reaches a minimum position. Referring to data released by the Coordinating Ministry for Political, Law, and Security Affairs (Kemenko Polhukam), as of December 2022, the MEF achievement in 2023 only reached 63.48%, as shown in Figure 1. This indicates that as of 2022, Indonesia still has not been able to achieve the minimum defence posture.

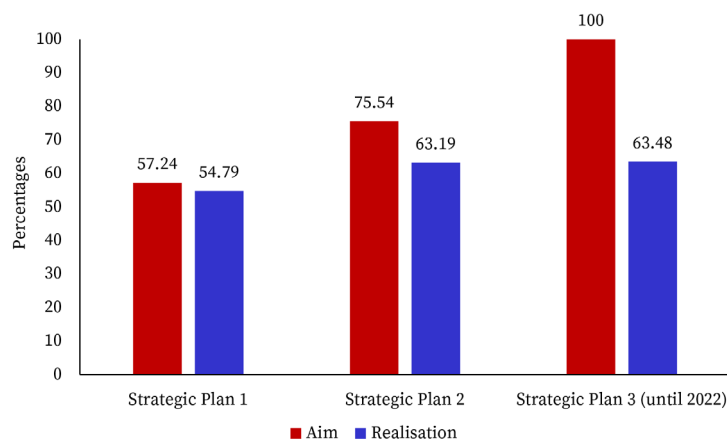


Figure 1: Indonesia's minimum essential forces realisations.

Second, the increasingly heated geopolitical dynamics in the region. The competition between the two major world powers, namely the United States (US) and China, in the region, particularly the South China Sea, has intensified in recent years. China's assertiveness in the South China Sea has continuously increased over the past few years, exemplified by the construction of artificial

islands in the South China Sea and their conversion into forward bases (Yahuda 2013; Romaniuk and Burgers 2019; Pasandideh 2021). On the other hand, the US and its allies have responded in various ways, such as forming a new alliance with the United Kingdom and Australia (AUKUS) and establishing a military base in Papua New Guinea (Nakamura and Imahashi 2023; Kumar 2024). Novotny (2010) states that the majority of Indonesia's foreign policy elites perceive China as a source of threat. Similarly, Syailendra (2017) and Fitriani (2018) argue that the Indonesian military views China as a threat that could endanger Indonesia's sovereignty (Syailendra 2017; Fitriani 2018). The perception of Indonesia's political and military elites regarding China as a threat is also evident in the securitisation measures undertaken by the Indonesian government concerning the North Natuna Sea issue (Meyer et al. 2019).

As an effort to enhance defence posture, which is one of the indicators of Indonesia's power, the government has procured weaponry technology from various countries, including France (SIPRI 2023a). Historically, Indonesia has recorded various arms technology purchases from France. Between 2010 and 2021, France was the fifth-largest supplier of arms technology to Indonesia (7.6%) (Sabana et al. 2023). The weaponry technology that Indonesia has purchased from France includes the AMX-13 light combat tank first delivered in 1961, the SA-330 Puma transport helicopter (1978), and the CAESAR 155 mm self-propelled artillery (2014) (SIPRI 2023a; IISS 2024). The arms trade relationship between Indonesia and France continues to this day and has even experienced an upward trend.

In the past two years, Indonesia has procured various advanced weaponry technologies, such as the Scorpene submarine, Rafale F4 fighter jets, and the Helios-2 military satellite (SIPRI 2023a). All these arms technology purchases are accompanied by defence industry cooperation agreements between Indonesia and France through transfer of technology (ToT) or offset schemes. Each of these arm technology acquisitions has its uniqueness. The purchase of the Rafale F4 fighter jet marks the first time Indonesia has acquired a French-made fighter jet. Additionally, based on data processed by the authors from the SIPRI report, the purchase of 42 Rafale F4 units represents the largest acquisition of new fighter jets in Indonesia's history (SIPRI 2023a). Until now, Indonesia's fighter jets have been predominantly American and Russian-made (SIPRI 2023a; IISS 2024).

Furthermore, before the Rafale jet procurement agreement, Indonesia had already initiated a joint fighter jet development programme with South Korea known as the KF-21 fighter jet (Salsabiela 2016; Armandha et al. 2017) and signed a memorandum of understanding (MoU) to procure the Sukhoi Su-35 from Russia (Kementerian Pertahanan Republik Indonesia 2017; Yahya and Prabowo 2021). Specifically for the Su-35, Indonesia decided to cancel its acquisition due to concerns over the threat of Countering America's Adversaries Through Sanctions Act (CAATSA) sanctions imposed by the US (Muhaimin 2021; Yahya and Prabowo 2021).

A similar situation occurred with the procurement of the Scorpene Evolved submarine. Since retiring the Whiskey-class submarines purchased from the Soviet Union, Indonesia has been using the German-made U-209-type submarines (SIPRI 2023a). Even when Indonesia began the process of modernising its submarine fleet, it chose to procure the Changbogo submarines from South Korea, which are essentially modified U-209 types (SIPRI 2023a). Through the purchase of the Changbogo submarines, Indonesia also gained production capabilities at PT. Pal (Manafe et al. 2020). The decision to purchase the Scorpene submarine is intriguing, as it signifies a shift in Indonesia's submarine procurement pattern, which has traditionally relied on German technology. Moreover, the technological readiness level (TRL) of the Changbogo submarines owned by Indonesia is already at level 5 (Prihandoko et al. 2023). The purchase of the Scorpene Evolved submarines was accompanied by Indonesia's decision to delay signing the acquisition contract for the second batch of Changbogo submarines from South Korea (Alaydrus 2024).

Historically, Indonesia has repeatedly shifted its defence technology procurement partners. For example, under President Sukarno during the Guided Democracy era (1959–1965), Indonesia’s arms purchases were dominated by Soviet-made weaponry. This was closely tied to Indonesia’s preparations for reclaiming West Irian from the Netherlands and President Sukarno’s perception of Western countries as engaging in neo-colonialism and neo-imperialism (Horn 1975; Jukes 1977). However, during the New Order era under President Suharto, Indonesia shifted its arms procurement towards the US and Western European countries. Another shift occurred following the arms embargo imposed by the US and the European Union from the late 1990s to the early 2000s. In response, Indonesia opted to procure Sukhoi fighter jets from Russia (SIPRI 2024). Additionally, Indonesia has increasingly recognised the importance of diversification and defence self-reliance, as shown in Figure 2 (Triantama 2020; 2023).

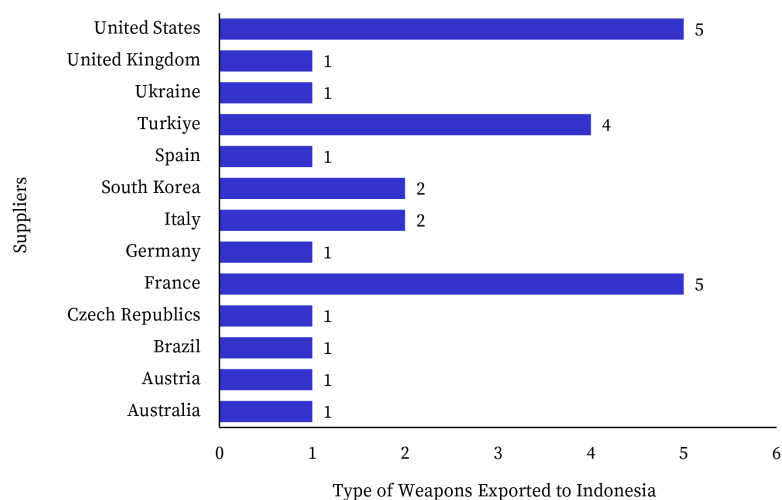


Figure 2: Indonesia’s arms technology suppliers (2019–2024).

Source: Authors’ own elaborations based on SIPRI Arms Transfer Database (SIPRI 2024).

Theoretically, countries tend to avoid changing their arms technology suppliers, especially for major weaponry systems such as fighter jets and submarines. This is due to: (1) changing suppliers increasing operational burdens as new maintenance facilities must be prepared (Kemp 1979; Bitzinger 1994; García-Alonso 1999) and (2) the operational burden of training personnel to operate the new arms technology (Maoz 2006). The need to train personnel is a significant risk if an armed conflict occurs before the personnel have mastered the new technology (Maoz 2006).

Given that the acquisition of arms technology is a necessity for every country and is of significant research interest, there is a substantial body of literature discussing arms procurement and Indonesia’s defence industry cooperation. Previous literature on arms procurement and defence industry cooperation in Indonesia can be grouped into two major categories. These two categories are defence and political economy.

The first category, defence, comprises literature that discusses arms technology procurement or Indonesia’s defence industry cooperation from a defence perspective. Indonesia’s defence industry cooperation and arms technology acquisition are seen as defence diplomacy strategies (Amrullah 2016; Gindarsah 2016; Sulaiman 2016; Waluyo 2023), military diffusion efforts (Dzikri 2016), defence transformation (Luerdi and Marisa 2019; Prihandoko et al. 2023), and weaponry modernisation (Rahmawati and Widyarsa 2023). Additionally, defence industry cooperation is intended to enhance the capacity of Indonesia’s national defence industry to achieve autarky (Al-Fadhat and Effendi 2019; Cahyana et al. 2023; Triantama 2020; 2023; Mardin et al. 2024). However, the dream of achieving autarky through international defence industry cooperation is

not easy to realise, as evidenced by the failure of the ASEAN Defence Industrial Collaboration initiative (Wahyudi 2020). This is partly due to the influence of the interests of arms-producing countries and other prerequisites for successful defence industry cooperation, such as economic system compatibility, mutual trust, and the existence of alliances (Rayasti and Anandi 2024).

The second category is political economy. In this category, previous literature suggests that Indonesia's defence industry cooperation is expected to boost the national economy (Bitzinger 2011; Salsabiela 2016). To maximise the positive impact of international defence industry cooperation, Indonesia employs an offset strategy in every arms technology procurement (Savitri 2016; Susdarwono 2019; 2021; Maharani and Matthews 2023).

From the previous literature, it can be discerned that Indonesia's decision to mandate cooperation with the national defence industry through ToT or offset in every arms technology procurement is not only rational but also crucial. Besides strengthening defence posture through the acquisition of new arms technology, ToT or offset accompanying the procurement contracts will help enhance the capacity of the national defence industry. However, previous literature remains very limited in discussing Indonesia-France defence industry cooperation and has not yet analysed the phenomenon of the shift in Indonesia's arms technology supplier countries. As previously mentioned, countries tend to stick with the same arms technology supplier. The uniqueness and anomaly of this case, along with the research gap, make it a very intriguing subject for investigation. Therefore, this study will analyse the factors that led Indonesia to decide to change its primary arms technology suppliers, namely fighter jets and submarines, to France. In addition, this article will provide new insights into the importance of Indonesia-France cooperation amid the increasingly dynamic geopolitical landscape in the Indo-Pacific region.

ANALYTICAL FRAMEWORK: WHY DO STATES CHANGE THEIR ARMS PRODUCERS?

Opportunity and willingness constitute a framework first developed by Benjamin A. Most and Harvey Starr in their book titled *Inquiry, Logic, and International Politics* in 1989. This framework was designed to serve as a structure for analysing state behaviour in international politics. It enables researchers to investigate the reasons behind a country's policies or behaviour from both macro (structural) and micro perspectives (Most and Starr 1989). Over time, this framework has been extensively utilised by scholars to analyse various phenomena in international politics, such as conflicts, foreign policy, and the development of national defence industries.

Joyce et al. (2014) employed the opportunity and willingness framework to elucidate factors influencing third-party decisions to engage in conflicts. Papadakis and Starr (1987) applied the opportunity and willingness framework in the study of state foreign policies. Additionally, the same framework has been used to analyse the motivations or reasons behind third-world countries' development of their national defence industries (Kinsella 2000). Johnson (2020) utilised the opportunity and willingness framework to analyse state decisions to change their arms technology suppliers.

The diversity of issues or phenomena in international politics analysed using the opportunity and willingness framework is not surprising. This is because, from its inception, Most and Starr (1989) asserted that this framework is not only relevant for conflict analysis but can also be applied to various other aspects of international politics, such as trade, alliances, diplomacy, and more. This flexibility renders the opportunity and willingness framework a useful analytical tool for various types of studies in international politics.

As its name suggests, this framework employs two variables in its analysis, which are not only interrelated but also integrated to enable a policy to occur. In other words, if there is only opportunity without willingness, or vice versa, willingness without opportunity, a state is unlikely to act (Joyce et al. 2014; Johnson 2020). Opportunity refers to the macro aspect, namely the external or structural conditions that affect a state's ability to act (Starr 1978; Most and Starr 1989; Kinsella 2000). The existing international structural conditions determine whether a state has the capability or opportunity to adopt a particular policy. When the international structure is unsupportive, the state will not pursue that policy. In other words, this factor creates constraints and opportunities that influence state actions in the international arena.

In the context of arms technology acquisition and defence industry cooperation, geopolitics becomes a highly influential structural factor. Geopolitical aspects have long been recognised as influential in the arms technology market. For instance, during the Cold War, arms trade occurred between countries within the same alliance bloc (Johnson 2020). After the end of the Cold War, although not absolute, arms technology trade and defence industry cooperation continue to be influenced by political proximity or alliance similarity (Moon et al. 2008; Güvenç and Yanık 2013; Ringsmose 2013; Devore and Stai 2019). An example is the CAATSA implemented by the US (Triantama et al. 2022). Besides influencing the policies of arms technology-producing countries, geopolitical factors can also affect the characteristics of the global arms market (Johnson 2020).

Meanwhile, willingness refers to the micro aspect or internal factors that influence a state's desire or preference to act in the face of available opportunities (Starr 1978; Most and Starr 1989; Kinsella 2000). In the context of arms technology acquisition and defence industry cooperation, it is necessary to consider the purchasing state's ambition to enhance its defence posture and achieve autarky (Kinsella 2000; Neuman 2010; Bitzinger 2015). Additionally, the success of past defence industry cooperation with partner countries can also influence a state's willingness to shift suppliers and defence industry cooperation partners. This indicator is constructed by the authors through two bases of argument. First, Jervis (2017) posits that historical experience or factors often become considerations for leaders or states in making future policies (Jervis 2017). Second, the adoption of findings by Joyce et al. (2014) in analysing the expansion of interstate conflicts. In their research findings, it is evident that states, as rational actors, will consider the likelihood of success of a policy before making their decision (Joyce et al. 2014).

METHOD

This research was conducted using a qualitative approach. Based on the works of Lamont (2015), qualitative research is research that is based on strategies or techniques for collecting and analysing data that are non-numerical or based on the use of words. The data used in this research are both primary and secondary data. Primary data are data obtained from documents issued by the government and also official information and statements released by the government through press releases or official websites of the government. Documents refer to text or anything that is written, visually visible, or spoken through the medium of communication (Neuman 2004). Secondary data are obtained from literature review, printed and online mass media, and previous research published in reputable journals and other scientific reports. In this research, the data analysis technique employed is causal process tracing (CPT). According to Blatter and Haverland (2012), CPT is an analytical approach comprising two fundamental elements, namely configurative thinking and causal configuration. The primary objective of CPT includes identifying the conditions or prerequisites leading to specific events (Blatter and Haverland 2012). The choice of CPT as the data analysis technique aligns with the research goal, which is to understand the reasons or motivations behind Indonesia's shifting arms supplier preference to France.

INDONESIA'S PIVOT TO FRANCE

As previously mentioned, the behaviour or policy of a state can be analysed by examining both macro or structural aspects and micro or internal processes within the state itself. Within the framework of opportunity and willingness employed in this research, structural aspects play a crucial role in the analytical process. This is because the international structure determines whether a state has the opportunity to implement a particular policy (Starr 1978; Most and Starr 1989; Johnson 2020; Kinsella 2000). Therefore, this section will highlight how the dynamics of international politics act as enablers for Indonesia's policy shift in changing its weapon technology producers and defence industry cooperation partners.

International politics has undergone significant dynamics in recent years. Among these dynamics are the intensifying geopolitical competition in the Indo-Pacific, the annexation of Crimea by Russia in 2014, and Russia's invasion of Ukraine since 2022. The authors argues that these three international political dynamics serve as enablers for the shift in Indonesia's weapon technology suppliers, which are now predominantly French.

Geopolitical Competition in the Indo-Pacific: France's Focus on the Indo-Pacific

In recent years, the Indo-Pacific region has become one of the focal points of global attention (Karambelkar 2021). This is not surprising given the region's immense strategic value. The South China Sea, located at the heart of the Indo-Pacific, accounted for 21% of the world's total trade in 2016 [United Nations Conference on Trade and Development (UNCTAD) 2016]. More specifically, 37% of the global oil and gas energy supply passes through the South China Sea (The US Energy Information Administration (EIA) 2024). Additionally, the Indo-Pacific region is a potential market for global industries, as 65% of the world's population resides in this area (Ministry of Foreign Affairs Republic of Korea 2022). Due to these factors, various countries are striving to exert their influence in this region.

The US and China are the most dominant countries competing in the Indo-Pacific. Besides being the two major global powers, both the US and China have significant interests in this region (Buszynski 2012; Allison 2017; Scobell 2018). However, apart from these two countries, France is also making efforts to establish its influence in the region (Karambelkar 2021; Cabirol 2022; Meijer 2023). France can even be considered highly serious about prioritising the Indo-Pacific in its policies. This is evident as France was the first European country to issue a policy document related to the Indo-Pacific in 2019 (Karambelkar 2021). In terms of defence, France has focused on the Indo-Pacific and articulated its position in the region since 2017 (Karambelkar 2021). The Ministry for Europe and Foreign Affairs has explicitly stated that the Indo-Pacific is a priority for France (France Ministry for Europe and Foreign Affairs 2022).

France's seriousness in making the Indo-Pacific a focus or priority in its foreign and defence policies is not without reason. Although France's trade value in the Indo-Pacific region is relatively low (7.77%) (Center for Strategic and International Studies 2021), the Indo-Pacific is where 93% of France's exclusive economic zone (EEZ) is located (France Ministry for Europe and Foreign Affairs 2022). France's EEZ in the Indo-Pacific is due to the presence of its overseas territories in the region. As is known, seven out of thirteen of France's overseas territories are located in the Indo-Pacific. Therefore, France refers to itself as a "sovereign nation of the Indo-Pacific" (France Ministry for the Armed Forces 2019: 1), a "power of the Indo-Pacific" (France National Assembly 2023: 63), and a "fully fledged Indo-Pacific country" (The Government of France 2022: 15).

With the Indo-Pacific being prioritised by France, this opens up opportunities for a shift in the countries from which Indonesia procures weapon technology and partners for defence industry cooperation. This is because France views defence aspects as the core or heart of their strategy in the Indo-Pacific (France National Assembly 2023). Moreover, in various documents, one of France's strategies to exert its influence in the region is through arms transfers and leveraging its "know-how" (France Ministry for the Armed Forces 2019; Karambelkar 2021; The Government of France 2022; France National Assembly 2023). In the document *France and security in the Indo-Pacific* France explicitly outlines the character of its armament cooperation:

The armament cooperation policy of France is characterised by its openness to industrial cooperation, transfer of technology and expertise, adapted to the needs of the partner nation. France offers numerous excellence industrial centres covering a wide spectrum of defence capabilities. (France Ministry for the Armed Forces 2019: 16)

It is not only the government that has expressed willingness to engage in technology transfer within arms technology sales contracts; this willingness has also been directly conveyed by French defence industries. One such example is the Naval Group, a French defence industry focusing on the maritime domain and the producer of the Scorpene submarines purchased by Indonesia. In its official release, the Naval Group (2024: para. 6) stated:

Transfer of technology is essential for exercising sovereignty and is part of our mission. In whole or in part, the industrial submarine construction programmes are carried out with local industrial partners, with a twofold advantage: on the one hand, the assurance that the ships meet the requirements of their users, and on the other, the guarantee of a positive socio-economic impact for local communities.

The opportunity for Indonesia to shift the country of origin for its arms technology procurement and defence industry cooperation partners is becoming increasingly significant, as France positions Indonesia as a key country in the region. Referring to a document released by the French Parliament, Indonesia is considered one of the main pillars of regional stability: "Our Indo-Pacific strategy is a bridge between India and Japan, but it lacks the middle pillar [...] Indonesia [maybe] the country at the centre of our Indo-Pacific strategy in Southeast Asia" (France National Assembly 2023: 101). The importance of Indonesia's position and the sale of French arms technology to Indonesia are also evident when both countries agreed on a contract for the purchase of 42 Rafale fighter jets. A spokesperson for the French Ministry of Armed Forces stated that Indonesia is "An extremely important partner for France in Asia, and this contract is fully in line with the Indo-Pacific strategy of the President of the Republic, which had been outlined by the Minister as a defence strategy for the Indo-Pacific" (Cabirol 2022: para. 2).

Geopolitical Dynamics: The Annexation of Crimea and the Threat of CAATSA Sanctions

In addition to France's policy that prioritises the Indo-Pacific, Indonesia's decision to shift its arms technology supplier and defence industry cooperation partner to France is also influenced by another opportunity. This opportunity arises from Russia's annexation and invasion of Ukraine. As we know, Russia annexed Crimea in 2014 and invaded Ukraine in 2022. These actions by Russia prompted a response from the US and North Atlantic Treaty Organization (NATO).

In response to Russia's annexation of Crimea in 2014, the US enacted the CAATSA. The CAATSA, which was passed during President Donald Trump's administration, poses the threat of sanctions or embargoes on countries that purchase arms technology from nations deemed adversaries by the US, namely Russia (US Department of State 2018; 2020). The sanctions stipulated in CAATSA consist of at least five types, as outlined in Section 231 of CAATSA:

The President shall impose five or more of the sanctions described in Section 235 with respect to a person the President determines knowingly, on or after such date of enactment, engages in a significant transaction with a person that is part of, or operates for or on behalf of, the defence or intelligence sectors of the Government of the Russian Federation, including the Main Intelligence Agency of the General Staff of the Armed Forces of the Russian Federation or the Federal Security Service of the Russian Federation. (US Congress 2017: 916)

The threat of CAATSA sanctions has been proven by the US to be more than just an empty threat. The US government has shown that it does not hesitate to impose CAATSA sanctions on countries that purchase arms technology from Russia. Turkey serves as a concrete example of the application of CAATSA threats by the US. Through CAATSA, Turkey was removed from the F-35 Joint Fighters project because it insisted on purchasing the S-400 air defence system from Russia (Triantama et al. 2022). Besides Turkey, Indonesia has also been affected by the implementation of CAATSA in its arms technology procurement.

As is well known, Indonesia has an urgent need to modernise its arms technology, including fighter aircraft. In addition to the fact that most of its existing arms technology is outdated, Indonesia has also retired its F-5 Tiger fighter aircraft fleet. To replace the retired F-5 Tigers, Indonesia reached an agreement with Russia to acquire Su-35 (Kementerian Pertahanan Republik Indonesia 2017). However, due to pressure through CAATSA, Indonesia cancelled the purchase and sought other options (Yahya and Prabowo 2021). Indonesia's concern about becoming a victim of CAATSA sanctions if it insisted on purchasing Su-35s is not unfounded. This is because Indonesia has a historical trauma of being a victim of arms technology embargoes imposed by the US and the European Union (SIPRI 2012; Sandi 2021).

The presence of the CAATSA sanctions threat has forced Indonesia to seek other producer countries to supply its arms technology needs. The potential arms supplier countries must ensure that Indonesia is not placed under the shadow of CAATSA sanctions. Therefore, France is a very rational choice for Indonesia. This is because France is one of the US' allies (US Department of State 2021). France and the US are even among the founding countries of NATO in 1949 (NATO 2024). The close alliance between France and the US ensures that Indonesia can purchase arms technology from France without worrying about CAATSA sanctions.

INDONESIA'S WILLINGNESS TO SHIFT TO FRANCE

Indonesia's decision to shift its arms technology producer and defence industry cooperation partner to France is not solely driven by opportunities at the international structural level. As outlined in the previous analytical framework, such changes must also be preceded by the willingness of Indonesia itself. Therefore, this section will elucidate Indonesia's willingness to change its arms technology producer and defence industry cooperation partner. There are at least two factors that have fostered this willingness: (1) the need to enhance defence capabilities and the ambition for autarky and (2) the success of past cooperation with France.

Indonesia's Military Build-up and the Ambition for Autarky

Indonesia's willingness to shift its defence industry cooperation partner and arms technology producer is driven by the need to strengthen its defence posture and the ambition for autarky. As mentioned earlier in this article, Indonesia is striving to enhance its defence posture through the MEF programme. The enhancement of defence posture through the MEF is being pursued across all three branches of the TNI with different targets according to their respective needs.

In the context of fulfilling the modernisation needs of the Indonesian Navy (TNI AL), the goal is to establish a green water navy status and to form an integrated fleet system by 2024. The planned acquisitions for TNI AL include a variety of assets such as submarine fleets, frigate-class combat ships, patrol vessels, aircraft, and helicopters. In terms of combat strength, by 2024, the TNI AL aims to possess 12 submarine fleets and 56 frigate-class combat ships (Widjajanto et al. 2012; Koh 2015). For the Indonesian Air Force (TNI AU), the MEF programme aims to establish 10 to 12 squadrons of fighter aircraft. In addition to acquiring fighter aircraft to strengthen combat squadrons, TNI AU will also modernise transport aircraft, unmanned aerial vehicles, radar systems, and short-range air defence systems (Widjajanto et al. 2012).

However, in its efforts to enhance its defence posture, Indonesia does not merely aim to be a purchaser of foreign arms technology. The MEF programme is accompanied by efforts to achieve defence autarky. This is in line with Law No. 16 of 2012 on the Defence Industry and its revision in Law No. 11 of 2020 on Job Creation (Triantama 2023). These legal documents contain several articles that indicate government intervention to achieve the ambition of defence autarky as shown in Table 1.

Table 1: Forms of government affirmative policies towards the national defence industry

No.	Article	Substance of the article
1	43 Paragraph 1	Obligation to use domestically produced defence and security equipment
2	43 Paragraph 2	Obligation to conduct maintenance and repair of defence and security equipment domestically
3	43 Paragraph 5	Obligation for ToT and offset and absence of potential embargoes and political conditionalities in every arms import
4	51 Paragraph 1	State capital participation for the development and capacity enhancement of the national defence industry
5	62 Paragraph 1	Government guarantees to banks and financial institutions supporting the financing of defence industry development and utilisation
6	62 Paragraph 2	Price preference for domestic defence industry products to be prioritised over foreign products

Source: Authors' own elaborations based on Indonesia's Defence Industry Law.

In addition to regulating various forms of intervention aimed at achieving defence autarky, the Defence Industry Law also presents other regulations closely related to this research. Article 43, paragraph 5, point d of the Defence Industry Law states that when compelled to import defence and security equipment, the producer must guarantee the absence of potential embargoes, political conditionalities, and barriers in the use of the purchased equipment (Pemerintah Republik Indonesia 2012). In other words, government regulations only permit the purchase of arms technology with guarantees against future embargoes. This stipulation is rooted in Indonesia's collective memory of being a victim of arms embargoes by the producing countries of the purchased technology.

Concerns about becoming a victim of embargoes again and the urgency for defence autarky are also evident in statements made by President Susilo Bambang Yudhoyono. For instance, during the opening of a defence industry revitalisation workshop, President Yudhoyono declared that his administration was determined to build Indonesia's defence capabilities to avoid being disrespected by other countries (Henricus 2009). In a limited cabinet meeting in November 2011, President Yudhoyono issued a statement reflecting concerns about being a victim of an embargo if Indonesia did not build its national defence industry capabilities (Rachman 2011).

The memory of being a victim of arms embargoes and the urgency of achieving autarky were also present during the leadership of President Joko Widodo and Vice President Jusuf Kalla. In his speech at the Indonesia Defence Expo 2018, which also showcased the medium battle tank Harimau for the first time after participating in the TNI anniversary parade in 2017, Vice President Kalla highlighted the bitter experience of arms embargoes as a lesson underscoring the importance of defence autarky: “The defence industry is aimed at autarky. We have experienced the 1990s embargo due to the East Timor issue. It was very difficult to obtain defence equipment because of that embargo” (*Media Indonesia* 2018: para. 3).

Based on these findings, the selection of France as a defence industry cooperation partner and arms technology producer becomes rational. This is because France, in its offer to sell Rafale and Scorpene Evolved submarines, includes ToT and transfer of knowledge (ToK) and an assurance that there will be no embargoes and political conditionalities for every arms transfer transaction.

In the case of the Scorpene Evolved submarine sale, all submarines purchased by Indonesia will be built at the PT. PAL shipyard in Surabaya with assistance from the Naval Group (Achmad and Prabowo 2024). In the MoU signed on 10 February 2022, it was revealed that 30% of the contract value would be allocated to PT. PAL. This contrasts with the offer from Germany, which did not propose a ToT scheme (Ali 2022). TkMS Germany, a competitor to the Naval Group, reportedly only offered discounts to Indonesia (Saputra 2023). The option to continue submarine cooperation with South Korea was not chosen by the government due to dissatisfaction with the capabilities of previously produced submarines.

In the context of the Rafale acquisition, Dassault Aviation has agreed to provide ToT and offset to PT. Dirgantara Indonesia. Although the ToT provided by Dassault Aviation is not as significant as the Scorpene Evolved submarine cooperation, which involves the construction of submarines in Indonesia, it is still substantial. According to the statement of PT. Dirgantara Indonesia's President Director, Gita Amperiawan, it is hoped that through this ToT, Indonesia can become part of Dassault Aviation's global supply chain and possess maintenance, repair, and overhaul (MRO) capabilities (Dirgantara Indonesia 2022; Fikri 2024).

However, Indonesia's decision was not solely based on France's willingness to provide ToT and ToK. One crucial factor that makes this decision rational is France's commitment to ensuring an embargo-free policy for all defence technology purchases, despite having participated in the European Union's arms embargo on Indonesia from 1999 to 2000 (SIPRI 2012). This guarantee was explicitly stated by the French Ambassador to Indonesia, Olivier Chambard, in an interview with a leading Indonesian media outlet, where he affirmed, “If we have offered defence equipment and spare parts, we ensure that weapons and spare parts will always be available” (Hardianto 2021: para. 13).

This assurance from France represents a key differentiator compared to other arms technology suppliers sought by Indonesia, such as South Korea and the US. As widely known, before Indonesia decided to purchase Rafale fighter jets, it had initially planned to acquire two other fighter jet models: the Russian-made Su-35 and the KF-21, developed jointly with South Korea. While the Su-35 procurement was cancelled due to the threat of US sanctions, the KF-21 programme faced delays primarily because Indonesia failed to meet its cost-sharing obligations. However, financial constraints were not the sole reason; Indonesia also would not receive several key technologies necessary for independently producing the KF-21 (Alaydrus 2022). The restricted access to these key technologies stemmed from the fact that the US, as the technology owner, only permitted their transfer to South Korea, citing concerns over data security and technology protection in Indonesia (Ali 2024).

Following the cancellation of the Su-35 acquisition, Indonesia also had the option to procure the US-made F-15EX fighter jets (Sandi 2021). However, unlike the Rafale deal, the contract for the F-15EX has yet to become effective. Two key reasons explain this situation. First, the issue stems from US political policy, particularly the CAATSA. The presence of CAATSA, which explicitly threatens embargoes and sanctions on other countries, reinforces the notion that purchasing US defence technology inherently carries the risk of embargoes and political conditionalities (US Department of State 2018).

Second, Indonesia's own experience and that of other countries play a role. Indonesia has a collective negative memory of the US arms embargo imposed in the 1990s, as previously mentioned. Additionally, the imposition of CAATSA sanctions on Türkiye—despite being a NATO ally— (US Department of State 2020) further strengthens the perception that the US is not an ideal defence partner for Indonesia. This sentiment is reflected in the official stance of the Prosperous Justice Party [Partai Keadilan Sejahtera (PKS)], a political party in the Indonesian parliament, which advocates for Indonesia to purchase fighter jets from non-US manufacturers (Fraksi PKS 2020).

Sweet Memory of Successful Defence Industry Cooperation

The willingness of Indonesia to change its defence industry cooperation partners or arms technology-producing countries is also influenced by memories of past successful defence industry collaborations. As presented within the analytical framework, the author argues that a state, as a rational actor, will consider the track record of past collaborations when initiating future partnerships. Therefore, the track record of successful defence industry collaborations that Indonesia has experienced serves as the basis for the government in selecting current or future defence industry cooperation partners.

Indonesia's defence industry cooperation with other countries has been recorded since the 1970s. At that time, Indonesia's national defence industry was encouraged to produce defence equipment through cooperation schemes with experienced foreign defence industries. These collaborations were carried out through various schemes such as licensing agreements, joint production, and co-development (Karim 2014).

Even after Indonesia was hit by the economic crisis in 1998, often considered one of the darkest moments for the national defence industry, international cooperation mechanisms continued to be frequently employed. To this day, Indonesia has engaged in defence industry cooperation with various countries worldwide. Through these collaborations, the national defence industry has gained ToT) and ToK in the production of major weapons technology. For example, PT. Dirgantara Indonesia has been able to produce light combat helicopters such as the NBO-105 and NBell 412 through licensing schemes (Bitzinger 2013; Karim 2014). Joint development collaborations have also taken place between Industri Pesawat Terbang Nusantara (IPTN) and Construcciones Aeronauticas SA (CASA), resulting in the CN-235 aircraft (Dirgantara Indonesia, n.d.; Karim 2014). In the 1970s and 1980s, PT. PAL was capable of producing the 57M fast patrol boat (FPB 57) through a licensing agreement with Friedrich Luerksen Werft (FLW) and the 28M fast patrol boat (FPB 28) through a licensing agreement with the Belgium Shipbuilding Company (Karim 2014). More recently, PT. PAL has acquired the capability to produce the Type U-209/1400 submarine through cooperation with Daewoo Shipbuilding & Marine Engineering (DSME).

According to data compiled from the SIPRI Arms Transfer Database, there are ten countries recorded as Indonesia's defence industry cooperation partners in the production of major weapons technology. These countries include the US, South Korea, Germany, Spain, and France

(SIPRI 2024). Through cooperation with these 10 countries, Indonesia has obtained 12 production technology licences, two component or spare part production licences, and 12 assembly technology licences. France, in particular, can be considered Indonesia's primary defence industry cooperation partner due to the high number of collaborations (SIPRI 2024).

As shown in Figure 3, there are five recorded defence industry collaborations between Indonesia and France, consisting of one production technology licensing agreement and four assembly licensing agreements within the domestic defence industry. Besides being the country with the most defence industry collaborations with Indonesia, the cooperation with France has also been successful. The weaponry technologies resulting from Indonesia-France collaborations have become integral parts of Indonesia's main military strength, such as the SA-330 Puma and NAS-332 transport helicopters, the AS-565S Panther attack helicopter, and the Reconnaissance Vehicle Elang (SIPRI 2024).

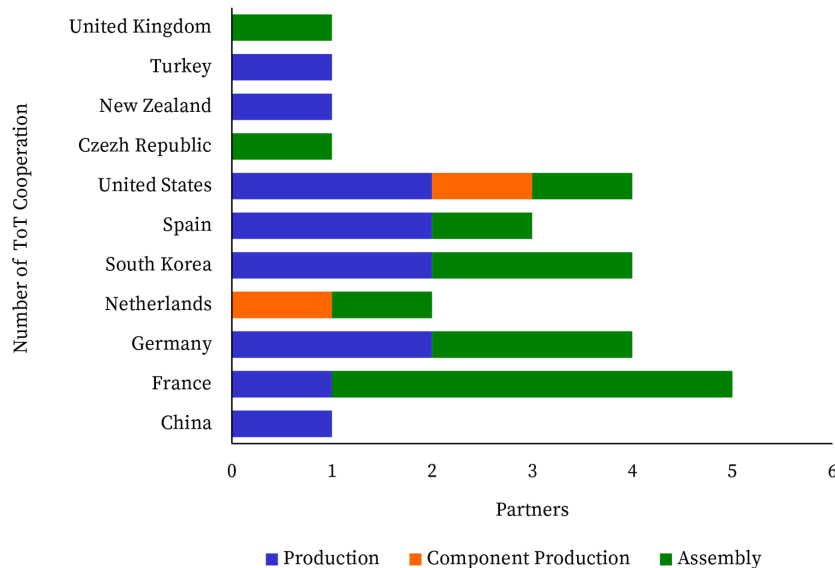


Figure 3: Indonesia's defence industry ToT cooperation.

Source: Authors' own elaborations based on SIPRI Arms Transfer Database (SIPRI 2024).

The positive memory of the Indonesia-France defence industry cooperation contrasts with the experiences in the Indonesia-South Korea collaboration. Although South Korea is the second-largest provider of technology transfer to Indonesia, there have been several negative records in the cooperation between the two countries. These negative records stem from the development cooperation of the KF-21 Boramae fighter jet and the U-209/1400 submarine. In the case of the KF-21 Boramae, Indonesia was denied access to several critical technologies by South Korea (Retaduari 2022). South Korea's refusal to grant technology access to Indonesia was influenced by a third party, namely the US (Armandha et al. 2017; Retaduari 2022). Second, in the cooperation involving the U-209/1400 submarine, the Indonesian government reportedly expressed dissatisfaction with the submarine's capabilities (Umah 2020). These findings align with the thoughts of Jervis (2017) and Joyce et al. (2014), which underpin the authors' argument that the success of past collaborations is a consideration for Indonesia in selecting defence industry cooperation partners (Joyce et al. 2014; Jervis 2017).

The successful history of Indonesia's defence industry cooperation with France, along with France's commitment to providing ToT in every arms procurement deal, will have significant positive impacts on Indonesia. If Indonesia can fully capitalise on this opportunity, it will gain

access to France's advanced military technology. Moreover, France is currently one of the world's leading defence technology producers. Between 2020 and 2024, France ranked as the world's second-largest arms exporter (George et al. 2025). The superiority of French defence technology is also evident in the global ranking of its defence industry. According to SIPRI data, various French defence companies have consistently been among the world's top 100 defence industries from 2002 to 2023. This includes Dassault and Naval Group, which manufacture the Rafale fighter jets and Scorpene Evolved submarines procured by Indonesia (SIPRI 2023b). The strength of the French defence industry is not possessed by other countries that were previously chosen by Indonesia as producers of weapon technology, such as South Korea in the context of the KF-21 fighter jet and the U-209/1400 submarine.

CONCLUSION

Indonesia's decision to procure several key weapon technologies from France warrants significant discussion. This is particularly notable, as Indonesia has decided to acquire its first-ever military satellite from France. Furthermore, Indonesia has opted to purchase Rafale F4 fighter jets from Dassault and Scorpene Evolved submarines from Naval Group. This procurement and defence industry cooperation between Indonesia and France indicates a shift in Indonesia's defence industry cooperation partners and weapon technology-producing countries. Indonesia's decision contradicts the predictions of various experts who suggested that countries would avoid changing their partner countries and weapon technology producers. This anomalous decision by Indonesia is attributed to the presence of opportunities at the international system level, such as geopolitical competition in the Indo-Pacific and the threat of CAATSA sanctions. As one of the largest countries in the region, Indonesia becomes a priority for major powers like France to exert their influence, one avenue being the sale of weapon technology. France's position within the same political and defence alliance as the US makes it an attractive choice, offering not only technology transfer but also security from CAATSA sanction threats.

In addition to the presence of opportunities in the international system, Indonesia's decision is also influenced by domestic willingness. Indonesia has an urgent need to modernise its defence posture and enhance the capacity of its national defence industry. Every procurement of weapon technology from other countries must include technology transfer and offsets. As a rational actor, Indonesia prioritises the purchase of weapon technology that not only meets technical specifications but also guarantees technology transfer. Therefore, Indonesia chose France because: (1) France explicitly offers attractive technology transfer, (2) offset agreements, (3) assurance that there will be no embargoes and political conditionalities, and (4) Indonesia has a comfort in cooperating with France due to the successful execution of various previous collaborations. However, despite identifying the reasons behind Indonesia's shift in weapon technology procurement to France, the authors believe that further research is needed on the impact of this change on the continuity of weapon technology development programmes within the domestic defence industry. This is crucial given that the development of defence industry capacity requires clear and consistent government policies.

CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

NOTES

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