

# Implementation Of Government Regulation Number 141 Year 2015 Concerning Management Of The Defense Industry In Pt Pal Indonesia And Pt Dok Kodja Bahari In The Order To Realize The Technology Independence Of The Main Equipment Of The Tni Al Weapon System

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**Abstract**—Optimizing the use of national strategic industrial products in order to meet the needs of the Indonesian National Armed Forces (Alutsista) Main Weapon System - Navy (TNI AL) is one part of development in the field of defense of the Unitary State of the Republic of Indonesia as an effort to increase the country's defense capability against all kinds of threats. threats coming from within or outside the country.

*This study aims to examine the implementation of Government Regulation Number 141 of 2015 concerning the Management of the Defense Industry in order to realize the independence of the Indonesian Navy's Alutsista technology. By using qualitative research methods, this study concludes that the implementation of Government Regulation Number 141 of 2015 concerning the Management of the Defense Industry has gone quite well, from the elements of communication, resources, disposition and bureaucratic structure, as according to the implementation model according to George Edward III. The supporting factors for implementing the Government Regulation are the increasing quality of human resources, the carrying capacity of spare parts and maintenance facilities. The inhibiting factors for the independence of the TNI AL Alutsista include the lack of budget allocations from the Government and the need for technology transfer to support the defense industry.*

**Keywords**—Policy Implementation, Management, Defense, System, Weapons

## INTRODUCTION

Indonesia has been known to the world as the largest archipelagic country which has a very strategic geographical constellation condition, because the

territory of Indonesia is located in a cross-world position, namely between two continents and two oceans, so that with this geographical position it causes the sea between the islands. become a sea lane that is very important for national and international shipping traffic. Besides that, Indonesia has 17,499 islands, with an area of 5.9 million km<sup>2</sup> of marine waters and a coastline of approximately 81,000 km (Pushidrosal, 2004). This condition makes Indonesia the center of gravity in the Asia Pacific region. In fact, many international scholars say that the Indonesian waters are one of the tropical waters with high natural carrying capacity with Mega Biodiversity capabilities, so it cannot be denied that it attracts the interest of foreign countries to enter Indonesian waters (Indonesian Maritime Council). , 2005). So this must be seen as a real challenge to be managed, maintained and secured for the interests of Indonesia.

In the past few years, Indonesia has had several problems in its waters, especially related to the claims of other countries' territories that intersect with Indonesian territory. Are as follows ;

First, the Exclusive Economic Zone (EEZ) of the North Natuna Sea which was once claimed by China based on the historical basis of Chinese fishermen, known as the nine dash line, which is contrary to the United Nations Convention on the Law of the Sea 1982 (UNCLOS 1982). . Second, Vietnam is again acting in the North Natuna Sea, Natuna Regency, Riau Islands Province. In the territorial waters included in the exclusive economic zone (EEZ), Vietnam sent 13 patrol boats to guard throughout the year without Indonesia's permission. Third, illegal fishing is still rampant from other countries in the territory of Indonesia, both in the EEZ area and the continental shelf without Indonesia's permission

(Ministry of Maritime Affairs and Fisheries, 2020). From some of the problems above, there must be an adequate state defense and security system, especially along the offshore areas of the State of Indonesia.

One of the ways to build a defense and security system in Indonesian waters is to use military power. The use of military force in order to protect Indonesia's sea areas, both territorial and Indonesian EEZ. Also to provide military bluff for other organizations or military that enter the territory of Indonesia. Of course, military strength must also be supported by the availability of adequate Weapon System Main Equipment (Alutsista). Considering that Indonesia's marine area is quite large, it is necessary to have the availability of an ideal number of defense equipment with the current area of Indonesia's sea. So that the task of defense and security of Indonesia's maritime territory can be carried out optimally. Because currently the number of defense and maritime security fleets in Indonesia is not ideal when compared to the total area of Indonesia's seas.

The state defense and security system that is organized to achieve national goals requires the availability of defense equipment supported by the capability of the domestic defense industry independently. The concept of increasing the capability of the defense industry is needed to realize the independence of the Alutsista through the development of defense industry clusters. This is reflected in the provisions of Articles 3 and 4 of the Republic of Indonesia Law Number 16 of 2012 which regulates the objectives and functions of the defense industry, which include: realizing independence in the fulfillment of defense and security equipment, increasing the ability to produce defense and security equipment, maintenance services which will be used in order to build a reliable defense and security force and to make the state defense and security system independent (Setneg-RI, 2012).

Currently, most of the procurement of the Indonesian Navy's defense equipment system is still obtained from abroad (Sazrhi, Amperiawan, & Bura, 2020; Sucahyo, 2021). The fulfillment of the TNI Alutsista according to the 2010-2024 MEF stages in 2019 has only been fulfilled 63.19 percent of the 70 percent plan (Prasetiawan, 2020). Some of the procurement of the Indonesian Navy's defense equipment system which has modern technology was built by foreign shipyards such as the Republic of Indonesia Warship (KRI) Diponegoro-365 class and KRI class RE Martadinata-331 which was built by Damen Schelde Naval Shipbuilding (DSNS) of the Netherlands (Jamaan & Karyono, 2016 ) and the KRI Changbogo class which was built by Daewoo Shipbuilding & Marine Engineering (DSME) of South Korea (Adualy, 2021), due to the limited and inadequate technological capabilities, equipment and facilities of the Defense industry (Mufidah, 2021).

In line with the defense development plan, the Government has determined the Minimum Essential Force (MEF) 2005-2024 as a form of target for the future defense capability fulfillment plan, which is divided into four stages of the Strategic Plan (Renstra), namely the 2005-2009 Strategic Plan, 2009-2014 Strategic Plan, Strategic Plan 2014-2019, and Strategic Plan 2019-2024 (Damanik, Octavian, & Widodo, 2019). The government's commitment to finding the most effective and efficient option for the procurement of the TNI-AL Alutsista in order to achieve the MEF target optimally requires a policy to empower it to realize the independence of Alutsista technology. Procurement of weapons carried out by the Government not only seeks to meet MEF targets and modernize military weapons but also to support the empowerment of the defense industry, where several forms of cooperation that can be carried out to support the development of the defense industry are joint production, joint research, licensing and technology transfer.

The defense industry is directed to be able to ensure the availability, affordability and quality of good defense equipment and special materials and is aimed at improving national defense and the implementation of security and public order (Research, 2006). The direction and purpose of the defense industry is facing two different conditions. In the direction of empowering the defense industry, it takes time to be able to realize the availability of defense equipment. Meanwhile, to realize a defense force is immediate and requires a defense industry that is already strong and established. Steps in realizing the common direction and goals of the defense industry, it is necessary to prioritize the procurement of Alutsista must come from the domestic industry. If the domestic industry has not been able to meet the needs, then the procurement of defense equipment from abroad is possible as long as it meets the following requirements: defense and security equipment has not or cannot be made domestically, includes the participation of the defense industry, the obligation to transfer technology, guarantees that there are no potential embargoes, political conditionality and obstacles to the use of defense and security equipment in an effort to maintain state sovereignty, the territorial integrity of the unitary state of the Republic of Indonesia and the safety of the entire nation from threats and disturbances to the integrity of the nation and state, trade balances, local content and/or offsets at the most low 85%, local content and/or low offset 35% with an increase of 10% every 5 (five) years (Setneg-RI, 2012).

The obstacle in empowering the defense industry is the existence of government programs that change along with the change of leadership (Hakim, Suhirwan, & Suhardono, 2020), so that the cooperation development program in the procurement of the Indonesian Navy's defense equipment system is not followed by a technology development policy, so that the initial capabilities possessed by the shipbuilding

industry ships in the development of defense equipment are not developed optimally. As well as the ability of PT. PAL in building the Changbogo class submarine, in the follow-up program was not followed by the development of technology for the same submarine class. The importance of empowering the defense industry (shipbuilding industry) through the development of industrial clusters is expected to increase the technological capabilities of the Indonesian Navy's defense equipment industry in achieving the Minimum Essential Force (MEF) independently. The types of defense equipment owned differ from time to time and this can be seen from the development of weapons from the early period of independence to the present. In the early period of independence, the Navy used weapons from the Netherlands and Japan, then in the 1950s and 1960s the Navy operated defense equipment products from Western (America and British) and Eastern (Russian, PRC, and Polish) countries. The 1970s was a relatively unproductive period in developing the defense equipment capacity because it only utilized the remaining service life of the existing defense equipment. Towards the end of this period there were still additional defense equipment but in limited quantities (Sebastian, 2018).

Currently, most of the needs for the Navy's defense equipment and supporting equipment still depend on the results of foreign procurement because the national strategic industry has not been able to fully support these needs (Hartanto, 2016). The dependence of the Indonesian Navy on the need for defense equipment from abroad in the long term will create its own vulnerabilities when it is associated with political factors such as embargoes from producing countries, which in itself causes the readiness of the Navy to decrease. In order to reduce dependence on the need for defense equipment and its supporting equipment in order to increase the readiness of the defense equipment in the context of national defense, it is necessary to have a common vision, mission, and determination from related parties in the form of breakthroughs and efforts, among others, by optimizing the use of domestic strategic industrial products to support the readiness of the TNI's defense equipment. AL (Bachtiar, 2020). The use of national strategic industrial products in order to meet the needs of the Indonesian Navy's defense equipment system is one part of development in the field of national defense as an effort to increase the country's defense capability against all threats that come from within or outside the country.

An industry of a nation that is able to increase its advantages in global competition must carry out physical assimilation through increasing comparative advantage in the physical aspect and competitive advantage in the non-physical aspect (Rifa'i et al., 2021). The current existence of the national defense industry is one of the national potentials which is expected to be able to gradually reduce dependence on foreign products towards the independence of

defense equipment technology. To be able to optimize the national strategic industry in order to increase the independence of the TNI AL's defense equipment technology, it is necessary to have a rationale that is used as a reference so that a common view of the relevant parties is obtained. Therefore, from the data and facts described above, this research becomes important to be carried out by taking the focus of research on the implementation of policies from Government Regulation (PP) Number 141 of 2015 regarding Defense Industry Management, obstacles faced and strategic steps for implementation policies on the elements of communication, resources, disposition and bureaucratic structure to realize the independence of the Indonesian Navy's Alutsista technology.

## RESEARCH METHOD

This study uses qualitative research methods, namely research methods that describe or explain cases or certain facts or phenomena that occur. This study intends to exploit and clarify a phenomenon or social reality by describing a number of elements relating to the problem under study. The data collected is in the form of words, so it does not emphasize numbers (Sugiyono, 2014). Qualitative research methods produce findings that are really useful and require serious attention to various things that are deemed necessary.

This type of qualitative research method is a method with data collection on a natural background, which uses natural methods. This research method is used to examine natural subjects, the researcher is the key instrument, data collection techniques are carried out by triangulation (combined), data analysis is inductive and research results require generalization meaning, qualitative research requires accuracy, objective and humble attitude from a researcher (Sugiyono, 2014).

Data analysis in qualitative research is carried out before entering the field, during the field and after finishing from the field (Sugiono, 2009: 89). There are three methods in qualitative data analysis, namely data reduction, data presentation, conclusion drawing/verification (Miles, M.B & Huberman, 2014). There are 4 interactive models in qualitative analysis, namely data collection, data condensation, data presentation and conclusion drawing (Miles and Huberman 2014).

## RESULTS AND DISCUSSION

The following is an analysis of research data with the title reviewing the implementation of Government Regulation No. 141 of 2015 concerning Management of the Defense Industry in order to realize the independence of the Indonesian Navy's Alutsista technology which is linked to the policy implementation model according to G Edward III which includes elements of communication, resources, disposition and structure. bureaucracy.

### **1. Obstacle Factors in the Implementation of Government Regulation Number 141 of 2015 Against the Independence of the Indonesian Navy's Alutsista Technology.**

The influence of factors constraining the implementation of PP No. 141 of 2015 policy on the independence of the Indonesian Navy's Alutsista technology can be described in the elements of communication, resources, disposition and bureaucratic structure as follows:

#### **a. Communication Element**

Various obstacles in developing the implementation of PP number 141 of 2015 policy on the communication element can be described as follows: First, Public Fragmentation. The construction of this public fragmentation makes each part unable to unite in accordance with their duties and responsibilities in empowering the defense industry (Daryanto, 2022). Second, Relying on One-Way Communication. With a communication system that runs in one direction, it does not have an effect on the absence of communication in finding various obstacles in the field (Tambun, 2022). Third, less use of digital communication. Communication that only uses direct communication channels by not utilizing technological advances does not improve communication links (Dindin, 2022). Fourth, less able to increase public participation. In communication, it is necessary to increase the role of all relevant stakeholders to increase the role of each element (Hidayat, 2022). Fifth, lack of coordination between institutions. The integration of related elements will increase the role of each sector in increasing the independence of the Indonesian Navy's Alutsista technology (Y. Susilo, 2022).

#### **b. Resource Element**

##### **1) Human Resources (HR)**

The quality of human resources in the Strategic Industry sector is increasing so it is hoped that activities in the field of maintenance and cooperation with the selling country as a defense equipment producer/manufacturer can be minimized because Indonesian human resources have been able to carry it out professionally. First, resources that lack the technological capabilities to build the Indonesian Navy's defense equipment (Daryanto, 2022). Second, the limited human resources of PT Dok and Perkapalan Kodja Bahari (Persero) make the work carried out by workers from sub-contractors from outside the defense industry (Tambun, 2022).

##### **2) Budget Resources**

Budget support. Meanwhile, the inhibiting factors for the independence of the Indonesian Navy's Alutsista include the lack of budget allocations from the Government and the need for technology transfer to support the defense industry. First, most of the budget is to support compensation for employee salaries and maintenance of equipment and facilities for the shipbuilding industry (Daryanto, 2022). Second, the budget burden is to maintain the condition of shipyard equipment and facilities (Tambun, 2022).

### **3) Facility Resources**

Maintenance Facilities. Maintenance and repair facilities are equipped according to need so that the maintenance and repair process can be carried out domestically, thus the Indonesian Navy's defense equipment is always in a ready condition for use. Spare Parts Support. The need for spare parts needed for the maintenance of the Indonesian Navy's defense equipment system can be met as needed so as to reduce dependence on foreign countries. First, the facilities of PT Pal Indonesia (Persero) are mostly in good condition and meet quality requirements. However, special facilities for building submarines require facilities such as for submersible pressure tanks (Daryanto, 2022). Second, the limited facilities and facilities of PT Dok and Perkapalan Kodja Bahari (Persero) is only for building platforms. There are no special facilities for building submarines yet (Tambun, 2022).

#### **c. Elements of Disposition**

According to (Edward III, 1980) that the existence will have an effect on the implementation of an impressive basis. At the job executor level, it provides a form of support in carrying out the work in accordance with the work plan. With the support and positive attitude of the implementing parties, it is likely that the basic implementation will be carried out according to the initial decision. On the other hand, if the implementer has a negative attitude or is reluctant to implement the basis because of a conflict of interest, the implementation of the basis will face serious obstacles. From these conditions as an obstacle to the disposition element in the implementation of PP No. 141 of 2015 policy, it can be explained: First, the existence of a disposition policy for incompetent personnel. The disposition of a task and responsibility that does not look at the competence of the department and personnel specifically will hinder work planning (Dindin, 2022). Second, the implementation of dispositions that do not see the interests of the organization. The implementation of a disposition that only focuses on the interests of the institution itself and does not see the integral scope of the interests of the organization will reduce the speed of work that has links with other jobs (Tambun, 2022). Third, there is a rejection of orders and directives. The rejection of orders and directives from the leadership level will hinder work planning (Hidayat, 2022).

#### **d. Elements of Bureaucratic Structure.**

To build an organizational structure that is able to support the implementation of PP No. 141 of 2015 policy, strategic steps are needed: First, the existence of complicated work standards and procedures (SOP). Convolved work operating standards will take a long time to implement policies, thereby reducing the effectiveness and efficiency of work (Daryanto, 2022). Second, the long span of control of the organization. The span of control in the completion of a long work will increase the time of work, so that it will increase production costs (Tambun, 2022). Third, organizational fragmentation. The existence of

organizational fragmentation makes the view of personnel in the defense industry narrow, only looking at the interests of small groups and institutions themselves (Dindin, 2022). Fourth, there is no strong authority in policy implementation. The lack of strong authority of KKIP as an institution that has the authority to build technological independence has made efforts to manage the defense industry disrupted and not optimal (Hidayat, 2022). Fifth, a narrow view of the organization. The existence of a narrow view of the organization will reduce the organization's ability to achieve its vision and mission in building the Navy's defense system (Y. Susilo, 2022).

## **2. Strategic Steps to Implement Government Regulation No. 141 of 2015 on the Independence of the Indonesian Navy's Alutsista Technology.**

The effect of the strategic steps in implementing the PP No. 141 of 2015 policy on the independence of the Indonesian Navy's Alutsista technology can be described in the elements of communication, resources, disposition and bureaucratic structure as follows:

### **a. Communication Element**

Communication activities are concerned with how policies are communicated to organizations and/or the public and the attitudes and responses of the parties involved (Edward III, 1980). While the notion of communication itself is the process of delivering information from communication to the communicant. Communication really determines the success of achieving the goals of implementing public policy. In addition, the policies communicated must be precise, accurate and consistent. Communication is one of the important elements that influence the implementation of public policy. The success of a policy can be seen from the existing communication. Policies must be communicated to the relevant parties, so that the information submitted must be accurate. If the delivery of the goals and objectives of a policy is not clear, does not provide understanding or even the goals and objectives of the policy are not known at all by the target group, it is likely that there will be a rejection or resistance from the target group concerned. Therefore, three things are needed, namely good distribution (transmission) will result in good implementation, clarity received by policy implementers so that it is not confusing in its implementation, and consistency provided by policy implementation. If what is communicated changes, it will be confusing in the implementation of the policy in question.

The management of the Indonesian defense industry has been regulated in Government Regulation Number 141 of 2015 concerning the Management of the Defense Industry. The regulation explains that the Defense Industry is a national industry consisting of state-owned enterprises and private-owned enterprises, either individually or in groups determined by the Government to partially or wholly produce defense and security equipment, maintenance services to meet strategic interests in

the field of defense and security. defense and security located in the territory of the Unitary State of the Republic of Indonesia. The history of defense equipment development shows that foreign products dominate the defense equipment used by the Indonesian Navy from time to time. The fact indicates that dependence on the procurement and development of defense equipment has existed since the beginning of the existence of the Navy (Yusro, 2017). On the other hand, the policies and strategies implemented to foster independence in the development of the Indonesian Navy's defense equipment system have not received top priority (Nugraha et al., 2016). The Indonesian Navy's dependence on foreign defense equipment and low domestic independence makes the Indonesian Navy's defense equipment very vulnerable to embargoes which are often used as an effective way to corner the Navy and the Indonesian Government (Haras, 2017). In this context, a thought is needed as an alternative solution so as to minimize dependence on foreign countries by realizing independence in the development of the expected TNI AL defense equipment (Sutanto et al., 2021).

Most of the needs for the Indonesian Navy's Alutsista and its supporting equipment still depend on the results of foreign procurement because the national strategic industry has not been able to fully support these needs (Hartanto, 2016). The dependence of the Indonesian Navy on the need for defense equipment from abroad in the long term will create its own vulnerabilities when it is associated with political factors such as embargoes from producing countries, which in itself causes the readiness of the Navy to decline. To be able to reduce the dependence on the need for defense equipment and its supporting equipment in order to increase the readiness of the defense equipment in the context of national defense, it is necessary to have a common vision, mission, and determination from related parties in the form of breakthroughs and efforts, among others, by optimizing the use of domestic strategic industrial products to support the readiness of the TNI's defense equipment. AL (Bachtiar, 2020).

### **b. Resource Element**

#### **1) Human Resources (HR)**

The increased capability of PT PAL Indonesia (Persero) and PT Dok and Perkapalan Kodja Bahari (Persero) human resources in realizing the ability to fulfill the Navy's Alutsista according to the MEF stage through mastery of technology will have an impact on increasing the capability of the defense system. PT PAL Indonesia (Persero) plays a role in supporting and strengthening national defense, especially in technology that includes defense equipment through human resources capabilities which include: number of personnel, combat capabilities and strategies as well as moral struggle (Hartati et al., 2014). The condition of improving the quality of human resources of PT PAL Indonesia (Persero) and PT Dok and Perkapalan Kodja Bahari (Persero) is influenced by the role of formal and non-formal educational

institutions in producing quality human resources. Educational institutions also need to be developed to produce human resources who have expertise in special fields related to defense technology. The ability of PT PAL Indonesia's human resources and PT Dok and Perkapalan Kodja Bahari (Persero) in building a Navy defense system that has modern technological capabilities, is carried out through the model and prototype stages (Kemenristekdikti, 2017). Existing human resources already have expertise in operating equipment and facilities owned by the main industry (main industry) will be able to create quality defense equipment. With the increase in human resources capacity of R&D institutions and PT PAL Indonesia (Persero) and PT Dok and Perkapalan Kodja Bahari (Persero) will contribute to increasing capabilities in designing, prototyping and testing some equipment.

Along with the development of Alutsista technology, a coaching and training system is needed that can be carried out through domestic education, as well as overseas education through direct education and technology transfer programs (transfer of technology) carried out in the process of procuring the Indonesian Navy Alutsista (Ambikka, 2020). In accordance with the mandate of Law Number 16 of 2012 the fulfillment of the Navy's Alutsista is expected to be fulfilled from domestic industries including PT PAL Indonesia (Persero) and PT Dok and Perkapalan Kodja Bahari (Persero) through the availability of skilled experts equipped with adequate defense industry facilities. PT PAL Indonesia (Persero) as a national strategic defense industry is expected to be a leading sector of economic growth through employment. The important role of competence and the provision of human resources requires the right strategy, as an effort to achieve the distribution of the number of human resources in the defense industry. These strategies include the placement of engineering human resources at PT PAL Indonesia (Persero), cooperation in providing production human resources, HR competency standards, and special awards for quality human resources (Ambikka, 2020).

### 2) Budget Resources

To increase R and D activities, it is necessary to analyze market and customer needs and find ways to increase company productivity (Spuches & Coufal, 2000). The needs analysis activities include the following activities: Defining, namely defining problems in a defense industry that will arise in the operational process of developing the Indonesian Navy's Alutsista. Analysis (analyze), namely: analyzing the needs for facilities and infrastructure as well as methods to produce alternative ways and choose alternatives in the process of developing the Indonesian Navy's Alutsista, after finding several problems that arise in the definition process. This analysis is intended to distinguish between new ideas that have the potential to provide effectiveness and efficiency in the development process of the Indonesian Navy's Alutsista. Design and development is the design and development of the most feasible

and optimal alternative solutions. Design and development is carried out to develop a planned Alutsista model in accordance with technical capabilities to support operations. Testing (trial), which is testing the Alutsista that is produced in order to determine the capabilities and characteristics of the Alutsista in accordance with the technical specifications that have been determined. This experiment was conducted to test whether the Indonesian Navy's Alutsista products have the quality according to the product standardization desired by the TNI according to operational requirements and technical specifications. Evaluation and revision (evaluate and revise), namely evaluating and revising the products of the Indonesian Navy Alutsista based on operational requirements and technical specifications.

R and D activities can be carried out by bringing in Alutsista experts from abroad who have proven expertise and experience to provide R and D dissemination to the planned Alutsista. This dissemination activity is carried out by involving stakeholders and personnel of the defense industry and supporting industries. According to (Madian, 2012) collaborative activities of R and D Alutsista TNI Navy can be carried out with domestic and foreign research institutions. R and D cooperation can also be carried out through collaboration with universities both from within the country and abroad. R and D cooperation with universities can be done by providing budgetary support to support the defense system development program needed by the TNI. The R and D activities for the Indonesian Navy's Alutsista that are offered to universities are intended to build facilities that have special specifications with a fairly high level of technology, so that it is hoped that R and D will be able to realize and encourage the independence of the development of Alutsista products.

### 3) Facility Resources

To support the development of the TNI Alutsista, it is necessary to support it with adequate infrastructure facilities and equipment. In the process of developing the Alutsista, the TNI requires adequate infrastructure capabilities and facilities, so that the Alutsista development process can be carried out according to the planned Time Line. PT PAL Indonesia (Persero) and PT Dok and Perkapalan Kodja Bahari (Persero) as a defense industry that has the task of building the TNI Alutsista need to be supported by the capabilities and infrastructure facilities in accordance with the Alutsista to be built and also to support the maintenance and repair of the Alutsista. TNI. Currently, PT PAL Indonesia and PT Dok and Perkapalan Kodja Bahari (Persero) are industries with the status of a Limited Liability Company. As a State-Owned Enterprise (BUMN) PT PAL Indonesia (Persero) and PT Dok and Perkapalan Kodja Bahari (Persero) have duties and responsibilities to support the fulfillment of the TNI's Alutsista.

In accordance with the mandate of the Law, PT PAL Indonesia (Persero) has a role as the main guide (lead integrator) of the marine dimension by

prioritizing competence in the development of Marine Defense in a professional manner in collaboration with other supporting industries. In accordance with the purpose of establishing PT PAL Indonesia (Persero) and PT Dok and Perkapalan Kodja Bahari (Persero) as centers of excellence for the national maritime industry. PT PAL Indonesia (Persero) where PT PAL and PT Dok and Perkapalan Kodja Bahari (Persero) are prepared as a national strategic industry to improve the nation's capability in the development of defense and security facilities in the maritime sector. As a lead integrator, PT PAL Indonesia (Persero) continues to improve knowledge, skills and technological capabilities to improve the nation's capabilities in the maritime field as an increase in competitiveness between countries (PAL, 2018).

### ***c. Elements of Disposition***

The development of the defense industry prioritizes the use of domestically produced components and equipment. In the event that the development of the Defense Industry requires components and production equipment that cannot be fulfilled domestically, the Government may provide fiscal incentives including exemption from import duties and taxes on imported components and production equipment. The provision of fiscal incentives is carried out in accordance with the provisions of the legislation. Marketing of Alutsista is carried out jointly by the Defense Industry and the Government. Alutsista marketing includes domestic and foreign marketing. Domestic defense equipment marketing is carried out through promotion and procurement of defense equipment. Meanwhile, the marketing of Alutsista abroad is carried out through the promotion and sale of Alutsista to other countries. In the context of marketing foreign defense equipment, the Government stipulates: Type of product, destination country, and criteria for export actors.

In PP No. 141 of 2015 also explains that the marketing of defense equipment abroad is financed by commercial financing institutions. In the event that commercial financing institutions are unable to finance the marketing of Alutsista abroad, the Government may assign a special assignment to the Indonesian Export Financing Agency to carry out financing for the Alutsista export program at the expense of the Government. The procedure for giving the special assignment is carried out in accordance with the provisions of the legislation. In PP No. 141 of 2015 explained that the Defense Industry in marketing Alutsista abroad must obtain permission from the Minister. The Defense Industry in applying for a permit to the Minister must state the type of product, quantity and country of destination. The issuance of marketing permits by the Minister is carried out by taking into account: the fulfillment of domestic defense equipment needs, production capacity, human resource capabilities, state guarantees of the buyer or end user certificate, and KKIP considerations. Giving consideration to KKIP related to the type of product, quantity, and country of destination as well as foreign policy. Further provisions regarding marketing permits

shall be regulated by a Ministerial Regulation. The marketing mechanism for defense equipment abroad is carried out through sales schemes in the form of cash, trade rewards, and/or export credits.

It is known that the fulfillment of the current needs of the Indonesian Navy's defense equipment system still depends on other countries, both in terms of procurement and maintenance. The Indonesian Navy has always made efforts to maintain as much as possible so that the condition of the defense equipment owned remains good and can still be used. In the future, it is hoped that the strategic industry will be able to meet the needs of the Navy's defense equipment and be able to maintain the Navy's defense equipment so that the readiness of the Navy's defense equipment will increase. The development of the national strategic industry to date has been marked by rapid changes with a global dimension, both in the field of technology and information. Opportunities arising from globalization are the increasingly open market for industrial products that have a comparative advantage and competitive advantage. Taking into account these conditions, it can be said that industrial development, including national strategic industries, will face challenges both nationally and globally. Observations on industrial developments in the last two decades show that although quantitatively developing, the structure of the industry and the process of mastering technology are not encouraging because dependence on foreign countries is still high.

### ***d. Bureaucratic Structure Elements***

In PP No. 141 of 2015 it is explained that the main weapon system tool (Alutsista) is a product of the design of the weapon system and/or which is integrated with the main weapon system equipment vehicle. Meanwhile, supporting tools are equipment to support defense and security functions. And also equipment is equipment supporting personnel. The determination of various types of products is carried out by the Minister of Defense based on policies issued by KKIP. The vision of national industrial development is Indonesia to become a strong industrial country (Ministry of Industry, 2015). A resilient industry is characterized by: 1) a strong, deep, healthy and just national industrial structure; 2) a highly competitive industry at the global level; and 3) industry based on innovation and technology. It is expected that in the future the national industry should be able to provide protection and subsidies to all existing strategic industries and increase the ability to produce defense equipment, both in quantity and quality, in addition to being able to increase the mastery and development of strategic productivity technologies for national defense. In the future, it is hoped that several national strategic industrial companies will be able to meet national needs, in this case the fulfillment of the needs of the TNI's defense equipment. The Defense Industry is responsible for building capabilities in producing Defense and Security Equipment Tools (Alutsista) which are all equipment to support national defense as well as

security and public order. This responsibility as referred to in PP No. 141 of 2015 is carried out by the Defense Industry in accordance with its functions.

The main equipment industry as referred to in PP No. 141 of 2015 is a state-owned enterprise established by the Government as the lead integrator that produces the main weapons system tools and/or integrates all major components, components, and raw materials into the main tool. The main tool industry has the following functions: 1). produce the main weapon system tools and/or integrate all the main components, components, and raw materials into the main tools; 2). improve production capabilities, mastery of technology, and human resource capabilities; 3) build cooperation with main and/or supporting component industries, component and/or supporting (supplies) industries, and raw material industries; 4) improve product development capability and quality of main weapon system tools and/or main tools; 5) carry out research and development, licensing, and transfer of technology.

Meanwhile, the main and/or supporting component industries as referred to in PP No. 141 of 2015 is a state-owned enterprise and/or private-owned enterprise that produces main components and/or integrates components or spare parts with raw materials into the main components of Alutsista and/or the main weapon system system platform. The main and/or supporting component industries have the following functions: (a) producing the main components and/or the main weapon system system platform, (b) increasing production, research and development capabilities, technology mastery, and human resource capabilities. ; (c) build cooperation with other main and/or supporting component industries, component and/support industries (supplies), and raw material industries, and (d) improve product development capabilities and quality of main components and/or system platforms the main tool of the weapon system. Meanwhile, the component and/or supporting (supplies) industry as referred to in PP no. 141 of 2015 are state-owned enterprises and/or private-owned enterprises that produce spare parts for the main weapon system equipment, spare parts for main components, and/or produce supply products. The component and/or supporting (supplies) industry has the functions of: 1) producing spare parts for the main weapon system equipment, spare parts for the main components, and/or producing supply products, 2) increasing production, research and development capabilities, mastering technology, and human resource capabilities, 3) build cooperation with other component and/supporting (supplies) industries and raw material industries, 4) improve product development capability and quality of spare parts for main weapon system tools, spare parts for main components, and/or supply products.

The raw material industry as referred to in PP No. 141 of 2015 are state-owned enterprises and/or private-owned enterprises that produce raw materials

to be used by the main equipment industry, main and/or supporting component industries, and component and/supporting (supplies) industries. The raw material industry has the following functions: 1) to produce raw materials that will be used by the main equipment industry, the main and/or supporting component industry, and the component and/supporting (supplies) industry, 2) increase the capability, production, research and development, mastery of technology, as well as human resource capabilities, 3) build cooperation with other raw material industries, 4) improve product development capabilities and raw material quality.

## CONCLUSION

From all the data analysis described above, a conclusion can be drawn as follows:

a. The factors that hinder the implementation of Government Regulation Number 141 of 2015 concerning Management of the Defense Industry in the Framework of Realizing the Independence of the Indonesian Navy's Alutsista Technology are as follows: 1) on the communication element, the main obstacle in developing the implementation of PP number 141 of 2015 policy is the lack of use of digital communication. Communication that only uses direct communication channels by not utilizing technological advances does not improve communication links and lacks coordination between institutions. The integration of related elements will increase the role of each sector in increasing the independence of the Indonesian Navy's Alutsista technology; 2) In the Resource element, various obstacles that need attention are: a) The limited quality of human resources in the shipping sector will hinder the development of the Indonesian Navy's defense equipment system. Limited human resources make the work carried out by workers from sub-contractors from outside the defense industry. b) In the aspect of budget resources, factors that hinder the independence of the Indonesian Navy's defense equipment system include, among others, the lack of budget allocations from the Government and the need for technology transfer to support the defense industry. c) On the aspect of facility resources that production, maintenance and repair facilities that have not been equipped in accordance with the needs will disrupt the sustainability of the TNI AL defense system development program; 3) In the disposition element, the dominant constraint in impeding the implementation of the policy is the implementation of the disposition which does not see the interests of the organization. The implementation of the disposition that only focuses on the interests of the institution itself and does not see the integral scope of the organization's interests will reduce the speed of work that is related to other jobs; 4) On the elements of the bureaucratic structure. First, the existence of a convoluted standard of operation and procedure (SOP) will increase the length of policy implementation, thereby reducing the effectiveness and efficiency of work. In addition, the span of control of the



organization is long. in the completion of long work will increase work time, so it will increase production costs

b. The strategic steps for implementing Government Regulation No. 141 of 2015 on the Independence of the Indonesian Navy's Alutsista Technology can be described as follows: 1) Communication activities regarding policy implementation are carried out to support that the information conveyed can be carried out reciprocally, so that the goals and objectives to be achieved can be understood in the implementation to support the development of the Indonesian Navy's defense equipment system; 2) In the element of resources to increase the effectiveness and efficiency of the implementation of PP No. 141 of 2015 policy to support the activities of the defense industry for the development of the TNI L Alutsista, strategic steps can be taken: a) Improving the capabilities and skills of Human Resources (HR) in realizing the ability to fulfill The Navy's defense equipment according to the MEF stage through mastery of technology will have an impact on increasing the ability of the defense system. The improvement of HR technology capabilities is prepared by prioritizing management steps which include: (1) carrying out planning for the number and expertise needs to support the Alutsista development process (planning), (2) conducting the recruitment process in accordance with the planning for the number of personnel required (organizing), (3 ) carry out coaching, education and further training in accordance with the capabilities in accordance with the technical specifications of the development program (staffing) and (4) carry out periodic evaluations (controlling). b) Increasing budget support is mainly carried out to increase R and D activities, it is necessary to analyze market and customer needs and find ways to increase company productivity. R and D activities can be carried out by bringing in Alutsista experts from abroad who have proven expertise and experience to provide R and D dissemination to the planned Alutsista. c) To support the development of the TNI Alutsista, it is necessary to support it with adequate infrastructure facilities and equipment. In the process of developing the Alutsista, the TNI requires adequate infrastructure capabilities and facilities, so that the Alutsista development process can be carried out according to the planned Time Line; 3) The importance of disposition in the implementation of PP No. 141 of 2015 policy is needed to delegate activities to related institutions that are relevant to expertise and skills. The development of the defense industry prioritizes the use of domestically produced components and equipment. In implementing the policies taken by the government, the government can achieve increased use of national strategic industrial products through the realization of software that can be guided as a legal umbrella and operational legality, increase in human resources, production quality and budget by identifying defense equipment and its main supporters by optimizing the role of the defense industry; 4) Strategic steps to increase the effectiveness of the elements of the

bureaucratic structure are carried out by increasing the integration between sections and between institutions in supporting various elements to support the development of the Indonesian Navy's Alutsista by integrating the main components, components, and raw materials into the main tools through increasing production capabilities, mastery of technology, and human resource capabilities.

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