

HUMAN RESOURCES CAPABILITY IMPROVEMENT STRATEGY MINING SHIP UNIT FLEET COMMAND II IN SUPPORTING THE TASK OF THE TNI NAVY

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ABSTRACT

The main task of the Satran Koarmada II is to carry out the development of the strength and combat capabilities of its organic elements in the field of mine warfare in order to improve the combat capabilities of the Second Fleet Command (Koarmada II). With the condition of the Satran Koarmada II elements which are more than 30 years old and the mining technology is inadequate, it is necessary to have a strategy to increase the capacity of human resources in order to support the task of the Navy in dealing with GMTT 2030. The formulation of the problem (problem statement) of this research is how to formulate a strategy increasing the capacity of the Satran Koarmada II human resources in supporting the tasks of the Navy. The output of the SWOT and Borda analysis process in determining the strategy for improving the HR capacity of the Satran Koarmada II is a plan map or roadmap which is implemented in a strategic plan which is divided into five-year programs. The output of the SWOT and Borda analysis process in determining the strategy for improving the HR capacity of the Satran Koarmada II is a plan map or roadmap which is implemented in a strategic plan which is divided into five-year programs. The results showed that the chosen strategy was the SO Strategy which consisted of nine sub-strategies. The output of the SWOT and Borda analysis process in determining the strategy for improving the HR capacity of the Satran Koarmada II is a plan map or roadmap which is implemented in a strategic plan which is divided into five-year programs. The Borda method is used to determine the order of priority for the selected strategy which is then applied to the roadmap. The results showed that the chosen strategy was the SO Strategy which consisted of nine sub-strategies. The output of the SWOT and Borda analysis process in determining the strategy for improving the HR capacity of the Satran Koarmada II is a plan map or roadmap which is implemented in a strategic plan which is divided into five-year programs.

Keywords: Improvement Strategy, Satran, SWOT, Borda, Roadmap.

1. INTRODUCTION

Based on Presidential Regulation Number 66 of 2019 concerning the organizational structure of the Indonesian National Armed Forces (TNI), the TNI is the main component that is ready to be used to carry out operations national defense duties. The TNI consists of the Army, Navy, and Air Force who have the same and equal positions. The TNI has main duties, namely: upholding state sovereignty; maintain territorial integrity.

The Unitary State of the Republic of Indonesia based on Pancasila and the 1945 Constitution of the Republic of Indonesia; and protect the entire nation and the entire homeland of Indonesia from threats and disturbances to the integrity of the nation and state.

The Indonesian Navy has the following tasks: carrying out the duties of the Marine Corps in the defense sector; enforce the law and maintain security in the marine area of national jurisdiction in accordance with the provisions of national law and ratified international law; carry out the tasks of Navy diplomacy in the context of supporting foreign policy policies set by the government; carry out the duties of the TNI in the development and improvement of the human resources capacity of the naval forces; and

carry out the empowerment of the marine defense area.

The main task of the Satran Koarmada II is to carry out the development of the strength and combat capabilities of its organic elements in the field of mine warfare in order to improve the combat capabilities of the Second Koarmada. The implementing elements of the Satran Koarmada II consist of division I, division II and division III.

As one of the elements forming a country's military power, the main weapon system (defense equipment) occupies a very important position. Apart from being for the sake of national defense, defense equipment is also a means to show the authority of a country. Indonesia faces two challenges related to defense equipment. First, the condition of the defense equipment system which is increasingly behind with the latest technology. Second, the procurement of Indonesian defense equipment still dependent on foreign parties. (Gitiyarko, 2021).

Faced with Global Marine Technology Trends 2030 (GMTT 2030), in the naval sector, researchers conclude big data analytics, advanced materials, autonomous systems, manufacturing, energy management, cyber and electronic warfare, human-

computer interaction and augmentation technologies are transformational when used individually and when combined. Leveraging this technology will increase the navy's ability to develop and use existing smart mines. These technologies will also enhance the navy's minesweeping capabilities to provide assistance in neutralizing mines left over from World War II (WWII). (Shenoi, 2015).

Based on literature studies, observations and interviews from related parties regarding the condition of Satran Koarmada II so far, researchers have begun to identify several problems, including the following:

- a. What is the urgency of the Satran development?
- b. How is the prediction of the concept of war by spreading enemy plot mines?
- c. The Satran task of mine sweeping in "clearing" the Indonesian seas has not yet been achieved.

Considering the identification of these problems, researchers are interested in conducting research to formulate strategies for increasing the capacity of human resources for the Satran Koarmada II that are appropriate in dealing with GMTT 2030. It is hoped that this research will focus more on capacity building strategies. HR Satran Koarmada II which will be implemented.

The urgency of this research is the limitations of the Satran Koarmada II elements associated with the main tasks and functions of the Satran itself. Another urgency is the development of smart mine technology and modern minesweeper. According to the President of the Indonesian Institute of Maritime Studies, Dr. Connie Rahakundini Bakrie who is also a Defense and Military Analyst, with the development of mining technology, the presence of minesweepers with the latest technology is also a must. Currently with two minesweepers are far from ideal conditions for the Navy. Moreover, the technology is also behind. Faced with the vast seas of Indonesia, at least the Navy must have two groups of modern minesweeper warships that can operate in different locations,

With the condition of the Satran Koarmada II elements which are more than 30 years old and the mining technology is inadequate, a strategy to increase the capacity of human resources is needed in order to support the task of the Navy in dealing with GMTT 2030. So, this research will be very useful for the Satran Koarmada II to using the right HR capacity building strategy because in this research there is a mapping and weighting strategy, roadmap or implementation strategy is accompanied by a risk analysis of each strategy that will be used.

1.1. Formulation of the problem

Based on the description of the background above, the formulation of the problem (problem statement) of this research is how to formulate a strategy to increase the capacity of the human resources of the Satran Koarmada II in supporting the tasks of the Navy. In order to be able to answer the formulation of the problem, the research questions are:

- a. How to identify the factors of Internal Factor Analysis Summary (IFAS) and External Factor Analysis Summary (EFAS)?
- b. How to formulate a strategy to increase the human resources capacity of the Satran Koarmada II?
- c. How will the roadmap or strategy implementation be used?

1.2. Research purposes

The objectives of this research are:

- a. Obtain the factors of Internal Factor Analysis Summary (IFAS) and External Factor Analysis Summary (EFAS) in formulating strategies.
- b. Formulate a strategy to increase the HR capacity of the Satran Koarmada II in supporting the tasks of the Navy.
- c. Create a roadmap or implementation of the strategy to be used.

1.3. Benefits of research

The benefits of this research can be seen in 2 aspects, namely:

- a. The academic (scientific) aspect is expected to add insight for researchers/academics as well as related agencies to determine the right strategy in increasing the capacity of the human resources of the Satran Koarmada II.
- b. The practical aspect (usability) is expected to be able to find out the right strategy used by the Satran Koarmada II in supporting the tasks of the Navy.

1.4. Scope of problem

To avoid the extent of the problems in this research, the limitation of this research problem is only in the scope of the Satran Koarmada II.

1.5. Assumption

The assumption used in this research is a stable national economic growth, so that the budget funds are sufficient in increasing the capacity of the human resources of the Satran Koarmada II.

2. LITERATURE REVIEW

This section describes some of the previous research that has been carried out. Review of previous research conducted from similar or different objects, subjects, and approach methods used. Based on a review of previous studies that have been carried out related to the object of research and the approach used, as well as analysis of problems in the Satran Koarmada II environment, the researchers conducted research on strategies to increase the capacity of the Satran Koarmada II human resources in supporting the tasks of the Navy. As a decision-making tool for the leadership of the Navy in dealing with GMTT 2030 with many influencing aspects to support the tasks of the Navy. So that it requires a scientific approach to a strategy to increase the capacity of human resources

which consists of many factors related to strengths, weaknesses, opportunities and threats as well as the role of all stakeholders related to the Satran Koarmada II. Then the SWOT approach is used as a tool to see the strengths, weaknesses, opportunities and threats which are then used as factors for IFAS and EFAS Satran Koarmada II. In addition, in this study to determine the chosen strategy using the Borda method in determining the right strategy used by the Satran Koarmada II in supporting the tasks of the Navy. opportunities and threats which are then used as factors for IFAS and EFAS Satran Koarmada II. In addition, in this study to determine the chosen strategy using the Borda method in determining the right strategy used by the Satran Koarmada II in supporting the tasks of the Navy. opportunities and threats which are then used as factors for IFAS and EFAS Satran Koarmada II. In addition, in this study to determine the chosen strategy using the Borda method in determining the right strategy used by the Satran Koarmada II in supporting the tasks of the Navy.

2.1. Theoretical Basis

2.1.1. Strategy Theory

The word strategy comes from the Greek "strategos" which means the art of generals. The study of strategy initially developed in the post-World War II period or at the beginning of the cold war (Baylis, 2016). In the military world strategy is generally used to plan how a war can be won. (Hart, 1991) defines strategy as an art of distributing and applying military tools or means to fulfill a policy. According to Clausewitz's view, strategy is defined as the arrangement of ways of fighting so that we can achieve goals. Clausewitz focuses on war strategy, from which strategy emerges the winner of the war. Clausewitz considers that strategy has a very close relationship with politics and war, which is the goal of strategy formation.

2.1.2. Second Commando Squadron

The Fleet Command II Mineship Unit (Satran Koarmada II) is the executive command for the development of the ranks of the Second Fleet Command, the Satran Koarmada II has the main task of carrying out the development of combat strength and capabilities in the field of mine warfare and anti-air warfare in order to improve the combat capabilities of the Second Army Commando.

Satran Koarmada II was established on July 1, 1952 based on Kasal Skep No. A-5/3/23 dated August 21, 1952 under the name of the Indonesian Navy Mine Service led by the Head of the Mine Service based in Surabaya. In 1953 its name was changed to Minesweeper Flotila based on Kasal Skep No. R/5/3/23 dated August 24, 1953. Then in 1959 based on the Skep Kasal No. A-4/2/10 dated 14 September 1959 was changed again to the name of the Mine Service Squadron under the Guidance of the Fleet Command.

2.1.3. Organization and Procedures for Satran Koarmada II

Based on the Pangarmatim Decree Number Skep / 74 / VI / 2003 dated July 23, 2003 concerning the Organization and Procedures of the Koarmatim Mine Vessel Unit, the organization of the Satran Koarmada II consists of: leadership elements (Satran Commander), leadership assistant elements (Operations Staff, Personnel Administration Staff, Maintenance and Materials Staff, Budget Program Staff), service elements (Secretarial staff) and implementing elements (division I, division II and division III).

2.1.4. Strengths, Weaknesses, Opportunities, Threats (SWOT)

SWOT is an acronym for Strengths, Weaknesses, Opportunities, and Threats from the company's external environment. According to Jogiyanto (2005:46), SWOT is used to assess the strengths and weaknesses of the company's resources and external opportunities and challenges faced.

According to David (Fred R. David, 2008,8), all organizations have strengths and weaknesses in the functional areas of business. No company is equally strong or weak in all areas of business. Internal strengths/weaknesses, combined with external opportunities/threats and a clear mission statement, form the basis for setting goals and strategies. Goals and strategies are set with the intention of exploiting internal strengths and overcoming weaknesses.

According to Rangkuti (2006), the SWOT matrix can clearly describe how the external opportunities and threats faced by the company can be adjusted to its strengths and weaknesses. This matrix can produce four possible sets of strategic alternatives.

	IFAS	Kekuatan (Strength)	Kelemahan (Weakness)
EFAS (Opportunity)		Strategi SO Ciptakan strategi yang menggunakan kekuatan untuk memanfaatkan peluang	Strategi WO Ciptakan strategi yang meminimalkan kelemahan untuk memanfaatkan peluang
Ancaman (Threat)		Strategi ST Ciptakan strategi yang menggunakan kekuatan untuk mengatasi ancaman	Strategi WT Ciptakan strategi yang meminimalkan kelemahan dan menghindari ancaman

Figure 1. SWOT Matrix

2.1.5. Borda Metode method

The Borda method is a voting method that can solve group decision making, where in its application each decision maker (DM) gives a rating based on the available alternative choices, the selection process is in the Borda method, each voter is given an alternative choice (Claudio, 2008 and Purwantara, 2012). Suppose there are n candidate choices, the first candidate or alternative is given n points by the voter or decision maker. The second candidate is awarded points n-1 and so on. Determination of the winner or the best alternative based on the highest points. The

alternative with the highest score is the material for consideration to be chosen (Wang, 2004).

The Borda method is also used in group decision making for single or multiple winner selection winner, where voters (voters) rank candidates based on preferences (Wang, 2004).

2.1.6. Mine Technology Development Today

In the next few years, the United States Navy hopes to develop four new mines to help deny enemy navies freedom of movement during major conflicts.

The Quickstrike group includes 500, 1,000, and 2,000 pound class types, known as the Mk 62, Mk 63, and Mk 64 respectively. These were converted from the Mk 80 series high-explosive bombs and had a fuzing system that detonated the weapon when detects appropriate signs of acoustic, seismic, or pressure from passing ships. The fourth type, the Mk 65, is another 2,000-pound class Quickstrike mine, but is based on an actual custom-built mine skin rather than an existing bomb. For more than four years now, the Navy has pursued two related upgrade programs, known as Quickstrike-J and Quickstrike-ER, for members of the 80 Mk series of the Quickstrike group. The former simply combines the mines with the GPS-guided Joint Direct Attack Munition (JDAM) guidance package,

2.1.7. Minesweeper Technology Development

Of the several types of mine-hunting ships on the market, the name Koster Class is the one that counts the most at this time. Koster Class made by Saab Kokums, Sweden, is offered in two options, namely MCMC 47 and MCMV 52 (Enhanced Koster Class). In addition to being used by the Swedish Navy, the previous variant, Landsort Class MCMV 47 has been operated by four units by the Singapore Navy, and in the hands of Singapore, this mine hunter ship is popularly known as the Bedok Class. The Singapore Navy Class Bedok with 40mm Bofors in the bow has been replaced with the 25mm RCWS M242 Bushmaster cannon in the Bedok Class.

Koster Class has a design like a patrol boat, the Koster Class MCMW 47 is designed not only as a hunter and minesweeper, a ship with a long The 47 meters can also act as a command and control platform for the action of unmanned influence sweep drones, or towing a mechanical sweep mine.

The hull design of the Koster Class uses glass reinforced plastic material, making the ship has low magnetic and acoustic signatures, reducing the chances of the ship being impacted by sea mines. For the protection of its crew, the Koster Class is equipped with full protection against the dangers of nuclear, biological and chemical radiation. As armament support, a 40 mm Bofors cannon is attached to the bow. Koster Class can also release sea mines and sea bombs (depth charges) to destroy submarines.

This Enhanced Koster Class is an improved version of the Koster Class, the Enhanced Koster Class MCMV 52 has a length of 52.5 meters. This version

includes various improvements and system additions to support hunting and mine destruction missions. Because it has larger dimensions than Koster Class 47, MCMV 52 is also able to carry a more crew, 51 people and longer endurance in the ocean.

2.2. Juridical Platform

2.2.1. Law of the Republic of Indonesia Number 3 of 2002

This law deals with National Defense. In article 6 which explains that "State defense is carried out through efforts to build and foster the ability, deterrence of the state and nation, and overcome every threat". Article 23 which explains that "In order to improve the country's defense capabilities, the government conducts research and increases the capabilities of industrial and technological human resources in the defense sector". From this description, it has been explicitly stated that efforts to build and foster capacity must be used as the basis for conducting research and capacity building Industrial and technological human resources in the field of national defense.

2.2.2. Presidential Regulation of the Republic of Indonesia Number 8 of 2021

This Presidential Regulation discusses the general policy of State Defense for 2020-2024. Article 2 paragraph d which explains that "the development of the Indonesian National Armed Forces posture which has strategic deterrence capability and high mobility to be projected inside and outside the jurisdiction of the Unitary State of the Republic of Indonesia in the context of upholding sovereignty and protecting national interests". From this description, the TNI, especially the Navy, must have strategic deterrence capabilities and high mobility in the context of upholding sovereignty and protecting national interests.

3. MATERIAL AND METHODS

3.1. Research Approach

This research uses a quantitative approach which is one type of research whose specifications are systematic, well-planned, and clearly structured from the beginning to the making of the research design. Another definition states that quantitative research is research that demands the use of numbers, starting from data collection, interpretation of the data, and the appearance of the results. Similarly, at the conclusion of the research, it would be better if it was accompanied by pictures, tables, graphs, or other displays. Quantitative research methods can be interpreted as research methods based on the philosophy of positivism, used to examine certain populations or samples. Technique Sampling is generally done randomly, data collection uses research instruments, data analysis is

quantitative/statistical with the aim of testing established hypotheses (Sugiyono, 2012).

Through this approach, it is hoped that this research will be able to choose a strategy to increase the capacity of the Satran HR to face GMTT 2030, so that it will produce the best decision in dealing with threats.

3.2. Data Sources, Subjects and Research Objects

3.2.1. Data source

The type of primary data from this research is through an interview process with informants or experts about the Satran Koarmada II and the strategic planning that will be used. Interviews with informants who became subjects in this study were Navy officers who served in the Satran Koarmada II, Fleet II, and Headquarters.

Data on technical condition reports (Lapkonis) for the Satran Koarmada II elements as well as reference books on strategies to increase human resource capacity are used as sources of research. In addition, the data of KRI Satran Koarmada II which became secondary data in the study.

3.2.2. Research Subject

In this study, the research subjects were officials in the Indonesian Navy. Preliminary data collection related to the criteria of HR capacity building strategies through interviews with these officials. The research subjects as well as resource persons who to be interviewed are as follows:

- a. Danlantamal VI Makassar
- b. Dansatrankofleet I
- c. Dansatrankofleet II.
- d. Dansatrankofleet III.
- e. Dankapstrangkofleet II.
- f. Commander of KRI PRP-712
- g. Commander of KRI PRU-724

3.2.3. Research Object

The object in this research is a collection of materials that are already available before the implementation of the research. Some of the materials that are the object of research in the study are:

- a. Second fleet Command.
- b. The elements of the Satran.
- c. Technical data of Satran elements.
- d. Operations carried out by Satran.
- e. Mine Sweeping Tool (APR).

3.3. Research design

In this study, which relates to the strategy of increasing the capacity of human resources and selecting the strategy of the Satran Koarmada II in supporting the tasks of the Navy, first discusses the strategic concept of the Satran Koarmada II through a qualitative method approach about the Satran Koarmada II. A literature study of the literature that

discusses the strategy to increase the ability of human resources and the tasks of the Navy that has occurred becomes material for the data processing stage.

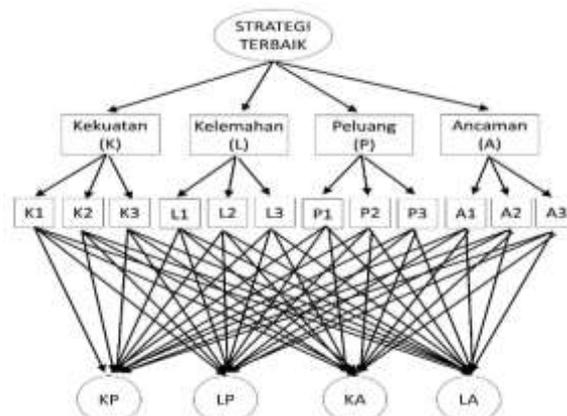


Figure 2. Factor Structure of IFAS and EFAS Satran Koarmada II

3.3.1. Data collection technique

The data collection techniques used in this study were divided into two, namely:

- a. The collection of primary data obtained from resource persons who hold strategic positions at the Satran Koarmada II, Koarmada II, and at Headquarters. This data was obtained through interviews with these informants regarding alternative criteria in choosing a strategy to increase the capacity of the Human Resources Unit of the Koarmada II in dealing with GMTT 2030.
- b. The collection of secondary data obtained from the study of literature or literature on strategies to increase the capacity of human resources of human resources and organizations. This secondary data is sourced from journals, books, print media, and electronic media related to the strategy of increasing the capacity of human resources in human resources, organization and technology.

3.3.2. Data Collection Instruments

The instrument used in this research is a tool used to process primary and secondary data. Primary data obtained from direct interviews with informants will explain the IFAS and EFAS factors used in the selection of a strategic plan to increase the capacity of human resources. In addition to interviews, research questionnaires were also given to informants and respondents. SWOT questionnaires were given to resource persons to analyze the relationship between internal factors and external factors of HR capacity building strategies. Through the Borda approach, the results of the selected strategy questionnaire are weighted which is then processed with the help of Microsoft Excel.

3.3.3. Data analysis technique

The data analysis technique carried out in this research is through data selection analysis starting from processing input data into useful information for decision makers. In the decision-making process in organizations, there are many factors that must be considered so that the decisions taken are right on target. To facilitate the process, organizations use a method known as SWOT analysis. SWOT analysis has a function to help formulate the best strategy for the future of the organization. That way, organizations can make the best decisions based on all the facts and with careful consideration, so they don't just decide something just like that.

3.4. Research procedure

This section describes the stages of data collection, location, and time of collection. In addition, the data is collected to be processed into results as an answer to the formulation of the problem and research objectives. The steps taken at this stage include: other:

- a. Define and formulate the problem.
- b. Doing library research.
- c. Determine the research design.
- d. Processing and presenting information.
- e. Analyze and interpret.
- f. Results and conclusions.

3.4.1. Qualitative Interview

Interviews or question-and-answer activities conducted by researchers on resource persons have been carried out at the stage of defining and formulating problems. The formulation of the problem was obtained from Dansatran resource persons and the Commander of KRI Pulau Rupert-712 Koarmada II in July 2021. The initial data obtained from the interviews were used as preliminary data to formulate problems in the selection of a strategic plan to increase the capacity of the HRD Satran Koarmada II.

3.4.2. Quantitative Documents

This study collects data that is used to trace historical data. The documents used as historical data are books, journals, print media, and electronic media regarding the selection of strategic plans human resource capacity improvement. Researchers will also make research questionnaires that are given to resource persons and all respondents. In addition, documents on the combat capability of the Satran Koarmada II elements and data on the capability of the Mine Sweeping Equipment (APR) were collected which will be used as a factor in choosing a strategy to increase the HR capacity of the Satran Koarmada II.

4. ANALYSIS AND DISCUSSIONS

4.1. Internal Factor Analysis

From the results of the data obtained through interviews with stakeholders or related experts, research documents, observations and some literature, internal factors can be formulated. Identification of the internal factors of the Satran Koarmada II can be seen in Table 1.

Table 1. Analysis of Internal Factors

Internal Factor Analysis	Strength	Weakness
1. Strategy		
Vision and mission	Have a Vision and Mission in the organization	Don't have a short-term and long-term strategy yet
2. Structure		
Organizational structure	Have a solid organizational structure	There are some positions that have not been filled
3. Systems		
Operation Activities	Carry out sea mine hunting and sweeping operations	Limitations of ships in carrying out operations
4. Skills		
Ability and competence	Have special abilities and competencies in mine countermeasures	Limited personnel with mine warfare capability certification
5. Staff		
Number of personnel	The list of personnel composition has been fulfilled	Corps of personnel not compliant with DSP
6. Style		
Management	Organizational management is quite solid	Management results have not been maximized in the task
7. Shared Values		
Satran organization and procedure book	Have a Satran orgaspros book as a guide	Satran's orgaspros book is not up-to-date

4.2. External Factor Analysis

Based on the results of data collection through interviews with related experts, research documents, observations and some literature, external factors can be formulated.

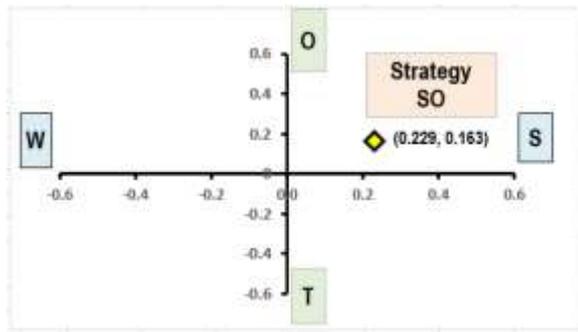


Figure 3. Quadrant Strategy

This shows that the SO strategy used for the strategy to increase the HR capacity of the Satran Koarmada II is to develop a strategy in utilizing strengths (S) to take advantage of existing opportunities (O).

4.3. Determination of Sub Strategy Formulation

Table 2. Determination of SO . Sub Strategy

Code	SO Sub Strategy
SO1	Improving sea mine hunting and sweeping operations using low magnetic KRIs
SO2	Conduct HR training to implement autonomous systems and integration of various technologies
SO3	Improving the ability and competence to use modern technology in TPR
SO4	Improve hunting and minesweeping operations using modern technology in TPR
SO5	Carry out system changes in managing communication security in complex signals
SO6	Carry out system changes in developing control systems and distribution of power and energy required
SO7	Conduct training in the use of equipment of moderate human ability
SO8	Conducting training in processing data into useful information for Indonesian Navy decision makers
SO9	Carry out the recruitment of human resources who are able to use modern technology in TPR

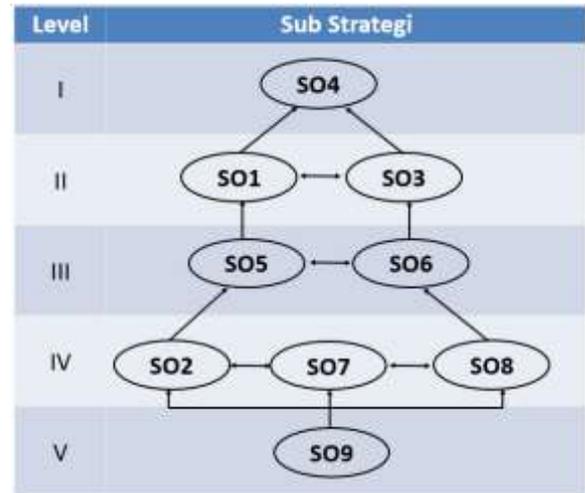


Figure 4. Hierarchical Structure of SO . Sub Strategy

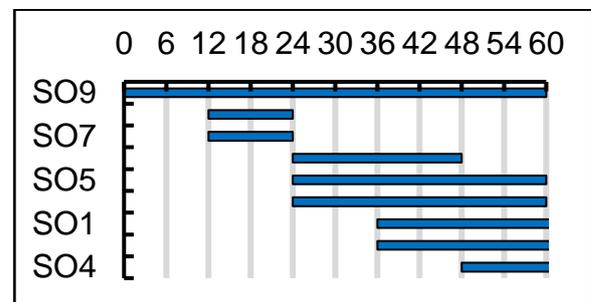


Figure 5. Roadmap Graphics

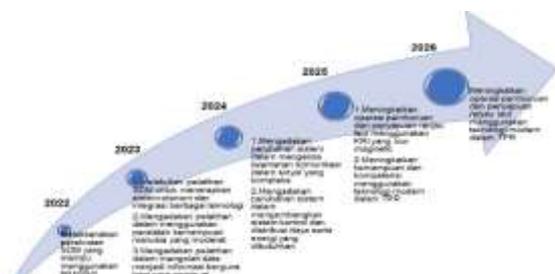


Figure 6. SO. Strategy Roadmap

5. CONCLUSIONS AND SUGGESTIONS

5.1. Conclusions

In this study, to obtain the expected results, several stages were carried out, starting from the problem identification stage, strategy formulation to determining strategic priorities and also carried out a sub-strategy roadmap. Based on the analysis and discussion of the several stages carried out, conclusions can be drawn from this study, including the following:

a. Factors that influence the improvement of the human resources capacity of the Satran Koarmada II are grouped into 2 factors, namely internal factors and external factors. Internal factors consist of seven strength factors and seven weakness factors.

Meanwhile, external factors consist of eight opportunity factors and eight threat factors.

b. In formulating a strategy to improve the HR capacity of the Satran Koarmada II, based on a SWOT analysis, four alternative strategies were obtained, namely the SO Strategy, WO Strategy, ST Strategy, and WT Strategy. The SO strategy consists of nine sub-strategies. The WO strategy consists of six sub-strategies. The ST strategy consists of nine sub-strategies, and the WT Strategy consists of seven sub-strategies. Based on the results of the study, it is known that the chosen strategy is the SO Strategy which consists of nine sub-strategies, which is the first alternative in the strategy to increase the HR capacity of the Satran Koarmada II.

c. The roadmap for improving the HR capacity of the Satran Koarmada II is: 1) In 2022, recruiting human resources capable of using modern technology in TPR for five years. 2) Conduct HR training to implement autonomous systems and integration of various technologies within one year. 3) Conduct training in the use of moderate human skills equipment within one year. 4) In 2023, conduct training in processing data into useful information for Indonesian Navy decision makers within two years. 5) In 2024, there will be a system change in managing communication security in complex signals within three years. 6) Implement system changes in developing control systems and distribution of power and energy required within three years. 7) In 2025 increase hunting and sweeping operations for sea mines using low magnetic KRIs within two years. 8) Improve the ability and competence to use modern technology in TPR within two years. 9) Year 2026 increase hunting and sweeping operations of sea mines using modern technology in TPR within one year.

5.2. Suggestions

Based on the results of the conclusions of this study, the following suggestions can be made:

a. It is hoped that in recruiting personnel who have the required qualifications and professions in accordance with the DSP at the Satran Koarmada II, considering the current condition of the Satran Koarmada II the personnel are not in accordance with the DSP. In addition, some positions in the organization still lack personnel at the officer level. Procurement of APR and updating of APR equipment is also a very important factor considering the main task of Satran Koarmada II itself.

b. It is hoped that there will be a special school for sea mines for Satran personnel and personnel who will serve in Satran Koarmada II, so that the personnel are in accordance with DSP and competence.

c. In this study, only one strategy out of the four selected strategies was discussed. For further research, it can be used as a reference by discussing other alternative strategies or by combining the four strategies.

d. In further research, it is necessary to develop an analysis of the implementation of strategies and plans for evaluating the results of the strategy, as well as calculating the risk of the impact of the strategic policy of increasing the capacity of the human resources of the Satran Koarmada.

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REFERENCES

- Akdon. (2009:34). *Strategic Management for Education Management*. Bandung: Alfabeta.
- Andhika Wira Kusuma, LY (2021). The Relevance of the Marine Defense Strategy Based on the Jalesveva Jayamahe Doctrine to Globalization and the Development of the Strategic Environment. *Journal of Defense Strategy Study Program*, 6, 1, 77-100.
- Bakrie, DC (2015). Minesweeper Latest Technology A Must. In *Cakrawala Edition 428* (p. 68). East Jakarta: Naval Information Service.
- Basri Mustari, SR (2018). Archipelago Marine Defense Strategy in Realizing Indonesia as the World Maritime Axis. *Journal of Universal War Strategy Study Program*, 4, 2, 17-36.
- Didit Herdiawan, AH (2020). Determination of Criteria and Strategies in Facing Archipelago War with the Dematel-ANP Approach. *Journal of Engineering*, 13, 1, 1-14.
- Eko Yuri A, DG (2018). Strategy of the Banten Naval Base in Supporting Security in the Indonesian-I Archipelago Sea Lane. *Journal of Universal War Strategy Study Program*, 4, 2, 71-88.
- Entrepreneur, J. (nd). Retrieved from <https://www.jurnal.id/id/blog/2017-benefits-factor-yang-memenaruhi-dan-sample-analysis-swot/>
- Gitiyarko, V. (2021, May 26). Retrieved from <https://kompaspedia.kompas.id/baca/paparan-topik/alutsista-dan-cepat-militer-indonesia>.
- Gray, CS (1999). Retrieved from <https://www.fb03.uni-frankfurt.de/45745416/Gray-1999---Modern-Strategy---Ch-5.pdf>
- Haras, YM (2017). The Role of the Navy in Supporting the Realization of Indonesia as a World Maritime Axis from a Defense Management

- Perspective. *Journal of Defense Management Study Program*, 3, 2, 1-14.
- Hart, BH (1991). *The Theory of Strategy The Classic Book on Military Strategy*. Meridian Book.
- I Nengah Putra A, SH (2017). *Conception of Building the Strength and Capability of the Indonesian Navy's Operational Information System in Supporting the Implementation of the Archipelago Sea Defense Strategy*. *ASRO JOURNAL-STTAL*, 7, 1-48.
- Kusnadi. (2000:82). *Introduction to Strategic Management*. Malang: Brawijaya University.
- Michael A. Hitt, d. (1997:42). *Strategic Management to Meet the Era of Globalization Competition*. Jakarta: Erlangga.
- Michael A. Hitt, d. (1997:43-44). *Strategic Management to Meet the Era of Global Competition*. Jakarta: Erlangga.
- Michael A. Hitt, d. (2001:53). *Strategic Management and Global Competitiveness Concepts*. Jakarta: Erlangga.
- Muhammad Ismail Yusanto, d. (2003:25). *Shari'ah Perspective Strategic Management*. Jakarta: Khairul Bayaan.
- Okol Sri Suharyo, JP (2017). *Application of the Analytic Network Process (ANP) Method in Determining Priorities for improving the ability of Lanal (TNI AL) human resources to become Lantamal (TNI AL Main Base)*. *Journal ASRO-STTAL-International Journal Volume 3*, 35-47.
- Rangkuti, F. (1997:18-19). *SWOT Analysis of Dissecting Business Case Techniques*. Jakarta: Gramedia Pustaka Utama.
- Reksohdiprodjo, S. (1990:6). *strategic management Edition II*. Yogyakarta: Andi.
- Robinson, P. (1997:229-230). *Strategic Management Formulation, Implementation, and Control*. Jakarta: Literature Development.
- Robinson, P. (1997:231). *Strategic Management Formulation, Implementation, and Control*. Jakarta: Literature Development.
- Satranarmatim. (nd). Retrieved from <https://satranarmatim.wordpress.com/sejarah-satran/>
- Shenoi, R. (2015, August). Retrieved from <https://eprints.soton.ac.uk/388628/1/GMTT2030.pdf>
- Siagian, SP (1995:172). *Strategy Management*. Jakarta: Earth Literacy.
- Siagian, SP (1995:173). *Strategy Management*. Jakarta: Earth Literacy.
- Suryani, SR (2018). *Dumai Navy Base Strategy in Dealing with People Smuggling at the Dumai Sea Border and the Malacca Strait*. *Journal of Asymmetric War Study Program*, 4, 3, 61-76.
- Tama Krishnadi, BH (2021). *Implementation of the Strategy for Increasing the Capacity of Human Resources in Increasing Employee Productivity in the Era of the Industrial Revolution 4.0*. *Journal of Social Sciences and Education*, 5, 2, 554-562.
- TNI, P. (2017, April 7). Retrieved from <https://tni.mil.id/view-111290-satuan-kapal-ranjau-dalam-cepat-alat-pesapuan-ranjau.html>.