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# Causal Analysis of the Posture of the Indonesian Navy and the Development of the Strategic Environment in Supporting the Archipelago's Sea Defense Strategy

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*ABSTRACT*

An understanding of these threats forms the basis for the Indonesian Navy in developing its strength, capability, operational doctrine and strategy, regional collaboration and enhancing maritime security and defense in Indonesia's jurisdiction. This study aims to identify variables from perceived threats and developments in the strategic environment to support the development of the Indonesian Navy's posture in supporting the implementation of the Archipelago Sea Defense Strategy using the Delphi method of analysis. Furthermore, the authors use the DEMATEL method to analyze the causal relationship between the criteria of the threat variable and developments in the strategic environment to determine strategies that can be applied in the development of the Indonesian Navy's posture for deploying Archipelago Sea Defense Strategy. From this analysis, it was obtained 8 (eight) variables that had an influence on the implementation of the SPLN which became the basis for the strategy for developing the Indonesian Navy's posture strength prioritizing the development of War ship, Naval Bases, Aircraft, Marines, and Special Forces. Meanwhile, the development of the Indonesian Navy's posture capabilities prioritizes increasing the capabilities of Defence, Security, maritime intelligence, Diplomacy, Support and Empowerment of marine defense environment. While the strategies that can be implemented in supporting the title of Archipelago Sea Defense Strategy include Increasing maritime diplomacy cooperation, Increasing the degree of maritime security and sea combat operations in selectively vulnerable areas such as hot areas and chock points and Integrating weapons systems that are adapted to Indonesia's geographical and geostrategic conditions.



## 1. Introduction.

In this rapidly changing era, an understanding of the strategic environment and threat perception is very important for every country that wants to maintain the security and stability of its territory. The development of the strategic environment which refers to changes and dynamics in the global and regional environment that can affect the national interests of a country affects the perception of threats or the perspective of a country towards potential threats that exist around it. In the defense context, it is important to understand the strategic environment to detect and identify threats that may arise and to formulate appropriate defense policies to anticipate these potential threats.

With the development of technology that can change the dimensions of warfare such as unmaned systems, stealth technology, cyber, artificial intelligence, IoT and weapons of mass destruction increase the speed, precision, explosive and multidimensional warfare in the future. In addition to this, current developments in geopolitical issues, such as the development of inter-state forces which are leading to an arm race to strengthen their military (arm race), economic crises, resource and food crises, environmental damage and the trend of minilateralism

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have also increased the challenges and risks of the Indonesia Navy's duties. thus demanding an increase in military capability, increased regional cooperation, flexibility, adaptability and toughness of the Indonesian Navy.

To anticipate the negative impacts of technological developments and potential threats arising from the constellation of regional and global geopolitical issues, the development of the Indonesian Navy's posture is directed at realizing the strength and capability of the Indonesian Navy which is modern, has a global projection and has a strong deterrent effect. Adoption of technologies such as artificial intelligence, automation systems and smart defense systems is needed in efforts to early detect and identify all forms of threats, increase the capability of defense equipment in terms of speed, radius of reach, precision and destructive power. In addition to this, increased defense and intelligence capabilities are also needed to protect oneself from weapons, cyber and espionage attacks from opponents.

In this study, the authors aim to identify threat variables and developments in the strategic environment and then formulate a strategy for developing the Indonesian Navy's posture to support the archipelago's maritime defense strategy. This research is important to do considering the need for the Indonesian Navy to develop the Indonesian Navy's strength posture for 2025-2044 which is currently the final stage of the Strategic Plan 2020-2024 in the phasing of the development of the Indonesian Navy's posture for 2005-2024. To identify using the threat variables and strategic environmental developments, the authors use the Delphi method analysis, then to determine the causal interconnection relationship between the criteria of the variables above the authors use the DEMATEL method analysis approach as a basis for determining the Indonesian Navy's posture development strategy. This research can provide several contributions, including: Providing an evaluation and understanding of perceived threats arising from the current developments in the strategic environment. This research can be used as a reference in planning and developing the posture of the Indonesian Navy, besides this research also provides information for leadership. TNI AL in strategic decision making.

## 2. Literature Review.

### *2.1. Threat Perception.*

Yarger (2006) explains that the strategic environment is a variety of contexts, conditions, relationships, trends, issues, threats, opportunities, interactions, and impacts on the internal and external of a State entity that affect its success in establishing relationships with the physical world, other State entities. (state actors), non-state actors, opportunities and possibilities in the future These non-state actors can be in the form of organizations in the private sector, both profit-oriented and non-profit oriented. Therefore, the strategic environment becomes a space and time where state entities grow, develop, or experience destruction.

What happened or will happen in the strategic environment is basically possible, predictable, reasonable, and unknown / unknown (Bandoro, 2013). However, the strategic environment shows two characteristics at once, namely randomness and order so that it is not completely unpredictable, random or uncontrollable (Yarger, 2006). The above situation makes the strategic environment a phenomenon with high complexity.

Owen Jacobs (in Gerras, 2010) reveals that the strategic environment has VUCA properties, namely volatility, full of uncertainty, very complex, and ambiguous. Volatility is the nature of the strategic environment that changes so quickly. When the rapid nature of change creates uncertainty in the strategic environment. The relationship between elements in a strategic environment is so complex. Planning and decision making becomes increasingly difficult in a strategic environment due to ambiguity.

Changes and developments in the strategic environment have implications for policy output and the direction of orientation of political institutions. This will have implications, both positive and negative at the same time. Positive implications will bring benefits in supporting political ideals, goals and interests, while negative implications will cause an increase in potential threats to political sustainability. Therefore, the development of the strategic environment needs to be scrutinized by analysts, designers, makers and political decision makers in order to achieve survival of the fittest (Bhakti, 2004). Changes in the strategic environment, according to Yarger (2006), may result from the change opportunity itself (by chance) or it can also be engineered or designed (by design). Surely, every single element changes or certain actors in the strategic environment make changes, it will have an impact on the entire strategic environment. The strategic environment can be scanned through multiple dimensions. Bandoro (2013) states that the dimensions of security, economics, politics, society, technology, and so on are studied to scan the strategic environment. Meanwhile, David (2013) explains that the dimensions of politics, government, law, economy, socio-culture, environment, technology, and competition between entities need to be viewed in a strategic environment. economics (economics), politics (politics), social (society), technology (technology), and so on are studied to scan the strategic environment. Meanwhile, David (2013) explains that the dimensions of politics, government, law, economy, socio-culture, environment, technology, and competition between entities need to be viewed in a strategic environment. economics (economics), politics (politics), social (society), technology (technology), and so on are studied to scan the strategic environment. Meanwhile, David (2013) explains that the dimensions of politics, government, law, economy, socio-culture, environment, technology, and competition between entities need to be viewed in a strategic environment.

### *2.2. Indonesian Navy Posture.*

The posture of the Indonesian Navy is the composition of the forces, capabilities and patterns of deployment of the Indonesian Navy which are aimed at implementing the national defense policy at sea in maintaining sovereignty and territorial integrity, protecting the interests and safety of the nation and taking an active role in safeguarding regionally and internationally. The development of the Indonesian Navy's posture is oriented in dealing with various forms of threats that are aligned

with the government's policies and vision in realizing the world maritime axis, the country's long-term development plan and paying attention to the national defense strategy, military strategy and Archipelago Sea Defense Strategy. (Perkasal no 6, 2016).

The rationale in developing the posture of the Indonesian Navy is to realize Indonesia as a world maritime axis by establishing five main pillars, namely by rebuilding a maritime culture, committing to protecting and managing marine resources with a focus on building seafood sovereignty through developing the fishing industry by placing fishermen as the main pillar , commitment to encourage the development of maritime infrastructure and connectivity by building sea highways, seaports, logistics, the shipping industry and maritime tourism, maritime diplomacy that invites all Indonesian partners to work together in the maritime sector and finally by building a maritime defense force. (Ministry of Maritime Affairs and Fisheries, 2021).

To support this government policy, the Ministry of Defense and related institutions are committed to realizing national security that supports economic independence by securing maritime resources and reflecting Indonesia's personality as an archipelagic country, strengthening identity as a maritime country, and realizing Indonesia to become an independent, advanced maritime country, strong and based on national interests. The Indonesian Navy translates this policy into a national sea defense strategy by taking into account all geographical aspects of Indonesia as an archipelagic country. The national defense strategy is structured in layers and shifts in the battlefield are organized in a universal defense system based on three interrelated pillars starting from the aspect of deterrence, layered defense and control of the sea which is embodied in the Archipelago Sea Defense Strategy. (Perkasal no 6, 2016). The development of the Indonesian Navy's posture takes into account various aspects with a planning approach based on threat scenarios, policies for strengthening the national defense system, PMD policies, RPJPN 2005-2025, operational capabilities and technological developments.

### *2.3. Archipelago Sea Defense Strategy.*

Archipelago Sea Defense Strategy is a defense strategy implemented at sea that is dynamically influenced by developments in the strategic environment and the availability of national resources which are carried out through joint operations, dimension operations and assistance operations supported by national forces. Archipelago Sea Defense Strategy is oriented towards the concept of an archipelagic state, which means that the sea defense of the archipelago must consider the geographical conditions of Indonesia as an archipelagic country. The government's vision of establishing Indonesia as the world's maritime axis is a thought that needs to be carried out in building strength based on Indonesia's geographical conditions as an archipelagic country. The existence of the Indonesian Government's vision to make Indonesia a world maritime axis has implications for the country's defense strategy including the Archipelago Sea Defense Strategy. The three main concepts that underlie Archipelago Sea Defense Strategy are the concept of layered defense, shifting the battlefield, and universal defense. The Archipelago Sea Defense Strategy's strategic objectives are to prevent the intentions of disruptive parties, to overcome various kinds of threats, and to create controlled maritime jurisdiction conditions. These three targets will be achieved by Archipelago Sea Defense Strategy which contains three main generic strategies namely deterrence strategy, layer defense strategy and sea control strategy. The formulation of the Archipelago Sea Defense Strategy itself is translated into aspects of marine defense which include: These three targets will be achieved by Archipelago Sea Defense Strategy which contains three main generic strategies namely deterrence strategy, layer defense strategy and sea control strategy. The formulation of the Archipelago Sea Defense Strategy itself is translated into aspects of marine defense which include: These three targets will be achieved by Archipelago Sea Defense Strategy which contains three main generic strategies namely deterrence strategy, layer defense strategy and sea control strategy. The formulation of the Archipelago Sea Defense Strategy itself is translated into aspects of marine defense which include:

a. Deterrence Strategy, directed to prevent the intentions of parties who will interferestate sovereignty and territorial integrity of the Republic of Indonesia, as well as those that will harm national interests through naval diplomacy, presence at sea, especially in border areas that have the potential to become a source of conflict in the future, as well as building the capabilities and strength of the Indonesian Navy.
b. The Layered Defense Strategy is directed at eliminating and destroying external threats through the deployment of combined sea and air forces in the buffer defense field, the main defense field and resistance areas by involving the Indonesian Navy and all major maritime components supported by the Indonesian Air Force. A layered defense strategy was applied during wartime in the form of sea combat operations which have a forward defense concept while taking into account the concept of shifting the battlefield.
c. Sea Control Strategy, directed at ensuring the use of the sea for one's own strength and preventing the use of the sea by opponents, breaking the opponent's sea communication lines as well as preventing and eliminating various aspects of maritime threats from within the country through the deployment of forces in the form of daily sea operations and combat alert operations sea with the support of the Indonesian Air Force in selectively vulnerable waters.

The Archipelago's Sea Defense System will continue to develop dynamically in accordance with the dynamics of increasingly complex threat developments. The main objective is to maintain the sovereignty of the Republic of Indonesia, protect national resources and interests and ensure the stability and security of Indonesian waters.

### *2.4. Indonesia Sea Power.*

Sea power is a term that refers to the power and influence possessed by a country through its dominance in the seas. The concept of sea power involves the use of military, economic

and political power in territorial waters to influence policies and relations between nations. Sea power involves several aspects, including:

a. Naval Power: Sea power is closely related to a nation's naval capabilities, including warships, seaplanes, submarines, and amphibious forces. Military power in the seas can give countries the influence and ability to defend national interests and support military operations in the maritime area.
b. Maritime Domination: Sea power involves the domination or control of a country over a large area of water. This includes controlling strategic shipping lanes, maintaining a presence that isstrong around national waters, and able to control access and use of natural resources in the oceans.
c. Maritime Security and Defense: Sea power involves efforts to maintain maritime security and defense from threats that may arise, including threats from other countries, piracy, illegal trade, and non-traditional threats such as terrorism and the spread of weapons of mass destruction.
d. Economic Influence: Sea power also includes the ability of a country to use its maritime economic potential. This involves the exploitation and protection of natural resources in the oceans, the development of a maritime industry, international trade, and the ability to influence the global economy through a presence on major trade routes.
e. Maritime Diplomacy: Sea power can be used as a diplomatic tool to build good relations with other countries through maritime cooperation, maritime law enforcement, handling natural disasters, and cooperation in managing fisheries resources and the marine environment.

Success in building and maintaining sea power can provide strategic advantages for the country in a geopolitical and geoeconomic context. Countries that have strong sea power can influence regional policies, maintain national security, and expand their influence in the maritime world.

## 3. Methodology.

In this study the authors used a research framework that described all the steps taken by the authors to complete this research. The research framework is as follows (Figure 1).

### *3.1. DEMATEL.*

DEMATEL (Decision-Making Trial and Evaluation Laboratory) is an analytical method used to model and analyze causal relationships between elements in a system. This method provides a framework for analyzing and understanding the complexity of the relationships between elements in a complex problem or system. DEMATEL is usually used in making decisions that are complex and have a significant impact. This method involves an iterative process involving modeling, analysis, and evaluation of the interactions and influences between elements in the system. (Lee et al., 2013)

DEMATEL is a useful method in understanding complex causal relationships in systems and can be used to identify key factors that affect performance or problems in a system. This method has been used in a variety of fields, including management, finance, engineering, environment, and others. The steps in the DEMATEL method include:

Identify Variables: The first step is to identify the variables and criteria associated with the problem being studied. This element can be in the form of variables, decisions, environmental factors, or other factors that are relevant in the context of the problem to be solved.

Making a Direct Relationship Matrix: this matrix is obtained by carrying out pairwise comparisons between criteria. Next, a causal matrix is created which describes the causal relationship between the elements that have been identified. This matrix is used to record the positive or negative influence between each pair of elements.

Direct Relationship Matrix Normalization. The normalization step for the direct relationship matrix is carried out by multiplying the matrix by the identity matrix, so that the value of the diagonal elements of the matrix is equal to zero. The matrix normalization formulation is as follows:

$$M = k.A \tag{1}$$

Where,

$$k = \left( \frac{1}{\sum_{j=1}^{n} |a_{ij}|} , \frac{1}{\sum_{i=1}^{n} |a_{ij}|} \right)$$

Calculating the Total Relationship Matrix. This step is done by inverting the normalized direct relationship matrix and then multiplying it by the direct relationship matrix. The formulation in this step is as follows:

$$S = M + M^2 + M^3 + \cdots = \sum_{i=1}^{\infty} M^i$$

Where,

$$S = M(1 - M)^{-1} \tag{2}$$

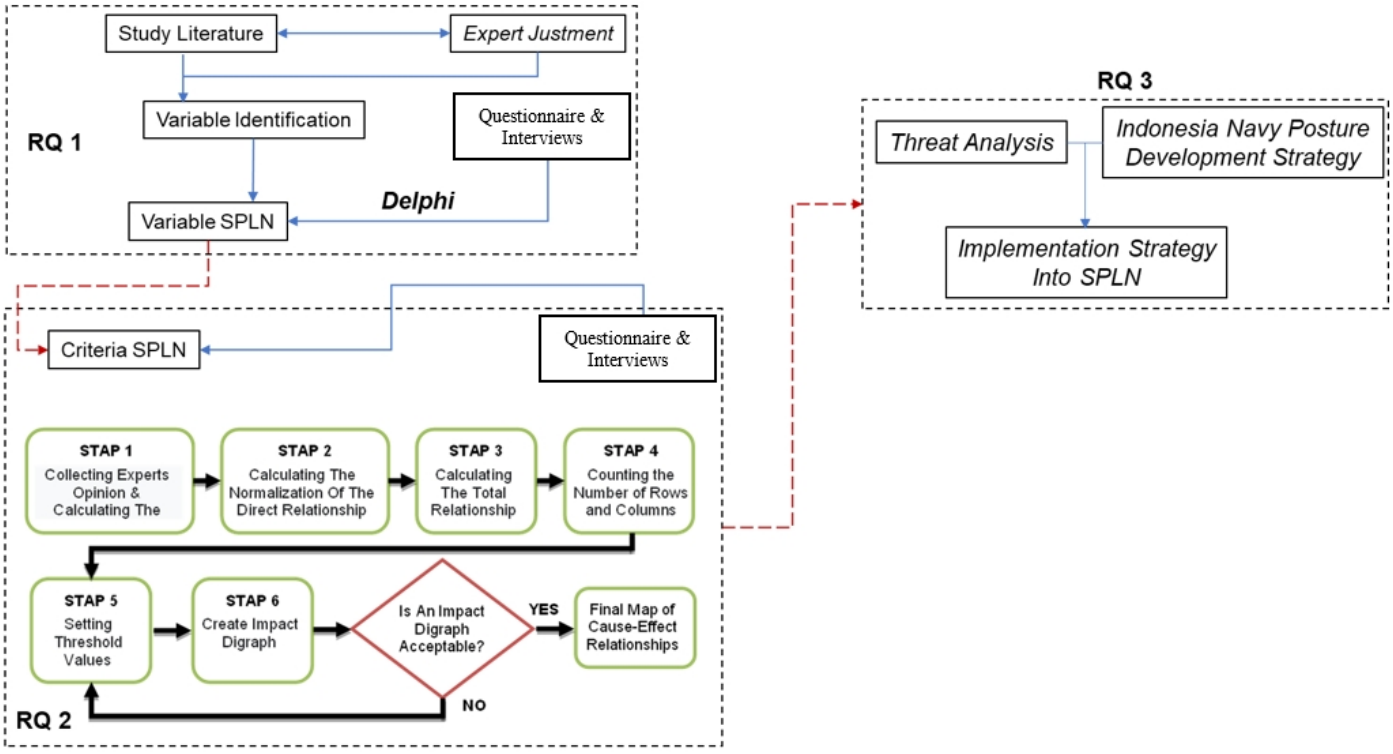
Define Dispatcher and Receiver Groups. The grouping of criteria into the Dispatcher or Receiver group is determined from the D + R and DR values, where the R value is obtained from the sum of each column while the D value is obtained from the sum of each row in the total relationship matrix. The value of D + R indicates the level of dominance of a variable over other variables, while the DR value indicates that this variable acts as an influencing variable (if the DR value is positive) and acts as a variable that receives influence if the DR value is negative. The formulation forms of D and R are as follows:

$$D = \sum_{j=1}^{n} S_{ij} \tag{3}$$

$$R = \sum_{t=1}^{n} S_{ij} \tag{4}$$

Set threshold values and create Impact Digraph maps. To get the relationship on the Impact Digraph map, it is determined

Figure 1: Research Framework.




Source: Author.

by reference to the threshold value. Only a few criteria that have a value greater than the threshold value can be selected and converted into an Impact Digraph map. The threshold value can be determined from the discussion of experts or obtained from the average value on the total relationship matrix. The results obtained at this stage can be used to provide an understanding of causal relationships in the system. This information can be used to identify the most important variables, understand the main causative factors, and assist in making decisions regarding system improvement or management.

## 4. Results and Discussion.

In this section, the results of the data processing performed in this study are displayed, while the results of data processing are as follows.

### *4.1. Key Variable Identification.*

At this stage, the authors conducted a questionnaire to 5 experts to identify variables and criteria from threat perception, Indonesia Navy posture and developments in the current strategic environment. The results of this identification step are as we can see at Table 1.

### *4.2. Looking for Causal Interconnection.*

To obtain the causal interconnection of each variable and criterion, the authors use the DEMATEL analysis method, where the steps taken are as follows.

1. Calculating the Direct Relationship Matrix. In this step, the total relationship matrix is obtained from the average value of the questionnaire that has been conducted by the author to 5 experts.
2. Normalization of the direct relationship matrix. In the normalization stage of the direct relationship matrix, this step uses formulation 1.
3. Calculating the Total Relationship Matrix. To obtain the total relationship matrix, the authors apply formula 2.
4. Define Dispatcher and Receiver Groups. The results of this step are shown in Table 2:
5. Define threshold values and create an Impact Digraph map. From Table 2, an impact digraph map can be made as we can see at Figure 2.

### *4.3. Threat perception.*

The nature of threats can be viewed from a variety of perspectives which really depend on how an entity views it. (Nengah Putra et al., 2013) mentions threats as all kinds of good things that are still in potential or in the form of activities that threaten sovereignty, integrity, and include efforts to change the essence of a sovereign country both coming from outside and within the country's territory. Meanwhile (David et al., 2017) states that a threat is something that is referred to by an organization because it can affect the sustainability of an organization's existence and operations so that it becomes the center of attention and needs to be addressed carefully.

Table 1: Identification of Variables and Criteria.

| VARIABLE | CRITERIA | SUB-CRITERIA |
|---|---|---|
| Threat Perception | Potential Threats | Threat of Military Aggression |
| | | LCS conflict |
| | | Conflict related to the issue of SARA Separatism and radicalism |
| | | Trouble Spots |
| | | Chock Point |
| Indonesia Navy posture | Ability | maritime intelligence |
| | | Defense |
| | | Security |
| | | Diplomacy |
| | | Empowerment of marine defense environment |
| | | Support |
| | Strength | War Ship |
| | | Aircraft |
| | | Marines |
| | | Naval Base |
| | | Special force |
| | | Personnel |
| | Degree of Strength | Deployments |
| | | Employment |
| Strategic Environmental Development | Political | Political Tensions in the Asia Pacific Region |
| | | Potential Border Conflict |
| | | Political contest towards the 2024 election |
| | Economy | Free trade |
| | | Resource limitations |
| | | The economic growth of China, India and Australia can increase their political gain in the Asia Pacific region |
| | | The competitiveness of Indonesia's workforce and products is still weak |
| | Defense and security | Israeli-Palestinian conflict |
| | | Russia-Ukraine conflict |
| | | Development of separatist groups affiliated with Global Terosis |
| | | Building the military strength of neighboring countries that have the support of superpower countries |
| | | Cyber threats and Intelligence are still very vulnerable for Indonesia |
| | Technology | Development of war technology (Weapons of mass destruction, long range weapons, supersonic weapons, drones) |
| | | Development of information and communication technology |
| | | The development of artificial intelligence (AI) technology, IoT and Big data |

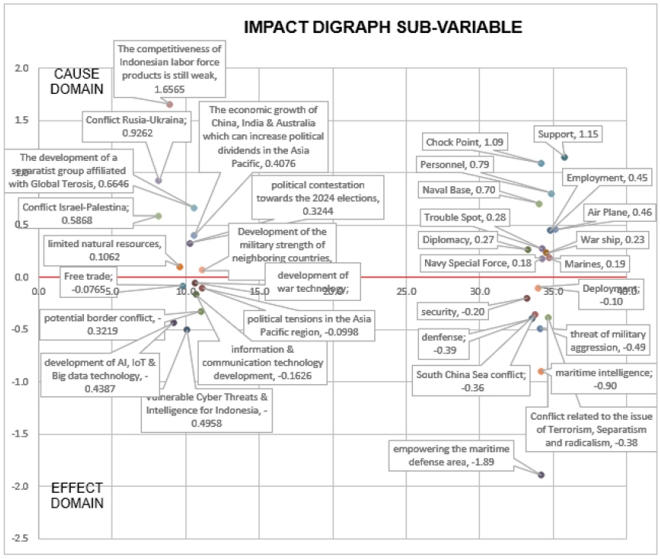
Source: Authors.

To analyze the threat perception formed from the development of the strategic environment, it is carried out by taking into account the results of DEMATEL data processing on the value or weight of influence on the threat sub-criteria in the D + R column which can be used to assess the risk of the threat. In Table 3.

### *4.4. Indonesia Navy Posture.*

The development of the Indonesian Navy's posture takes into account various aspects with a planning approach based on threat scenarios, policies for strengthening the national defense system, PMD policies, RPJPN 2005-2025, operational capabilities and technological developments. Based on the above considerations and also with the development of the strategic environment and perceptions of potential threats, the development of the Indonesian Navy's posture focuses on strength that is oriented towards increasing the ability of the Indonesian Navy in

Figure 2: Impact Digraph Sub-Criteria.




Source: Authors.

carrying out its duties and responsibilities as the main element of national defense at sea. In the analysis of the DEMATEL method on the sub-criteria of the Indonesian Navy's posture, the priority for the development of the Indonesian Navy's posture is obtained as we can see at Table 4.

### *4.5. Implementation in Archipelago Sea Defense Strategy.*

As a form of implementation of the Archipelago Sea Defense Strategy based on an analysis of the threat perception and posture of the Indonesian Navy, the Indonesian Navy's strategy for deploying the Archipelago Sea Defense Strategy is as follows:

**Deterrence Strategy** directed at preventing the intentions of parties that would disturb the sovereignty of the state and the territorial integrity of the Republic of Indonesia and which would harm national interests through naval diplomacy, the presence at sea is prioritized in border areas which have the potential to become a source of conflict and build the strength and capabilities of the Indonesian Navy. Deterrence strategies can be carried out through the following steps:

1. Naval Diplomacy. The realization of naval diplomacy in the deterrence strategy is carried out through: Cooperation in the field of war technology, advanced defense systems, and integrated information and communication systems, intelligence and cyber as well as regional cooperation in the form of joint exercises and maritime patrols.
2. Presence at Sea. The presence of Indonesia Navy forces at sea is carried out through operations: Monitoring, patrolling and law enforcement at sea, Security operations in support of the government to overcome conflicts related to SARA issues, terrorism, separatism and radicalism and maintain stability in the territorial waters of the Archipelago.

Table 2: Grouping of Dispatchers and Receivers.

| VARIABLES AND CRITERIA | | D | R | D+R | RANK | D - R | RANK | INFORMATION | |
|---|---|---|---|---|---|---|---|---|---|
| POTENTIAL THREATS | threat of military aggression | 5,459 | 5.2555 | 10.7140 | 12 | 0.2031 | 12 | dispatchers | CAUSE |
| | South China Sea conflict | 5,434 | 5.4747 | 10.9087 | 8 | -0.0408 | 22 | Receivers | EFFECT |
| | Conflict related to the issue of Terrorism, Separatism and radicalism | 5,096 | 4.6864 | 9.7820 | 29 | 0.4093 | 6 | dispatchers | CAUSE |
| | Trouble Spots | 5,168 | 4.8850 | 10.0526 | 26 | 0.2826 | 10 | dispatchers | CAUSE |
| | Chock Point | 5,26 | 4.7269 | 9.9868 | 27 | 0.5330 | 5 | dispatchers | CAUSE |
| ABILITY | maritime intelligence | 5,404 | 5.4911 | 10.8956 | 9 | -0.0866 | 25 | Receivers | EFFECT |
| | defense | 5,789 | 6.1350 | 11.9242 | 1 | -0.3458 | 32 | Receivers | EFFECT |
| | security | 5,566 | 5.7145 | 11.2805 | 2 | -0.1485 | 28 | Receivers | EFFECT |
| | Diplomacy | 5,344 | 5.1126 | 10.4567 | 19 | 0.2314 | 11 | dispatchers | CAUSE |
| | empowering the maritime defense area | 5,224 | 5.0661 | 10.2901 | 21 | 0.1579 | 14 | dispatchers | CAUSE |
| | support | 5,269 | 5.1132 | 10.3822 | 20 | 0.1558 | 15 | dispatchers | CAUSE |
| STRENGTH | war ship | 5,668 | 5.5874 | 11.2558 | 3 | 0.0810 | 19 | dispatchers | CAUSE |
| | Air Plane | 5,357 | 5.5073 | 10.8642 | 10 | -0.1504 | 29 | Receivers | EFFECT |
| | Marines | 5,356 | 5.2616 | 10.6175 | 14 | 0.0943 | 18 | dispatchers | CAUSE |
| | Naval Base | 5,482 | 5.6275 | 11.1094 | 5 | -0.1455 | 27 | Receivers | EFFECT |
| | Navy Special Forces | 5,19 | 4.8667 | 10.0570 | 25 | 0.3235 | 9 | dispatchers | CAUSE |
| | Personnel | 5,309 | 5.1696 | 10.4782 | 17 | 0.1390 | 16 | dispatchers | CAUSE |
| OPS DEGREE | Deployments | 5,078 | 5.0565 | 10.1348 | 23 | 0.0219 | 21 | dispatchers | CAUSE |
| | Employment | 5,313 | 5.1450 | 10.4578 | 18 | 0.1678 | 13 | dispatchers | CAUSE |
| POLITICAL | political tensions in the Asia Pacific region | 5,506 | 5.6059 | 11.1120 | 4 | -0.0998 | 26 | Receivers | EFFECT |
| | potential border conflicts | 5,379 | 5.7012 | 11.0805 | 7 | -0.3219 | 31 | Receivers | EFFECT |
| | political contestation towards the 2024 elections | 5,286 | 4.9620 | 10.2483 | 22 | 0.3244 | 8 | dispatchers | CAUSE |
| ECONOMY | Free trades | 4,865 | 4.9412 | 9.8058 | 28 | -0.0765 | 24 | Receivers | EFFECT |
| | limited natural resources | 4,851 | 4.7444 | 9.5949 | 30 | 0.1062 | 17 | dispatchers | CAUSE |
| | The economic growth of China, India & Australia which can increase political dividends in the Asia Pacific | 5,481 | 5.0736 | 10.5548 | 15 | 0.4076 | 7 | dispatchers | CAUSE |
| | The competitiveness of Indonesian labor force products is still weak | 5,276 | 3.6197 | 8.8958 | 32 | 1.6565 | 1 | dispatchers | CAUSE |
| DEFENSE | Israeli-Palestin conflict | 4.39 | 3.8034 | 8.1935 | 33 | 0.5868 | 4 | dispatchers | CAUSE |
| | Russia-Ukraine conflict | 4,553 | 3.6266 | 8.1793 | 34 | 0.9262 | 2 | dispatchers | CAUSE |
| | The development of a separatist group affiliated with Global Terosis | 5,608 | 4.9439 | 10.5524 | 16 | 0.6646 | 3 | dispatchers | CAUSE |
| | Development of the military strength of neighboring countries | 5,587 | 5.5222 | 11.1090 | 6 | 0.0646 | 20 | dispatchers | CAUSE |
| TECHNOLOGY | Vulnerable Cyber Threats & Intelligence for Indonesia | 4,795 | 5.2911 | 10.0864 | 24 | -0.4958 | 34 | Receivers | EFFECT |
| | development of war technology | 5,308 | 5.3589 | 10.6666 | 13 | -0.0512 | 23 | Receivers | EFFECT |
| | information & communication technology development | 5,279 | 5.4414 | 10.7202 | 11 | -0.1626 | 30 | Receivers | EFFECT |
| | development of AI, IoT & Big data technology | 4,347 | 4.7852 | 9.1317 | 31 | -0.4387 | 33 | Receivers | EFFECT |

Source: Authors.

**Sea Control Strategy** directed at guaranteeing the use of the sea for one's own strength and preventing the use of the sea by the opponent, breaking the sea link of the opponent and preventing and eliminating various forms of threats to aspects of the sea both from within and from outside through the deployment of forces in the form of daily sea operations and sea combat alert operations supported by the strength of the Indonesian Air Force in selectively vulnerable waters. Deterrence strategies can be carried out through the following steps:

1. Sea combat alert operations are carried out by holding Purla operations in selectively vulnerable waters, hot spot areas, chock points and border areas as well as outer islands.
2. Daily sea operations realized through maritime security operations to prevent smuggling and address threats to national economic interests. Carrying out humanitarian assistance operations (civil missions), assistance to the Police, assistance to the civilian government, shipping security, search and rescue assistance, evacuation assistance and natural disaster management.
3. Opposition to destroy opposing forces. The development of the capabilities of the Indonesian Navy is based on three basic capabilities, namely surface and sub-surface warfare capabilities and force projection from sea to land.
4. Operations to blockade the opposing forces are carried out through operations in the jurisdictional areas of Indonesian waters which are points of conflict (Trouble spots) and strategic shipping lanes (choke points) which require increased supervision and require the presence of military forces to be able to prevent (anti-access) opponent's strength.
5. Own sea line protection operation. This step is a strategy of the Indonesian Navy to protect vital lines of communication and sea transportation for the national interest. This effort is carried out by supervising and monitoring vital sea connecting lanes including monitoring ship activities, identifying potential threats and analyzing real-time sea/operational areas and Empowerment of marine defense environment.

**Layered Defense Strategy** directed to destroy threats from outside through the deployment of combined sea and air forces in the buffer defense field, the main defense field and resistance areas by involving all the forces of the Indonesian Navy along with all maritime components. The Layered Defense Strategy is implemented in times of war in the form of sea combat operations that are defensive in nature while still paying attention to

Table 3: Threat Perceived Priorities.

| NO | SUB-CRITERIA | MARK | RANK |
|---|---|---|---|
| 1 | Threat of military aggression | 10.71 | 6 |
| 2 | LCS conflict | 10.91 | 4 |
| 3 | Conflict related to issues of SARA, separatism and radicalism | 9,782 | 14 |
| 4 | Trauble Spot | 10.05 | 11 |
| 5 | Chock point | 9,987 | 12 |
| 6 | Political tensions in the Asia Pacific region | 11,11 | 1 |
| 7 | Potential border conflicts with neighboring countries. | 11.08 | 3 |
| 8 | Political contest towards the 2024 election | 10.25 | 9 |
| 9 | Free trade | 9,806 | 13 |
| 10 | Resource limitations | 9,595 | 15 |
| 11 | Israeli-Palestinian conflict | 8.194 | 17 |
| 12 | Russia-Ukraine conflict | 8,179 | 18 |
| 13 | The development of separatist groups affiliated with global terrorism | 10.55 | 8 |
| 14 | Building the military strength of neighboring countries that have the support of superpower countries | 11,11 | 2 |
| 15 | Cyber threats and Intelligence are still very vulnerable for Indonesia | 10.09 | 10 |
| 16 | Development of war technology (Weapons of mass destruction, long range weapons, supersonic weapons, drones) | 10.67 | 7 |
| 17 | Development of information and communication technology | 10.72 | 5 |
| 18 | The development of artificial intelligence (AI) technology, IoT and Big data | 9.132 | 16 |

Source: Authors.

Table 4: Priorities for the Development of the Indonesian Navy's Posture.

| Indonesian Navy POSTURE | | | | |
|---|---|---|---|---|
| **POWER** | **D** | **R** | **D+R** | **RANK** |
| War ship | 5,67 | 5.59 | 11.26 | 1 |
| Naval Base | 5,48 | 5,63 | 11,11 | 2 |
| Aircraft | 5,36 | 5,51 | 10.86 | 3 |
| Marines | 5,36 | 5,26 | 10.62 | 4 |
| Personnel | 5,31 | 5,17 | 10.48 | 5 |
| Special force | 5,19 | 4.87 | 10.06 | 6 |
| **CAPABILITIES** | **D** | **R** | **D+R** | **RANK** |
| Defense | 5.79 | 6,13 | 11.92 | 1 |
| Security | 5.57 | 5,71 | 11.28 | 2 |
| maritime intelligence | 5,40 | 5,49 | 10.90 | 3 |
| Diplomacy | 5,34 | 5,11 | 10.46 | 4 |
| Support | 5,27 | 5,11 | 10.38 | 5 |
| Empowerment of marine defense environment | 5,22 | 5.07 | 10,29 | 6 |

Source: Authors.

the concept of shifting the battlefield. A layered defense strategy can be carried out through the following steps:

1. Support field. The strategies carried out include carrying out sea security patrol operations, monitoring using radar and satellites, air defense systems and law enforcement at sea.
2. The main line of defense. It is carried out through sea combat operations using a strategic strike force assisted by the Indonesian Air Force.
3. Battle field. The title of Indonesia Navy strength includes all the strengths and resources owned by the Indonesia Navy which are organized through permanent titles (deployment) and enforcement titles (employment) in the implementation of the Universal Defense Strategy, assisted by the projection of the TNI's strength from land to sea as well as all national forces.

**Implication**

The theoretical benefit of this research is to provide an evaluation and understanding of perceived threats posed by current developments in the strategic environment and can be used as a reference in planning and developing the Indonesian Navy's posture.

While the practical benefit is being able to carry out analysis using the Delphi and DEMATEL method approaches in identifying variables and formulating strategies for developing the Indonesian Navy's posture to support the archipelago's maritime defense strategy.

## Conclusions.

From the discussion above it can be concluded as follows:

1. The priority for building the strength of the Indonesian Navy focuses on increasing KRI, Bases, Aircraft, Marines and Special Forces of the Indonesian Navy.
2. Meanwhile, the capacity building of the Indonesia Navy prioritizes the aspects of Defense, Security, Maritime Intelligence, Diplomacy, Support and Empowerment of marine defense environment.
3. Strategies that can be carried out in support of the Archipelago Sea Defense Strategy operation degree include:
4. Increasing naval diplomacy through cooperation in the fields of war technology, advanced defense systems, and integrated information and communication systems, intelligence and cyber as well as regional cooperation in the form of joint exercises and sea patrols.
5. Operation Kamla and Purla in selectively vulnerable sea areas, points of conflict and strategic shipping lanes to block enemy forces and protect SLOT and SLOC from enemy interference.
6. Carry out the integration of the Indonesia Navy weaponry system in accordance with Indonesia's geographical and geostrategic conditions.
7. One of the weaknesses of the Delphi method is that there is panel bias, which is caused by the tendency of experts to only look for information that supports their views and the tendency to follow the views of the majority in the panel. To overcome these weaknesses, in the variable identification step, the Fuzzy-Delphi method can be used to overcome possible biases.
8. In the next research conducted, it can be continued using the System Dynamics method to be able to simulate and analyze strategic policies and find out the effects they have.

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