Comparative Study on Maritime Security Theory of Mahan Alfred Thayer and Geoffrey Till on the Strategic and Practical Implications of Constructing a Sea Defense

Ferdy Leorocha¹, Pujo Widodo², Achmed Sukendro³, Herlina Juni Risma Saragih⁴, Panji Suwarno⁵
¹, ², ³, ⁴, ⁵ Faculty of National Security Maritime Security Study Program Defense University of the Republic of Indonesia, Salemba, Indonesia

e-mail: leorochaferdy@gmail.com

Abstract—Nowadays, the existence of maritime security had developed increasingly due to the threat of transnational crimes at sea. This security required countries to expand their maritime defense capabilities in preventing threats to national sovereignty and security. In developing maritime defense capabilities, maritime security theory was necessary to construct the basis of a country’s maritime defense strategy and policy. Thayer and Till were two maritime security theorists who made numerous contributions to expanding this concept. Therefore, this study was conducted to construct a comparison of their maritime security theory dealing with the strategic and practical implications for constructing the country’s maritime defense. To collect the data, a qualitative approach with a comparative descriptive method was employed in this study. The collected data were sourced from reliable sources such as books, journals, and articles related to the theory of maritime security and national sea defense. Finally, the results of this study indicated that the two theories hold several similarities in terms of the importance of sea power as an essential component in a maritime defense strategy. However, differences in the implications of both theories about geopolitics and national maritime defense policies were also revealed. The strategic and practical implications of both theories needed to consider in constructing a country’s maritime defense, particularly in confronting the increasingly complex maritime security challenges.

Keywords—Theory, Maritime Security, Sea Defense, Geopolitics, Sea Power.

I. INTRODUCTION

Maritime is regarded as an important sector in modern society due to the majority of global commerce being carried out by sea. Furthermore, the sea has been categorized as a wealthy source of natural resources including fish, oil, gas, and minerals. As a result, maintaining maritime security is critical. Threats from transnational illegal activities such as theft, piracy, and maritime terrorism have additionally developed more complex [1]. Moreover, transnational crimes including drug and human trafficking pose serious risks at sea [2]. As a consequence, countries must keep improving maritime surveillance and tracking by utilizing modern technology such as satellite and drone monitoring equipment.

Furthermore, International cooperation is certainly necessary for establishing an efficient and effective maritime security system [3]. To enhance maritime security, this cooperation involves information exchange, personnel training, and joint patrols. In addition to prevention efforts, transnational crimes at sea that have transpired are required. This must be done quickly, precisely, and effectively to have a deterrent effect on perpetrators and prevent future criminal acts. As a whole, maritime security has become increasingly complex as a result of threats originating from transnational criminal activities at sea. As a result, countries must strengthen their maritime defense systems to defend sovereign rights and security.
In this context, developing a country’s maritime defense capability demands an understanding of maritime security theory. Thayer and Till are two maritime security theorists who have contributed significantly to the development of the maritime defense concept. Numerous factors contributed to the preference of the theory by the two experts. First, both are well-known figures in maritime security studies who have had a significant impact on the development of maritime defense strategies. Second, due to their different perspectives on the notion of maritime security, comparing the two theories can provide a more complete understanding of the study. Third, comparing two theories can give crucial strategic and practical implications for developing an effective and responsive sea defense. As a result, the preference of this theory is deemed appropriate including significant cases to be studied scientifically.

Thayer presents the theory of sea power, which emphasizes naval power as an essential component of maritime defense strategy [4]. Thayer believes that sea power is critical for obtaining sea trade routes and national interests. Sea power is regarded as an integral component of overall state power, and it must be treated as an independent force rather than as a component of the army. Throughout this case, sea power is characterized by three factors: material strength, moral strength, and geographical strength [5]. He underlines the significance of strategic positions at sea in his concept of sea power. According to him, this advantage is critical because it provides simpler access to resources and control over vital trade routes. Thayer proposes constructing a strong naval fleet fully equipped with cutting-edge technology to accomplish this objective. This concept has significant strategic implications for practice in the specific situation of maritime security. A country that expects to improve its maritime influence must establish an effective and capable naval force and pay attention to its strategic place at sea.

On the other hand, Till extends a maritime defense theory that highlights the significance of cooperation among sea power and other security elements dealing with maritime security challenges [6]. According to him, maritime security has to include other security elements including police, law enforcement, and oversight agencies concerning the navy. This concept implies the coordination of all security elements in having dealt with progressively complex and multidimensional maritime security threats. Through this concept, he highlights the significance of regional and international cooperation in improving countries’ capacity for handling maritime security within the framework of this comprehensive maritime security concept. Collaboration among nations around the maritime area is crucial in this case to overcome maritime security challenges which cross national borders. Till also already points out the importance of private sector participation in maritime security management [7]. That emerged due to the private sector’s substantial role in maritime economic movements including international trade, fishing, and tourism. This sector’s participation in maritime surveillance and monitoring stands essential for preserving maritime security.

By understanding the above description, study about Indonesian maritime security is certainly essential. Because Indonesia is categorized as an archipelagic nation that has a great deal of potential and resources in the sea. Hence, it is necessary to investigate and comprehend this theory to invent an effective strategy for maintaining Indonesia’s maritime security. By understanding that, a comparative study of Thayer’s and Till’s maritime security theories is required. This study provides a more in-depth understanding of maritime security theories and the strategic and practical implications in sea defense development.

II. RESEARCH METHODS

To collect the research data, a qualitative approach with a comparative descriptive method was employed in this study. The descriptive method is utilized to describe and describe phenomena or events in detail and systematically [8]. Meanwhile, the comparative method is employed to compare and identify similarities and differences among two or more concepts, theories, and situations [9]. This method had existed since classical times but was only developed systematically in the 19th century by sociologists and anthropologists, namely Durkheim and Weber. Initially, this method was used to compare different cultures and societies, but over time, it has also been applied to various disciplines such as politics, economics, and management. In its implications, the comparative descriptive method can be carried out in various ways, such as conducting analysis descriptive and qualitative, collecting and analyzing statistical data, as well as conducting interviews and observations of the subjects studied. The results of this method were employed to comprehend the differences and similarities between two or more variables and provide deeper perspectives on the phenomenon being investigated.

The study was done by obtaining data from primary and secondary sources which included books, journals, articles, and documents that dealt with the theory about maritime security invented by Thayer and Till. Then, the collected data was analyzed qualitatively by comparing the concepts, views, and practical implications of both theories. The results of this study were
expected to provide a better comprehension dealing with the concept of maritime security made by Thayer and Till. Furthermore, it could give more insight into the strategic and practical implications of each theory.

III. RESULTS AND DISCUSSIONS

Before discussing the theories based on two Experts about maritime theory, it was necessary to know their identity globally. First was Mahan Alfred Thayer (1840-1914) or mostly called Thayer. Thayer had been named a naval officer including the United States military historian who was famous for his position on sea power. He was born in West Point, New York, and graduated from the United States Naval Academy in 1859. Shortly thereafter, Thayer dedicated himself to naval service for above thirty years. On the other hand, Thayer was also called the father of the sea power theory. He was a pioneer who stated that naval power was an essential component in a maritime defense strategy. Thayer also highlighted the significance of sea control for the security and prosperity of a nation. Some of his well-known works included “The Influence of Sea Power Upon History”, “The Influence of Sea Power Upon the French Revolution and Empire”, and “The Influence of Sea Power Upon the War in 1812”.

The second expert was Geoffrey Till (1945-2021). He was a marine historian and academic from England. Till was born on January 5, 1945, in Manchester, England. Till achieved a bachelor’s degree in Modern History from the University of Oxford in 1968 and his Ph.D. from Cambridge University in 1975. In addition, he was well known as a prolific writer and expert on maritime security including naval history. While, published works included scientific articles and books, with the titles “Seapower: A Guide for the Twenty-First Century” (2010 & 2013) and “Naval Modernization in Southeast Asia: Nature, Causes and Consequences” (2013). Apart from being a writer, Till was also a professor with a degree in maritime affairs at King’s College London, where he launched and chaired the Corbett Center for Maritime Policy Studies. Along the way, Till had also been a visiting professor at various institutions, including the United States Naval War College and the Australian Defense Force Academy. He received many awards and honors for his contributions to naval history and maritime security. In other events, Till was awarded two extraordinary awards including (1) the Order of the British Empire in 2008 for his extraordinary services in the field of defense, (2) the Anderson Medal from the Society for Nautical Research in 2013 for his achievement in serving a lifetime in the history of Navy. At the end of his life, he passed away on September 27, 2021, at the age of 76. However, his contributions to the field of naval history and maritime security persisted to inspire scholars and practitioners today.

According to the short biographies of the two maritime security experts, a comparison between the two theories was needed to discuss, so that it can be useful for maritime security in a country. According to two great experts, the notions and theories can be analyzed in the following discussion.

A. Maritime Security Theory of Mahan Alfred Thayer

a. The Concept of Maritime Security

The concept was defined as an abstract idea that conveyed an interpretation of a case or phenomenon [10]. Concepts were often utilized in academic or scientific contexts, including being able to support and comprehend a topic in more detail and systematically. Concepts can be theories, models, or frameworks used to explain a phenomenon or situation. It also was employed to organize, classify, and clarify someone’s ideas and understanding of a particular case. Through the understanding of this concept, the basic concept of Thayer’s theory in the maritime field was the existence of sea power. The intention was to place naval power as an important element in carrying out a maritime defense strategy. Thayer’s theory declared that the existence of a large sea power was able to help a country uphold its maritime security, secure trade routes, and exert influence in international relations.

In his article entitled “The Influence of Sea Power Upon History” defined “maritime security” as a circumstance in which countries can guarantee security and interests at sea. Thus, sea power was regarded as a means to achieve this goal. In Thayer’s concept, sea power must contain three components including a strong fleet, adequate sea bases, and policies that sustained the development of sea power [11].

Not only that the maritime security theory developed by Thayer was still relevant today. Sea power was still considered a significant component in constructing maritime defense which was evidenced by actions to modernize fleets in several countries. In addition, national and international policies related to maritime security were also still affected by the concept made by Thayer.
b. The Concept of Sea Power

The concept of sea power in Mahan Alfred Thayer’s theory was defined as a concept that underlined the significance of sea power in acquiring the security and success of a country in addressing the maritime system. According to Thayer, sea power must be scrutinized as a basis for determining foreign policy and state defense [12]. In this case, the power included military, economic, and diplomatic power resulting from the control of trade routes and sea areas.

Thayer claimed in his book entitled “The Problem of Asia: its effect upon international politics” believed that sea power provides major economic benefits, among others access to global markets, natural resources, and significant international trade routes. Apart from that, these powers can also help the country secure its maritime territory and protect national interests from external threats. Therefore, Thayer underlined the significance of the state constructing a strong sea power as part of its defense policy [13].

Furthermore, through the notion of sea power, maritime security can be achieved by constructing a strong sea power. Powerful power will encourage the state to maintain its sea area and defend its national interests from external hazards. To accomplish this, Thayer proposed strengthening the navy and maritime infrastructure, including supervising and controlling strategic sea trade routes.

Related to this case, the concept of sea power constructed by Mahan Alfred Thayer revealed that strong sea power was classified as a key factor in achieving maritime security. By constructing a strong sea power, countries can ensure their security and success on a global scale.

c. Strategic and practical implications

In this part of the discussion, the application of sea power strategies conceptualized by Mahan Alfred Thayer emphasized that the state should prioritize expanding sea power as part of its defense policy. Second, it should be noted that the state must have a strong navy and sufficient maritime infrastructure to secure its sea area and safeguard national interests from various external hazards [14]. Third, the state must also supervise and control strategic sea trade routes.

Practically, the concept of sea power discovered by Thayer indicated several things, including that countries must construct strong and sophisticated warships, and strengthen maritime infrastructure including the ports, communication networks, and navigation systems. In addition, the state must also extend trade and investment policies that sustained the development of sea power and maritime defense.

Unfortunately, some criticisms about Thayer’s concept of sea power were found. Some analyzed that this concept concentrated too much on military power and ignored other aspects such as regional cooperation, diplomacy, and sustainable economic development. Not only that, but the concept of sea power can also trigger an unwanted maritime arms race, which in turn can improve anxieties and conflicts between countries.

Even so, the concept of sea power remained appropriate in dealing with modern maritime security. Strong sea power still became the main basis for reaching maritime security, despite it must be balanced with a more holistic and sustainable approach that includes military, economic, social, and environmental aspects.

B. Maritime Security Theory of Geoffrey Till

a. Comprehensive maritime security concept

This concept was established by Geoffrey Till and written in his book entitled “Seapower: A Guide for the twenty-first century” which emphasized that maritime security must be regarded as a complex system and included elements such as political, economic, social, and environmental security also military. This concept acknowledged that maritime security was not only associated with direct threats to a nation, but global issues such as climate change, overfishing, sea pollution, and human welfare matter around the maritime area [15].

In this comprehensive maritime security concept, its management had to be carried out collaboratively between the countries and various stakeholders among other maritime companies, coastal communities, and international organizations. This concept
Comparative Study on Maritime Security Theory of Mahan Alfred Thayer and Geoffrey Till on the Strategic and Practical Implications of Constructing a Sea Defense

also underlined the significance of regional cooperation in overcoming complex maritime security challenges including involving many nations.

The implementation of concept by Geoffrey Till can be implemented in various tracks including by increasing regional and international cooperation in the field of maritime security, strengthening international law of the sea, building maritime capacity in developing countries, increasing supervision and control over maritime areas that were prone to security threats, and developing policies and programs to address environmental cases including the social environment around the maritime area.

However, the concept of comprehensive maritime security was not unrestricted from various challenges. The prepared challenges that must be confronted include the complexity of the problem, the lack of involvement of several countries in regional and international cooperation, including the lack of resources to address complex and ongoing maritime security challenges.

Even so, this concept was able to evolve into an essential basis for addressing maritime security holistically and sustainably, which contained various security elements and stakeholders.

b. Economic, environmental, and social factors

Particularly, considering economic, environmental, and social factors in constructing comprehensive maritime security was very attentive and highlighted in the Security Theory developed by Maritime Geoffrey Till. Therefore, he admitted that the existence of the sea had tremendous economic potential, both as a natural resource and as a global trade route [16]. Hence, the economic factor became a crucial factor in maritime security.

Besides, the environment was also an important factor in maritime security. That was due to the emergence of climate change, marine pollution, and environmental damage which could have an impact on maritime safety and security. Not only that, but social factors were also required to be considered because several issues such as transnational crime, piracy, and illegal fishing were able to occur due to social and political instability in an area.

Based on this case, Till suggested a comprehensive approach to constructing maritime security, involving various sectors and institutions both at the national and international levels. Those involved the cooperation among nations in strengthening maritime security, strengthening international law of the sea, minimizing marine pollution, strengthening surveillance and law enforcement at sea, including building capacity for disaster management and emergency response at sea.

c. Strategic and practical implications

Maritime Security Theory pioneered by Geoffrey Till had significant strategic and practical implications for constructing effective maritime security. Strategically, Till stressed the significance of a thorough comprehension of threats that emerged at sea, such as transnational crime, terrorism, war, and natural disasters, including boosting international cooperation to deal with them. In this regard, countries ought to expand capabilities to support surveillance, law enforcement, and monitoring at sea to reduce maritime security hazards.

Practically, Till highlighted the essence of building capability at the national and regional levels to strengthen maritime security [17]. That enclosed creating sufficient infrastructure and technology, training and developing human resources, as well as improving cooperation and coordination between various agencies and stakeholders connected to maritime security.

Not only that, but his findings also underlined the significance of improving public awareness and participation in constructing maritime security [18]. The point was that the public must be provided with adequate information about the significance of maintaining maritime security, including the community being involved in monitoring and reporting movements on everything that happens at sea. Therefore, to sustain the smooth dissemination of information to the wider community, the role of the media was very important. That aimed to improve public awareness and participation in constructing maritime security. Widespread, this theory had the strategic and practical implications required to construct effective and sustainable maritime security.

C. Comparison of Maritime Security Theory by Mahan Alfred Thayer and Geoffrey Till

a. Similarities

Based on the theories investigated in this research, several similarities occurred between the theories of maritime security by Mahan Alfred Thayer and Geoffrey Till:
1. Both theories considered the sea as an essential strategic space in the national security and economic attractions of a nation.

2. Both theories highlighted the significance of sea power and military capabilities in upholding maritime security, including strengthening the role of the state internationally.

3. Both theories assumed environmental and economic factors in addressing maritime security.

4. Both theories recognized the importance of international cooperation and the development of Maritime Domain Awareness (MDA) capabilities in maintaining global maritime security.

5. Both theories underlined the significance of inventing comprehensive and adaptive strategies in dealing with the various challenges faced on the seas.

Furthermore, strategically and practically, both theories underlined the importance of developing strong and flexible sea power, as well as creating close international cooperation to support global maritime security. Both theories also stressed the significance of expanding technology and innovation in encountering the increasingly complex and evolving challenges of maritime security.

b. Differences

Although several similarities dealing with maritime security theories had been found between Mahan Alfred Thayer’s and Geoffrey Till’s several differences have also been revealed, including several points below:

1. Main focus: Thayer’s theory concentrated more on the concept of sea power as a tool to achieve superiority in naval combat and expands power, while Till’s theory enlarged its scope by highlighting the significance of preserving comprehensive maritime security through managing various factors that impacted maritime security.

2. Approach: Thayer had a militaristic and strategic approach to sustaining maritime security, while Till underlined a more holistic approach carrying into account economic, social, and environmental factors.

3. Scope of analysis: Thayer’s analysis tended to concentrate on strategic and tactical analysis at the country level, while Till examined maritime security issues as a global challenge that demanded international cooperation.

4. The concept of maritime security: Thayer characterized maritime security as a condition in which a country was able to hold the sea and preserve its power over essential waterways, while Till underscored the concept of comprehensive maritime security which included military security to economic, environmental, and social security.

5. Influence in history: in terms of this point, the theory constructed by Thayer had owned a primary influence on the history of maritime powers among others Britain and the United States, while Till had played an essential position in the expansion of the global maritime security notion and international cooperation in the maritime security.

However, the two theories above had completed important contributions to the development of the concept of maritime security and both remain relevant in the context of maritime security to this day.

c. Strategic and practical implications of two theories

In this part, based on the result of a comparison between Thayer’s and Till’s maritime security theories, several strategic and practical implications in constructing a national maritime defense had been revealed as a basic contribution to maritime security. First, the significance of building sea power was involved to strengthen maritime security, including national interests at sea. Second, a need for the integration of maritime security policies with economic and environmental development in the maritime sector had emerged. Third, the collaboration between nations in dealing with maritime security hazards such as terrorism, human trafficking, and sea piracy needs to be evaluated and carried out. Fourth, it was also necessary to enhance the quality of human resources in the field of maritime security as a means of facing increasingly complex challenges.

Furthermore, the maritime security strategy that was brought out must also pay attention to differences in geographical and socio-cultural circumstances of the nation. In archipelagic nations like Indonesia, maritime security was not only associated with military defense but also concerned with the economic and security interests of the people. Hence, to accomplish the welfare and
security of maritime workers, cooperation between related parties was required, including the government, military, community, and private sector. That was able to be accomplished to construct solid and endurable maritime security.

In its implementation, the maritime security policy had to be taken out in a comprehensive and integrated manner. The point was that there was a requirement for the participation and involvement of various related parties such as the Indonesian National Armed Forces which performed in the Police Navy, the National Search and Rescue Agency, as well as the private sector such as the shipping industry and port management. Not only that, but the position of the government was also necessary to improve the budget to strengthen maritime security infrastructure and technology, such as radars, sea patrols, and the development of modern warships. As time goes by, it was also essential to enhance the quality of human resources in the field of maritime security, either through training, or education, including providing sufficient incentives and facilities.

D. Challenges and Opportunities in Regulating Maritime Security

a. Challenges in regulating maritime security

In this section, the challenges directed were categorized as quite complex, mostly with the improving activity of transnational crimes at sea. Several challenges in regulating maritime security contained:

1. Differences in law and jurisdiction between countries: Different laws were able to become obstacles between or even among countries in law enforcement against crimes that emerged at sea.

2. Limited technology and resources: These limitations were able to evolve an obstacle in bringing out maritime surveillance and security.

3. Vulnerability to new threats: Recently appearing threats were maritime terrorism, cyber-attacks, and environmental pollution. This issue was a challenge that had to be encountered when regulating maritime security.

4. The high cost of sea security: Highly budget was required for sea security movements so that if the budget was limited, it was able to become a barrier for the countries affected.

5. Dependence on sea transportation: Sea transportation had been regarded as very significant in global trade, but it was also not free from security hazards.

By comprehending the points above, to minimize the emerging challenges, cooperation between or among countries was needed to enhance maritime surveillance and security, as well as enlarge cooperation in enforcing the law against crimes that occurred at sea. Furthermore, investment in technology and resources to enhance maritime security was also demanded.

b. Opportunities in regulating maritime security

Several opportunities were revealed in regulating maritime security, among others:

1. International Cooperation: in matters of maintaining maritime security and safety, cooperation among countries in the surveillance of maritime security was able to be a significant opportunity. That was able to be accomplished through cooperation agreements, international meetings, training programs, and information exchange.

2. Advanced Technology: This opportunity referred to monitoring and strengthening maritime security. For example, radar technology was able to be operated to monitor movements at sea. Meanwhile, satellite technology was able to be employed to follow vessels and identify suspicious movements.

3. Awareness raising: What was signified by raising awareness here was the significance of maritime security which can be an opportunity to inspire community participation in maintaining maritime security. Real examples can be in the form of education and social campaigns to boost the awareness to be accomplished.

4. Maritime Economy: The great maritime economic potential can be an opportunity to enhance the management of maritime security. By optimizing the economic potential of the sea, the benefits to be acquired were improved supervision and security of the sea.
5. Role of the private sector: The role of activists in the private sector in handling maritime security was even able to be an opportunity. This sector can support and amplify maritime security by providing logistical and technological support. Furthermore, the private sector was also to assist in raising public awareness about the significance of upholding maritime security.

c. Strategy for regulating maritime security

In this research, several strategies that were able to be executed in handling maritime security had been uncovered, including:

1. Expanding international cooperation: Collaboration happened among countries in certain sea zones can certainly enhance maritime security. This can be accomplished by exchanging information, training, and joint exercises among these countries. Furthermore, international agreements can also be constructed to strengthen cooperation in addressing maritime security issues.

2. Advanced technology usage: The form of advanced technology, in this case, was the presence of radar, CCTV, and remote sensing systems. This tool was able to assist in monitoring activity at sea and preventing crime. In addition, communication technology could also be utilized to speed up response in emergencies.

3. Enhancing the existence of security at sea: Attempts for maritime security can be carried out by patrolling, monitoring, and law enforcement. These efforts were expected to help prevent crime. In addition, that was able be accomplished by the marine police or navy.

4. Raising public awareness: It was about the significance of maritime security that can assist prevent crime at sea. The right way to realize this was by supplying information and understanding to the public about maritime security threats and how to avoid them.

5. Improving cooperation between the public and private sectors: Improving cooperation in this case referred to expanding maritime security. The effort that can be done was by managing cooperation in building a security infrastructure, such as improving security systems at ports or securing ships crossing waters.

6. Improved disaster preparedness: Natural disasters or accidents at sea were able to trigger maritime security issues. Therefore, improving disaster preparedness can help lessen the risk of maritime security issues. Hence, to accomplish that, training member ships in emergency measures and preparing disaster relief equipment in ports and ships were required.

IV. CONCLUSION

By comprehending a comparison of Mahan Alfred Thayer and Geoffrey Till’s Maritime Security Theory, it can sum up that both theories acknowledge the significance of sea power in constructing a country’s maritime security. However, this research revealed differences between the concept of sea power and the concept of comprehensive maritime security. Thayer sets forward the concept of sea power as the main factor in building maritime security, while Till arranges forward a comprehensive maritime security concept that includes economic, environmental, and social factors.

The strategic and practical implications of the two theories can deliver insights for policymakers in developing the country’s maritime defense. Both theories underline the significance of developing sea power in different approaches. Thayer positions more priority on sea power development which concentrates on military excellence, while Till places more priority on sea power development which includes economic, environmental, and social elements.

On the other hand, the challenges in handling maritime security are increasingly complex. This is due to the emergence of threats originating from transnational criminal activities such as theft, piracy, and terrorism in the seas. However, opportunities in addressing maritime security are also wide open with the plentiful potential of marine resources and international trade routes that cross sea waters. Thus, to confound challenges and take advantage of these opportunities, it is necessary to have a comprehensive strategy that concerns cooperation between various parties, nationally and internationally. In this case, the role of the state in building maritime security is the key to upholding stability and prosperity in sea waters.
Therefore, for further research, it is recommended to broaden the scope of comparative maritime security theory by involving more experts with expertise in maritime strategy and security from various countries. Besides, future research can investigate the use of the latest technologies and innovations in managing maritime security, such as the usage of drones and artificial intelligence for surveillance and early detection of hazards at sea. Not only that, the exploration of the role of non-coastal countries in addressing global and regional maritime security is urgently required to be studied. Eventually, other research is expected to be able to develop practical instances to improve international cooperation in overcoming maritime security hazards, including constructing effective sea protection.

REFERENCES


