THEORIZING MARITIME SECURITY: AN ANALYTICAL FRAMEWORK[*]

DENİZ GÜVENLİĞİNİ TEORİLEŞTİRME: ANALİTİK BİR ÇERÇEVE

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ABSTRACT

This article defines maritime security with an analytical framework and examines its dimensions in global politics. Reviewing the relevant literature also aims to delineate the conceptual boundaries of maritime security. Accordingly, the study seeks to answer two key questions: How can maritime security be defined distinctly and coherently, and how can the concept be applied more effectively? The central argument of this paper is that maritime security constitutes a global governance model shaped through inter-state cooperation. Since the post–World War II period, the International Maritime Organization (IMO) has spearheaded the establishment of a global maritime security network. This network, voluntarily supported by states, is closely intertwined with global policy frameworks, national interests, and evolving perceptions of defense and security. Ultimately, we suggest analyzing the concept using three basic parameters to understand the mechanisms by which maritime security operates globally. This study conceptualizes

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maritime security as a global governance model and argues that addressing it within the navy, merchant marine, and scientific marine frameworks will provide a more precise definition of the term's scope.

Keywords: •Maritime Security •Navy/Sea Power •Merchant Marine • Scientific Marine

ÖZ

Bu makale, deniz güvenliğini analitik bir çerçevede tanımlamakta ve küresel politikadaki boyutlarını incelemektedir. İlgili literatürü gözden geçirerek, deniz güvenliğinin kavramsal sınırlarını da belirlemeyi amaçlamaktadır. Bu doğrultuda çalışma iki temel soruya yanıt aramaktadır: Deniz güvenliği nasıl belirgin ve tutarlı bir şekilde tanımlanabilir ve bu kavram nasıl daha etkili bir şekilde uygulanabilir? Bu makalenin temel argümanı, deniz güvenliğinin devletlerarası iş birliği ile şekillenen küresel bir yönetişim modeli oluşturduğudur. İkinci Dünya Savaşı sonrası dönemden günümüze kadar Uluslararası Denizcilik Örgütü (*International Maritime Organization -IMO*), küresel bir deniz güvenliği ağının kurulmasına öncülük etmiştir. Devletler tarafından gönüllü olarak desteklenen bu ağ, küresel politika kalıpları, ulusal çıkarlar yanında gelişen savunma ve güvenlik algılarıyla yakından ilişkilidir. Sonuç olarak, deniz güvenliğinin küresel bağlamda aktığı mekanizmaların anlaşılabilmesi için kavramın üç temel parametrede analiz edilmesini öneriyoruz. Deniz güvenliğini küresel bir yönetişim modeli olarak kavramsallaştıran bu çalışma, deniz güvenliğinin donanma, deniz ticareti ve bilimsel denizcilik çerçevesinde ele alınmasının, terimin kapsamının daha kesin bir şekilde tanımlanmasını sağlayacağını savunmaktadır.

Anahtar Kelimeler: •Deniz Güvenliği •Donanma/Deniz Gücü •Ticari Bahriye •Bilimsel Denizcilik

INTRODUCTION: CONCEPTUAL FRAMEWORK

The nation-state controls three areas under its sovereignty. These are the lands, airspace, and the seas.[1] According to international law, the territory of a state, regardless of its size, consists of these areas. While the airspace and seas were formally recognized later in legal frameworks, maritime exploration began relatively early with the advancement of seafaring technologies. In contrast, humanity had to wait until the 20th century and the Wright Brothers' innovations to engage with airspace. The rules regarding maritime activities date back to the 7th and 9th centuries, as seen in the "Law of Rhodes," the "Amalfi Rules" in the 10th century, and the "Consolato del Mar" in the 14th century.[2] In the seas, explorers such as Hernán Cortés**,** Christopher Columbus, Amerigo Vespucci, and

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[1]　Yusuf Aksar, *Teori ve Uygulamada Uluslararası Hukuk I* (Seçkin Yayıncılık 2015) 239.

[2]　Hüseyin Pazarcı, *Uluslararası Hukuk* (8th edn, Turhan Kitabevi 2019) 251.

Ferdinand Magellan played vital roles in expanding humanity's knowledge of Earth's geography, particularly between the 15th and 17th centuries.

Nonetheless, asserting sovereignty over the seas has historically posed significant challenges for empires and modern nation-states. One major obstacle was access to remote maritime regions during early exploration. Another was the delayed emergence of legal debates on the breadth of maritime zones under national control. Moreover, the seas would be considered a public good for many essential authors and thinkers in the following centuries. For instance, in *Mare Liberum* (The Free Sea), Hugo Grotius formulated a new principle: the sea was considered an international territory, and all nations were free to use it for seafaring trade.[3] By claiming 'free seas', Grotius would provide a suitable ideological justification for the Dutch breaking up various trade monopolies through their formidable naval power. England, competing fiercely with the Dutch for domination of world trade during those years, opposed this idea with the work of John Selden's *Mare Clausum* (The Closed Sea). According to Selden, "*the dominion of the British Sea, or that which encompasseth the Isle of Great Britain, is, and Ever Hath Been, a Part or Appendant of the Empire of that Island.*"[4] However, in the following centuries, Grotius' ideas were accepted by most nation-states with coastlines on the seas. The nation-states would continue to work to establish sovereignty over their maritime jurisdictions and fight to protect their rights in these domains, particularly in the 19th and 20th centuries.

In the 21st century, maritime security has become increasingly significant, as Sea Lines of Communication (SLOCs) and trade routes serve as vital arteries of global capitalism. Alfred Thayer Mahan emphasized the strategic importance of controlling SLOCs, particularly for states aiming to play an active role in international affairs. In *The Influence of Sea Power upon History, 1660–1783,* Mahan contended that robust naval power was essential for protecting trade routes and asserting control over maritime spaces.[5] Over a century later, Mahan's insights remain relevant, as modern maritime security faces both traditional and emerging threats.

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[3]   Hugo Grotius, *Freedom of the Seas* (Elsevier 1609).

[4]   John Selden J, *Mare Clausum: of the Dominion, or Ownership of the Sea* (William du Gard1652).

[5]   Alfred Thayer Mahan*, The Influence of Sea Power Upon History 1660–1783* (Little Brown and Company 1898)

From this period onwards, maritime studies would become essential for any nation wishing to establish maritime supremacy in the modern era. Contemporary maritime security studies emphasize the need for state and international oversight over a wide range of maritime threats, including piracy, armed robbery, terrorism, stowaways, human trafficking, drug and arms smuggling, navigational hazards, cyber threats, unauthorized broadcasting from international waters, illegal fishing, and the enforcement of laws related to hot pursuit and ship inspection. These threats have evolved significantly with technological advances, prompting ongoing efforts by states and international organizations to address both traditional and non-traditional challenges. On the other hand, the September 11 attacks in 2001 added a new dimension to maritime security, as they showed that threats do not only come from military forces but can also emerge from ambiguous sources. In this context, the concept of security was broadened in the maritime sector with the preparation of the International Ship and Port Facilities Security Code (ISPS Code), which came into force on July 1, 2004. With the ISPS Code, the IMO began developing new maritime security regulations for ships and port facilities.

Maritime security is a concept that often represents different priorities for different actors and, in some respects, continues to evolve. The literature on maritime trade routes, logistics, and navies includes contributions from various disciplines. In such studies, national defense, maritime threats, security of navigation, and the healthy flow of trade are the main topics of discussion. On the other hand, this study proposes a theoretical framework for maritime security in an analytical context, considering the practices that affect security at sea. Thus, it will identify the distinctive aspect of maritime security at the macro level, which can be applied to different sectors, and determine its boundaries. Accordingly, the study will present a framework that enables scholars to analytically define maritime security as a global governance model encompassing the navy, merchant marine, and scientific marine.

I. LITERATURE REVIEW: THEORETICAL ASPECTS OF MARITIME SECURITY

Security, which reflects states' primary concern in international politics within sovereignty, territorial integrity, and independence, covers many threats and threat perceptions from land, air, and sea. Among these, maritime security has received less attention in security studies than other types of security. In recent years, however, the growing use of maritime domains for trade, transportation,

and fishing—combined with the rise in violent incidents such as piracy, terrorism, hijacking, and other illicit activities including smuggling and irregular migration—has heightened global awareness of maritime security. Additionally, emerging challenges such as cyber threats and climate change, which impact both the high seas and coastal environments, have further underscored the importance of this field.

The risks and threats at sea are diverse, and maritime security issues are constantly evolving due to their dynamic nature. The knowledge and skill-requiring aspects of the waters, legal regulations, practices of port security and commercial maritime transport, responsibilities for protecting the seabed and coastal environment, and the determination of economic, political, and power factors related to the seas expand the scope of maritime security. Therefore, analytical frameworks for global maritime security issues must be constantly updated. So far, in the literature on maritime security, various assessments have been based on the international system, foreign policy, collective security, defense strategies, and law. While there are similarities among these approaches, there are also nuances in the terminology and methods of the disciplines that deal with the subject.

Those interested in modern maritime security favor addressing the concept in a way that blends historical, legal, and political perspectives. However, the relevant literature often states that no threat-oriented or agreed maritime security definition exists. Such an approach is seen in the report of the United Nations (UN) Secretary-General on Oceans and the Law of the Sea in March 2008.[6] In this report, where it is determined that the definitions of maritime security generally include security against crimes committed at sea, the following statements are made:

> "There is no universally accepted definition of the term "maritime security". Much like the concept of "national security", it may differ in meaning, depending on the context and the users. At its narrowest conception, maritime security involves protection from direct threats to the territorial integrity of a State, such as an armed attack from a military vessel. Most definitions also usually include security from crimes at sea, such as piracy, armed robbery against ships, and terrorist acts. However, intentional and unlawful damage to the marine environment, including

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[6]   United Nations *Oceans and the Law of the Sea: Report of the Secretary-General* (UNDoc.A/63/63
2008). <https://www.securitycouncilreport.org/atf/cf/%7B65BFCF9B-6D27-4E9C-8CD3-
CF6E4FF96FF9%7D/a_63_63.pdf>.

> from illegal dumping and the discharge of pollutants from vessels, and
> depletion of natural resources, such as from illegal, unreported and
> unregulated fishing, can also threaten the interests of States, particularly
> coastal States. Various approaches have been taken to maritime security,
> depending on the State's perspective of the interests that may be
> threatened, either directly or indirectly, by activities in the oceans and
> seas."

The threats that the UN report draws attention to at sea show that a definitional problem also affects how the international community responds to threats. Similarly, drawing attention to uncertainties, Bueger mentions that the absence of threats expressed by studies that emphasize different choices on what constitutes risks and threats is used to define maritime security.[7] Stating that frameworks that can identify commonalities and disagreements are needed for definition, he lists dangers and hazards in his matrix, which includes the relationship of maritime security with other concepts such as maritime safety, maritime power, blue economy resilience, and environmental issues. He underlines the strategic capabilities of actors, taking these elements into account to minimize risks and threats to the seas.[8]

According to Bueger and Edmunds, contemporary maritime security comprises four domains, each encompassing a set of intersecting security concerns. The first of these areas, which they argue should be distinguished from other types of security, encompasses what can best be considered national security issues and essentially corresponds to long-established maritime strategy and sea power traditions. The national security component of maritime security involves the development and application of naval power, including the projection of military force at sea and homeland defense, as well as the use of warships to protect maritime trade routes and commerce through functions such as deterrence, surveillance, and interdiction. A second area deals with the marine environment. This area includes a wide range of issues, such as marine pollution, ship safety and regulation, maritime search and rescue, ocean health, pollution, and the effects of climate change. Marine environmental issues are closely linked to the third area of economic development. So-called blue economy concerns underpin much of the maritime security agenda. A final place addresses human security

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[7]   Christian Bueger, 'What is Maritime Security?' (2015) 53 Marine Policy, 159.

[8]   ibid, 160-161.

issues regarding the insecurities experienced by individuals and local communities, and those affecting states.[9]

On the other hand, Rahman, who argues that some conceptualizations of global security can be adapted to maritime security, also draws on the literature on threats at sea. According to him, maritime security takes on different meanings for different individuals and organizations, depending on who defines it, organizational interests, and political or ideological prejudices. Therefore, states can meet their maritime security needs by focusing on the security of the sea itself, ocean management, naval border protection, military activities at sea, and the regulation of the marine transport system.[10]

Suggesting a broader discussion of maritime security, Cordner argues that, derived from the maritime domain's systemic nature, it addresses traditional and non-traditional security challenges posed by state and non-state actors, presenting multiple, interrelated requirements for collective security. In this respect, it involves coordinating cooperative security initiatives to protect and promote vital national, regional, and global interests, objectives, and core values, including those related to state sovereignty, political stability, freedom of navigation, economic development, environment, and ocean resources, human and community development.[11]

The literature emphasizes that maritime security is broad and sometimes requires a greater understanding among many observers. A study claiming that the maritime security literature is of this nature emphasizes that maritime security, which encompasses areas such as physical security, safety measures, port security, and terrorism, is the prevention of illegal activities at sea.[12] In another study focusing on issues such as port and ship security, drug trafficking, maritime banditry, and maritime terrorism, the study mainly addresses strategies

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[9]   Christian Bueger and Tim Edmunds, 'Beyond Seablindness: A New Agenda for Maritime Security Studies' (2017) 93(6) International Affairs 1293, 1299-1300.

[10] Chris Rahman, 'Concepts *of Maritime Security: A Strategic Perspective in Alternative Visions for Good Order and Security at Sea, With Policy Implications For New Zealand'* (Victoria University of Wellington, Centre for Strategic Studies CSS Strategic Briefing Papers, No. 07/09, 2009) 29-42.

[11] Lee Cordner, Risk 'Managing Maritime Security in The Indian Ocean Region' (2014) 10 (1) Journal of the Indian Ocean Region 46, 48.

[12] Thean Potgieter, 'Maritime Security in the Indian Ocean: Strategic Setting and Features' (Institute for Strategic Studies, Paper No. 236, 2012) 1.

to counter maritime threats.[13] Another definition of maritime security is the protection of territorial integrity and sovereignty, as well as peace and order, to ensure the safety of ships, passengers, crew, cargo, property, and the environment.[14]

Maritime security is also shaped by discussions on what causes insecurity at sea. Chapsos, who states that maritime security is directly linked to human security and development and explores insecurities, emphasizes its non-traditional nature in international security. Accordingly, he identifies modern piracy, terrorism, fishing offenses, and maritime migrant smuggling as just a few maritime insecurities. Ultimately, he argues that maritime security, including relevant stakeholders, depends on the "end user" perspective and is quite broad.[15]

Focusing on how maritime security has evolved, Germond states that, since the late 1990s and early 2000s, it has adopted preventive measures to respond to illegal activities at sea (including transport and port protection). Used as a reference to superpower control of maritime space during the Cold War, maritime security today represents disruptive activities such as terrorism (especially 9/11), maritime banditry (especially attacks in the Horn of Africa in 2007 and beyond), arms, drug, and human trafficking, illegal, unreported, and unregulated fishing, pollution, etc. Accordingly, maritime security encompasses a range of policies, regulations, measures, and operations to safeguard the maritime domain.[16]

In legal terms, maritime security generally concerns the promotion of norms governing the seas. As a matter of fact, in a definition approaching the concept from a legal perspective, it is pointed out that there is no single definition of maritime security and that it is about the order at sea.[17] In another description, which is based on the fact that security depends on theoretical schools, it is stated

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[13]   Michael McNicholas, *Maritime Security: An Introduction* (2nd edn, Butterworth-Heinemann 2016)

[14]   Patricia Mallia, *Migrant Smuggling by Sea: Combating a Current Threat to Maritime Security Through the Creation of a Cooperative Framework* (Brill-Martinus Nijhoff Publishers 2010) 1.

[15]   Ioannis Chapsos, 'Is Maritime Security a Traditional Security Challenge?' A J Masys (editor), *Exploring the Security Landscape: Non-Traditional Security Challenges (*Springer 2016) 59, 59-60.

[16]   Basil Germond, 'The Geopolitical Dimension of Maritime Security' (2015) (54) Marine Policy 137, 138.

[17]   James Kraska and Raul Pedrozo, *International Maritime Security Law* (Martinus Nijhoff Publishers 2013) 1.

that maritime security, which can have different meanings depending on who uses it or in what context, includes a broader threat element than the expansion of states' security interests, defense perspectives, and traditional concepts of sea power.[18] Therefore, maritime security, a component of maritime measures, is the prevention, limitation, and management of threats.[19]

Maritime security is among the issues discussed directly or indirectly in contemporary strategic studies. Emphasizing that naval strategy is not limited only to wartime operations but also supports diplomacy in peacetime, John B. Hattendorf distinguishes between the military use of navies and maritime strategy (a broader concept that includes the sea's economic, political, and legal dimensions). This broader perspective aligns with the modern, multi-dimensional concept of maritime security. Hattendorf argues that maritime strategy must integrate naval power, maritime trade and commerce, the law of the sea and freedom of navigation, maritime governance, and diplomacy. Hattendorf's holistic approach underscores the idea that maritime security is not solely about fleets and warships but about maintaining order and access in the global maritime commons.[20]

In the same line of thought, Geoffrey Till's work, *Seapower: A Guide for the Twenty-First Century*, provides a comprehensive analysis of the evolving nature of maritime power. He argues that maritime security has significantly broadened since the end of the Cold War. Till introduces two models to explain this shift: the "*modern navy,*" which prioritizes traditional tasks such as sea control, deterrence, and power projection; and the "post-modern navy," which focuses on non-traditional missions including counter-piracy, maritime law enforcement, environmental protection, and cooperative operations. This distinction reflects contemporary naval forces' dual responsibilities as military and multi-purpose security actors. Emphasizing the multidimensional nature of maritime security, he discusses four main areas: military, economic, environmental, and human security. These dimensions reflect a growing recognition of the ocean as a global common that requires shared responsibility. He also highlights the increasing strategic importance of the maritime domain in the 21st century, driven by globalization, competition over marine resources, and geopolitical tensions in

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18   Natalie Klein, *Maritime Security and the Law of the Sea* (Oxford University Press 2011) 8.

19   ibid, 1.

20   See, John B. Hattendorf, *Maritime Strategy and the Balance of Power: Britain and America in the Twentieth Century* (Palgrave Macmillan 1989).

areas such as the South China Sea, the Arctic, and the Indian Ocean. For Till, sea power remains essential for national defense and maintaining international stability and prosperity. In his view, modern navies are no longer limited to combat operations. They now perform a range of tasks, including humanitarian assistance, maritime policing, and diplomatic engagement. This expanded role necessitates transforming naval doctrines, procurement strategies, and cooperation mechanisms. Lastly, Till underscores maritime security's collective nature, arguing that international collaboration is necessary to address transnational threats. He promotes the concept of "good order at sea"—a stable and lawful maritime environment—as a shared objective that benefits all coastal and trading nations.[21]

Ken Booth's concept of "*the territorialization of oceans*" represents a different perspective in maritime security studies. It emphasizes how states treat parts of the seas as extensions of their national territory. This approach challenges Grotius's "freedom of the seas" doctrine. Booth was skeptical of this trend, viewing it as part of a broader realist power politics approach that undermines the cooperative and collective spirit idealized in international maritime law. He worried that such territorialization would lead to increased conflict and tension, erosion of the ocean as a space for shared human activity, and greater inequality between powerful and weaker states regarding maritime access. According to this principle, all states considered all maritime areas beyond a narrow strip of territorial waters —typically three nautical miles— open for navigation, trade, and fishing. Booth argues that this openness is gradually being eroded through several key developments: the expansion of state control over maritime zones such as Exclusive Economic Zones (EEZs) and continental shelves; intensified national competition over valuable marine resources like oil, gas, and fish stocks; the growing militarization of strategic maritime areas, including chokepoints, straits, and disputed islands; and the instrumental use of legal frameworks such as the UN Convention on the Law of the Sea (UNCLOS) to extend national jurisdiction. Booth points to economic interests related to exploiting marine resources; strategic concerns about sea routes and transit points; efforts at environmental regulation, including pollution control and protection; and

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[21] See, Geoffrey Till, *Seapower: A Guide for the Twenty-First Century* (4th edn, Routledge, 2018).

technological advances that have increased the capacity to monitor and extract resources from the seabed.[22]

Another significant contribution to maritime history and strategy is Andrew Lambert's *Seapower States: Maritime Culture, Continental Empires and the Conflict That Made the Modern World*. Examining how sea power has shaped the development of modern states and the international order, Lambert contrasts sea power states, which derive their power from naval forces and maritime trade, with continental empires, which rely on land armies and territorial expansion. First, Lambert highlights the distinction between maritime culture and continental empires. He argues that true sea power states cultivate a maritime culture of free trade, naval innovation, and a strong sense of maritime identity. In contrast, continental powers such as France and Russia prioritized land-based conquests, centralized governance, and bureaucratic control. Second, the book presents historical case studies of several states that exemplified maritime power: Ancient Athens, as a naval democracy with a powerful fleet; Carthage, known for its mercantile and naval dominance in the western Mediterranean; Venice, a maritime republic that projected influence through its naval and trade networks; the Dutch Republic, an early modern commercial and naval power; and Britain, the quintessential sea power state, whose global empire was sustained by its naval supremacy. Third, Lambert explores the role of naval power in shaping world order. He contends that sea power states have historically supported more open, liberal, and pluralistic systems than their continental counterparts. He further argues that the decline of British naval dominance and the emergence of continental superpowers in the 20th century, such as the United States and the Soviet Union, marked a departure from the sea power tradition.[23]

Finally, in their most recent work, Bueger and Edmunds offer a comprehensive definition of maritime security, building on previous discussions and situating the concept within historical and operational contexts. They examine how maritime security challenges have evolved and analyze the responses developed to address them. Drawing on a range of global case studies, the authors identify key issues within the maritime security agenda, including inter-state disputes arising from territorial claims and resource competition; maritime terrorism, piracy, and armed robbery; smuggling and human trafficking; and illegal,

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[22] See, Ken Booth, *Law, Force and Diplomacy at Sea (Routledge Revivals)* (Routledge 2014).

[23] See, Andrew Lambert, *Seapower States: Maritime Culture, Continental Empires and the Conflict that Made the Modern World* (Yale University Press 2018).

unreported, and unregulated (IUU) fishing. These challenges have prompted diverse responses from both states and international organizations. Bueger and Edmunds introduce several analytical frameworks to deepen understanding. The securitization framework explores how maritime threats are constructed and the political implications of these constructions. Security practice theory focuses on the behaviors and routines of actors involved in maritime security efforts. Additionally, the authors present a matrix that positions maritime security within related concepts such as marine safety, sea power, the blue economy, and resilience. These frameworks help capture the complexity of maritime security and the diversity of responses it elicits. The book also discusses emerging trends likely to shape the future of maritime security, including the protection of critical infrastructure, the role of emerging technologies, cybersecurity risks, climate change, and shifting geopolitical dynamics.[24]

Based on discussions in the literature that emphasize historical, legal, and political perspectives, it is evident that maritime security encompasses various issues related to the welfare and security of states connected to seas and ports. The concept of maritime security gained greater prominence in the late 20th century, a period marked by increased state intervention to delineate maritime boundaries and enhance coastal security. At its core, maritime security refers to the governance practices states adopt to address risks, threats, and challenges to their interests in maritime domains. This governance framework includes safeguarding the marine environment, ensuring the secure and efficient functioning of maritime-based activities such as trade, transportation, and energy transfer, and preventing transnational illegal activities by regulating seas and ports by specific standards.

II. ANALYTICAL FRAMEWORK FOR MARITIME SECURITY

As reflected in the literature, maritime security is the pursuit of collective security and order, shaped by power dynamics, international cooperation, and legal frameworks. The emphasis on preventive measures to address defense strategies and potential threats is often prominent. Although the boundaries of the concept are determined to some extent by different definitions, many definitions remain superficial and overly simplistic. To date, no comprehensive theory has adequately captured the complexities of maritime security across various temporal and spatial contexts, accounting for the structure of the

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[24] See, Christian Bueger and Tim Edmunds, *Understanding Maritime Security* (Oxford University Press 2024).

international system, evolving risks and threats in the maritime domain, and the diverse range of maritime actors involved.

Analytical perspectives are necessary to understand and explain why situations and events that affect the security of states on the maritime axis occur. In this respect, it is essential to identify the political interaction patterns of states through their maritime defense strategies and their interactions over maritime security. While diversifying actors in the seas increases the need for collective legal arrangements to address risks and threats, unresolved maritime disputes threaten states' sovereignty. Therefore, a "maritime security theory" to explain the complex nature of maritime security should address the know-how in the marine sector, military power, dynamics of international cooperation, international legal arrangements, maritime economy, and the aquatic domain. Furthermore, the theory should include assumptions about state behavior in the seas, maritime jurisdiction debates, national defense, and national security.

In maritime security debates, two fundamental questions shape all political, economic, and scientific assessments. The first is how to protect national sovereignty against maritime risks and threats at the national level. The second question is, how do we collectively prevent maritime dangers and threats at the international level? These questions require us to understand the logic of states' decisions and cooperative behavior in building their defenses against maritime threats and participating in marine collective security initiatives. The evolution of maritime security, which includes the sovereignty concerns of states, into an area of cooperation in international politics is influenced by (i) the difficulties that require a collective struggle against risks and threats at sea, (ii) the quest to do things more efficiently that states cannot or do not want to do on their own (iii) the aim of countries active in maritime trade and maritime transport to steer decisions in international politics in their favor. This process ultimately leads to (i) legal and political measures that require technical knowledge and skills against natural and human threats created by maritime activities, (ii) regulations for the healthy flow of energy, trade, transport, navigation safety and security in ports and high seas (iii) measures against threats affecting the ecological balance such as pollution, illegal and unregulated fishing.

1. The Three Fundamental Dimensions of Maritime Security

From these explanations, it is clear that ensuring maritime security requires practical cooperation at multiple levels and among various actors, both within and internationally. Accordingly, it is necessary to focus on the political,

economic, and scientific dimensions of maritime security when determining how best to mitigate risks and threats at sea and ensure maritime security. A powerful navy is essential for protecting a country's sovereignty-related rights. On the other hand, the merchant marine is vital for economic gains from the seas and the transportation of the products of capitalist industries to world markets. Scientific marine studies (such as oceanography, marine biology, maritime economics, and maritime law) are also fundamental for any nation seeking power at sea. These dimensions also reflect the mainstream elements that should be present in an overarching theory of maritime security. As seen in Table 1, each of these dimensions has many closely related sub-elements.

Table 1: Three Dimensions of Maritime Security

Law of the Sea & Sea Power (Political Dimension/Navy)	Maritime Economics (Economic Dimension/Merchant Marine)	Marine Science (Scientific Dimension/Scientific Marine)
• Sovereignty, maritime jurisdiction disputes • Strategic and geopolitical competition for resources • Security of critical infrastructures • Energy security • Defense and naval power • Freedom of navigation • Piracy and armed robbery against ships • Maritime terrorism • Maritime transportation of biological, chemical, and nuclear weapons • Irregular illegal migration and human trafficking • Organized crime and smuggling • Cyber security	• Maritime trade • Maritime transportation • Maritime tourism • Port and marina management • Fishing • Cables-Pipelines in the seas • Marine insurance • Cruise and yacht tourism • Energy • Ship and yacht construction • Ferry and ship management • Fossil fuel extraction from the seabed • Scuba diving • Ship recycling • Ship classification societies • Offshore platforms	• Protection of the maritime domain • Biodiversity • Ecological balance • Climate change • Environmental protection in the seas • Marine accidents, drifts, natural disasters • Law of the sea and maritime law • Oceanography • Marine biology • Energy production from seas • Seismological research in the seas • Nautical charts and maps preparation • Vessel trafficking systems • Polar research • Marine technology and R&D

Table 1 shows that maritime supremacy covers three primary areas and these are sea power (navy), maritime economics (merchant marine), and maritime domain studies (scientific marine). All the scientific studies concerning the seas can be grouped within this dimension of maritime supremacy.[25] Sea power is related to military and naval capabilities. It also includes vehicles such as ships and submarines, as well as the infrastructure (such as maritime bases) they operate within. The personnel who equip these vehicles and infrastructure are also crucial to sea power. Indeed, Till defines naval power as an input-output system comprising the navy, coast guard, merchant fleet, and maritime industry, and highlights the link between security and economic prosperity.[26] At the same time, maritime jurisdiction areas and sovereignty issues are among the subjects studied within the framework of sea power. Moreover, the seas are vital to a country's security and defense. The defense of a nation, if it has a coastline, starts with protecting the seas around it. Keeping the airspace above the sea and the subsea safe is also crucial. Maritime economics is a broad field that encompasses humanity's commercial relations with the seas. In addition to military capabilities, maritime economics includes maritime industry, maritime transportation, maritime trade, port and marina management, insurance, and fishing. Also, maritime domain studies (scientific marine) comprise the marine environment, protection of the seas and aquatic life, maritime safety and security, and seamanship. In general, safety (*safety of navigation*), security (*freedom from crime*), and achieving clean seas are the primary focus of all three areas.[27]

Maritime security has many pressing challenges that require political, economic, and scientific cooperation in the global international system. Among these, the threat of pollution/extinction of the seas and the entire biosphere, particularly challenges maritime security. Therefore, the concept should be considered common ground for cooperation among all humanity. In this context, scientific studies about the seas have become crucial to stop the alarming effects of climate change. To this end, scientific marine research should be on the agenda of all nation-states and the international community to protect planet from the damaging effects of environmental pollution. Undoubtedly, the merchant marine dimension of maritime security is also crucial for strengthening the global trade

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[25] Arda Özkan and Levent Kırval, 'Sea Blindness in Turkish International Relations Literature' (2023)12 (1) All Azimuth: A Journal of Foreign Policy and Peace 85, 86.

[26] Till (n 21) 24-28.

[27] Bueger also expresses the distinctions and intersections between "Safety at Sea," "Maritime Security," and the "Blue Economy" within this framework in the maritime security matrix. Bueger (n7) 159-160.

networks. The merchant marine should be further developed with an egalitarian perspective to help disadvantaged nations prosper economically. Today, international markets also necessitate global economic governance and welfare provision to underdeveloped nations. The merchant marine should not be used solely as an exploitation tool; on the contrary, it should be utilized as an agency to increase the economic development levels of the different countries of the world.

Hence, to achieve maritime security, there must be economic justice worldwide. Reducing the economic gap between the North and the South is especially important. One of the most concrete examples of the economic dimension of maritime security is piracy in the Gulf of Guinea and off the coast of Somalia. Reports from the International Maritime Bureau (IMB)[28] show that the root cause of security vulnerabilities in these regions is the local population's inability to obtain a fair share of maritime resources (fishing, port revenues, etc.) and the transformation of poverty into a security threat. In this context, maritime transport and related economic sectors need to go beyond merely transferring resources from the poor world to the rich world. These sectors can play a key role in ensuring justice worldwide. A critical dimension of global capitalism is economic activity in the marine environment (rivers and lakes). Developed countries attach great importance to maritime and maritime-related economic activities and place them at the center of their economic development plans. Ports are the lifeblood of the global economy. Countries carry out their export and import activities primarily through maritime transportation. In addition, today, port areas have become production, R&D, and transportation bases. In this context, the developed north must share the development of these sea-related activities with the underdeveloped south.[29] Global peace can be achieved only by relatively decreasing the economic development level of world nations.

Furthermore, all these activities must be environmentally friendly and not pollute the environment. One of the crucial reasons for global warming and climate change, the effects of which have begun to be felt more in recent years, is the pollution of seas and water resources. Economic activities in the seas and all water resources have started to be strictly controlled. However, at this point, it

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[28]   IMB Piracy and Armed Robbery Map 2025, <https://icc-ccs.org/map/>.

[29]   This approach parallels the "World-Systems Analysis" developed by Immanuel Wallerstein. According to this theory, the asymmetrical structure in which peripheral (Southern) countries supply raw materials and core (Northern) countries accumulate capital by processing these raw materials has been institutionalized through maritime trade routes.

can be said that the world's water resources are rapidly being polluted because these controls are not consistently enforced, particularly in developing countries. In this context, the developed world must support underdeveloped countries in environmentally friendly production and marine-related economic activities.[30] Indeed, Article 9 of the Paris Climate Agreement (2015) establishes a legal expectation that developed countries support developing countries in combating climate change, including through financial and technological transfer, for the protection of the oceans.[31]

Within this scope, the sea power (navy) dimension of maritime security is also crucial for safe and secure seas, which have the potential to provide economic prosperity to all world nations. To eliminate threats such as maritime terrorism and sea banditry, and to prevent pollution of the seas and the biosphere, sea power is necessary to establish related laws and order at sea. There is a need for greater cooperation with the participation of the navies in the waters, as they are a common public good of all humanity. That said, Le Miere argued that there is a growing trend in using non-military agencies as maritime diplomatic tools. He said that the duties of the marine constabulary and paramilitary forces are expanding to uphold the state's sovereign claims and enforce the law at sea.[32] Most civilian organizations are coastal guards and surveillance ships, primarily responsible for carrying out auxiliary tasks for navies, such as search and rescue, maritime law enforcement, combating transnational crime, and pursuing unlawful vessel incursions. Hence, the 'sea power' dimension of maritime security is indeed not limited to navies and is a broader area.

Sea banditry activities against ships, kidnapping and armed robbery activities at sea, terrorism at sea, stowaways on maritime vehicles, maritime human trafficking, illicit drug and arms smuggling at sea, illegal actions against the safety of maritime navigation, cyberterrorism at sea, prevention of slave transport at sea, prevention of unauthorized broadcasts from the high seas, illegal, unreported and unregulated fishing in the seas, right of states to visit

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[30] For a comprehensive analysis of the negative effects of marine pollution on the carbon absorption capacity of oceans and how this triggers global warming, see Ove Hoegh-Guldberg et al. 'The Ocean as a Solution to Climate Change: Five Opportunities for Action' Jane Lubchenco, Peter M. Haugan (Ed.), *The Blue Compendium: From Knowledge to Action for a Sustainable Ocean Economy* (Cham: Springer International Publishing 2023).

[31] The Paris Agreement, United Nations Framework Convention on Climate Change (UNFCCC) <https://unfccc.int/sites/default/files/resource/parisagreement_publication.pdf>.

[32] Christian Le Mière, *Maritime Diplomacy in the 21st Century* (Routledge 2014) 30-41.

ships, right of states to hot pursuit ships; are all related with also the "sea power", "merchant marine" and "scientific marine" dimensions of maritime supremacy. If these three dimensions are well developed within a country's maritime domains or within international communities and international organizations, these threats can be eliminated more easily. In this context, the maritime domain necessitates the countries' cooperation in the global arena in all these subfields. Hence, there is a need to develop an 'international community' understanding of the seas.

2. Global Cooperation in Maritime Security

And what is the current state of the international community against these threats? After the Second World War, the UN systematically developed rules to address risks and threats at sea. The UN's International Maritime Organization (IMO) was established within this framework. IMO has supported the creation of a global network among states regarding maritime safety through its legal proposals and decisions, in line with the codes, protocols, and conventions it has established.[33] Several international treaties and conventions have been signed, such as the International Convention for the Safety of Life at Sea (SOLAS), the International Convention for the Prevention of Pollution from Ships (MARPOL), and the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW).[34]

Meanwhile, following the conferences that determined the rules in the maritime area, the 1982 UNCLOS became one of the essential documents defining the rights and obligations of the state parties in the sea. These examples of international treaties and conventions show that humanity has also been willing to make the seas a domain of cooperation. Hence, the waters can further develop the international community's understanding of international relations in the future.

Finally, academic studies on the seas and the institutional steps to form international law in the seas' domain are vital for the further development of an international community that accounts for the waters. Indeed, a highly developed corpus of maritime law and established international courts and organizations

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[33] Kenan Şahin, 'Küresel Deniz Güvenliğine Yönelik Hukuki Tedbirler: Uluslararası Denizcilik Örgütü Sözleşme, Karar, Protokol, Kod ve Uygulamaları' (2021) 12 (2) Elektronik Siyaset Bilimi Araştırmaları Dergisi 31, 37-41.

[34] For details on the relevant international maritime agreements, see. Ümit Çevik, *Uluslararası Denizcilik Sözleşmeleri* (3rd edn, Birsen Yayınevi 2018).

exist. Although some problems arise from the implementation, the law of the sea is binding on all states, and states that do not comply with international law have legal responsibilities. Maritime law is also a pioneer in the development of international law. UN institutions play an important role through their decisions in maritime jurisdiction disputes and other areas of maritime law. In the future, the international community will put greater pressure on politicians and decision-makers to develop additional legislation and institutions for marine protection. Because the world's seas are under threat from global climate change, humanity must act with the logic of an international community in this regard. Within this scope, maritime law will lead the international law regulations that will develop within this framework, and the steps to be taken within the UN.

CONCLUSIONS

Although the maritime security literature is still not as developed as desired, scholarly interest and knowledge in the field have been steadily increasing. Since the characteristics of the maritime domain require technical knowledge and skills, the studies have yet to reach a sufficient volume. Explanations of maritime security, which are continually expanding and diversifying in response to emergent risks and threats, require support from rigorous, current research. Especially after the Second World War, mechanisms have developed to ensure maritime security at both national and international levels in the face of increasing risks and threats in seas and ports. Thus, attempts to address maritime security governance at the global level have led to the formation of international networks in this field.

As demonstrated above, numerous observations, opinions, and recommendations have emerged from the political, legal, and economic framework of maritime security. This study, which seeks to understand maritime security at a theoretical level, reveals that it is inadequate to view the concept solely as a national issue with a military dimension. Adopting a broader perspective that encompasses global security, as well as human and environmental security, is more appropriate, as maritime security discussions are also intricately linked to power dynamics in international politics and to scientific and economic activities at sea. In this context, it is crucial to establish order on the seas by addressing the identified threats, ensuring the uninterrupted flow of maritime trade, and preserving the marine environment and ecological balance. The perspective that develops from a framework that considers these issues will also determine the boundaries of maritime security.

The study emphasized the need to incorporate political, economic, and scientific dimensions into maritime security research to ensure global governance. Overemphasis on the naval (sea power) aspect alone results in a narrow and insufficient conceptualization of this complex and multifaceted issue. Therefore, this paper proposes a new holistic theoretical framework for defining maritime security, including the commercial and scientific dimensions that are often overlooked in maritime power discourse. Within this scope, this article has attempted to show that by formulating the maritime domain along the dimensions of the navy, merchant marine, and scientific marine, precise boundaries for the concept of maritime security can be established. A comprehensive understanding of maritime security requires a balanced analysis of these interrelated components.

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