

A CORRELATION BETWEEN MARITIME SECURITY AND GEOPOLITICS IN INDIAN OCEAN REGION (IOR)

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ABSTRACT

This research ‘A correlation between maritime security and geopolitics in the Indian ocean region’ critically analyzes the preliminary relationship between maritime security and geopolitics in IOR, highlighting the role of non-traditional security challenges like climate change in posing numerous threats to their relationship. Due to its strategic location as a hub for world powers, possible battleground, wealth of resources and key marine routes, the Indian Ocean is considered of prominent significance. As a result of this prominent significance, IOR has captured the attention of countries all over the world making it a hub of contests. Where every country is vested in protecting their national interest. Keeping in view this aspect, the research emphasizes how maritime security events, like territorial disputes and piracy, intensify geopolitical tensions among different countries and how the evolving trends of geopolitics in IOR has been influencing IOR. In addition, this research opts quantitative research approach and correlation coefficient to analyze the relationship between maritime security and geopolitics in IOR. Lastly, in order to promote stability in the region and resolution of disputes, the findings are intended to educate policymakers on how to manage the maritime emerging conflicts in the context of the Indian Ocean’s shifting geopolitical terrain.

Keywords: *maritime security, geopolitics, quantitative research, correlation coefficient.*

INTRODUCTION

Indian Ocean Region & Its Geo-Strategic Prominence

The Indian Ocean, sometimes referred to as the body of salt water, makes up around one fifth of the world’s ocean. It is considered to be the smallest, youngest (geologically) and bodily most convoluted of the world’s three major oceans. Almost 10,000 kilometers (almost 6200 miles) of this particular ocean are located between the southern reaches of Australia and Africa. Additionally, this ocean region covers an area of 70,560,000 square kilometers or 27,243,000 square miles excluding its marginal seas. On top of that, this ocean often has a depth

of 12,274 feet (3,741meters), or something close to that (Azmi, 2020).

Inquiring as to the location of the Indian Ocean reveals that it is bounded and enclosed by Pakistan, Iran, India, and Bangladesh on the north; the Sunda Islands of Indonesia, the Malay Peninsula, and Australia on the east; and the Southern Ocean, the African peninsula, and the Arabian Peninsula on the west. Its waterways also converge with those of the Pacific Ocean to the east and southeast, and in the southwest it enters the Atlantic Ocean just south of Africa (Morgan, Kanayev, & Veriaan, 2023).

The Indian Ocean is the principal ocean with the fewest peripheral heaps, which is additional

evidence for the ocean's geographical significance. To the north are the Persian Gulf and the Red Sea. The Arabian Sea and the Andaman Sea are located to the northwest and northeast, respectively. The vast gulfs of Aden and Oman are to the northwest, the Bay of Bengal is to the northeast, and the Great Australian Bight is situated along Australia's southern coastline. While the location of the Indian Ocean region is of utmost importance, it also has some geostrategic features that are significant. These considerable traits have attracted the interest of numerous powerful powers, which has increased the likelihood of wars between them.

So, from a geopolitical, geo-economic, and geostrategic perspective, the Indian Ocean region is quite important. The Indian Ocean Region (IOR), which runs from the eastern coast of Africa to the western coast of Australia, contains one-fifth of the water that covers the surface of the Earth. Its vast maritime and continental reach, which typically spans 38 different countries and includes both continental islands and archipelagos, has served as a crossroads for traders, marines, and navies for generations. Passage routes that cross the East and West and pass-through important choke points like the Straits of Malacca, Straits of Hormuz, Bab-el Mandeb, Ombai, and Wetar Straits assist economies all around the Indo-Pacific. The area is also abundant in rare earth elements like polymetallic nodules, hydrocarbon resources like oil and natural gas, and productive fishing grounds along the coastlines (Tambi R. , 2023).

Defining Maritime Security & Geopolitics

In reality, water makes up the majority of our earth. 96.5 percent of the water on Earth is found in the oceans, which also make up 71% of the planet's surface (water science school, 2019). The safety and protection of the earth's surface from unforeseen conflicts and operational issues must be ensured because 71% of the earth's surface is made up of water. In order to protect the planet's security or wellbeing, the maritime industry has been introduced. The maritime sector, one of the most common on the globe, makes sure to maneuver at sea level and chooses resilient strength to safeguard it. The enactment of maritime security considers both i.e. knowledge and vigilance to augment the execution of security without decelerating the well-timed flow of international exchange

(Maritime institute of technology and graduate studies, 2023).

In general, maritime security mainly signifies the fortification of vessels both internally and externally. The particular capacities from which ships and maritime operations require protection and safety include,

- Marine Terrorism
- Freebooting
- Robbery
- Unlawful trafficking of people and goods
- Unlawful fishing and pollution

The marine sector makes tremendous efforts and conducts diligent supervision, examination, and preventive procedures to maintain its existence to safeguard maritime security and minimize the possible dangers from identified elements that are either malicious or incidental. Additionally, with the development and expansion of the marine industry, awareness, implementation, and training keep pace with technology and the growing potential for coercion (Maritime institute of technology and graduate studies, 2023).

A claim that "maritime security is used as an umbrella phrase that focuses on maritime domain disputes and is frequently linked to national security, marine environment, economic development, and human security" will not be incorrect given all of the qualities of maritime security. This encompasses more than just oceans; it also refers to regional seas, territorial waters, ports, and rivers, as well as situations where the seas act as a stage for geopolitical power prognosis, interstate warfare, military conflicts, or as the domain of particular threats (Bueger c. , 2015).

The idea of geopolitics is also thought to have significant implications in addition to the introduction of the concept of marine security. Geopolitics essentially serves as a framework or organizing concept for understanding the complex world around us. Global politics, or "achieving one's intentions in the world," calls for geographical reasoning and behavior. But what does that actually entail? The study of geopolitics examines how states, businesses, terrorist organizations, and other institutions try to advance their political agendas by influencing the world's geography. The term "geographic entities" is used to describe these. The locations, areas, territories, sizes, and connections of the globe are referred to as geographic entities.

Geopolitics examines how states and other organizations compete on a global scale for control of these institutions. It is thought that running these kinds of organizations enables countries and organizations to achieve their objectives. A relationship to the global scale is implied by the ongoing examination of issues and subjects in geopolitics from an international and global perspective. As a result, the struggle for control over geographical institutions on a worldwide and international scale as well as the use of such geographical entities for political gain can be described as geopolitics (Bueger c. , 2015).

Equation amid Maritime Security & Geopolitics

Maritime security and geopolitics are interlaced and interconnected because the control of maritime commerce routes is essential to the national security of many nations. The capacity to protect and secure these routes is crucial to the economic and political stability of states. In addition, the location and control of ports, naval bases, and other maritime infrastructure can have a significant impact on regional and global power peaks. Consequently, maritime security is intricately intertwined with geopolitics, as the control and regulation of maritime reserves and infrastructure can be a determining factor in a state's strategic position in the sphere.

The rise of non-state actors like pirates, terrorists, and smugglers in recent years has also bolstered the importance of maritime security and its nexus with geopolitics. There is a serious threat to state security and international trade because of the role these organizations have played in manipulating the liabilities and weaknesses of marine trade routes. Overall, maritime security has been a primary and essential emphasis for many states, with several fighting to reestablish intelligence collecting, improve surveillance capabilities, and enhance the amount of naval assets stationed in strategic areas (Germond, 2014).

Literature Review

Introduction to Maritime Security

Exploring the notion of 'maritime security', (Germond, 2014) stated that the term 'maritime security' is quite a recent manifestation that managed to become a buzz word in previous years, particularly within the community of maritime. Becoming a buzzword, the term Maritime security can be best comprehended as a

notion signifying to the security of maritime purview or it denotes a set of strategies, parameters, measures and procedures to safeguard the domain of maritime. According to Germond (2014), the expression i.e., maritime security (securing the maritime dominion) had been absent from academic departments including the debates. In fact, it came to the forefront in academia from the early 2000s. Which is to say that since 2002, the references to maritime security in the academic writings began to increase. This rise in references to maritime security in academia was factually initiated by the occurrence of three noteworthy events in the history of international relations.

- Terrorist attacks of 9/11 (launch of hostage terrorist activities at sea)
- Three terrorist attacks against ships with notable visibility (USS Cole 2001, French Tanker Limburg 2002, & Passenger ship of Filipino super ferry 2004)
- The increase in piracy in the strait of Malacca around the turn of the century.

In essence, the rise and development of 'maritime security' as an established term and notion demonstrates how the threats to international security are always changing. It's delayed debut into academics and the consequent increase in attention can be linked to a shifting geopolitical environment, defined by occasions that highlighted the crucial significance of maritime security in current international relations. As marine concerns continue to be important to international economic and strategic pursuits, the marine industry continues to grow.

Agreeing to this concept of Germond, (Bueger, What is maritime security?, 2015) stated that over the last ten years, the idea of maritime security has grown in popularity. As a result, important figures in international security, ocean authority, and marine policy started to incorporate maritime security into their mandates and redefine their work in line with those changes. For instance, The European Union, the African Union (AU), and the United Kingdom all unveiled comprehensive marine security measures in the year 2014. In its 2011 Alliance Maritime Approach, the North Atlantic Treaty Organization (NATO) listed maritime security as one of primary goals. In the year 2004, the United States took the lead in this development by introducing a national Maritime Security Strategy. Additionally, maritime security was added to the list of responsibilities by the

International Maritime Organization's Maritime Safety Committee (MSC).

Gaining this momentum and being included in the mandate of significant actors, 'maritime security' has become a buzzword in the international arena. Although it has become a major buzzword, it still lacks an accurate definition, according to Bueger. 'Maritime Security' mainly grabs attention to newly emerging issues and mobilizes people to address them. Often, when contemplating maritime security, "threats" that are prevalent in the marine sector are brought up. Threats including arms expansion, illegal fishing, ecological crimes, marine accidents and catastrophes, maritime terrorist activities, piracy, trafficking of persons and illicit products, and maritime interstate disputes are among them. Following that, it is maintained that the essence of maritime security ought to be the nonexistence of these risks. Because maritime security is about ensuring the security of the marine and keeping it safe from existential threats.

Germond and Bueger's examination of maritime security includes a similar, precise, and well-defined central theme. While acknowledging Bueger's contributions, it is undeniable that marine security has become a catchphrase of the modern day due to its rapid global advancement and significance. Furthermore, the fact that several states and international organizations have acknowledged this idea emphasizes how vital it is to preserving global security, particularly as maritime activities become more and more significant for global trade and environmental preservation. At the same time, Bueger's research exposed that a lack of agreement among stakeholders has resulted in an imprecise and undefined definition of maritime security. Because each state or party concerned defines maritime security according to its own set of parameters. However, the thing to bear in mind is that this lack of consistent definition poses difficulties in the creation and application of policies. Nevertheless, this uncertainty also provides versatility in responding to a wide range of marine risks, taking into account the various priorities and points of view of many actors.

In addition, for maritime security to stay pertinent and effective, it must be able to adapt to new challenges like terrorism and piracy. The intricate nature of maritime security concerns is reflected in a detailed evaluation of threats, which calls for an integrated solution incorporating many policy measures.

Fundamentally, maritime security seeks to safeguard marine environments and marine operations against threats such as illicit fishing and human trafficking, hence fostering stability and prosperity. Therefore, it would not be wrong to claim that maritime security is basically about the absence of identified threats from the marine sector. While being a catchphrase, the term's frequent usage highlights the importance of tackling marine security issues in a coordinated way and highlights how urgent it is to do so. In summary, this thesis attempts to clarify the confusion surrounding maritime security by considering that maritime security is a comprehensive framework that protects maritime operations and the marine realm from a variety of threats, promoting stability, growth, and long-term viability in the international maritime sector.

Concept of Geopolitics

Where the concept of maritime security has been recognized and established in recent years, at the same time it augmented the geopolitics among states in different regions of their interest. According to (Kamerling & Susanne, 2014) the term 'geopolitics' has been erratically used by researchers and experts both in allusion to describe states' spheres of dominance or skirmish with one another. Due to the emphasis on power politics, this definition is both ambiguous and constrained. It does not capture the entire significance of the term and even carries a pejorative implication. In addition, the goals of Nazi Germany's foreign policy of expansionism were vindicated employing the geopolitical arguments centered on naive and inaccurate geographical naturalizations.

Moreover, in the time period of 21st century the normative and descriptive aspect of geopolitics as a field of study has disappeared. Actually, it seeks to explain how states attempt to circumvent these limitations and how, in the context of challenging geopolitics, they attempt to use geographical locations to their benefit, including in discourses through a variety of geo-informed renderings. In reality, nations and other global players take the limiting effects of geographical dynamics into account. They create "geopolitical ideas" or "geo policies" that inform the objectives and actions of its foreign and security policy, either explicitly or implicitly. In simple terms, geography, together with other substantial and ideational considerations, succeeds in defining the limits of what can be accomplished

in international relations, both in practice and in the realm of collective imagination (Ali, 2023). Accentuating the intricacy and multidimensionality of geopolitics, the authors acknowledged that the term geopolitics has been used in distinctive ways with time evolving. With that, they implied that a more up-to-date and sophisticated comprehension of geopolitics emphasizes how geography functions as an exclusion, how nations respond to those stipulations or exclusions, and how they utilize geographic narratives to achieve their desired objectives. Regarding this viewpoint, it will not be wrong to assert that this particular viewpoint affiliates with the notion that geopolitics is a vibrant field that keeps developing to replicate the varying flora of global politics and identification of the interaction between numerous dynamics in shaping international relations. Moreover, analyzing the definition of geopolitics mentioned by (Ali, 2023), geopolitics can be best understood as a multidimensional study or scrutiny of the influence of geography on governmental, monetary, and strategic decisions made by countries or other inclusive actors acting in the international community. Also, it tends to explore the means through which geographical factors affect the conduct of states and shape their foreign policies and their interactions with other states. In addition to these perspectives concerning geopolitics, there lies a conventional perspective as well. According to the conventional perspective of geopolitics, it invokes visions of intricate, occasionally even catastrophic political games that strong nations conduct to improve their standing in the global (geo)political sphere. This is undoubtedly a particular category of dynamics that geopolitical models attempt to describe, but there is much more to this interesting field of study than just governments and their big plans. In contemporary terms, geopolitics encompasses both the strategies that

states employ when they participate in global power politics and the various justifications that each state uses to support those strategies with its citizens (Universitat autonoma de Barcelona, 2024).

Investigating various viewpoints of the dynamic relationships between physical and human geography is known as geopolitics. States are legitimated to act based on geopolitical norms and geopolitical creativity, and their citizens and/or international organizations are increasingly using these as grounds for holding them liable. Furthermore, Countries no longer have the sole authority to create and mobilize geopolitical norms and authority. The continuous deterioration of borders' significance following the globalization of the economy and political processes has resulted in the participation of new players in the creation of geopolitics, from above to beneath the state (Universitat autonoma de Barcelona, 2024).

Relationship between Maritime Security and Geopolitics

Evaluating the equation of maritime security and geopolitics, (Fernando, 2019) stated that both of these concepts are closely and intricately correlated to each other. And this is because maritime places (oceans, seas and other water channels) are considered as fundamental constituents of geographical landscape. States create maritime security plans, participate in regional as well as international maritime negotiations, and defend their national interests in these crucial areas due to geopolitical factors. Recognizing and comprehending the dynamics of the world's security and the wider realm of international relations requires an understanding of the interaction between maritime security and geopolitics. According to the author, this interaction between maritime security and geopolitics can be best understood through grasp.



The equation shared by maritime security and geopolitics stated by Fernando has been efficiently and effectively explained. Geopolitical objectives are in fact actively played out in the seas and oceans, and these interests compel authorities of the states and participants to create strategies and policies to advance and safeguard their interests. Furthermore, grasping the complexity of the contemporary globe requires an awareness of the nuanced relationship between geopolitics and marine security. When analyzing the dynamics of global security and developing successful international policies, policymakers, researchers, as well as scholars must all have a clear understanding of how states and actors move through these intertwined domains (Fernando, 2019).

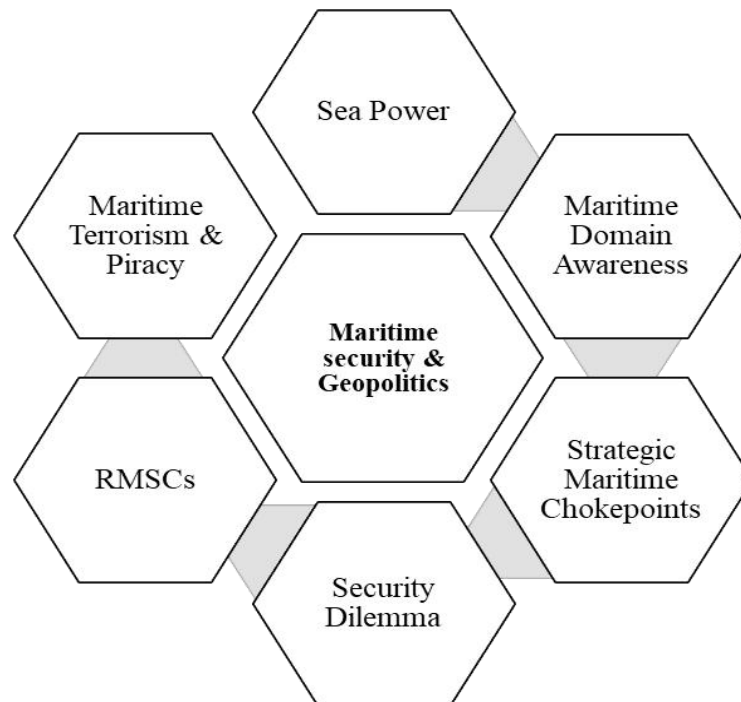
There is indeed a close relationship between geopolitics and marine security, and this relationship is crucial to comprehending modern international relations. Fernando appropriately highlights how states establish security strategies and negotiate marine interests as a result of geopolitical circumstances, stressing the vital importance that maritime areas play in the geopolitical environment. The strategic significance of oceans and seas as channels for

exports, transportation, and geopolitical rivalry is highlighted by this viewpoint. Though the author does a good job of explaining how maritime security and geopolitics interact, there are a few important points that need to be looked at. Fernando's claim regarding the relationship between geopolitics and maritime security emphasizes how interwoven they are, but it overgeneralizes the relationship by concentrating only on views from a state-centric standpoint.

The intricacy of security issues is increased by the dynamics in maritime settings, which involve a broad spectrum of entities outside of governments. While it is important to comprehend this relationship, maritime security is only one facet of global security; other aspects include cyberspace and environmental security. Taking into account the various viewpoints and interests involved, it would not be wrong to claim that a sophisticated approach is required to completely appreciate the intricacies of modern international relations.

Key Concepts and Approaches to Comprehend the Relationship

Some of these opted key concepts and approaches include,



Using the concept of sea power to highlight the equation being shared by maritime security and geopolitics, Alfred Thayer Mahan's illustration remains of momentous importance. The notion of sea power in maritime security was first introduced by Alfred Thayer Mahan in his influential book *'The Influence of Sea Power upon History'*, emphasizing how important naval prowess is in determining a country's geopolitical influence, economic goals, and strategic location in aquatic regions. Mahan maintained that a country's security and development depend on its ability to safeguard maritime trade, retain control over important maritime routes, and gain access to critical waterways. To maintain maritime superiority, he underlined the importance of setting up naval facilities, guarding coaling ports, and managing chokepoints (Office of the Historian, 2024). Furthermore, Mahan argued that countries possessing strong navies can project might, intimidate enemies, and establish control over maritime areas, which in turn shapes the equilibrium of power and impacts global events.

Adopting the concept of MDA (Maritime domain awareness) to explore the relationship between maritime security and geopolitics, (Boraz, 2009) elucidated that MDA includes a thorough awareness of all that transpires in the marine domain, which involves the sea, coastal regions, harbors, and other maritime locations. Information about maritime operations that may have an impact on the environment, economy, safety, or security must be gathered, integrated,

analyzed, and disseminated. Furthermore, countries and organizations aspire to strengthen maritime security by boosting MDA capabilities, which identify and counter unlawful activities like illicit trade, piracy, illegal fishing, and marine terrorism. Maritime Domain Awareness additionally serves an integral part in tackling geopolitical concerns by offering decision-makers current and trustworthy data to help them comprehend maritime trends, identify risks, and develop efficient strategies and responses to protect national interests in marine regions.

Explaining the concept of Strategic Maritime Chokepoints, (Gunathilake, 2024) contended narrow waterways or passageways in important maritime areas that act as crucial conduits for marine trade and mobility are known as strategic maritime chokepoints. In the context of the Indian Ocean, The Mozambique Channel, the Suez Canal, the Bab el-Mandeb, the Malacca Strait, and the Strait of Hormuz are important. Because they link important marine routes between different locations, and these chokepoints are essential to global trade because they make it easier for business boats, cargo, and energy resources to move around. Since it can alter trade flows, geographic dominance dynamics, and global economic stability, authority over these chokepoints is therefore of great geopolitical significance. In short, the whole idea is well summarized by Sir Walter Raleigh as,

"Whosoever commands the sea, commands the trade, and whoever commands the trade of the

world commands the reaches of the world and ultimately the world itself."

According to (Habib, Iqbal, & Fatima, 2022), in order to comprehend how governments' attempts to improve their security may unintentionally result in higher strains and disputes, the concept of security dilemma is frequently employed in maritime security. The concept of a security dilemma appears in the Indian Ocean between China and India in several forms, most notably about marine safety and strategic objectives. The escalation of maritime abilities and presence throughout the Indian Ocean by China and India may be interpreted by one country as menacing, creating a situation where security is jeopardized. Employing the concept of Regional maritime security complexes to understand the relationship between maritime security and geopolitics, (Laila, 2024) referred RMSCs to the complex web of relationships, organizations, and agreements between states in certain maritime zones, each of which reflects the distinct geopolitical, economic, and security characteristics of that region. The author claims that RMSCs can be utilized to understand how nations interact among these structures, how they have evolved throughout the years, and how collective actions affect the security dynamics inside specific maritime regions. These complexities' security environments are influenced by military advancements, infrastructure initiatives, and non-traditional security threats, among other factors. Historical linkages, territorial disputes, economic interconnections, and geopolitical rivalry have formed these networks. By examining RMSCs, researchers hope to shed light on practical approaches to handling marine security issues, advancing stability in the region, and encouraging collaboration between nations in a variety of maritime locations across the globe.

Opting for the approach of maritime terrorism and piracy to comprehend the relationship between maritime security and geopolitics, (Bueger, Marine Policy, 2014) stated that with broad ramifications for geopolitics and global security, maritime terrorism and piracy pose serious threats to maritime security. Adopting this concept, the author examined the causes of these events, which can include ideological radicalism, economic incentives, and political grievances. He also looked at the effects of maritime piracy and terrorism, that involve possible environmental harm, dangers to maritime amenities and interruptions to international trade. Understanding the

relationship between maritime security and terrorism/piracy allowed the author to create viable solutions for reducing the identified risks and protecting marine domains, thereby contributing to stability in the region and international safety. He also addressed how reactions to maritime terrorism and piracy affect the dynamics of geopolitics and international relations, especially in locations where these dangers are widespread.

Distinctive Maritime Security Challenges in IOR

As per the study of (Raza, Non-traditional Maritime Security Challenges In the Indian Ocean, 2023) there have been four maritime security challenges residing in the Indian Ocean till date. These challenges include,

- Marine Terrorism
- Climate Change
- Uncontrolled usage of marine resources
- Illegal trafficking of arms, drugs and humans

Marine Terrorism:

Raza (2023) titles, the world has seen a significant increase in terrorist attacks by both individuals and organizations within the period of last 20 years. The ultimate objective of maritime terrorism is to demolish coastal infrastructure and obstruct marine commerce. following that, many terrorist acts have also been carried out by numerous organizations, including Al Qaeda, the Liberation Tigers of Tamil Elam (LTTE), and the Houthi Rebels of Yemen, and have been targeted at Navies in the Indian Ocean (IO). For example, Al-Qaeda attacked the USS Sullivan and USS Cole, two American warships, in the Indian Ocean in the year 2000. After that, in the year 2002, an explosive-laden cargo similarly collided with the French supertanker Limburg. Another comparable attack occurred against the Japanese oil tanker M Star in the year 2010 near the Strait of Hormuz. It was speculated that Al-Qaeda agents carried out these acts of violence. The Sri Lanka Navy (SLN) was also the target of strikes by the LTTE (Liberation Tigers of Tamil Elam) and its naval unit, Sea Tigers. Likewise, since the year 2017, Yemen's Houthi rebels have also targeted cargo vessels and alliance warships commanded by Saudi Arabia. The Saudi oil ship MT Abqaiq was assaulted in the Red Sea in July of 2018, which was the latest operation by the Houthis. It is reasonable to conclude that maritime terrorism

poses a significant threat to international trade in light of these recurrent strikes (Raza, Non-traditional Maritime Security Challenges In the Indian Ocean, 2023).

Climate Change:

According to (Singh, Climate Change and Maritime Security in the Indian, 2015), the most appropriate way to conceptualize climate change is as a worldwide peril amplifier with destructive capabilities. It presents an imminent danger to international security, nevertheless, because of its innate capacity to derail areas and ignite conflict and unrest.

Crisis brought on by climate change frequently causes new essentials to emerge, many of which have an impact on the maritime industry, modifying the strategic interest composition. These include preventing trans-regional migration, providing humanitarian aid in coastal regions, and taking precautions against sea level increase.

Moreover, entailed by Singh (2015), Two significant ramifications of the evolving climate in the IOR can be seen in the context of traditional marine security. Initially, it has been acting as a catalyst to substantially escalate maritime conflicts. The Indian Ocean's islands with low elevations are under threat from rising waters, which has sparked disagreements over Exclusive Economic Zones (EEZs) and subsurface commodities. Because low-lying features are frequently employed to draw maritime borders, their sinking would render coastal governments' assertions regarding areas of the sea that fall outside of their EEZs void. The low-water labels, which are crucial for calculating each nation's Exclusive Economic Zone (EEZ), would move in the case of a major increase in sea level, resetting baselines and potentially igniting fresh maritime conflicts.

However, the ocean ecosystem is more severely impacted by climate change, which certainly has an influence on maritime activities. It is now well acknowledged among scientists that melting land ice and rising sea levels are leading to changes in the salinity index, temperature, and salinity of the ocean. Furthermore, the absorption of carbon dioxide in seawater tends to change the direction of waves and increase the amount of acidity in the ocean. Maritime forces are now realizing that their operating protocols need to be modified as the sea environment evolves. In actuality, there is an increasing recognition that various facets of marine operations, including notably navigation,

piloting, operating drills, ship maintenance, engine preservation, and other maintenance of equipment, may be impacted by environmental changes.

From a critical perspective, it is imperative to acknowledge the complexity and subtleties of climate change's effects on maritime security, even as we acknowledge the gravity of the phenomenon as a universal risk amplifier with potentially devastating capacities. Although there are many difficulties associated with climate-related disasters, blaming climate change alone for conflict ignores other important variables and minimizes the involvement of those involved. Furthermore, it oversimplifies the complex dynamics of maritime security to attribute all maritime disputes and operational difficulties to climate change alone, even if increasing sea levels and changes in the environment surely have an impact on maritime boundaries and capabilities.

Uncontrolled Usage of Marine Resources:

The IO is a warm-water reservoir that supports substantial fish stocks and a high biodiversity owing to its profusion of minerals, seaweeds, and planktons. All of the world's maritime and hinterland zones have access to substantial protein reserves from the ocean. Although fishing is regarded as an infinite resource, but its illegal usage, unreported, unregulated (IUU) usage will undoubtedly cause the species to go endangered. The issue of IUU fishing in the IO is associated with a degradation of financial advantages and means of subsistence for the island states, in addition to the reduction of many fish species that have wider implications for the supply of food. As traditional fishing locations' fish populations run depleted and fishermen relocate to farther-flung waterways, it is anticipated that IUU fishing will rise. Notwithstanding all global agreements and treaties, IUU fishing continues to pose problems that impede the advantages of the blue economy (Petrossian, 2015).

Illegal trafficking of arms, drugs and humanities:

Defining this obstacle (Raza, Non-traditional Maritime Security Challenges In the Indian Ocean, 2024) claimed that the systematic illicit activities that are carried out over the water include trafficking in human beings, drugs, and small arms and light weapons (SALW). These coalitions may easily expand their operations around the world and involve additional non-

state entities because of the water. A notable increase in human trafficking has been attributed to instability in politics and intrastate disputes. Likewise, human trafficking has become more prevalent in least-developed countries due to their dire socio-economic circumstances. The majority of human trafficking organizations and structures use maritime avenues to transfer captives since these routes are broad, varied, and frequently uncontrolled. Another worldwide crime that seriously jeopardizes political, economic, and social stability is the trafficking of SALWs.

Impact of Global Power shifts and emerging geopolitical challenges on Indian Ocean geopolitics:

As a matter of fact, there are three significant giants seeking supremacy in the Indian Ocean Region. These states include China, India and the United States paving way towards tripartite competition. All of these super powers possess approximately fifty percent of the world's economy. Each of them evaluates its position in power politics through a unique geostrategic prism.

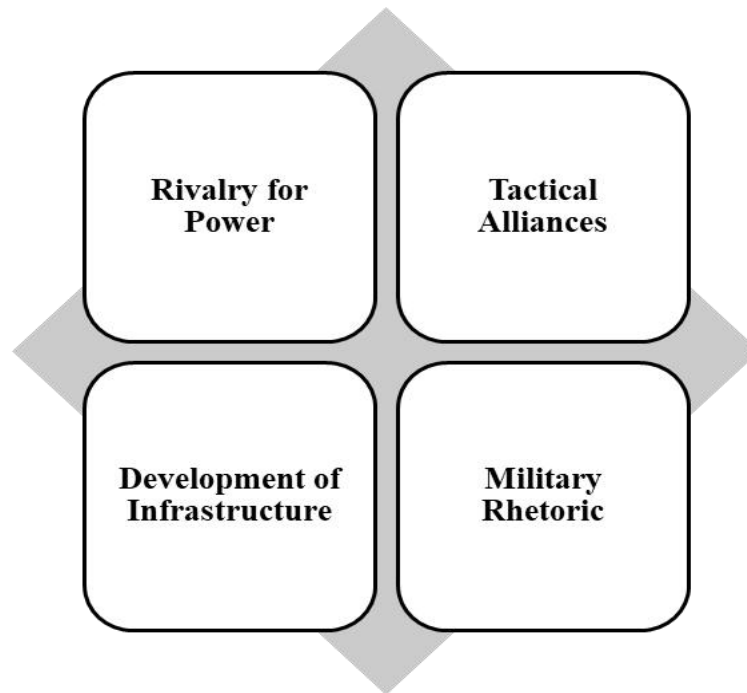
Highlighting the dominance of China, (Habib, Iqbal, & Fatima, 2022) says The Belt and Road Initiative (BRI) has allowed China to become a major player in the world's economy and military, and this has had a significant impact on the Indian Ocean Region (IOR). China has strengthened its economic clout and footprint in the IOR by making significant investments in development of infrastructure, including ports and maritime capabilities. While recipient nations benefit economically from these

investments, different regional powers—including India—are alarmed by China's increasing dominance and capacity for power projection, which could change the geopolitical landscape of the region and inspire security concerns.

In order to counter the increasing domination of China in IOR, and preventing the world order to turn unipolar, a major power shift occurred in IOR when India being a significant regional force with a big stretch of Indian Ocean coastline, came forward strengthening its diplomatic ties with littoral states and its maritime capabilities in IOR. By proactively defending its maritime rights, developing its naval might, and seeking strategic alliances, India has been able to partially offset China's impact and preserve its hegemony in some IOR regions.

Although other factors exist as well but all rank below India and China. Even among these, China possesses more capability to dominate in IOR. Because the naval budget of China is much more than that of India. Which has enabled China to build more and more warships. Under Modi's era, India has become actively involved in countering the influence of China in IOR. But due to its comparatively less budget, India is unable to manufacture ships as much as China.

Moreover, (Latif & Zia, 2021) assert, at present, IOR has become a pinnacle of instability where power shifts have been evolving rapidly. Which paves the way for whole new geopolitical trends. Keeping in view the contemporary situation of power shift in IOR, the growth of China and India's intransigence in the Indian Ocean Region has contributed to various mounting geopolitical challenges,



According to Latif and Zia (2021) the struggle between regional and extra-regional countries for dominance has undoubtedly been more intense as a result of China and India's growing influence in the Indian Ocean Region. The infrastructure initiatives, financial investments, and strategic alliances that both nations are pursuing are especially indicative of this competitiveness. To improve interconnectivity and increase its economic and strategic influence, China's Belt and Road Initiative (BRI) has resulted in large expenditures in ports and maritime infrastructure around the area. In the meantime, India's "Act East" policy aims to express its strategic interests and counteract China's influence by fortifying connections with nations in the Indo-Pacific area, especially Southeast Asia and the Indian Ocean coastline.

The analysis of (Shahid, STRATEGIC POWER PLAY IN THE INDIAN OCEAN, 2021) entails that it is undeniable that India's arousal in the Indian Ocean Region has fostered the development of strategic alliances with other nations that share its concerns about China's growing dominance. These alliances have been reinforced, especially with the US, Japan, Australia, and France, to improve maritime safety and uphold the region's rules-based system. Through initiatives like the Malabar naval drills and the Indo-US Maritime Security Discussion, the alliance with the US attempts to thwart Chinese encroachment and strengthen maritime security cooperation. In a similar vein, alliances with Australia and Japan, such as the Quad,

emphasize advancing an accessible and democratic Indo-Pacific and bolstering marine capacities to guarantee an enduring regional order. To improve maritime security and preserve the rule of law in the area, India and France have strategic alliances that include mutually beneficial naval drills and defense cooperation, especially in the Indian Ocean. These tactical alliances are a reflection of India's proactive efforts to build coalitions to tackle shared security issues and counterbalance the power of China in the Indo-Pacific region.

It will not be wrong to assert that this trend of India's assertiveness has paved a way for another emerging trend which is of military rhetoric. The Indian Ocean region has experienced an increase in military rhetoric due to the belligerent stances taken by nations such as China and India, as well as their strategically important connections with other nations in the region and extra-regional countries. Other regional powers have been concerned about China's increasing military strength and determination, especially in the South China Sea and its rising naval capabilities. This has led to a rise in military discourse aimed at containing perceived threats and preserving the balance of power. Likewise, since these actions are seen as reactions to China's increasing power and defiance, India's attempts to strengthen its maritime capabilities and establish strategic alliances with nations like the US, Japan, and Australia have also added to the military argument in the area.

Impact:

Concerning to the geopolitics of IOR, these developments impacts

- Dynamics of Security
- Dynamics of Economy
- Geopolitical Competition

With regard to the **security dynamics**, (Ali, 2023) revealed Other regional powers are becoming apprehensive about China's ambitions and its repercussions for the security of the region as a result of China's rise and expanding power in the IOR through programs like the Belt and Road Initiative (BRI). Concerns regarding China's capacity to project power and retain authority over vital maritime chokepoints have risen as a result of its expenditures in ports and marine infrastructure around the area. People are forced to believe that China has chosen the expansionist approach in order to gain dominance as a result of all of these achievements accomplished by the country. Particularly aiming for India. In order to halt the dominance of China, India has emerged assertively in IOR protecting its maritime interests and strengthening its naval capability. It has caused the IOR to experience an increase in competitiveness and strategic antagonism. Enhanced naval surveillance, drills, and security cooperation attempts between regional and extra-regional entities are examples of this.

From the perspective of **Economic dynamics**, China's financial involvement in the IOR has the power to change the region's economic structure. While China-funded infrastructure initiatives under the Belt and Road Initiative have the potential to improve commerce and interaction, they also raise concerns about the long-term viability of financing and the strategic vulnerabilities among beneficiary nations. Moreover, India is using its economic projects, like the Sagarmala project and the expansion of the Chabahar port in Iran, to offset China's economic sway in the region. By taking these steps, India intends to lessen its reliance on Chinese-led development efforts while strengthening its commerce and connectivity within the Indian Ocean region (Baruah D. M., Surrounding the Ocean: PRC Influence in the Indian Ocean, 2023).

Analyzing the **geopolitical competition**, the change in power and new geopolitical tendencies have made the IOR more competitive in the geopolitical sphere. The area now presents a scene of geopolitical rivalry between China, and India, among other powerful nations. This battle

includes multiple dimensions, such as diplomatic projects, monetary power, and maritime security. Smaller littoral governments are affected by geopolitical rivalry in the IOR because they are frequently caught in the melee of conflicting interests. To protect the interests of their citizens and sovereignty, these governing bodies have to manage their connections with major countries and traverse intricate geopolitical processes (Baruah D. M., Surrounding the Ocean: PRC Influence in the Indian Ocean, 2023).

Methodology

Opting a deductive research approach, this research opted a Quantitative research methodology to analyze the changing trends and correlations between maritime security and geopolitics in IOR by collecting data relevant to maritime security instances and geopolitical trends. Moreover, further clearing the context, this research has opted for a **Descriptive and a Correlational** research method within quantitative research (Quantitative and Qualitative Research, 2023). These research methods have been employed using Online surveys and secondary data as data collection techniques (DeFranzo, 2024). Descriptive research in quantitative research methodology aims to analytically and methodically gather the data necessary to understand a phenomenon, circumstance, or recognized population. It is also regarded as an exploratory research method, where a researcher uses this approach to describe a chosen and identified event and investigate shifting patterns within those occurrences. Whereas, a non-experimental research technique called correlational research method focuses on the relationship between two or more variables. It is employed to establish whether there is, and if so, what kind of a correlation between the variables.

Sampling Technique:

As the primary method of data collection of this research is through surveys, this research has opted a sampling strategy of **Purposive sampling** to identify its population. Because this sampling gives researchers a freedom to choose the participants based on the research goals.

Purposive Sampling:

Keeping in view the protocols of purposive sampling, this research resorted to a master's and Ph.D. candidates studying international relations at Punjab University and UMT (University of Management and Technology). A total of **137**

people contribute meaningfully to this research by giving thoughtful answers to the survey.

Data Analysis Technique:

In order to analyze the data accumulated using authenticated and official information from various articles and governmental reports, this research used the Statistical Package for the

Social Sciences (SPSS) as a data analysis technique. It is an assortment of computer programs designed to examine scientific data pertaining to the social sciences. A quick-visual simulation environment that can accommodate even the most intricate models is provided by SPSS (Williams, 2024).

Analysis and Discussion

(Table 1) Descriptive Reliability Analysis of Scales (N=137)

Variables	N	Range		Mean	Std. Deviation
		Minimum	Maximum		
MSI	137	05	20	12.26	2.91
IGT	137	09	25	15.94	4.11

Note: M= Mean, SD= Standard Deviation, N= Number of Participants, MSI= Maritime Security Incidents, IGT= Increasing Geopolitical Tensions

Research essentials such as descriptive analysis fulfill a number of vital functions. It entails organizing and summarizing data to make it easier to interpret and give a thorough rundown of the metrics and sample. A simpler, easier-to-understand format for vast amounts of data is achieved through the use of descriptive analysis. Complex datasets can be better understood by using measures like means, medians, modes, ranges, and standard deviations, which offer a snapshot of the data (Creswell, 2014). In order to summarize data, comprehend its distribution, prepare the way for inferential analysis, effectively communicate findings, and spot trends and patterns, descriptive analysis is a crucial technique in research.

Based on a sample of 137 participants, the descriptive reliability analysis shown in Table 1 offers a statistical summary of three variables:

Variables	M	SD	1	2	3
1. MSI	12.26	2.91	-	-.289**	.243**
2. IGT	15.94	4.11		-	-.138

Note: $P < .05 = *$, $P < .01 = **$, $P < .001 = ***$, MSI= Maritime Security Incidents, IGT= Increasing Geopolitical Tensions.

At the p-value of less than .01, the correlation coefficient between MSI and IGT is -0.289, indicating statistical significance. This inverse relationship implies that geopolitical tensions typically decline with an increase in maritime security incidents, or vice versa. This lends credence to the idea that concerns over maritime

Maritime Security Incidents (MSI), Increasing Geopolitical Tensions (IGT). The range, mean, and standard deviation of each variable are examined in order to provide insights into the central tendencies and variability seen in the data. The MSI variable has a mean score of 12.26 and a standard deviation of 2.91. Its range is 5 to 20. This indicates that, with individual responses varied somewhat around the mean, the participants reported a modest level of maritime security incidents on average. The IGT variable has a standard deviation of 4.11, a mean score of 15.94, and a range of 9 to 25.

In comparison to MSI, the greater mean suggests that participants felt growing geopolitical tensions more strongly. The higher standard deviation in this case denotes a wider range of answers, indicating a higher degree of variability in participants' assessments of geopolitical tensions.

(Table 2) Correlation Between Maritime Security Incidents and Increasing Geopolitical Tensions (N=137)

security have an effect on a country's bilateral relations, possibly escalating geopolitical tensions. This implies that, within this sample, rising geopolitical tensions do not significantly or strongly affect bilateral relations between China and India. In short, according to the correlation analysis, there is a moderately negative correlation ($r = -0.289$, $p < .01$) between the rise in maritime security incidents (MSI) and the rise in increasing geopolitical tensions (IGT).

This indicates that there are complex dynamics at play, such as prospective diplomatic attempts following occurrences, when maritime incidents rise.

Discussion:

Maritime security and geopolitics are interconnected to some extent. Not completely but partially. Which is to say, according to the revelation of secondary data, because many countries' national security depends on controlling their marine trade routes, maritime security and geopolitics are closely related. States' ability to maintain political and economic stability depends on their ability to safeguard and secure these routes. Furthermore, ports, naval bases, and other maritime infrastructure can significantly affect regional and global power peaks based on their position and control. As a result, the management and control of marine reserves and infrastructure can have a significant impact on a state's strategic positioning in the world, making maritime security closely linked to geopolitics. Nevertheless, MSI (maritime security incident) is negatively correlated with more general geopolitical tensions, defying early predictions and serving as one of the substantial findings. Which suggests that diplomatic initiatives after MSI may momentarily reduce these tensions. But if states fail to reduce these tensions diplomatically, it can lead to intensification of geopolitical tensions.

Conclusion

Conclusively, the aim of this research involved determining the relationship between Maritime security and geopolitics in the context of IOR and how rising non-traditional security challenges seem to threaten their relationship. The descriptive and correlational research methods were employed to accomplish the research objective. Descriptive analysis and correlational analysis tests were conducted using SPSS for analysis. And analysis revealed the negative correlation that exists between maritime security and geopolitics. Although they are interconnected, and there is no doubt that if any maritime insecurity instance rises, states come forward to protect their maritime concerns in that area. But at the same time, that incident or crisis seems to get resolved through diplomatic negotiations. One cannot neglect this possibility of diplomacy. Which ultimately reduces the risk of rising geopolitical tensions.

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