



Appraisal of Crisis Management Strategies Adopted by Shipping Companies in the Strait of Hormuz (2015 to 2025)

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ABSTRACT

This study appraises crisis management strategies adopted by shipping companies operating in the Strait of Hormuz between 2015 and 2025, a critical global maritime chokepoint responsible for about 20% to 21% of global petroleum transit. While existing studies largely emphasize the geopolitical and security significance of the corridor, limited attention has been given to how shipping companies design and implement crisis management strategies in response to operational disruptions. This study addresses this gap by examining company level crisis management practices among major operators including Maersk, MSC Mediterranean Shipping Company, COSCO Shipping, Euronav, Frontline Ltd, and Bahri. A qualitative research design was adopted, using semi-structured interviews with maritime professionals supported by documentary sources, and the data were analyzed through thematic analysis. The findings reveal that shipping companies employ integrated crisis management systems comprising preventive, real time response, and adaptive strategies. Intelligence driven risk assessment, scenario based voyage planning, crew preparedness, centralized control centres, multi-channel communication systems, and naval coordination strengthen operational responsiveness, while post incident reviews and protocol revisions promote organizational learning and continuous improvement. However, geopolitical instability, rising operational costs, human fatigue, and weak stakeholder coordination reduce the overall effectiveness of these strategies. The study contributes to maritime crisis management literature by providing empirical evidence on company level practices and concludes that effective crisis management depends on stronger integration of technology, human capacity, and institutional coordination to enhance resilience and operational continuity in high risk maritime corridors.

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INTRODUCTION

The Strait of Hormuz is a critical maritime chokepoint linking the Persian Gulf to the Arabian Sea and global shipping routes, through which about 20% to 21% of global petroleum liquids are transported daily. This makes it a strategically important corridor for global energy security and economic stability. However, its narrow geography and high traffic density expose it to frequent disruptions arising from geopolitical tensions, naval confrontations, and maritime insecurity. Consequently, even minor disturbances in the strait can significantly affect oil prices, freight rates, and global supply chain stability (U.S. Energy Information Administration, 2024; International Energy Agency, 2023; UNCTAD, 2024).

Between 2015 and 2025, the Strait of Hormuz experienced several major security incidents that disrupted maritime operations, including the seizure of commercial vessels, attacks on oil tankers in 2019, heightened naval confrontations, and repeated regional tensions associated with the Israel Iran conflict and Red Sea related security developments. These events resulted in voyage delays, increased insurance premiums, route adjustments, and heightened operational uncertainty for shipping companies,

thereby justifying the study period selected for this research (IMO, 2023; UNCTAD, 2024).

In addition, shipping operations in the region are increasingly exposed to complex risks including state based conflicts, vessel harassment, cyber threats, and regulatory uncertainty. These challenges directly influence operational decisions such as vessel routing, insurance costs, and voyage timing. For instance, war risk insurance premiums in high risk maritime zones have been reported to rise by over 300% during periods of heightened tension, thereby increasing operational costs and reducing profitability. Although international frameworks such as UNCLOS guarantee freedom of navigation, enforcement limitations and geopolitical realities often reduce their effectiveness in practice (Bueger, 2015; Kraska, 2011; UNCTAD, 2024).

Crisis management in maritime operations refers to the systematic planning, implementation, and evaluation of measures that enable shipping companies to anticipate, respond to, and recover from operational disruptions while maintaining safety and service continuity. It encompasses preventive strategies such as risk assessment and contingency planning, real time response systems including communication and operational coordination, adaptive learning through post incident evaluation and protocol

revision, and financial risk transfer mechanisms such as insurance and contractual safeguards. These integrated components enhance organizational resilience and improve operational continuity in high risk maritime environments.

Furthermore, maritime logistics has increasingly shifted from efficiency driven operations toward resilience based management capable of sustaining global supply chains under conditions of disruption. Recent studies emphasize that supply chain resilience depends not only on infrastructure and regulatory frameworks but also on the operational capabilities of individual firms to anticipate risks, coordinate responses, and adapt to changing security conditions (Sheffi, 2015; Notteboom et al., 2021; IMO, 2023). Technologies such as AIS, satellite monitoring, predictive analytics, and integrated communication platforms have strengthened situational awareness and decision making; however, their effectiveness remains uneven in volatile environments such as the Strait of Hormuz where crises can escalate rapidly and disrupt maritime logistics with global consequences.

Despite the growing body of literature on the Strait of Hormuz, existing studies have focused predominantly on geopolitical tensions, international legal regimes, energy security, and the broader economic implications of disruptions. Comparatively little attention has been devoted to examining how shipping companies themselves design, implement, and evaluate crisis management strategies to sustain operational continuity under persistent security threats. This represents an important gap because organizational responses at the company level ultimately determine the effectiveness of crisis preparedness and operational resilience during maritime crises.

Against this background, this study appraises the crisis management strategies adopted by shipping companies operating in the Strait of Hormuz, with emphasis on their effectiveness in managing maritime security incidents and operational disruptions, identifying the strategies employed, evaluating their outcomes, and examining implementation challenges within a high risk maritime context. Adopting a qualitative approach enables the study to capture organizational practices and stakeholder experiences that cannot be adequately explained through quantitative analysis alone (Creswell and Poth, 2018; Yin, 2018). The study contributes to maritime crisis management and supply chain resilience literature by providing empirical evidence on company level crisis management practices in one of the world's most strategically important shipping corridors. The

findings are expected to support shipping companies, policymakers, and international maritime institutions in strengthening preparedness, improving response systems, and enhancing resilience in critical global maritime logistics networks.

MATERIALS AND METHODS

This study adopted a qualitative research design to obtain in depth insights into the crisis management strategies employed by shipping companies operating in the Strait of Hormuz. The qualitative approach was considered appropriate because it enables the exploration of organizational decision-making processes, operational experiences, and strategic responses to maritime crises that cannot be adequately captured through quantitative methods alone (Creswell and Poth, 2018; Yin, 2018).

The study focused on major shipping companies with operational experience in the Strait of Hormuz between 2015 and 2025, particularly those engaged in crude oil tanker, liquefied natural gas (LNG), liquefied petroleum gas (LPG), and container shipping operations. A purposive sampling technique was employed to identify participants with direct knowledge and experience of crisis management in the study area. A total of 18 semi-structured interviews were conducted between January and April 2025. Participants comprised fleet managers (5), maritime security officers (4), ship masters (4), and risk and compliance managers (5) drawn from companies operating in the container, crude oil tanker, and LNG/LPG shipping sectors. Respondents represented organizations operating across the Middle East, Europe, and Asia, thereby providing diverse operational perspectives on crisis management in the Strait of Hormuz. Interviews continued until thematic saturation was achieved, with no substantially new themes emerging from successive interviews, consistent with established qualitative research procedures (Guest et al., 2006; Saunders et al., 2018).

The study area is the Strait of Hormuz, one of the world's most strategically significant maritime corridors, connecting the Persian Gulf with the Arabian Sea and facilitating approximately 20 percent of global petroleum trade. Owing to its strategic importance, the corridor has experienced persistent geopolitical tensions, maritime security incidents, and operational disruptions, making it an appropriate setting for examining organizational crisis management practices (U.S. Energy Information Administration, 2024; UNCTAD, 2024).



Figure 1: Map of the Strait of Hormuz Showing Major Shipping Routes and Surrounding Countries

Source: Adapted from U.S. Energy Information Administration (2024) and Encyclopaedia Britannica (2025)

Data were collected through semi-structured interviews covering organizational crisis management strategies, preventive risk assessment, contingency planning, communication systems, coordination with naval authorities, operational decision making during crises, adaptive learning mechanisms, financial risk management practices, and implementation challenges. Interviews were conducted through secure virtual platforms or direct communication depending on participant availability. All interviews were conducted with informed consent, digitally recorded with participants' permission, and transcribed verbatim to preserve the accuracy and completeness of the data.

To enhance the credibility of the findings, interview data were triangulated with documentary evidence obtained from publicly available company crisis management policies, maritime security advisories, International Maritime Organization publications, United Nations Conference on Trade and Development reports, International Energy Agency publications, and relevant industry reports on maritime security and shipping operations in the Strait of Hormuz (International Maritime Organization, 2023; UNCTAD, 2024). The use of multiple data sources enabled cross verification of emerging themes and strengthened the trustworthiness of the findings.

Data were analyzed using thematic analysis following the procedures proposed by Braun and Clarke (2006). The analysis commenced with repeated reading of interview transcripts to achieve familiarity with the data, followed by open coding to identify significant statements relating to organizational crisis management practices, operational decisions, implementation challenges, and perceived outcomes. Related codes were subsequently grouped into broader themes comprising preventive strategies, real time response systems, coordination mechanisms, adaptive learning, and financial risk management. These themes formed the basis for interpreting how shipping companies manage crises within the operational environment of the Strait of Hormuz.

The perceived effectiveness ratings presented in this study are qualitative syntheses derived from recurring interview themes and documentary triangulation. They do not represent quantitative performance measurements. Rather, they reflect the consistency with which participants identified particular strategies as contributing to operational resilience, crisis preparedness, response effectiveness, and continuity of shipping operations.

The credibility and trustworthiness of the study were enhanced through methodological triangulation, member checking, and maintenance of an audit trail documenting coding decisions and theme development. Ethical standards were maintained throughout the research process by ensuring informed consent, confidentiality, anonymity, and secure handling of all interview data.

RESULTS AND DISCUSSION

The results of this study provide an appraisal of crisis management strategies adopted by shipping companies operating in the Strait of Hormuz, with particular emphasis on how these strategies are implemented in real operational environments characterized by uncertainty and heightened security risks. Evidence obtained from industry practitioners, supported by existing literature, indicates that major operators such as Maersk, MSC Mediterranean Shipping Company, COSCO Shipping, Euronav, Frontline Ltd, and Bahri have developed structured and institutionalized crisis management systems that integrate preventive, response, and adaptive mechanisms into their day to day operations. These systems

are embedded not only in formal policy documents but also in operational workflows, communication infrastructures, and organizational culture, thereby ensuring that crisis management is treated as a continuous process rather than a reactive measure. Consequently, the discussion in this section extends beyond descriptive categorization and focuses on the operational depth, practical execution, and effectiveness of each strategy within the unique geopolitical and maritime context of the Strait of Hormuz (UNCTAD, 2024; International Maritime Organization, 2023).

Preventive Crisis Management Strategies

Preventive strategies constitute the foundation upon which all other crisis management measures are built, and findings from the 18 semi-structured interviews, corroborated by documentary evidence, clearly demonstrate that shipping companies operating in the Strait of Hormuz invest heavily in anticipatory mechanisms designed to minimize exposure to risk. A fleet manager emphasized this proactive approach by stating:

"Risk assessment begins well before transit. Intelligence reports, weather conditions, naval advisories, and vessel specific vulnerabilities are reviewed before every voyage, and routing decisions are adjusted whenever the threat level changes." (Fleet Manager, Interview 3).

In this regard, companies such as Maersk employ multi-layer intelligence driven risk assessment systems, where data is continuously sourced from satellite tracking platforms, maritime intelligence agencies, and geopolitical monitoring services. These inputs are synthesized into dynamic risk matrices that are updated in real time as vessels approach the Strait of Hormuz, allowing decision makers to make informed judgments regarding transit feasibility. Moreover, risk scoring models are used to classify voyages into different threat categories, which in turn determine operational directives such as speed adjustments, convoy participation, or complete postponement of transit.

In addition, voyage planning is not treated as a routine scheduling exercise but rather as a strategic process involving scenario based modelling and contingency mapping. For instance, tanker operators such as Euronav conduct detailed simulations that incorporate variables such as vessel proximity to high risk zones, likelihood of interception, and availability of naval support. These simulations generate alternative operational scenarios, each with predefined response actions, thereby ensuring that vessels operate within a structured decision framework even under uncertain conditions. Furthermore, companies such as Frontline Ltd integrate predictive analytics into voyage planning, enabling them to forecast potential disruptions based on historical incident data and current geopolitical indicators. As one maritime security officer explained:

"Scenario planning allows operators to evaluate several possible security situations before entering the corridor, ensuring that response options are already established if conditions deteriorate." (Maritime Security Officer, Interview 8)

Equally important is the emphasis on crew preparedness and procedural standardization, which ensures that preventive strategies are effectively translated into operational readiness. Companies such as COSCO Shipping implement rigorous training programs that include simulation exercises, emergency drills, and scenario based learning modules specifically tailored to the Strait of Hormuz environment. These programs are complemented by detailed operational manuals and decision support tools, which guide crew members during high pressure situations. In parallel,

companies such as Bahri establish centralized approval systems for high risk voyages, thereby ensuring that all transit decisions are subjected to comprehensive risk evaluation at the corporate level. A ship master further observed:

"Regular simulation exercises ensure that every crew member understands individual responsibilities before entering high risk waters, reducing uncertainty during actual incidents." (Ship Master, Interview 12)

Furthermore, financial risk mitigation is integrated into preventive strategies through structured insurance frameworks and contractual safeguards. War risk insurance policies are dynamically adjusted based on threat levels, and contractual clauses are designed to protect companies from liabilities arising from unforeseen disruptions. However, several participants acknowledged that increasing insurance premiums remain a significant operational concern despite these safeguards. A risk and compliance manager noted:

"Insurance provides financial protection, but escalating war risk premiums have become an increasingly important consideration in voyage planning and commercial decision making." (Risk and Compliance Manager, Interview 16)

These interview accounts were consistently supported by documentary evidence reviewed during the study, including maritime security guidance, industry reports, and publicly available company operational documents. Therefore, preventive crisis management in the Strait of Hormuz is characterized by a high degree of sophistication, combining data analytics, human expertise, and institutional controls to create a robust risk mitigation framework (UNCTAD, 2024; Notteboom et al., 2021).

Real-time Response Strategies

Real-time response strategies represent the most critical phase of crisis management, as they determine the immediate outcome of disruptive events and directly impact vessel safety and operational continuity. Findings from the interviews, corroborated by documentary evidence, indicate that shipping companies such as Maersk operate highly coordinated crisis control centres, which function as central hubs for monitoring vessel movements and coordinating response actions. These centres are equipped with advanced tracking systems, real time data feeds, and secure communication networks, thereby enabling continuous situational awareness. Moreover, these facilities operate on a 24 hour basis, ensuring that crisis response capabilities are maintained at all times regardless of time zone differences or operational constraints. As one fleet manager explained:

"A dedicated operations centre continuously monitors vessel movements, intelligence updates, and regional security alerts. This allows rapid decisions whenever the threat environment changes." (Fleet Manager, Interview 5)

In addition, internal communication systems have been significantly strengthened to ensure rapid and accurate information flow during crisis events. For example, companies such as Frontline Ltd have implemented multi-channel communication frameworks, where information is transmitted simultaneously through satellite communication systems, encrypted digital platforms, and traditional maritime communication channels. Furthermore, structured reporting protocols require the ship master to provide real time updates to multiple organizational units, including operations, security, and executive management teams. This redundancy ensures that communication breakdowns are minimized and that all relevant stakeholders remain informed throughout the crisis. A maritime security officer emphasized this by stating: "Communication must remain uninterrupted throughout the voyage. Information is shared simultaneously with the vessel,

headquarters, and relevant security agencies so that operational decisions can be made without delay." (Maritime Security Officer, Interview 10)

Equally important is the establishment of clear decision making hierarchies and escalation procedures, which define roles and responsibilities during crisis situations. Operational decisions such as speed adjustment, evasive manoeuvring, or temporary anchorage are delegated to the ship master, while strategic decisions such as rerouting or suspension of operations are handled at the corporate level. This division of authority reduces ambiguity and ensures that decisions are made efficiently without unnecessary delays. According to one ship master:

"The master is empowered to make immediate navigational decisions when a threat emerges, while headquarters provides strategic support for longer term operational adjustments." (Ship Master, Interview 13)

Furthermore, coordination with external stakeholders is systematically integrated into response strategies. Shipping companies maintain direct communication links with naval forces, maritime security agencies, and regional authorities, thereby enabling rapid intervention when required. For instance, during the Strait of Hormuz tanker incidents, vessels associated with Euronav and Frontline Ltd successfully navigated high risk situations through timely naval coordination and adherence to security advisories (International Maritime Organization, 2020; Bueger, 2015). This finding was reinforced by a risk and compliance manager, who observed:

"Maintaining close coordination with naval authorities is essential because security information changes rapidly, and timely guidance often determines whether a voyage continues safely or requires rerouting." (Risk and Compliance Manager, Interview 17)

Moreover, operational flexibility is enhanced through continuous risk reassessment during transit. Companies such as MSC Mediterranean Shipping Company utilize real time analytics to evaluate changing threat conditions, enabling immediate decisions regarding continuation, delay, or rerouting of voyages. These observations were consistently supported by documentary evidence, including maritime security advisories and industry reports reviewed during the study. Therefore, real time response strategies are characterized by speed, coordination, and adaptability, all of which are essential for effective crisis management in volatile maritime environments (Sheffi, 2015; UNCTAD, 2024).

Adaptive and Post-Crisis Strategies

Adaptive strategies play a crucial role in ensuring that shipping companies learn from past experiences and continuously improve their crisis management capabilities. Findings from the interviews, supported by documentary evidence, reveal that companies such as Maersk adopt multi stage post incident evaluation processes, which begin with immediate debriefings at the vessel level and extend to comprehensive reviews at the corporate level. These evaluations involve detailed analysis of incident timelines, identification of critical decision points, and assessment of communication effectiveness, thereby providing a holistic understanding of crisis events. As one risk and compliance manager explained:

"Every major security incident is followed by a structured review involving both shipboard personnel and shore based management. The objective is to identify what worked, what did not, and how future responses can be improved." (Risk and Compliance Manager, Interview 15)

In addition, internal communication systems are refined through targeted operational improvements. Companies such as Frontline Ltd enhance communication efficiency by introducing standardized reporting templates, integrating real time messaging platforms, and establishing dedicated crisis communication units within their organizational structure. Furthermore, regular communication drills are conducted to test system responsiveness and identify potential weaknesses, thereby ensuring that communication remains reliable during future crises. A maritime security officer emphasized this process by stating:

"Communication procedures are reviewed after every significant incident, and any identified weaknesses are incorporated into updated reporting protocols and operational guidance." (Maritime Security Officer, Interview 9)

Moreover, protocol revision is systematically undertaken to incorporate lessons learned from past incidents. Companies such as Euronav update their risk assessment models by including new variables such as emerging threat patterns and changes in regional security dynamics. Similarly, training programs are continuously revised to reflect real world scenarios, and simulation exercises are updated to enhance their relevance and effectiveness. According to one fleet manager:

"Lessons from previous incidents are integrated into future voyage planning and crew training. This continuous learning

process has significantly improved preparedness for emerging security threats." (Fleet Manager, Interview 6)

Technological adaptation also forms a key component of post crisis strategies. Shipping companies invest in advanced monitoring systems, predictive analytics tools, and communication technologies to address gaps identified during previous incidents. However, the interview findings consistently emphasized that technological solutions must be complemented by human expertise, as effective crisis management ultimately depends on the ability of personnel to interpret information and make informed decisions. As one ship master observed:

"Technology provides timely information, but effective crisis management still depends on the experience and judgement of the people making operational decisions under pressure." (Ship Master, Interview 14)

These perspectives were consistently corroborated by documentary evidence, including company operational guidance, maritime security advisories, and International Maritime Organization publications reviewed during the study. Therefore, adaptive strategies ensure that crisis management systems remain dynamic, responsive, and aligned with evolving operational realities through continuous organizational learning, procedural refinement, and technological improvement (Verschuur et al., 2020; UNCTAD, 2024).

Table 1: Summary of Crisis Management Strategies Adopted by Shipping Companies in the Strait of Hormuz Study Area

S/N	Measure	Companies Involved	Period of Adoption	Qualitative Assessment of Perceived Effectiveness
1	Risk assessment systems and voyage planning	Maersk, MSC Mediterranean Shipping Company, Euronav	2015 to present	Very high effectiveness in risk anticipation
2	Scenario-based planning and predictive analytics	Euronav, Frontline Ltd, MSC Shipping	2016 to present	High effectiveness in operational preparedness
3	Crew training, simulations, and drills	COSCO Shipping, Maersk	Continuous, strengthened after 2016	Very high effectiveness in readiness
4	Centralized control and communication systems	Maersk, Frontline Ltd	2016 to present	High effectiveness in real-time coordination
5	Naval coordination and stakeholder engagement	Euronav, MSC Shipping, Frontline Ltd	Strengthened after 2019	Very high effectiveness in crisis response
6	Post incident review and adaptive learning	Maersk, Euronav, COSCO Shipping	Continuous, formalized after 2016	High effectiveness in continuous improvement
7	Insurance, contractual safeguards, and risk transfer	Maersk, Euronav, Frontline Ltd	Continuous	Moderate effectiveness due to cost volatility

Source: Authors' Fieldwork (2025), Based on Semi-Structured Interview

The qualitative effectiveness assessments presented in Table 1 are based on the frequency and consistency of themes emerging across interviews and corroborating documentary evidence. Effectiveness ratings are qualitative syntheses derived from recurring interview themes and documentary triangulation. They do not represent quantitative performance measurements. Rather, they reflect the extent to which participants consistently identified each strategy as contributing to crisis preparedness, operational resilience, response effectiveness, and continuity of shipping operations.

Cross Cutting Challenges and Strategic Implications

Despite the comprehensive nature of these strategies, several challenges continue to affect their implementation and effectiveness. The unpredictable nature of geopolitical tensions in the Strait of Hormuz remains a major constraint, as sudden escalations can render even well planned strategies ineffective. Companies such as Bahri and COSCO Shipping

reported difficulties in maintaining operational stability under rapidly changing security conditions.

In addition, financial constraints, particularly rising insurance premiums and operational costs, place significant pressure on shipping companies, thereby influencing decision making processes. Human factors, including crew stress and fatigue, further complicate crisis management, as they affect situational awareness and response efficiency. Furthermore, coordination challenges among international stakeholders create inefficiencies, particularly in relation to information sharing and standardization of response protocols.

RECOMMENDATIONS

In view of the findings of this study, the following recommendations are proposed to enhance the effectiveness of crisis management strategies adopted by shipping companies operating in the Strait of Hormuz. These recommendations are designed to address identified gaps and

strengthen operational resilience in high risk maritime environments.

- i. Shipping companies should strengthen risk assessment systems by integrating predictive analytics and real time geopolitical monitoring to improve anticipatory decision making.
- ii. Crisis response protocols should be standardized across operators to ensure consistency, interoperability, and efficiency during multi stakeholder incidents.
- iii. Greater investment is required in crew training, focusing on crisis decision making, stress management, and simulation based preparedness.
- iv. Internal communication should be improved through integrated digital platforms that support seamless real time information exchange between vessels and headquarters.
- v. Stronger coordination frameworks should be developed with naval forces and maritime security agencies through joint exercises and structured information sharing.
- vi. Organizations should institutionalize learning systems that document and integrate lessons from past incidents into policies and training.
- vii. Investment in advanced technologies such as real time tracking, predictive analytics, and decision support tools should be prioritized to enhance situational awareness.
- viii. Companies should balance operational efficiency with safety to ensure cost pressures do not undermine effective crisis management in volatile regions.

CONCLUSION

This study found that shipping companies operating in the Strait of Hormuz employ integrated preventive, response, and adaptive crisis management strategies. Intelligence driven risk assessment, scenario based planning, crew preparedness, and naval coordination proved more effective than reactive measures such as rerouting and voyage delays because they reduced risk before disruptions occurred, maintained operational continuity, and minimized costs. In contrast, reactive interventions were necessary but less effective due to operational disruptions, increased costs, and geopolitical uncertainty. The study contributes to maritime resilience and crisis management literature by providing empirical evidence on company level crisis management practices and demonstrating how proactive preparedness and continuous learning strengthen resilience in high risk maritime corridors.

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APPENDIX A

Interview Guide

Study Title

Appraisal of Crisis Management Strategies Adopted by Shipping Companies Operating in the Strait of Hormuz (2015 to 2025).

INTRODUCTION

Thank you for agreeing to participate in this interview. The purpose of this interview is to obtain information on the crisis management strategies adopted by shipping companies operating in the Strait of Hormuz. The information provided will be used solely for academic research. Your responses will be treated with strict confidentiality, and no personal or organizational identifiers will be disclosed without your consent. The interview is expected to last approximately 30 to 45 minutes.

Section A: Participant Information

1. Name of Company (Optional): _____

2. Current Position/Designation:
3. Type of Shipping Operation: Container shipping Crude oil tanker LNG/LPG shipping Other (please specify):
4. Years of Professional Experience in the Maritime Industry: _____
5. Have you been directly involved in operations within the Strait of Hormuz?: Yes No
6. Have you participated in managing or responding to maritime security incidents in the Strait of Hormuz?: Yes No
4. Contingency Planning: Preparing alternative actions for potential crises.
5. COSCO Shipping: A global Chinese shipping and logistics company.
6. Crisis Management: Planning, responding to, and recovering from operational disruptions.
7. EIA (U.S. Energy Information Administration): U.S. agency providing energy data and analysis.
8. Fleet Manager: Officer responsible for managing vessel operations.
9. Frontline Ltd: An international crude oil tanker shipping company.
10. IEA (International Energy Agency): Organization providing global energy analysis and forecasts.
11. IMO (International Maritime Organization): UN agency regulating international shipping.
12. LNG (Liquefied Natural Gas): Natural gas transported in liquid form.
13. LPG (Liquefied Petroleum Gas): Liquefied propane and butane transported by sea.
14. Maersk: A global container shipping and logistics company.
15. Maritime Logistics: Management of cargo and vessel movement by sea.
16. Maritime Resilience: The ability to withstand and recover from disruptions.
17. Maritime Security: Protection of ships, cargo, crew, and maritime assets.
18. MSC (Mediterranean Shipping Company): A multinational container shipping company.
19. Operational Continuity: Sustaining operations during and after disruptions.
20. Preventive Crisis Management: Measures taken to prevent or reduce crisis impacts.
21. Qualitative Assessment of Perceived Effectiveness: Evaluation based on interview themes and supporting documents.
22. Real Time Response Strategies: Immediate actions taken during a crisis.
23. Risk Assessment: Identifying and evaluating operational threats.
24. Scenario Based Voyage Planning: Planning voyages using alternative risk scenarios.
25. Ship Master: The captain responsible for a vessel.
26. Stakeholder Coordination: Collaboration among organizations during crisis management.
27. Strait of Hormuz: A strategic maritime corridor linking the Persian Gulf and Arabian Sea.
28. Thematic Analysis: A method for identifying patterns in qualitative data.
29. UNCLOS (United Nations Convention on the Law of the Sea): International treaty governing ocean use.
30. UNCTAD (United Nations Conference on Trade and Development): UN agency promoting trade and maritime development.
31. Voyage Planning: Planning safe and efficient vessel routes.
- War Risk Insurance: Insurance covering losses from war related risks.

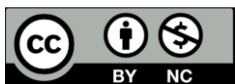
Section B: Interview Questions

1. What are the major security and operational risks encountered by shipping companies operating in the Strait of Hormuz?
2. What preventive crisis management strategies does your organization employ before vessels transit the Strait of Hormuz?
3. How are intelligence reports, risk assessments, and voyage planning integrated into operational decision making?
4. What role do crew training, emergency drills, and simulation exercises play in preparing personnel for potential security incidents?
5. How are crisis situations monitored and managed in real time once vessels are in transit?
6. What communication systems and coordination mechanisms exist between your organization, vessel crews, naval forces, and other maritime stakeholders during emergencies?
7. How are operational decisions such as rerouting, delaying voyages, or requesting naval assistance made during periods of heightened security risk?
8. Following a security incident, how does your organization evaluate its response and incorporate lessons learned into future operations?
9. What technological tools or digital systems support crisis management and operational resilience within your organization?
10. What are the major challenges affecting the implementation and effectiveness of crisis management strategies in the Strait of Hormuz?
11. In your opinion, which crisis management strategies have been most effective in reducing operational risks, and why?
12. What improvements would you recommend to strengthen crisis preparedness, response coordination, and organizational resilience in high risk maritime corridors such as the Strait of Hormuz?

APPENDIX B

Definition of Terms and Acronyms

1. Adaptive Learning: Improving crisis management through lessons from previous incidents.
2. AIS (Automatic Identification System): A vessel tracking and navigation system.
3. Bahri: A Saudi Arabian shipping company operating internationally.



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