

# Stakeholders' Attention is Paramount in the Alleviation of Shipping Challenges for Sustainable Blue Economy

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Maritime transportation is part and parcel of the blue economy, and it needs to be sustainably strengthened to expand the overall economy of the maritime nation. As a maritime nation, Bangladesh is trying to focus more and more on its maritime resources, where the shipping business is gaining weight. Shipping is a fascinating business worldwide for those who learn to survive with the evolutions of things along its path. The stakeholders of the shipping business need to be always advanced about continuing developments in international shipping. Undoubtedly, every shipping industry aspires to have better transportation for a healthier and sustainable future. But hardly any industry can claim to be a perpetual gainer in this business as occasional rises and falls occur. International regulatory agencies

constantly monitor the overall environment for smooth operations and develop new strategies to combat new challenges for safe and optimal operations. Over the last 75 years, IMO has been working to regulate the business by formulating effective rules. They usually consider different aspects of such industry; some are as follows:

- Adopt novel and progressing technology against new challenges.
- Combat climate change to reduce greenhouse gas emissions from international shipping.
- Involvement in ocean governance, mitigating cyber-crimes, and facilitation of international trade.

- Monitor the human element and develop through training and education.

The present endeavor is a reiteration of a few common issues along with possible remedies, which stakeholders must repeatedly be reminded of. The first and foremost item on the list is 'Lack of Right Employees'. The shipping industry is currently experiencing a shortage of skilled labor, a significant challenge for the sector. The lack of employees can be accredited to several factors, including an aging workforce and a lack of interest from younger new generations in tracking careers in shipping. This has augmented competition between shipping companies to attract and retain talent. Even with higher incentives, the industry is still struggling to fill all of its job vacancies around the globe, and Bangladesh is no exception. The crews' skills must be updated using the latest technology and gadgets. The consequences of such a skilled labor shortage are significant. Ships are sometimes forced to operate with reduced crew numbers, increasing the workload and stress on existing crew members. This impacted the safety of operations as well as the mental and physical health of seafarers. In addition, the shortage of employees can lead to delays in shipping schedules and increased costs for shippers. Changing the crews on time is another challenge the owners face. During the first half of 2020, it was estimated that only about 25% of regular crew changes were able to take place due to restrictions imposed by national health and immigration authorities and the suspension of the majority of

international flights. To address this challenge, the developed maritime industry is exploring several strategies, such as investing in automation and digitization to reduce the reliance on human labor, improving working conditions and benefits to attract and retain workers, and significantly developing educational institutions to promote careers in the industry.

IMO's new emission regulations are also a big challenge for ship owners. IMO is constantly updating regulations to reduce the greenhouse gas effect. Say, the reductions of CO<sub>2</sub>, Sulphur content in fuel are notable ones. While the near-term regulations for 2020 are controllable with scrubbers and fuel changes, medium-term regulations set for 2030 will be more challenging. And longer-term regulations for 2050 may be horrendous without drastic new technological breakthroughs. New thoughts on Environmental, Social, and Governance (ESG) criteria are being considered to limit funding if companies do not adopt them. ESG is a set of standards for a company's operations that socially conscious investors must know.

In this context, The Poseidon Principles is another climate alignment initiative. A framework for integrating climate thoughts into lending decisions to encourage international shipping's decarbonization. Leading shipping banks develop this to establish a global framework to assess whether financial institutions' lending portfolios align with adopted climate goals.

The world is in the era of digitization, and at the control level, problems should be addressed in line with

available new technology and artificial intelligence. Cyber-attacks are a growing concern for the shipping industry. As the industry becomes increasingly digitized, there is a risk that vessels and port operations can be targeted by cybercriminals seeking to disrupt operations, steal data, or cause damage to infrastructure. The most common vulnerable systems may include bridge controls; cargo handling and management control systems; propulsion and machinery management and power control systems; communication systems etc. New IMO cyber security regulations are essential to the stakeholder's concern.

Risk assessments, standard cyber security operating procedures, education, and training of staff at HQ and operational levels are all requirements that need to be addressed. Rising costs are other significant challenges facing the shipping industry today. Cost pressures, including higher fuel prices, increased labor costs, and rising regulatory compliance costs, are regular phenomena. Introducing new environmental and safety regulations requires shipping companies to invest in new technologies and practices, which can be overpriced and time-consuming. In addition, regulatory compliance can impact the competitiveness of shipping companies, particularly those operating in developing countries or with smaller profit margins. To address these rising costs, the industry is exploring a range of strategies, including using more efficient vessels, adopting new technologies to reduce fuel consumption, and optimizing

supply chain operations to reduce costs. In addition, the industry is also exploring alternative fuels and propulsion systems, such as biofuels, hydrogen, and battery-powered vessels, which may offer cost savings in the long term.

The shipping industry is subject to a range of unpredictable and external factors. For example, changes in global trade policies, such as the imposition of tariffs and trade barriers, can significantly impact shipping volumes and trade flows. Similarly, natural disasters like hurricanes and typhoons can disrupt shipping routes and lead to delays and cargo losses. In addition, geopolitical events, such as political unrest and military conflicts, can create significant risks and uncertainties for shipping companies operating in affected areas. To address these challenges, shipping companies increasingly use data analytics and predictive modeling to understand better and manage uncertainty. By analyzing historical data and using predictive models, shipping companies can better anticipate and plan for external events, such as changes in trade policies and weather patterns.

Using scenario planning and risk management techniques may help shipping companies prepare for a range of potential risks and uncertainties. By developing contingency plans and risk mitigation strategies, shipping companies can better manage the impact of unexpected events and minimize their financial and operational impact. However, managing uncertainty also requires a flexible and agile

organizational culture, which can adapt quickly to changing conditions and respond to unexpected events. This may require developing new methods and systems and a readiness to embrace changes and improvements in response to external events.

Synchronization or coordination issues are also severe challenges facing the shipping industry today. Shipping operations involve a large number of stakeholders, including shipping companies, ports, cargo owners, customs authorities, and logistics providers, each of whom has their interests and objectives. This can create a range of coordination challenges, such as difficulties in scheduling vessel arrivals and departures, coordinating cargo movements, and managing supply chain operations. For example, vessel arrivals or departure delays can lead to congestion and inefficiencies in port operations, while misaligned cargo movements can lead to lost or misdirected shipments. In addition, coordination challenges can also lead to safety risks and security vulnerabilities, such as unsecured cargo or inadequate safety protocols, etc. apart from piracy which needs a great deal of awareness and concerted efforts among countries in regions and global players. To address these challenges, the intelligent shipping industry increasingly turns to digital technologies and data analytics to improve stakeholder coordination and collaboration. Innovative shipping industries are increasingly turning to digital technologies, such as the Internet of Things (IoT), GPS, etc., for real-time tracking of shipments, which is challenging in reality.

Adopting collaborative business models, such as blockchain-based supply chain platforms, can help improve coordination and trust between different stakeholders. This may require the development of new relationships and partnerships between shipping companies, ports, and other logistics providers, as well as establishing common standards and protocols for data exchange and supply chain operations. The problem of real-time tracking is also a challenge facing the shipping industry today. The ability to track shipments in real time is critical for ensuring efficient and effective shipping operations, as it enables shipping companies and other stakeholders to quickly identify and respond to any issues or delays in the shipping process.

The shipping industry in Bangladesh is gaining momentum as new investors are getting incentives from the government of Bangladesh. To be sustainable in business and gain the capacity to contribute to the blue economy is a priority now. The new investors may be encouraged to learn how to adapt to changing scenarios in the shipping business. In this context, Bangladesh's national skill development authority, which the Honorable Prime Minister heads, may contribute significantly. This would result in a substantial impact on the sustainability of our blue economy. The stakeholders from the public and private sectors must work in close harmony to gain an advantage from the \$12 billion freight market for the country. The present situation is not enough to call it a satisfactory level. Instead, it needs more hard work at all levels. The new generation of shipping

leaders needs to focus on sustainability, compliance, diversity, technological solutions, and environmental stewardship.

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