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CREW WELLBEING AND ESG PRINCIPLES

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LIST OF ABBREVIATIONS

CII	Carbon Intensity Index
CO ₂	Carbon dioxide
CSR	Corporate Social Responsibility
CSRD	Corporate Sustainability Reporting Directive
DEI	Diversity, Equality, Inclusion
EAP	Employee Assistance Program
EEXI	Existing Energy Efficiency Index for Existing Ships
EPS	Eastern Pacific Shipping
ESG	Environmental Social Governance
ETS	Emissions Trading Scheme
GHG	Greenhouse Gas
GRI	Global Reporting Initiative
IIRC	International Integrated Reporting Council
ILO	International Labour Organization
IMO	International Maritime Organization
LNG	Liquefied Natural Gas
MLC	Maritime Labor Convention
NO _x	Nitrogen oxides
OSH	Occupational Safety and Health
RED	Renewable Energy Directive
SASB	Sustainability Accounting Standards Board
SFDR	Sustainable Finance and Development Regulation
SOS	Speak Out Safely
SO _x	Sulfur oxides

TCFD Task Force on Climate-related Financial Disclosures

WHO World Health Organization

ABSTRACT

The main objective of this thesis, entitled "Crew wellbeing and ESG principles", is to investigate the relationship between crew wellbeing and the application of environmental, social and governance (ESG) principles in the shipping industry. The study explores the changing dynamics of seafarers' wellbeing and the ways in which shipping companies can use ESG principles to improve the physical, mental and social health of their staff. This approach takes into account the increasing emphasis on sustainability and corporate responsibility that has emerged in the industry in recent years.

The first chapter is the introduction in which the context for the research is set, emphasizing the importance of crew welfare in the high-pressure and isolated working environment of a ship. Given that shipping is a vital element of global trade which depends on the efficient and safe performance of its crew, their health and satisfaction are important for operational success. The introduction also outlines the objectives of the research, which include investigating the relationship between crew wellbeing and ESG principles, assessing the current and future state of crew wellbeing in the shipping industry.

The second chapter provides a theoretical framework for crew wellbeing, including definitions and concepts relevant to the study. Crew wellbeing is defined as the physical and emotional wellbeing of the workforce, which is influenced by various factors such as living environment, workload and diversity. The chapter highlights the multifaceted importance of crew wellbeing and how it is directly linked to safety and operational efficiency, regulatory compliance and the recruitment and retention of talented employees. As ethics and social responsibility are important aspects of business governance that contribute to crew wellbeing, the chapter goes on to explain how the overall wellbeing of seafarers is influenced by factors such as age, gender, and cultural diversity. Motivation and job happiness, which are often influenced by the work environment and business regulations, are also explored as critical elements contributing to crew health and productivity.

The third chapter examines the theoretical background of ESG principles, with a particular focus on how they could be used to improve the social responsibility of organisations. At a first level, a definition of ESG principles, which are frameworks that guide companies towards sustainable and ethical operation and development, is provided, as well as a historical review of the evolution of ESG principles over the past centuries. It is also highlighted that the environmental (E), social (S) and governance (G) criteria offer a comprehensive view of corporate responsibility.

This chapter discusses the ways in which the three criteria of ESG principles have a direct impact on the operation of a company. It examines how investors use ESG principles for decision-making, highlighting the growing importance of sustainability in financial markets. It then examines the operational complexities and benefits of ESG criteria for managing both reputation and potential risks. As the adoption of ESG principles has room for further improvement, best practices, including transparency and stakeholder engagement, are discussed.

Chapter 4 analyses the operations of shipping companies to which the adoption of ESG principles at environmental, social and governance levels can make a beneficial contribution. The main legal frameworks commonly applied in the European Union, such as, for example, the European Union's Corporate Sustainability Reporting Directive and the European Union's Emissions Trading Scheme, are then mentioned, as well as which areas of a shipping company's business operations they contribute to. A related research paper (Capital Perspectives: Navigating ESG Risks in the Maritime Sector by Woodrow) is then presented, which demonstrates the issues and opportunities that can arise when aligning ESG principles with business operations in the shipping industry. Finally, it assesses the future of ESG principles in the shipping industry in general and how their application can contribute to the environmental, social and governance behaviour of shipping companies.

Chapter 5 explores the relationship between crew wellbeing and ESG principles in the shipping industry. In particular, the social dimension of ESG principles emerges as a particularly important area in which shipping companies can implement strategies to increase human wellbeing. Furthermore, the study analyses how promoting employee wellbeing could help shipping companies improve their financial performance, concluding that investing in this approach not only fits with the social objectives of the ESG criteria, but also effectively contributes to improving operational and financial results by increasing employee retention, satisfaction and productivity. Through this it is clear that as shipping companies work to improve their performance under the ESG principles, enhancing crew wellbeing becomes an essential part of their social responsibility and business ethics. Measures are then proposed which, if implemented by ship-owners and employees, can ensure crew welfare. In addition, case studies of leading shipping companies, including Maersk, Angelicoussis Group, Maran Tankers and Eastern Pacific Shipping (EPS), are provided, which demonstrate their commitment to the adoption of ESG principles and crew wellbeing. In particular, these examples demonstrate how ESG frameworks can improve crew wellbeing alongside increasing sustainability and positive business outcomes for organisations when integrated into corporate initiatives.

KEYWORDS

M.L.C. 2006, ILO, seafarers' wellbeing, crew welfare, ESG principles, sustainability, living conditions, diversity, workload, job satisfaction, motivation, sustainable management, corporate responsibility, financial performance, shipping industry, shipping companies

ΠΕΡΙΛΗΨΗ

Ο κύριος στόχος της παρούσας διατριβής, με τίτλο «Ευημερία του πληρώματος και αρχές ESG», είναι να διερευνήσει τη σχέση μεταξύ της ευημερίας του πληρώματος και της εφαρμογής των αρχών του περιβάλλοντος, της κοινωνίας και της διακυβέρνησης (ESG) στη ναυτιλιακή βιομηχανία. Η μελέτη διερευνά τη μεταβαλλόμενη δυναμική της ευημερίας των ναυτικών και τους τρόπους με τους οποίους οι ναυτιλιακές εταιρείες μπορούν να χρησιμοποιήσουν τις αρχές ESG για να βελτιώσουν τη σωματική, ψυχική και κοινωνική υγεία του προσωπικού τους. Η προσέγγιση αυτή λαμβάνει υπόψη την αυξανόμενη έμφαση στη βιωσιμότητα και την εταιρική ευθύνη που έχει εμφανιστεί στον κλάδο τα τελευταία χρόνια.

Το πρώτο κεφάλαιο αποτελεί την εισαγωγή, στην οποία τίθεται το πλαίσιο της έρευνας, τονίζοντας τη σημασία της ευημερίας του πληρώματος στο υψηλής πίεσης και απομονωμένο εργασιακό περιβάλλον ενός πλοίου. Δεδομένου ότι η ναυτιλία αποτελεί ζωτικό στοιχείο του παγκόσμιου εμπορίου, το οποίο εξαρτάται από την αποτελεσματική και ασφαλή απόδοση του πληρώματος, η υγεία και η ικανοποίησή του είναι σημαντικές για την επιχειρησιακή επιτυχία. Η εισαγωγή περιγράφει επίσης τους στόχους της έρευνας, οι οποίοι περιλαμβάνουν τη διερεύνηση της σχέσης μεταξύ της ευημερίας του πληρώματος και των αρχών ESG, την αξιολόγηση της τρέχουσας και της μελλοντικής κατάστασης της ευημερίας του πληρώματος στη ναυτιλιακή βιομηχανία.

Το δεύτερο κεφάλαιο παρέχει ένα θεωρητικό πλαίσιο για την ευημερία του πληρώματος, συμπεριλαμβανομένων ορισμών και εννοιών σχετικών με τη μελέτη. Η ευημερία του πληρώματος ορίζεται ως η σωματική και συναισθηματική ευεξία του εργατικού δυναμικού, η οποία επηρεάζεται από διάφορους παράγοντες όπως το περιβάλλον διαβίωσης, ο φόρτος εργασίας και η ποικιλομορφία. Το κεφάλαιο υπογραμμίζει την πολύπλευρη σημασία της ευημερίας του πληρώματος και τον τρόπο με τον οποίο συνδέεται άμεσα με την ασφάλεια και την επιχειρησιακή αποτελεσματικότητα, τη συμμόρφωση με τις κανονιστικές διατάξεις και την πρόσληψη και διατήρηση εξειδικευμένων εργαζομένων. Καθώς η ηθική και η κοινωνική ευθύνη αποτελούν σημαντικές πτυχές της επιχειρηματικής διακυβέρνησης που συμβάλλουν στην ευημερία του πληρώματος, το κεφάλαιο συνεχίζει να εξηγεί πώς η συνολική ευημερία των ναυτικών επηρεάζεται από παράγοντες όπως η ηλικία, το φύλο και η πολιτισμική ποικιλομορφία.

Τα κίνητρα και η επαγγελματική ευτυχία, τα οποία συχνά επηρεάζονται από το εργασιακό περιβάλλον και τους επιχειρηματικούς κανονισμούς, διερευνώνται επίσης ως κρίσιμα στοιχεία που συμβάλλουν στην υγεία και την παραγωγικότητα του πληρώματος.

Το τρίτο κεφάλαιο εξετάζει το θεωρητικό υπόβαθρο των αρχών της ESG, με ιδιαίτερη έμφαση στον τρόπο με τον οποίο θα μπορούσαν να χρησιμοποιηθούν για τη βελτίωση της κοινωνικής ευθύνης των οργανισμών. Σε πρώτο επίπεδο, δίνεται ένας ορισμός των αρχών ESG, οι οποίες αποτελούν πλαίσια που καθοδηγούν τις επιχειρήσεις προς τη βιώσιμη και ηθική λειτουργία και ανάπτυξη, καθώς και μια ιστορική αναδρομή της εξέλιξης των αρχών ESG τους τελευταίους αιώνες. Τονίζεται επίσης ότι τα περιβαλλοντικά (E), κοινωνικά (S) και διακυβέρνησης (G) κριτήρια προσφέρουν μια ολοκληρωμένη άποψη της εταιρικής ευθύνης. Στο κεφάλαιο αυτό εξετάζονται οι τρόποι με τους οποίους τα τρία κριτήρια των αρχών ESG έχουν άμεσο αντίκτυπο στη λειτουργία μιας εταιρείας. Εξετάζει τον τρόπο με τον οποίο οι επενδυτές χρησιμοποιούν τις αρχές ESG για τη λήψη αποφάσεων, υπογραμμίζοντας την αυξανόμενη σημασία της βιωσιμότητας στις χρηματοπιστωτικές αγορές. Στη συνέχεια εξετάζονται οι λειτουργικές πολυπλοκότητες και τα οφέλη των κριτηρίων ESG για τη διαχείριση τόσο της φήμης όσο και των πιθανών κινδύνων. Καθώς η υιοθέτηση των αρχών ESG έχει περιθώρια περαιτέρω βελτίωσης, αναλύονται οι βέλτιστες πρακτικές, συμπεριλαμβανομένης της διαφάνειας και της δέσμευσης των ενδιαφερόμενων μερών.

Στο κεφάλαιο 4 αναλύονται οι λειτουργίες των ναυτιλιακών εταιρειών στις οποίες η υιοθέτηση των αρχών ESG σε περιβαλλοντικό, κοινωνικό και διοικητικό επίπεδο μπορεί να συμβάλει ευεργετικά. Στη συνέχεια αναφέρονται τα κύρια νομικά πλαίσια που εφαρμόζονται συνήθως στην Ευρωπαϊκή Ένωση, όπως, για παράδειγμα, η οδηγία της Ευρωπαϊκής Ένωσης για την υποβολή εκθέσεων εταιρικής βιωσιμότητας και το σύστημα εμπορίας εκπομπών της Ευρωπαϊκής Ένωσης, καθώς και οι τομείς των επιχειρηματικών δραστηριοτήτων μιας ναυτιλιακής εταιρείας στους οποίους συμβάλλουν. Ένα σχετικό ερευνητικό έγγραφο (Capital Perspectives: Navigating ESG Risks in the Maritime Sector by Woodrow) παρουσιάζεται στη συνέχεια, η οποία καταδεικνύει τα ζητήματα και τις ευκαιρίες που μπορούν να προκύψουν κατά την ευθυγράμμιση των αρχών ESG με τις επιχειρηματικές δραστηριότητες στη ναυτιλιακή βιομηχανία. Τέλος, αξιολογείται το μέλλον των αρχών ESG στη ναυτιλιακή βιομηχανία γενικά και πώς η εφαρμογή τους μπορεί να συμβάλει στους περιβαλλοντική, κοινωνική και διοικητική συμπεριφορά των ναυτιλιακών εταιρειών.

Το κεφάλαιο 5 διερευνά τη σχέση μεταξύ της ευημερίας του πληρώματος και των αρχών ESG στη ναυτιλιακή βιομηχανία. Ειδικότερα, η κοινωνική διάσταση των αρχών ESG αναδεικνύεται ως ένας ιδιαίτερα σημαντικός τομέας στον οποίο οι ναυτιλιακές εταιρείες μπορούν να εφαρμόσουν στρατηγικές για την αύξηση της ανθρώπινης ευημερίας. Επιπλέον, η μελέτη αναλύει τον τρόπο με τον οποίο η προώθηση της ευημερίας των εργαζομένων θα μπορούσε να βοηθήσει τις ναυτιλιακές εταιρείες να

βελτιώσουν τις οικονομικές τους επιδόσεις, καταλήγοντας στο συμπέρασμα ότι η επένδυση σε αυτή την προσέγγιση όχι μόνο ταιριάζει με τους κοινωνικούς στόχους των κριτηρίων ESG, αλλά συμβάλλει επίσης αποτελεσματικά στη βελτίωση των λειτουργικών και οικονομικών αποτελεσμάτων, αυξάνοντας τη διατήρηση, την ικανοποίηση και την παραγωγικότητα των εργαζομένων. Μέσω αυτού είναι σαφές ότι, καθώς οι ναυτιλιακές εταιρείες εργάζονται για τη βελτίωση των επιδόσεών τους βάσει των αρχών ESG, η ενίσχυση της ευημερίας του πληρώματος καθίσταται ουσιαστικό μέρος της κοινωνικής ευθύνης και της επιχειρηματικής ηθικής τους. Στη συνέχεια προτείνονται μέτρα τα οποία, εάν εφαρμοστούν από τους πλοιοκτήτες και τους εργαζόμενους, μπορούν να διασφαλίσουν την ευημερία του πληρώματος. Επιπλέον, παρατίθενται μελέτες περιπτώσεων κορυφαίων ναυτιλιακών εταιρειών, συμπεριλαμβανομένων των Maersk, Angelicoussis Group, Maran Tankers και Eastern Pacific Shipping (EPS), οι οποίες καταδεικνύουν τη δέσμευσή τους για την υιοθέτηση των αρχών ESG και την ευημερία του πληρώματος. Ειδικότερα, τα παραδείγματα αυτά καταδεικνύουν πώς τα πλαίσια ESG μπορούν να βελτιώσουν την ευημερία του πληρώματος παράλληλα με την αύξηση της βιωσιμότητας και των θετικών επιχειρηματικών αποτελεσμάτων για τους οργανισμούς, όταν ενσωματώνονται σε εταιρικές πρωτοβουλίες.

ΛΕΞΕΙΣ ΚΛΕΙΔΙΑ

M.L.C. 2006, ILO ευημερία των ναυτικών, ευημερία του πληρώματος, αρχές ESG, βιωσιμότητα, συνθήκες διαβίωσης, ποικιλομορφία, φόρτος εργασίας, ικανοποίηση από την εργασία, κίνητρα, βιώσιμη διαχείριση, εταιρική ευθύνη, οικονομικές επιδόσεις, ναυτιλιακή βιομηχανία, ναυτιλιακές εταιρείες

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CHAPTER 1: INTRODUCTION

In a globalized world where there is an obvious shift towards a more sustainable future since it has become understood that we all need to deeply care about the future of our planet and respect each other, it is of great interest to explore how the shipping industry is embracing this shift, and by extension how the discussion of crew wellbeing and ESG principles are linked in the context of their integration into the sustainable processes adopted by shipping companies.

In the context of this assumption, it is vital to consider how crew wellbeing is perceived by shipping companies, how it is managed in practice, and what the distance is between the concept in the state of theory and practice. At the same time and in order to understand the case in depth, it is imperative to define the concepts of the ESG movement and to analyse the environmental, social and governance aspects within the shipping industry.

Furthermore, it is vital to explore the link that exists between the concepts of crew welfare and ESG principles at present and how this could be further strengthened in the future. To this end, a thorough literature review will be conducted which will attempt to provide readers with the necessary information to understand both what is currently in place and what is expected to be the case in the future.

1.1. METHODOLOGY

The analysis and research for the thesis "Crew wellbeing and ESG Principles" were based on the following two cases:

First case:

"The adoption of ESG principles by shipping companies contributes positively to crew wellbeing by influencing factors such as working conditions, occupational safety and general health".

This hypothesis suggests that companies implementing ESG principles demonstrate greater responsibility towards human capital by emphasizing social factors such as safety, satisfaction and crew health. Following this positive approach is likely to result in improvements in working conditions, reducing work stress and enhancing employees' sense of safety and satisfaction.

Second case:

"Governance policies that are aligned with ESG principles have a positive impact on the long-term wellbeing and productivity of seafarers, while enhancing their trust in management."

This hypothesis focuses on the governance aspect of ESG principles by arguing that practices

such as transparency and ethical leadership promote an environment of mutual respect between crew members and company management. As a result, because of the fact that the company fosters relationships based on trust and accountability, higher productivity and improved overall crew wellbeing can be observed.

Afterwards, the following methodological steps were applied:

1 Selection of the type of research

A literature-based approach was chosen to document the existing data and conditions.

2 Collection of secondary data

- Document analysis: review of corporate reports, articles and books on wellbeing initiatives. Emphasis on relevant papers concerning shipping companies.
- Review of ESG frameworks: an exploration of existing ESG frameworks, with a focus on the 'social' component, to understand how crew wellbeing is embedded in ESG principles.

3 Qualitative data analysis

Identification of recurring themes, challenges and opportunities that arise when trying to integrate ESG principles into crew wellbeing practices.

4 Case study

- Identification of specific companies in the shipping industry that have implemented strong ESG practices, focusing on how they address crew welfare.
- Examination of their policies, procedures, and outcomes as case studies to illustrate the relationship between crew wellness and ESG principles.

5 Discussion and conclusions

A summary of how the selected strategy yielded extensive insights into the use of ESG principles aimed at crew wellbeing and final conclusions.

1.2. BACKGROUND OF STUDY

In 2015 the Member States of United Nations unanimously adopted the 2030 Agenda for Sustainable Development which provides a shared blueprint for peace and prosperity for people and the planet, now and into the future. Within the 17 Sustainable Development Goals (SDGs) of UN, the SDG Number 3 aims to “ensure healthy lives and promote wellbeing for all at all ages”, while at the same time the Goal Number 8 refers to the “promotion of inclusive and sustainable economic growth, employment and decent work for all”. (United Nations - Department of Economic and Social Affairs, 2024)

Within this premise, the maritime industry actively endorses the 2030 Agenda for sustainable development by recognizing the crucial role that the sector has to play within the aspiration of achieving the SDGs. The International Maritime Organization (IMO) actively encourages all actors of the maritime cluster to enhance their economic, environmental and social sustainability. ('IMO SDG Brochure.pdf', no date)

The Social Corporate Responsibility movement was a direct consequence of the formulation of the 2030 Agenda for Sustainable Development, and responsible investment through ESG criteria is the backbone of the world's turnover towards a sustainable future. Given the fact that the shipping industry places increasing importance on the health and safety of its crew members, it embodies the CSR movement by integrating environmental, social and governance (ESG) principles across all its activities.

1.3. OVERVIEW OF THE SHIPPING INDUSTRY

As far as the global supply chain is concerned, the shipping industry is a vital element as it ensures the seamless transportation of initial components to completed products. Through the facilitation of international trade and the linkage of markets, industries, and consumers worldwide, this sector, which is responsible for transporting around 90% of the world's commodities, greatly contributes to the growth of the global economy. (Owen-Burge, 2022)

According to IMO: "International shipping greatly benefits the world by moving food, commodities, raw materials, energy and consumer goods reliably and effectively around the globe at low cost. Working together with ports and other stakeholders in the maritime industry, international shipping is indispensable to the functioning of global trade. By connecting producers, manufacturers and consumers, it provides a way for IMO Member States to enhance trade with one another. With more than 60 years of expertise and experience, the IMO is already contributing to sustainable development. Shipping is an essential element of sustainable economic development, as it is the most environmentally sound mode of transport, with the lowest carbon footprint per unit of cargo carried. Through IMO, Member States, civil society and the maritime industry are already working together to strengthen ongoing efforts towards sustainable development. Sustainable maritime transportation is a crosscutting issue and, as such, is an important enabler for most of the SDGs." ('IMO SDG Brochure.pdf', no date)

Despite its significant role in sustaining world trade, the shipping industry operates in a complex environment with many challenges. Vessels are often at sea for long periods, crossing international borders, and facing a great range of operational, environmental, and regulatory

challenges. The maritime industry is subject to the influences of economic fluctuations, geopolitical dynamics, and global consumer demand. Furthermore, shipping companies are compelled to meet increasingly strict regulations regarding safety, environmental sustainability, and social responsibility. (Raza *et al.*, 2023)

In recent years, the importance of sustainability in transport has been increasingly recognised. Because various environmental concerns, such as carbon emissions and reducing ocean pollution, are in the spotlight, shipping companies are facing increasing pressure from regulators and stakeholders to reduce their impact on the environment. (Jing *et al.*, 2022) At the same time, the social aspect of sustainability, particularly in terms of crew welfare, has become more important. However, although crew members are fundamental to the industry, their wellbeing has often been neglected or inadequately addressed over the years. (Penela, 2019) (Zhou, Li and Yuen, 2023)

For the above reasons, the concept of environmental, social and governance (ESG) has become increasingly popular across industries as a framework for balancing financial performance with sustainable and responsible business practices. In the shipping industry in particular, ESG principles are recognized as essential for companies to reduce their environmental impact, enhance workforce wellbeing, and follow strong governance frameworks. (Shen *et al.*, 2023) (Zhou, Li and Yuen, 2023)

This thesis explores the link between crew wellbeing and environmental, social, and governance (ESG) principles. It examines how the application of ESG frameworks might improve the working conditions and wellbeing of seafarers, which eventually leads to improved performance for shipping companies.

1.4. RESEARCH OBJECTIVES

1.4.1. TO EXPLORE HOW CREW WELLBEING IS INCLUDED IN THE ESG FRAMEWORK

The main objective of this thesis is to investigate and analyse the relationship and possible link between crew wellbeing and ESG (Environmental, Social, Governance) principles in the shipping industry, with a particular focus on the social component. As the trade shifts towards a sustainable future, the integration of crew wellbeing into broader ESG strategies has become progressively critical to achieving operational excellence, ensuring compliance with regulatory standards and improving corporate reputation.

1.4.2. TO ASSESS THE CURRENT STATE OF CREW WELLBEING IN THE MARITIME INDUSTRY

The documentation and evaluation of existing regulations and procedures adopted by companies in the shipping sector to enhance the wellbeing of their workforce is another key objective of this research. This objective requires a comprehensive overview of the existing strategies used by shipping companies, as well as an assessment of existing initiatives that promote the physical and mental wellbeing of seafarers and how these practices correspond to the leading standards adopted by regulators and industry leaders. Also, a sub-objective is to evaluate the disparities between current industry practices and the welfare standards established by international regulations, such as the Maritime Labor Convention (MLC) and International Maritime Organisation (IMO) guidelines.

1.4.3. TO INVESTIGATE HOW EACH ASPECT OF THE ESG PRINCIPLES CONTRIBUTES TO CREW WELLBEING

The social element of ESG concept will be the focus of this project, by investigating how the wellbeing of crew members is incorporated into the larger framework of social sustainability. During this research, there will be an analyzing of the degree to which shipping companies have successfully included crew wellbeing into their social sustainability programs. Also, a sub-objective is to analyze how ESG frameworks that prioritize the social aspect can be effectively applied to improve crew wellbeing in the maritime sector.

1.4.4. TO EXPLORE THE ADOPTION OF THE ESG CONCEPT IN PRACTICE THROUGH SPECIFIC EXAMPLES

Another purpose of this study is to ascertain if the implementation of ESG principles has a significant impact on the wellbeing of crew members. To accomplish this goal, case studies of shipping companies that have successfully integrated environmental, social and governance (ESG) concepts into their operations will be examined. This method will help determine whether or not these companies have experienced improvements in crew wellbeing in areas such as mental health, working conditions and overall job satisfaction.

CHAPTER 2: CREW WELLBEING - A THEORETICAL FRAMEWORK

2.1 DEFINITIONS AND CONCEPT OF CREW WELLBEING

2.1.1. DEFINITION OF CREW

In the shipping industry, the term "crew" refers to the group of professionals working on a ship who are responsible for its operation, navigation and safety. It includes several key positions, such as captain, officers, engineers and deckhands, all of whom are vital to the efficient and safe operation of the ship. According to the International Maritime Organisation (IMO), crew are fundamental not only to the technical operations of a ship but also to maintaining compliance with safety and environmental regulations. Some situations in which the crew is responsible are navigation, cargo handling, maintenance and emergency response. ('IMO SDG Brochure.pdf', no date)

The Maritime Labour Convention (MLC) 2006 provides a clear definition, stating that the term "crew" includes all personnel working on board a ship, excluding those persons of the ship's company who are not considered part of the ship's crew, emphasising the wide range of crew duties and their vital role in maintaining safety and operational excellence at sea. However, the definition of crew may differ based on the type of vessel and its operational requirements. A fishing vessel, for example, usually possesses a distinct crew composition and set of responsibilities in contrast to a commercial cargo ship or a luxury cruise liner. This diversity highlights the need for tailored training and welfare initiatives to effectively address the different challenges faced by different categories of seafarers. (*Maritime Labour Convention, 2006 | International Labour Organization, 2024*) (Guelker, 2023)

Moreover, the notion of crew extends beyond the execution of operational duties since it includes the entirety of the workplace environment and conditions that influence the emotional and physical wellbeing of employees within the maritime sector. The recognition of this more comprehensive viewpoint is vital for improving crew performance, safety and retention in an industry facing substantial challenges. Consequently, understanding the term "crew" within the maritime industry requires recognition of the diverse responsibilities that crew members undertake, along with the critical importance of their wellbeing, which is vital for the effective and safe operation of vessels. (Senbursa and Dunder, 2024)

2.1.2. DEFINITION OF WELLBEING AND CREW WELLBEING

Wellbeing is broadly defined as “a state (a person or a community) of doing or being well in life in terms of having good health, being happy, or having prosperous conditions, moral or physical welfare”. (Dictionary, 2017) This definition underlines the holistic nature of wellbeing, which includes several dimensions, such as physical, mental, emotional and social health. The World Health Organization (WHO) defines wellbeing as more than the absence of disease; it encompasses a holistic state in which individuals can fulfil their potential, manage life's challenges, work effectively and contribute meaningfully to their communities. (WHO, 2020)

The MLC 2006 acknowledges seafarers' rights to sufficient working and living circumstances, healthcare, and social protection, however it does not explicitly define "crew wellbeing." This may result from the considerable mental and physical demands inherent in operating aboard a ship, which are not easily comparable to those encountered on land. Seafarers have a distinctive position since they remain at the workplace throughout both operational and non-operational hours, accompanied just by their colleagues, rendering them an exceptionally solitary workforce. (Jensen and Oldenburg, 2019) Given the extensive time spent with colleagues, it is crucial for these relationships to be constructive and for teams to exhibit cohesion; however, research indicates that conflicts often arise between various ranks and departments, which, combined with prolonged absences from home and family, can result in feelings of loneliness. Seafarers often experience isolation in a physical environment detrimental to mental health, characterized by extended exposure to adverse circumstances such as high-frequency sounds, vibrations, extreme temperatures, and fluctuating humidity. (Brooks and Greenberg, 2022)

Moreover, seafarers often endure extended hours of physically strenuous labor with insufficient rest periods; the latest Seafarers Happiness Index survey indicated that several seafarers experience pressure to work excessive hours. Seafarers often operate on a 'shift system,' which can diminish both the duration and quality of their sleep, leading to weariness that may be intensified by time zone alterations on prolonged journeys. Supplementary risk factors for fatigue encompass circadian rhythm disruption from shift work, prolonged shifts, irregular working hours, rotating shift systems rather than fixed cycles, night shifts, variable sleep duration, heightened work demands and pressures, and environmental exposures such as noise and vibration from the ship's engine. (Brooks and Greenberg, 2022)

Therefore, the wellbeing of the crew on board can be understood as the sum of all the requirements necessary for the health and happiness of seafarers, together with the regulatory

practices required to address these basic needs. (Exarchopoulos *et al.*, 2018)

2.2. IMPACT OF WELLBEING IN COMPANY'S PERFORMANCE

According to current researches, more progressive businesses are beginning to consider satisfaction and engagement as only lesser components of what their workforce actually cares about, which is wellbeing. This is despite the fact that engagement has been a goal for corporations for years. (Reilly, 2020)

The culture of an organization is not expressly articulated; instead, it is inferred and develops organically over time due to the collective traits of the individuals the company employs. Corporate culture refers to the attitudes and practices that characterize the interactions between employees and management, as well as their dealings with external parties. The businesses have recently advocated for a "culture of wellbeing" to attract and retain elite talent, enhance employee performance, and manage healthcare expenses within their workforce. (Reilly, 2020)

Unfortunately, a culture of wellness has mostly been reduced to a mere "slogan" or a generic health initiative, thereafter delegated to the human resources department to strategically manage healthcare costs. The concept of actual wellness is not a "program," nor is it a "topic," but rather an attitude, an ethos, or, more effectively, a cultural orientation within the workplace. In a study that was conducted by Gallup in 2019 (Inc, Ryan Pendell, and Jim Harter, 2019), it was shown that if employees had a greater level of wellbeing in the first year, they would have a tendency to have a higher level of engagement at work in the second year, as well as an increased positive shift in their wellbeing in the second year. (Reilly, 2020)

On the other hand, if employees are struggling or suffering, this attitude has a detrimental impact on the general environment of the workplace as well as the team. Managers have a significant impact on the culture of a business; hence, when managers actively discuss and promote wellness as the norm, their employees are more likely to participate in activities that promote wellness. If managers are not involved in their work, then this chain reaction to employees will not take place. (Reilly, 2020) (De Neve, Kaats and Ward, 2023)

It is not enough to simply have words written on the wall, to have a stand-alone online program, or to include it as a component of the culture description on the website. Leadership and management need to "walk the walk" and make wellness a standard practice throughout this organization. They should involve people in the process of development. Creating a humanistic culture in which employees believe that their job is important and has a purpose, that they have

the opportunity to communicate with their manager, that their settings are productive and healthy, that they have possibilities for progress, and that they have faith in their leadership is something that organizations need to prioritize. (Reilly, 2020) (De Neve, Kaats and Ward, 2023)

The wellbeing movement aims to establish a workforce, society, and planet that are healthier, happier, and more productive, serving as both an idea and a commitment. Leaders within firms must empower people and create the essential conditions for their personal, professional, physical, and financial flourishing. Nevertheless, unfortunately the argument about whether or not the state of a person's wellbeing actually matters is still a topic of debate. (Reilly, 2020)

2.3. IMPORTANCE OF CREW WELLBEING IN SHIPPING

2.3.1. PSYCHOLOGICAL AND PHYSICAL HEALTH

Seafarers are universally recognized as operating in one of the most demanding and most challenging settings. Challenges such as long periods of isolation, physical labor, and extended time away from family can contribute to high levels of stress, fatigue, anxiety, and depression. According to INTERTANKO's Crew Welfare Management and Mental Wellness 2nd Edition publication of 2021, *"the Covid-19 pandemic has led to widespread concerns over its effects on people's lives and employment, while seafarers were also anxious about their families and loved ones back home. Unpleasant thoughts and feelings can escalate quickly, making it difficult for those on board to find the energy to follow their daily routine and concentrate on their work tasks. It is feasible that they can become overwhelmed and potentially suffer from depression or psychosis. The pandemic has highlighted a need for more guidance on how to manage crew welfare and mental wellness management"*. ('2021_Crew Welfare_Management_and Mental_Wellness_2nd-ed-web_2.pdf', no date)

Poor crew wellbeing is linked to lower morale, less attention, and increased judgment errors, all of which are key risk factors for maritime catastrophes. Moreover, these behaviors are related with increased likelihood of accidents. It is vital to guarantee that crew members maintain optimum physical and mental health in order to maintain a safe working environment and prevent accidents, injuries, or fatalities. This is because maritime operations are inherently high-risk, and it is essential to ensure that crew members maintain it.

2.3.2. SAFETY AND OPERATIONAL EFFICIENCY

The welfare of the crew is directly linked to the safety and operational efficiency of the ships. In particular, research shows that fatigue and stress lead to human error, which is the most common cause of marine accidents. According to the definition given by the IMO, "fatigue is a state of feeling tired, weary, or sleepy that results from prolonged mental or physical work, extended periods of anxiety, exposure to harsh environments, or loss of sleep". The effects of fatigue are impaired performance and diminished alertness. When crew members experience physical or mental illness, they are more prone to errors, potentially leading to expensive operational disruptions, crashes, or environmental catastrophes such as oil spills. Ensuring that crew members are adequately rested, appropriately supported, and mentally alert improves both the vessel's safety and its operational efficiency and dependability. (*Fatigue*, no date)

2.3.3. REGULATORY COMPLIANCE

Regulatory compliance in the maritime industry is vital to creating a safe, respectful and supportive working environment for seafarers, since it safeguards their basic human rights, promotes health and safety and encourages better mental and physical wellbeing, ultimately leading to a more resilient and efficient maritime workforce. Typical examples of international regulations are those set out by the International Maritime Organisation (IMO) and the Maritime Labour Convention (MLC). (Exarchopoulos *et al.*, 2018)

One of the key elements of regulatory compliance is the enforcement of safe working hours and adequate rest periods as fatigue is a major issue in the maritime industry, because it contributing to accidents and reducing overall job satisfaction. Regulations such as the MLC set maximum working hours and required rest, helping to prevent overwork and ensuring that seafarers have time to rest and recover. This compliance has a direct impact on their health, safety and mental wellbeing, reducing the risks associated with fatigue-related accidents. (Exarchopoulos *et al.*, 2018) (*Maritime Labour Convention, 2006* / *International Labour Organization, 2024*)

In addition to managing working hours, regulatory compliance promotes appropriate living conditions on board ships. Standards for clean accommodation, access to nutritious food and adequate recreational facilities are enforced by regulatory guidelines. These requirements meet basic human needs, contributing to the physical wellbeing of seafarers, which in turn has a positive impact on their mental health by providing a comfortable living environment. Compliance ensures that ships possess medical facilities and qualified staff to address health issues at sea, where prompt medical assistance is frequently inaccessible. (Exarchopoulos *et al.*, 2018) (Karakasnaki,

Pantouvakis and Vlachos, 2023)

2.3.4. *RETENTION AND RECRUITMENT*

The importance of employee wellbeing and its impact on retention and recruitment is undeniable at a time when the maritime industry is facing an increasing challenge in terms of recruiting and retaining skilled seafarers. A lack of attention to crew wellness may result in elevated turnover rates, when sailors leave the industry owing to fatigue, unhappiness, or inadequate working circumstances. Considering the fact that there is still a continuous worry over people shortages, the shipping industry is investing an extensive amount of effort to make the seafarer profession more appealing. By focusing on crew wellbeing, shipping companies have the opportunity to improve employee satisfaction, reduce attrition rates and develop a more stable and talented workforce. This is particularly critical in an industry where specific skills and expertise are vital to the safe operation of ships. Establishing a supportive work environment prioritises the emotional and physical wellbeing of seafarers can be a crucial differentiation for shipping companies that are competing with one another to acquire talent. (*Wellness Consulting | Global Healthcare Resources*, no date) (Cimatti, 2016) (Pantouvakis and Vlachos, 2020)

2.3.5. *ETHICAL AND SOCIAL RESPONSIBILITY*

As the environmental, social and governance (ESG) policies of the global shipping industry are more closely scrutinised, crew welfare is a key aspect of the sector's social responsibility. In line with the wider push towards more sustainable and ethical business practices, treating crew members with respect, ensuring they work in a safe environment and providing support for their physical and mental health are aligned with the wider move towards sustainable and ethical business practices. As a result, shipping companies that demonstrate a commitment to human rights and ethical working practices are more likely to improve their image among customers, investors and regulators, consequently showing higher profitability and expansion, while creating a better working environment for their workforce. (Mr. Kiran Thorat & Dr. Anand Hiremath, 2024) ('gr_esg_in_the_shipping_sector_noexp.pdf', no date)

2.4. FACTORS AFFECTING CREW WELLBEING

The physical and mental wellbeing of ship crew members is a significant contributor to both the safety and effectiveness of ships as well as the efficiency with which shipping businesses manage

their operations. Factors affecting crew wellbeing are multifaceted, encompassing physical, psychological, and social dimensions. When it comes to the constantly shifting environment of crew operations, the quality of rest and sleep patterns makes an important difference since they have a direct impact on alertness and cognitive performance. Moreover, work-related stresses, such as the intensity of the task, the unpredictability of the schedule, and the amount of time spent away from home contribute significantly to overall wellbeing. (Karakasnaki, Pantouvakis and Vlachos, 2023)

In terms of morale and mental health, they are further influenced by the social dynamics present in the crew's environment, such as communication style and team cohesion. Recognising and proactively managing these factors are key steps in promoting crew wellbeing, especially in challenging operational conditions. Often, access to support systems, such as mental health promotion programmes, helps to effectively manage and mitigate stressors. (Karakasnaki, Pantouvakis and Vlachos, 2023)

2.4.1. LIVING CONDITIONS AND WORKLOAD

In terms of their importance, on-board living and working conditions are among the most critical features affecting crew welfare. Due to the fact that in most cases, ships spend a long time travelling in remote areas, living conditions can be difficult. Many factors, which are related to shipboard living conditions, may have an impact on the emotional and physical health of the crew, including uncomfortable accommodation facilities, annoying noise and bad nutrition. (Karakasnaki, Pantouvakis and Vlachos, 2023)

Undoubtedly, ensuring that crew members live in comfortable, useful, and secure quarters improves their overall health. Therefore, shipping companies need to offer proper amenities that meet a wide range of requirements and preferences on ships with different crews. Furthermore, in order to provide a safe living environment and to minimise the possibility of accidents and injuries at sea, accommodation for seafarers must comply with safety requirements. These standards encompass aspects such as escape routes, emergency lighting, and fire detection systems. (Brooks and Greenberg, 2022)

As a result of the physically demanding nature of the industry, particularly during extended trips, crew members must eat meals that will maintain their physical and mental health, provide them with the energy to go through their shifts, and allow them to rest when it is necessary. Therefore, dehydration, heat-related illnesses, and fatigue may all be avoided with a balanced diet and plenty of water. For that reason, seafarers should always have access to clean, drinkable water.

(Brooks and Greenberg, 2022)

Psychosomatic disorders, such as burnout syndrome and tiredness, may result from isolation and a high stress load. There are many reasons why seafarers become tired, and on many modern ships, tiredness is a major workplace problem. According to the Maritime Labour Convention of 2006, in order to ensure safe and efficient ship operations, a minimum of seafarers must be employed on board all ships. However, in comparison to previous years, there have been notably fewer crew members on board. Long work hours, little to no rest, repetitive tasks, physical exhaustion from hard physical work, a hostile work environment, fatigue and premature aging from a fast-paced work schedule, and the need for constant vigilance are some of the working conditions that negatively impact seafarers' health, equilibrium, and productivity. (Lavelle, 2013) (Jepsen, Zhao and Leeuwen, 2015) (Rajapakse and Emad, 2023)

Stress, fatigue and dissatisfaction caused mainly by unfavourable working conditions have a negative impact on health, productivity, absenteeism and the turnover rate of seafarers. Poor working conditions and reduced levels of safe staffing also reduce safety on board and increase the risk of accidents that can have damaging, even fatal, effects on the economy and the environment. (Jepsen, Zhao and Leeuwen, 2015) (Karakasnaki, Pantouvakis and Vlachos, 2023)

2.4.2. GENDER, AGE AND CULTURAL DIVERSITY

Historically, males have had a dominant role in the marine shipping industry, a tendency that persists today. The marine industry need an increased representation of women, especially in leadership roles. However, being a woman resembles belonging to a whole another society. This is due to men's belief that women are unwelcome in this industry, resulting in a lack of respect and support for women employed in this sector. The proportion of women employed in the maritime profession is negligible at 2%. Women encounter significant prejudice from several companies, and even when being employed, their prospects for progression within the business are diminished. A prevalent notion exists that women are more delicate than males and should not engage in or inhabit such environments. The majority of women working in this sector mainly manage cleaning, cooking and hospitality services. However, as in recent years the majority of women support equality, this antiquated situation tends to change. (Kitada, 2021)

Age discrimination is a concern that affects individuals of all ages working in the shipping sector. Having people of different ages brings with it plenty of experience, flexibility, and interesting new viewpoints. On the other hand, prejudices and preconceptions often result in the

undervaluation of workforce, including older and younger crew members. This not only impedes the development of individuals but also the general advancement of the industry. More specifically, senior maritime professionals can face age discrimination while pursuing promotions, which may result in stagnation in their careers. This is despite the fact that they have several years of expertise. It is also possible that older employees are unfairly linked with weaker technical adaptation, which hinders their opportunities to participate in the industry's digital transformation. As many people assume that older professionals are unable to fulfill the physical requirements of specific job positions, this discrimination could result in fewer possibilities for older professionals to participate in training and development programs. (*Embracing Age Diversity / World Maritime Academy, 2024*)

Although social and cultural diversity in maritime crews offers numerous benefits, it also presents challenges, due to the unique approaches each culture possesses toward interpersonal and organizational relationships. Therefore, varying cultural norms, points of view, and communication styles may lead to stress, conflicts, and diminished morale on board. Collaborating with individuals who lack appreciation for one other's cultures might result in more substantial problems than working with those who have a similar background. The reluctance to engage with others who reject them due to cultural perspectives results in a social distancing phenomenon among crew members. (Daniels, 2017) (Galanakis, 2024)

Many individuals fear establishing connections with people from other cultures, believing that barriers such as language and cultural differences may result in complications. This increases the lack of social interactions onboard and individuals' tendency to isolate themselves. Communication limitations, in particular, may intensify feelings of isolation and hinder seafarers' ability to establish connections and cultivate trust and camaraderie. As a result, diverse teams may have difficulties in efficiently addressing crises or adhering to safety regulations due to language limitations or misinterpretations of procedures. (Daniels, 2017)

2.4.3. CAREER OPPORTUNITIES

Career prospects profoundly influence the wellness of seafarers, affecting their work lives as well as their physical, mental, and emotional health. The maritime industry imposes distinct demands on individuals, necessitating prolonged separations from their families, extensive working hours, and adaptability to a fluctuating environment. The presence or absence of career advancement can significantly influence a seafarer's sense of purpose, satisfaction, and long-term wellbeing.

(Brooks and Greenberg, 2022) (Svetina *et al.*, 2024)

One of the most important aspects of career opportunities for seafarers is job security, which directly affects mental health. Securing stable employment allows seafarers to plan for the future, invest in their personal development and manage their finances more confidently. Moreover, a clear and structured career path inspires confidence in seafarers, giving them a positive outlook for the future and motivation to excel. On the other hand, the lack of stable employment prospects creates feelings of uncertainty, often leading to stress, anxiety and, in some cases, depression. This mental stress is exacerbated by the isolation of life at sea, where access to support systems is limited and there are few opportunities for seafarers to seek help and generally feel a sense of normalcy. (Svetina *et al.*, 2024) (Ljung and Widell, 2014) (Galanakis, 2023)

For a seafarer, the pursuit of promotions, specialised certifications or further training acts as an important motivator, encouraging skills development and enhancing commitment to the role. This sense of growth and accomplishment can significantly boost their morale and raise their performance. Without these opportunities, however, seafarers can feel stagnant, as if their efforts are not recognised or appreciated, which can lead to feelings of frustration or a reduction in mental wellbeing. A stagnant career path can even cause physical manifestations of stress, such as fatigue, reduced immunity or disrupted sleep patterns. In contrast, a structured career path allows for a healthier outlook, inspiring confidence and personal satisfaction. (Galanakis, 2023) (Brooks and Greenberg, 2022)

Physical wellbeing can also be affected by the type of career opportunities available. Shipping is a demanding profession that often involves intense physical work, which over time can take a toll on the body. Opportunities to move into less physically demanding roles, such as training, management or shore-based positions, are essential for those who may be experiencing health problems. This flexibility enables seafarers to pursue their professional growth while preserving their physical health, which is especially beneficial as they age or experience work-related injuries. If these options are absent, they may be forced to continue in physically demanding roles, risking further damage to their health or facing premature career termination due to incapacity to perform. (Shivan Nair, 2023) (Caesar, Cahoon and Fei, 2015)

The social aspect of seafarers' wellbeing is also affected by career opportunities. Seafarers often work in multicultural environments where communication barriers and loneliness can lead to isolation. Access to opportunities for cross-cultural training, team-building exercises and shore-based secondments can promote a more inclusive and connected working environment. When these career-enriching experiences are available, seafarers are more likely to develop meaningful

professional relationships, build networks and feel supported by their colleagues. This contributes to a more positive social environment, which helps to reduce loneliness and improve overall mental health. (Caesar, Cahoon and Fei, 2015) (Svetina *et al.*, 2024) (Karakasnaki, Pantouvakis and Vlachos, 2023)

Finally, the availability of land-based employment or a balanced rotation schedule helps sailors retain contact with family and friends, which is critical for emotional wellbeing. Time spent at sea is frequently apart from family, which can strain personal connections. Shore-based roles or flexible working hours allow seafarers to balance their work commitments with their personal life, reducing feelings of guilt or detachment. The notion that future advancement may result in more time with loved ones can be emotionally reassuring, boosting their dedication to the profession. (Caesar, Cahoon and Fei, 2015) (Brooks and Greenberg, 2022) (Albert, Nadia and Guy, 2016)

2.4.4. HEALTH CHALLENGES

On a ship, there is nothing more important than the health and safety of the crew members. Therefore, the first and foremost responsibility of shipping companies is to ensure that all ships follow international safety rules and standards, as maintaining health and safety requires a comprehensive strategy that includes strong health support networks, a large number of medical facilities and strict safety protocols. It is also essential that each crew member is provided with the personal protective equipment that may be required for their work. (Ohayon, Smolensky and Roth, 2010)

One of the distinguishing characteristics of the marine industry is the necessity that seafarers work in shifts in order to ensure that the ship is always operational. Various forms of shifts have been used, but the most common aspect is that shifts allow for less sleep since they split the day into portions with insufficient time for rest and recuperation. In addition to irregular work schedules, persistent exposure to noise and vibrations may cause chronic fatigue and sleep disorders. Fatigue, in addition to generating immediate repercussions such as poor cognitive function and accidents, also plays a role in the development of chronic illnesses among seafarers. These disorders including cardiovascular disease, diabetes, and obesity are rather common among those who work in the shipping sector. (Ohayon, Smolensky and Roth, 2010)

Seafarers often experience high levels of stress and anxiety as a consequence of the demanding nature of their work. They may also experience depression due to the fact that they are lonely, that their working days are long and that they are separated from their loved ones. (Ohayon, Smolensky

and Roth, 2010)

The Maritime Labour Convention (MLC) 2006 requires ships to be equipped with appropriate medical facilities, including qualified personnel who must be ready to provide medical treatment when needed as well as an adequate stock of pharmaceuticals, first aid and medical equipment. In addition, in order to identify mental health difficulties and to obtain treatment or medical assistance to crew members when required, shipping companies should implement mental health awareness and training programs for crew members and management. (Davis *et al.*, 2014)

Shipping companies must also try to create an atmosphere more encouraging and resilient for those working in the maritime profession, through the adoption of a variety of initiatives, Telemedicine, in particular, allows doctors on board to consult with doctors on land via satellite, providing effective medical advice and handling medical conditions when emergency evacuation is impossible. It is considered by seafarers as "the medicine of the future" since it facilitates the delivery of medical care from any sea location. (Abila *et al.*, 2023) (Nittari *et al.*, 2019)

2.5. THE ROLE OF JOB SATISFACTION AND MOTIVATION

The deficiency of proficient seafarers, especially officers and engineers, has increasingly troubled the maritime sector. Given that approximately 90% of global commerce volumes are conveyed by maritime transport, this issue is a worldwide challenge to address.

Although plenty of recent studies recommended techniques for corporations to recruit sailors, beyond luring seafarers, it is crucial for shipping companies to maintain their current in-service personnel. (Fei and Lu, 2014) Seafarer attrition is often high due to factors such as monotony at sea, a repetitive work environment, emotional and occupational stress, and insufficient family time. This is intensified by alterations in the socioeconomic environment, as the younger generation prefers shore-based employment owing to enhanced autonomy and more competitive remuneration.

From the standpoint of shipping companies, the capacity to retain seafarers provides many organizational advantages. Initially, the scarcity and infrequency of competent sailors in the market make their retention a significant competitive advantage for shipping companies. The presence of a skilled and driven workforce of seafarers may enhance a shipping company's cost efficiency via increased productivity and decreased absences and turnover. (Nguyen *et al.*, 2014) (Cimatti, 2016) However, the capacity to retain sailors will facilitate the accumulation of significant knowledge and expertise inside the organization. This important reservoir of information, obtained via education, may thereafter be imparted to future seafarers and the administration of maritime operations on

land. (Yuen *et al.*, 2018)

In recent years, much research has been undertaken to develop techniques for retaining seafarers. On the other hand, less information exists about the determinants of occupational satisfaction. Currently, there is a lack of research using a theoretical framework to examine the factors influencing seafarers' job satisfaction or discontent. Moreover, little research has examined the connection between job satisfaction and seafarers' performance. The efficacy of seafarers is evaluated based on productivity and quality, namely minimizing errors. Enhancements in seafarer performance may enhance ships' turnaround time, satisfy ship-owners' efficiency requirements, and elevate the safety performance of maritime operations. This may result in significant cost reductions and improvements in service for a shipping firm. (Yuen *et al.*, 2018) (Fenstad, Dahl and Kongsvik, 2016) (Slišković, 2023)

CHAPTER 3: ESG PRINCIPLES: THEORY AND FRAMEWORK

3.1. DEFINITION OF ESG PRINCIPLES

ESG principles refer to a set of criteria used to evaluate a company's operations and performance in terms of its environmental, social, and governance practices. These principles have gained prominence in recent years as stakeholders, including investors, customers, and regulatory bodies, increasingly recognize the importance of sustainability and ethical conduct in business practices. (Yu *et al.*, 2024)

As the motivation behind the adoption of environmental, social, and governance standards is considered the recognition that businesses have a significant impact on both society and the environment, as well as the fact that responsible governance is connected to long-term success, is As a consequence, companies that adhere to ESG principles are frequently regarded as being as more resilient, responsible, and in harmony with the increasing need for corporate responsibility. (Ahmad, Yaqub and Lee, 2023) (Mohammad and Wasiuzzaman, 2021)

3.2. HISTORICAL BACKGROUND

The initial emergence and evolution of the environmental, social and corporate governance (ESG) framework dates back to the beginning of modern capitalism and the first concerns about the obligations of business towards society and the environment. Nonetheless, it is only in recent decades that this methodology has attained prominence and become an essential component of economic plans. (Nascimento *et al.*, 2021)

At the end of the twentieth century, the corporate social responsibility (CSR) movement emerged in response to growing concerns about the impact of business activities on society. As a result of this quest, during this period, businesses were encouraged to consider not only their profits but also their responsibility to promote social welfare and preserve the environment. Corporate Social Responsibility projects have encompassed voluntary efforts to assist local communities, foster diversity and inclusion, and adopt ecologically sustainable practices. (Nascimento *et al.*, 2021) (Hammond and O'Brien, 2021)

At the beginning of the 21st century, the debate around ESG governance has become increasingly topical, influenced by several factors. The recognition of climate change, the depletion of natural resources and the escalation of social inequalities are some of the factors that have increased society's demands on businesses to implement more sustainable and ethical

operations. Moreover, corporate crises, including the Enron collapse and the BP oil spill in the Gulf of Mexico, have underscored the significance of openness and accountability within corporations. (Nascimento *et al.*, 2021)

The increasing impact of institutional investors has significantly contributed to the ascent of ESG. Many investors have begun to recognise that ESG factors can have a significant impact on the long-term financial performance of companies. Consequently, they have incorporated ESG factors into their investment decisions, forcing companies to adopt more responsible practices. (Nascimento *et al.*, 2021) (Hammond and O'Brien, 2021)

As environmental, social and governance principles are currently considered a key element of modern corporate governance, companies operating on a global scale are increasingly adopting more integrated governance methods. These strategies take into account not only the interests of shareholders but also the impact of their activities on them and the environment. As the knowledge of considerations regarding ESG issues expands, the function of these principles in corporate governance is expected to be strengthened and further defined. (Nascimento *et al.*, 2021)

3.3. ENVIRONMENTAL DIMENSION (E)

Sustainable development and corporate responsibility are founded on the environmental aspect of ESG principles, which places a strong emphasis on minimising the ecological footprint and enhancing citizen's overall health. Consequently, in response to increased awareness of global environmental concerns, such as climate change, biodiversity loss and resource depletion, organisations have begun to integrate environmental considerations into their operations. (Zhang *et al.*, 2024) (Fallah Shayan *et al.*, 2022)

In particular, because of the environmental component, the need to reduce the impact of climate change is highlighted as it is common knowledge that companies are now being monitored for the greenhouse gas (GHG) emissions they produce, which contribute to both global warming and climate disruption. As a result in order to comply with ESG principles, businesses are required to evaluate, report, as well as to work towards minimizing their carbon footprints. This includes the implementation of technology that is efficient in terms of energy consumption, the shift to renewable energy sources, and the establishment of long-term decarbonization goals, which are often comparable to the Paris Agreement. By doing so businesses reduce their negative environmental impact and the economic risks of climate change, such as government fines and customer demand for sustainable goods. (Baratta *et al.*, 2023)

ESG emphasizes the preservation of natural resources, which is the environmental component of the framework. The amount of water, minerals, and fossil fuels that businesses use should be reduced as much as possible. This often involves notions of circular economies, which include reusing, recycling, and repurposing resources in order to prolong the lifetime of those resources and reduce the amount of virgin resources that are subjected to waste. Resource-intensive industries must ensure the implementation of sustainable practices to protect ecosystems and prevent exploitative behaviors from occurring. To preserve freshwater supplies for future generations, for instance, companies that use a significant amount of water should reduce their water consumption and pollution. (Karim, Roshid and Waaje, 2024) (Sakao *et al.*, 2024)

Along with resource and climate management, the environmental component of ESG demands biodiversity conservation. This is because the loss of biodiversity, caused by environmental factors such as deforestation, habitat destruction, pollution and climate change puts the natural resources that humanity relies on in danger. Therefore, companies are obligated to handle biodiversity using ESG principles. Following this strategy they promote the protection of natural ecosystems, the prevention of changes in land use, and the implementation of sustainable sourcing procedures. To prevent the loss of biodiversity, organizations that are involved in agriculture, forestry, and fisheries are also required to implement procedures that include responsible sourcing and sustainable land management. (Shin *et al.*, 2022) (Lausche, 2023)

The management of waste and the reduction of pollution are also both included in the environmental component of ESG. Companies are increasingly considered responsible for the disposal of hazardous trash, pollution caused by plastic, and abandoned technological devices. ESG-compliant companies are required to develop technology that converts waste into energy, recycles materials and reduces the amount of single-use plastics that they consume. (Fallah Shayan *et al.*, 2022)

3.4. SOCIAL DIMENSION (S)

The social aspect of the principles of Environment, Society and Governance (ESG) has become a fundamental element in assessing the ethical, sustainable and responsible actions of organisations and institutions. As companies face increasing accountability for both financial performance and social impact, the social aspect of ESG frameworks emphasizes human-centered values, concentrating on the relationships and obligations that organizations maintain with employees, customers, communities and other stakeholders. By looking at labour practices, human rights,

diversity and inclusion, community participation and general social wellbeing, these concerns are viewed as fundamental to long-term development and company success. (Shapsugova, 2023)

The social aspect of ESG principles is essential in influencing sustainable and ethical company activities, by focusing on labor conditions, including worker rights, health and safety regulations, and equitable remuneration. Companies that uphold stringent social standards guarantee that their workers operate in secure surroundings, get fair remuneration, and are treated with respect. This is beyond basic adherence to labor regulations; firms are urged to cultivate environments of inclusion, employee pleasure, and personal growth. This method is both morally and economically beneficial, as it enhances staff productivity, loyalty, and retention, hence decreasing turnover costs and promoting the overall sustainability of the organization. (Sharma, 2024) (*Fair Labor Practices and ESG: Achieving Sustainability and Ethical Standards - ESG Research Pro*, 2023)

Human rights are a key element of the social dimension of ESG as organisations are expected to support and defend human rights in all their activities and in their procurement networks. If a company neglects to effectively address human rights violations, such as child labour, forced labour or unsafe working conditions, for example, it risks significant reputational damage and possible legal consequences. Conversely, companies that emphasize human rights can improve their brand, build trust with stakeholders and positively impact the communities in which they operate. This commitment is especially significant for international companies that frequently source materials from countries with varying levels of regulatory compliance in terms of labour rights and environmental protection. (Sharma, 2024) (*Fair Labor Practices and ESG: Achieving Sustainability and Ethical Standards - ESG Research Pro*, 2023)

Diversity, equality, and inclusion (DEI) are also essential components of the social dimension. Organizations are increasingly expected to reflect the diversity of the society in which they operate, including both their workforce and leadership. DEI projects seek to eliminate obstacles that have traditionally disenfranchised certain groups, guaranteeing that every individual, irrespective of color, gender, ethnicity, or socio-economic status, possesses equal chances for employment, development, and leadership within an organization. Embracing variety cultivates innovation and creativity, since a heterogeneous workforce contributes varied viewpoints and ideas, resulting in more comprehensive decision-making processes. Moreover, firms with diverse leadership are more adept at comprehending and catering to varied client demographics, hence improving market performance and social legitimacy. (Feitosa *et al.*, 2022)

(Sakao *et al.*, 2024)

Community participation and social impact are essential components of the social dimension of ESG. Companies, particularly those having a substantial physical presence in certain areas, are increasingly expected to actively contribute to the welfare of the communities in which they function. This may emerge as humanitarian initiatives, volunteer activities, educational programs, or infrastructure development. In any case, strategic community engagement aligns corporate goals with social needs, aiding in the alleviation of possible conflicts between business activities and community wellbeing. Furthermore, corporations that contribute constructively to local communities via social investments often enjoy improved community connections, higher brand image, and increased stakeholder support. (Dathe *et al.*, 2024) (Alusch H. Amoghli, 2024)

3.5. GOVERNANCE DIMENSION (G)

The governance aspect of Environmental, Social, and Governance principles comprises the frameworks, regulations, and procedures by which companies are managed and regulated. This factor is crucial to the comprehensive ESG framework as it assesses a corporation's efficacy in managing its environmental and social obligations. (Martiny *et al.*, 2024) Effective governance policies not only protect against malfeasance but also guarantee openness, accountability, and ethical conduct at all operational levels. Additionally, it synchronizes the organization's long-term goals with stakeholder interests, thus promoting trust, sustainability, and value generation. (*Importance of Corporate Governance in Modern Business*, 2023)

The board of directors is vital to the governance aspect of ESG, since a successful board is responsible for managing a company's strategic direction, ensuring regulatory compliance, and maintaining accountability to stakeholders. As a result, it has to evaluate the risks associated with climate change, human rights, and workforce diversity, while also include these factors in the organization's comprehensive strategic planning. An eclectic and autonomous board is often seen as a characteristic of effective governance since it mitigates the danger of groupthink and fosters more rigorous decision-making procedures. (*Importance of Corporate Governance in Modern Business*, 2023)

Executive compensation is another critical aspect of governance, whose role is to correspond with the company's long-term objectives, motivating executives to emphasize sustainability and ethical factors in their decision-making processes. In several instances, ESG-linked compensation schemes are introduced, whereby executive incentives are contingent upon the company's success

on ESG measures, such as the reduction of carbon emissions, or the improvement of corporate transparency. Aligning these incentives ensures that business leaders are genuinely committed to promoting the organisation's ESG goals rather than just focus on short-term earnings. (Zhu *et al.*, 2024)

For governance to be effective, it is necessary to provide transparent, accurate and timely reporting on both financial and non-financial performance. According to this purpose, companies are progressively required to reveal their ESG-related actions, risks, and consequences, often via sustainability reports or integrated annual reports. If reporting is characterized by transparency allows investors, regulators, and other stakeholders to make informed judgments on the company's operations and its management of ESG risks. In addition to regulatory compliance, voluntary frameworks like the Global Reporting Initiative (GRI) and the Task Force on Climate-related Financial Disclosures (TCFD) have become prominent standards for corporations aiming to enhance their ESG transparency. By using such frameworks, firms may exhibit their dedication to responsibility and ongoing improvement in ESG performance. (Tenuta and Cambrea, 2022) (Kaarle Parikka, 2023)

3.6. ESG PRINCIPLES IN THE BUSINESS MINDSET

3.6.1. USE OF ESG PRINCIPLES BY INVESTORS

The three factors, environmental, social and governance, of the ESG framework are directly related to the sustainability of the company, therefore they are usually taken into account by investors when deciding on the assets they seek to own. (Corporate Communications PT ABM Investama Tbk, 2022)

- **Environmental Criteria**

Investors should look at how the company operates in relation to the environment. A company's compliance with ESG principles ensures that it adopts environmentally friendly operating practices. Examples of such practices that are aligned with the environmental criteria of the ESG framework are: using environmentally friendly energy, managing waste properly so that it does not become a pollutant, contributing in the conservation of irreplaceable natural resources, treating animals appropriately, and creating an effective environmental risk management system (Corporate Communications PT ABM Investama Tbk, 2022)

As environmental criteria can be used to evaluate the activities of a company, for companies that apply them, it will have a positive impact such as gaining sustainability in business activities.

(Corporate Communications PT ABM Investama Tbk, 2022)

- **Social Criteria**

Investors ought to consider how the company manages labour relations with employees, suppliers, customers and the communities in which it operates and taking into account the inputs and expectations of stakeholders from the organisation. Relevant examples include selecting suppliers who also have ESG-compliant policies and practices, participating in community organizations (either through a percentage of profits and/or employee volunteer work), and ensuring a healthy and safe work environment for employees. (Corporate Communications PT ABM Investama Tbk, 2022)

Social criteria can be used to assess a company's readiness to adapt to social problems, which will then have an impact on its reputation and financial performance. (Corporate Communications PT ABM Investama Tbk, 2022)

- **Governance Criteria**

Investors should consider how a company may establish a beneficial and sustainable governance process in terms of board structure, director and senior management remuneration, control system, and protection of majority and minority shareholder rights. (Corporate Communications PT ABM Investama Tbk, 2022)

The aspects to be considered in this criterion are the company's policies, corporate standards, culture, transparency, control process and compliance with legal frameworks. These factors can be an advantage for companies, which, by adhering to good governance, can inspire confidence in potential investors. (Corporate Communications PT ABM Investama Tbk, 2022)

3.6.2. EMPLOYEE WELLBEING AS AN ESG STRATEGY

ESG includes a list of criteria that stakeholders can use to assess a company's performance. When it comes to social responsibility in particular, it often examines how an organization handles its external environment, consumers, and community. However, it may additionally reflect how the organization looks after its internal stakeholders, such as their health, happiness, and job satisfaction. (Sean O'Neill, 2024)

There is a natural link between employee wellbeing, creating a sustainable business and fostering a culture that supports that. Getting this right will help align with the company's ESG principles. This includes prioritizing employee wellbeing, and because employees are part of a larger community, taking care of them can have an impact that benefits the community and adds to

the overall ESG goals of the organization. When employees work in a nice environment, they are more inclined to be creative and problem-solving, which can help their development. (Sean O'Neill, 2024) (Anderson, 2024)

Moreover, addressing social issues can assist companies in attracting talented and qualified employees. This is especially important in a competitive job market, since employees prefer companies that prioritize their wellbeing. If a company is interested in attracting top talent, prioritising employee wellbeing as a key aspect of an ESG strategy can be an excellent approach to achieving this goal. (Sean O'Neill, 2024) (Urme, 2023)

While these variables can be improved in a number of ways, one option is to explore implementing wellness programs that encourage both physical and mental health. Things like gym memberships can be considered as well as access to staff support programs. In addition, encouraging workers to take advantage of remote or hybrid working or to have more flexibility with their working hours can be attractive to them, as it meets the needs of a diverse workforce. Furthermore, hybrid working allows CEOs to use office days to boost employee morale and collaboration. Employers could also consider the physical workplace and how it affects employee wellbeing. Catering facilities and access to clean air and water are also vital. (Sean O'Neill, 2024) (Anderson, 2024)

Organisations today are trying to be more inclusive. When it comes to environments where equality is respected businesses can prioritise diversity and inclusion training, offer equal opportunities and create support networks to progress in this area. Obviously, all of this needs to be measurable, so metrics need to be established. Ensuring accountability requires regular reporting on critical metrics such as diversity and inclusion targets and employee satisfaction. Employee happiness, retention, use of welfare programs, and changes in absenteeism are useful important indicators for evaluation. (Sean O'Neill, 2024)

Recognising the value of employee wellbeing in the context of ESG is both ethical and beneficial to the company. It benefits not only the individual companies involved, but also the wider community, as employees are also stakeholders in that community. Embracing employee wellbeing will be vital to long-term prosperity as these issues are increasingly examined. (Sean O'Neill, 2024)

3.6.3. IMPACT OF ESG PRINCIPLES ON EMPLOYEE MOTIVATION

For a company to be perceived as successful in the modern world, it has to sustain its employees' intrinsic motivation. (Lee and Park, 2023) Understanding and using the diverse motivations of

employees across generations can effectively enhance workplace motivation and productivity.

Research indicates that individuals with intrinsic motivation have more self-satisfaction which can foster a healthy work atmosphere, since content individuals are more inclined to be engaged and motivated. These individuals are also more inclined to establish meaningful relationships, which can enhance workplace dynamics by promoting a sense of belonging and collaboration among employees, so contributing to a positive company culture. Furthermore, intrinsically motivated individuals perform better towards organisational goals. This suggests that firms can benefit from promoting intrinsic motivation among their employees to improve overall performance and productivity. (Mahmoud *et al.*, 2021)

It is further supported that intrinsic motivation can satisfy basic psycho-emotional needs such as the need for autonomy, competence and relatedness. Addressing these needs can enhance employee engagement, since individuals are more inclined to be motivated and involved in their work when these essential needs are fulfilled. (Ghosh and Sekiguchi, 2020) Generally, elder employees are often more driven by intrinsic motivation and the significance of their work compared to younger colleagues. This suggests that understanding and harnessing employees' intrinsic motivation may be particularly important when managing a multi-generational workforce. (Landry, Schweyer and Whillans, 2018) Furthermore, employees with high intrinsic motivation are often more committed to their work, put in more effort and are willing to take on more challenges. This increased participation might result in enhanced performance and creativity within the organization. (Lee and Song, 2020)

Corporate circles have recently discussed the need for environmental, social and governance (ESG) activities. Companies are trying to commit to ESG goals such as strengthening labour relations and reducing their environmental/carbon footprint. (Walker, 2022) In cases of companies examined, CSR and ESG reporting had a significant impact on numerous aspects of performance, including operations, finance and marketing. ESG activities also influence public opinion of a company and continued progress in annual ESG scores improves the overall performance of the company by having a significant impact on its profitability, with the governance part of ESG being the most important. (Alareeni and Hamdan, 2020) (Kim and Li, 2021)

3.6.4. CHALLENGES IN IMPLEMENTING ESG PRINCIPLES

Implementing an environmental social governance (ESG) plan presents difficulties for companies, which must effectively address important challenges such as identifying the appropriate framework,

assessing and monitoring performance, and obtaining and visualising data and information on governance. Moreover, the difficulty of measuring stakeholder sentiment and organisational reputation, as well as the absence of standardised metrics to assess companies' CSR performance, are significant challenges for companies. Given the ever-evolving nature of CSR issues, companies face additional difficulties in managing risk mitigation and must make significant investments in time and financial resources. ('Challenges of implementing an ESG strategy – The Arthur Lok Jack Global School of Business', no date)

Some challenges are analysed below:

- ESG compliance is governed by a complex and ever-changing regulatory environment. To maintain competitiveness, firms must stay abreast of the constantly evolving legislation and industry standards, which can be challenging to understand.
- Collecting and managing data on environmental, social, and governance (ESG) metrics can be a significant challenge for numerous firms. This is due to the fact that the collection and management of data requires specialized skills, and organizations must ensure the integrity and reliability of the data they obtain.
- A standardized framework for environmental, social, and governance (ESG) reporting is nowadays necessary. This complicates the ability of organizations to assess their ESG performance relative to competitors until a standardized framework is implemented.
- Implementing robust environmental, social, and governance requirements may incur significant costs, necessitating additional resources for many organizations to spend on ESG initiatives. (Hugo Hernández-Ojeda Alviréz, 2023)

3.6.5. BEST PRACTICES FOR OVERCOMING CHALLENGES

In order for organizations to successfully overcome the challenges and make the most of the opportunities that are given by environmental, social, and governance (ESG) compliance, they should take into consideration the implementation of several leading practices.

First, an Environment, Society, and Governance (ESG) plan should be built, which is both crystal clear and linked to the organization's goals and objectives. In order to lay the groundwork for executing the plan, it is essential to have full awareness of the company's stakeholders, which include the company's consumers, employees and investors. (Hugo Hernández-Ojeda Alviréz, 2023)

Navigating the multiple existing guidelines and standards is one of the most challenging

aspects of ESG reporting given that various international organisations, including the Global Reporting Initiative (GRI), the Sustainability Accounting Standards Board (SASB), the Task Force on Climate-related Financial Disclosures (TCFD) and the International Integrated Reporting Council (IIRC) have created independent frameworks. As a result, companies often struggle to decide which to adopt and how to integrate their reporting efforts with the various standards because these frameworks have different objectives and techniques. (Rose, 2024) To effectively cross these frameworks, companies can follow some best practices:

- Identifying relevant frameworks.

The first step for companies should be to determine which frameworks are most relevant to their industry, stakeholders and their specific environmental, social and governance (ESG) expectations. In doing so, they ensure that the frameworks chosen are consistent with the strategic objectives of the organization, as well as the expectations of stakeholders, such as investors, and regulators. (Rose, 2024)

- Analysis of the shortcomings of the system.

Companies should carry out a gap analysis in order to establish the differences and similarities between the frameworks selected. Accordingly, this provides organisations with the opportunity to identify the extent to which existing reporting processes meet the regulatory criteria and the areas where modifications are required. (Rose, 2024)

- Data collection should be standardized.

Companies should ensure that the processes and systems using the data should be standardized. By maintaining a consistent approach to data collection, one can ensure that the information collected is accurate, comparable and meets the requirements of different contexts. (Rose, 2024) More specifically, environmental, social and governance (ESG) indicators relevant to the industry and the company should be developed. The indicators should be measurable, reliable and comparable to those of the company's various competitors. In addition, organizations should already have systems in place to ensure that the data is of high quality and that the collection and evaluation of ESG data should be carried out regularly to monitor performance in relation to environmental, social and governance (ESG) standards. (Hugo Hernández-Ojeda Alviréz, 2023) (Lee *et al.*, 2023)

- Utilization of technology-provided solutions.

Technology solutions, such as environmental, social, and governance (ESG) reporting tools, should be utilized to streamline data collection, analysis, and reporting processes. Utilizing these technologies enables the automation of several facets of ESG reporting, hence diminishing the

probability of errors and enhancing efficiency. (Rose, 2024)

- Stakeholder communication.

Companies need to maintain consistent communication with a variety of key stakeholders, including investors, customers and regulators. Because of their input, firms are able to gain significant insights into the most relevant contexts and expectations, which ultimately leads to improvements in reporting capabilities. (Rose, 2024)

- Informing businesses about the latest developments.

As ESG reporting frameworks and standards are constantly improving, it is important that in order for companies to guarantee that their reporting is compliant and relevant, they must stay abreast of the latest industry adaptations and updates. (Rose, 2024)

- Ensure that a consistent reporting approach is used.

It is highly recommended that an integrated reporting approach is created that aligns the requirements of multiple frameworks. To this end, it is necessary to create an integrated report that incorporates the most important aspects of the selected frameworks. This will make it simpler for stakeholders to understand and apply the information. (Rose, 2024)

3.6.6. OPPORTUNITIES FOR IMPROVEMENT

Besides the significant challenges, companies that prioritise environmental, social and governance policies also enjoy several opportunities for improvement, such as a better reputation and greater trust from their stakeholders. This is because they can differentiate themselves from their competitors and build deeper relationships with customers, employees and investors. This commitment is therefore not just ethical, but it also provides a competitive advantage in a market where transparency and accountability are increasingly important. (Hugo Hernández-Ojeda Álvarez, 2023)

More detailed, the implementation of ESG compliance can significantly improve an organisation's interactions with its stakeholders as they increasingly seek for organizations that share their values and exhibit a true commitment to sustainability and ethical practices. Organizations that adhere to ESG principles can build deeper relationships with these stakeholders, resulting in higher loyalty, support, and overall performance. ESG compliance signals to consumers that a firm is socially responsible and ecologically conscientious, making them more likely to buy its products or services. Employees gain a sense of pride and purpose in their job because they feel connected to an organization that is making a positive difference. (Hugo Hernández-Ojeda Álvarez,

2023) (Kulova and Alexieva, 2023)

Investors, in particular, are becoming more drawn to companies that prioritize ESG problems as they consider that the ESG compliance is a good investment since it shows that the company is committed to long-term growth and is taking proactive risk management measures, which makes it more sustainable. In today's business environment, it is clear that responsible corporate behaviour leads to long-term value creation. As a result, investors are increasingly evaluating companies based on their performance in the area of CSR, looking for those that are consistent with global sustainability trends. Consequently, companies that demonstrate a commitment to ESG compliance are not only more likely to receive funding, but may also do it more efficiently and cost-effectively, due to the fact that organisations with good environmental and social standards are perceived to be more stable and less risky. In addition, investors consider ESG compliance as a sign of good governance and strong leadership, which help a company overcome problems and seize opportunities. Therefore, businesses that implement ESG principles often experience superior long-term financial success because they are better prepared to deal with legislative changes, market developments, and customer expectations. (Ahmad, Yaqub and Lee, 2024) (Martiny *et al.*, 2024)

Adherence to environmental, social, and governance requirements also aids companies' long-term viability. Firms that include ESG factors into their business plans can reduce risks linked with environmental and social challenges such as climate change, resource shortages, and labor abuses. These risks, if not managed appropriately, can have serious consequences for a company's operations, reputation, and profitability. For example, corporations that ignore environmental concerns may incur regulatory penalties, increased operational expenses, and brand damage. Inadequate labor practices or diversity and inclusion policies can result in employee unhappiness, legal difficulties, and an unfavorable public image. By proactively addressing these risks, businesses can minimize future disruptions and ensure their long-term viability. (Jinga, 2021) (Govindan, Shaw and Majumdar, 2021)

Business resilience refers to the ability to adapt and thrive in the face of adversity, such as economic downturns, regulatory changes or environmental disasters. Companies that focus on ESG principles are better positioned to create a more resilient organization by developing strategies that address both immediate threats and long-term sustainability. For instance, companies that invest in renewable energy sources or use sustainable supply chain methods are better equipped to deal with fluctuations in energy costs or resource availability. Similarly, organizations that address social issues such as employee wellbeing and community engagement are more likely to retain a motivated and committed workforce, which is critical for long-term growth and provides a foundation for

creating a more adaptable and forward-thinking firm. (Govindan, Shaw and Majumdar, 2021)
(Dahles and Susilowati, 2015)

CHAPTER 4: ESG PRINCIPLES IN THE SHIPPING INDUSTRY

4.1. RELATIONSHIP OF ESG TO SHIPPING COMPANIES AND THEIR PERFORMANCE

4.1.1. ENVIRONMENTAL CONSIDERATIONS

The shipping industry has a major environmental impact, mostly due to greenhouse gas (GHG) emissions, maritime pollution, and ecosystem disruption. In light of the fact that the shipping industry is responsible for around 2-3% of global greenhouse gas (GHG) emissions, there is increasing pressure on the sector to lessen the environmental effect of its activities, notably the presence of carbon. (Wan *et al.*, 2017) (Kolios, 2024) In 2018, the International Maritime Organization (IMO) set a challenging target to reduce GHG emissions from international shipping by at least 50% by 2050, compared to 2008 levels. It is clear that achieving this goal will require a sector-wide shift towards sustainable operations, focusing on energy efficiency, fuel alternatives and innovative technologies. (Ludovic Laffineur *et al.*, 2023)

Ships are also heavily dependent on fossil fuels, mainly heavy fuel oil, which contribute to high levels of carbon dioxide (CO₂), sulphur oxides (SO_x) and nitrogen oxides (NO_x). In order to reduce the carbon footprint of industry, there needs to be a shift to low or zero carbon fuels such as liquefied natural gas (LNG), biofuels, ammonia or hydrogen. In addition to this and with short-term results, some ship-owners are already adopting energy efficiency measures such as slow sailing, hull optimisation and air lubrication systems, which reduce fuel consumption. (Nathan D. Wood, Dr. Robert Moorcroft and Dr. Torill Bigg, Tunley Engineering, 2023) ('How Much Does the Shipping Industry Contribute to Global CO₂ Emissions?', 2024)

However, adopting environmentally friendly practices presents both challenges and opportunities for shipping companies. In the short term, operating costs are likely to increase as a result of the need to switch to lower carbon fuels, such as hydrogen or liquefied natural gas (LNG), and to invest in more energy-efficient equipment. Additionally, it may be considered financially difficult to convert older boats to comply with modern standards regarding emissions or to invest in more sophisticated ships that have environmentally friendly equipment. Companies who take the initiative to implement these enhancements may be able to realize long-term cost benefits, notably via enhanced fuel efficiency and compliance with newly enacted government regulations. (Wan *et al.*, 2017) (Kolios, 2024)

Shipping companies using renewable green energy technology, like for example wind propulsion systems and solar panels, contribute to further improving energy efficiency. Digitisation also contributes in this direction, as innovations related to smart shipping technologies, such as digital twins, predictive maintenance and real-time data analysis, help to increase operational efficiency and reduce environmental impacts. (Majidi Nezhad *et al.*, 2024) Furthermore, in addition to the efforts of shipping companies to reduce energy use, an increasing number of ports and shipping companies are exploring electrification initiatives. A common example of such electrification initiatives are shore-side electrification systems that allow ships to connect to the grid while at berth in port, thereby reducing emissions. (Wang *et al.*, 2024)

Shipping companies are also active in conserving marine biodiversity by introducing sustainable methods. Ballast management systems, which prevent the spread of invasive species, and hull cleaning systems, which mitigate biological pollution, are increasingly being used as standard practices. (Eleyadath, Machinchery and Achari, 2021) Additional vital steps towards reducing the sector's ecological footprint include minimizing oil spills, reducing noise pollution and developing sustainable ship recycling practices. (Fariya *et al.*, 2019)

As a result of the initiatives in the direction of sustainable management of shipping companies, those who demonstrate a strong commitment to reducing their impact on the environment as much as possible can improve their brand image and attract investors that place a high value on sustainability. This is because, as investors gradually integrate ESG factors into their decision-making processes, shipping companies that excel in environmental measures can be financed more easily and at favourable rates, thus enhancing their financial performance. (Sujanska and Nadanyiova, 2023)

4.1.2. SOCIAL CONSIDERATIONS

The social dimension of ESG principles refers to the ways in which shipping companies manage their relationships with employees, communities, customers and other stakeholders. Given the global and often hazardous nature of maritime operations, the prioritization of the health, safety, and welfare of seafarers is concerned as a critical social concern for the sector. Shipping firms that implement stringent health and safety regulations, equitable labor practices, and staff development programs are more effectively equipped to retain talent, minimize attrition, and avoid expensive accidents or interruptions. (Mr. Kiran Thorat & Dr. Anand Hiremath, 2024)

The COVID-19 epidemic, for example, highlighted substantial social issues within the

maritime sector, especially regarding the treatment of seafarers. Because of lockdowns and travel restrictions several seafarers stayed stranded on vessels for extended periods of time, highlighting the need for enhanced working conditions and labor rights safeguards. Organizations that exhibited social responsibility by emphasizing employee wellness throughout the epidemic saw improved reputational status and heightened stakeholder confidence. (Kaptan and Kaptan, 2021)

In addition, the social dimension of ESG includes community involvement and corporate philanthropy. Since shipping companies often operate in or adjacent to coastal areas, their activities can have both beneficial and adverse impacts on local residents. Therefore, participation in community development programs, stimulating local economies and mitigating any environmental damage from port activities can enhance a company's social licence to operate, thereby reducing the likelihood of resistance or protest from affected communities. A favourable social outcome can strengthen stakeholder relations and therefore promote operational stability. (Sharma, 2024)

4.1.3. GOVERNANCE AND CORPORATE RESPONSIBILITY

Strong governance structures in shipping companies ensure that environmental and social issues that arise in the operation of a business are integrated into important decision-making processes rather than being considered as afterthoughts. ('gr_esg_in_the_shipping_sector_noexp.pdf', no date) Therefore, strong governance in the context of sustainable management in the shipping industry ensures transparency, accountability and ethical decision-making. In particular, with regard to ESG principles, governance practices include adherence to international regulations, commitment of stakeholders to comply with them and the establishment of strong internal controls. (Zaporowska and Szczepański, 2024)

The shipping industry is subject to a complex web of international, regional and national regulations. Typical examples are the IMO conventions, such as the International Convention for the Prevention of Pollution from Ships (MARPOL) and the Convention on the Management of Liquid Waste, which set standards for environmental protection, and the Neptune Principles which focus on crew wellbeing issues. Meanwhile, the International Ship and Port Facility Security (ISPS) Code governs maritime security. Compliance with these regulations ensures sustainable management for shipping companies and helps mitigate possible legal and reputational risks. (Kitack Lim, 2017)

In the shipping industry, corruption and bribery continue to be long-lasting concerns, particularly in areas such as customs clearance and port operations. Companies that implement

strong anti-corruption policies and ethical business practices, including transparency in financial reporting and procurement processes, can reduce the risk of fraud and improve stakeholder trust. Governance frameworks that promote ethical behavior are critical to sustaining long-term value. (*Bribery and corruption in the shipping industry | Global law firm | Norton Rose Fulbright*, 2015)

One of the requirements for sustainable management is the ability to communicate effectively with stakeholders, including shareholders, employees, customers, regulators, and the general public. Companies that involve stakeholders in the decision-making process are able to better match their operations with the expectations of society as well as the trends in the market. Transparency in reporting, particularly through sustainability or ESG reports, helps companies demonstrate their commitment to sustainability and build trust with stakeholders. (*Stakeholder Communication and ESG: Enhancing Corporate Sustainability - ESG Research Pro*, 2023)

An effective governance framework requires transparency and accountability in reporting on ESG performance. Adhering to this approach reduces the risk of non-compliance with regulations and improves trust building with stakeholders. Shipping companies that regularly disclose their ESG metrics, including environmental emissions data, labor practices, and governance policies, tend to enjoy greater investor confidence. A company's resilience in an increasingly complex regulatory environment can be improved through the implementation of governance practices that promote diversity, ethical conduct, and long-term value creation. ('gr_esg_in_the_shipping_sector_noexp.pdf', no date) (SAFETY4SEA, 2024)

Furthermore, the governance structure of a shipping corporation is critical in controlling risks associated with environmental disasters, strikes, and other operational issues. To avoid all these unfortunate situations which can result in reputational harm, legal obligations, or financial losses, it is critical to build solid risk management frameworks and establish ethical leadership and oversight by the board of directors. Examples of governance failures in the shipping sector, which in the majority of cases have resulted in emergency situations, led to costly lawsuits and damaged the reputation of the industry. In contrast, organisations that have governance systems in good shape are better placed to avoid these risks and achieve growth that is sustainable over the long term. (Tomer Raanan, 2023) ('gr_esg_in_the_shipping_sector_noexp.pdf', no date)

4.2. CURRENT REGULATION FRAMEWORKS IN EUROPEAN UNION

As the global shipping industry has undergone a substantial transformation, more and more companies in the sector are adopting environmental, social and governance (ESG) frameworks. This evolution has resulted in the contribution of government legislation and deliberate initiatives aimed at limiting environmental damage, enhancing social responsibility and improving corporate governance. Towards this direction has been created significant legislation, which establishes strict reporting and emission reduction requirements. Typical examples of relevant legislation include the European Union's Corporate Sustainability Reporting Directive (CSRD) and the inclusion of maritime transport in the European Union's Emissions Trading Scheme (ETS). In addition, shipping companies can promote the adoption and implementation of environmentally sustainable practices through the implementation of industry-specific legislation. This will lead companies to effectively meet global climate targets and the escalating demands of investors, customers and regulators for greater transparency and accountability in environmental, social and governance (ESG) performance, these actions are essential. (Togan, 2016)

The Corporate Sustainability Reporting Directive (CSRD) in particular, is a fundamental requirement now implemented. The EU CSRD requires that enterprises, including non-EU corporations listed on EU marketplaces, provide comprehensive environmental, social, and governance (ESG) statistics. This include the monitoring and reporting of emissions, the setting and reporting of reduction objectives, and the assurance of compliance across the value chain. Consequently, firms must disclose detailed information about their environmental impacts, social challenges, and governance practices to enhance transparency and accountability. Furthermore, they must obtain verification from an external entity concerning their disclosures, and by 2028, they will face more rigorous standards. (Thibault Meynier, Sarah H. Mishkin, and Matthew Triggs, Sullivan & Cromwell LLP, 2023)

Maritime transport will participate in the Emissions Trading Scheme (ETS) from 2025. As a consequence, shipping companies will be required to monitor their emissions, while free allowances will be gradually reduced until they are completely phased out by 2034. The FuelEU maritime regulation is a complementary regulation to the EU ETS, which mainly aims to promote the use of renewable and low-carbon fuels in shipping. Specifically, this regulation requires ships to use a minimum amount of sustainable fuel which starts at 2% in 2025 and escalates significantly until 2050. (Thibault Meynier, Sarah H. Mishkin, and Matthew Triggs, Sullivan & Cromwell LLP,

2023) (Christodoulou and Cullinane, 2022)

Participants in EU financial markets, including investors in shipping, must comply with the Sustainable Finance and Development Regulation (SFDR), which clarifies the integration of sustainability risks into investment decisions and the alignment of financial products with sustainability objectives. (*ESG regulations and reporting standards*, 2024) The SFDR authorizes the Commission to propose delegated implementing procedures that detail how competent authorities and market participants must comply with the directive's responsibilities. (European Commission, 2023)

On the other hand, the EU taxonomy is a classification system that defines sustainable economic activity and directs investments towards environmentally sustainable practices. (*ESG regulations and reporting standards*, 2024) Such practices are defined as those that contribute significantly to at least one of the EU's climate and environmental objectives, while not negatively affecting any of them and achieving key safeguards. The European Union's classification is not a required list for investors to invest in. Because it does not impose legal restrictions on the environmental performance of companies or financial products, investors have the freedom to choose what they invest in. Nevertheless, it is expected that the EU taxonomy would gradually stimulate a change toward sustainability in order to satisfy the EU's climatic and environmental goals. (European Commission, 2024)

Furthermore, the TCFD (Task Force on Climate-related Financial Disclosures), although voluntary, provides recommendations for financial disclosures related to climate-related issues. These recommendations aim to help shipping companies and other entities to clearly disclose climate-related risks and opportunities, including governance, strategy, risk management and metrics. (Kushboo Singhania, 2024)

The European Union's Renewable Energy Directive (RED III) is also expected to have an impact on the maritime industry in the near future, establishing higher fuel constraints and pushing enterprises to employ renewable energy sources. Its primary goal is to increase renewable energy consumption in the EU to 42.5% by 2030. (Deloitte, 2024)

Apart from the above, there are other frameworks that promote the adoption of environmental, social and governance principles. The International Maritime Organisation (IMO), for example, has established measures such as the Energy Efficiency Index for Existing Ships (EEXI) and the Carbon Intensity Index (CII) to limit greenhouse gas emissions from ships and ensure compliance with international environmental standards. (SAFETY4SEA, 2024)

On a global level every year, around 400 million tonnes of plastic are produced worldwide, of

which 14 million tonnes end up in the ocean. The United Nations predicts that by 2040, global plastic waste will reach 408 million tonnes. A concerted effort to tackle this huge environmental pollution is the Global Plastics Convention, which aims to establish legally binding global rules on the production, use and disposal of plastic, focusing in particular on tackling the major issue of marine pollution from plastic waste. The Global Plastics Convention is expected to be concluded by the end of 2024. (*ESG regulations and reporting standards, 2024*)

4.2.1. THE NEPTUNE PRINCIPLES

The Neptune Declaration, which was introduced in January 2021, is a global document outlining the commitment of companies and organisations in the shipping industry to ensure the welfare of seafarers and to facilitate proper repatriation and crew rotation without delay. The first Neptune Declaration called for providing seafarers priority access to vaccines, developing health protocols, simplifying crew changes, and maintaining air connections between key shipping hubs and seafarers. Over eight hundred organizations representing the marine industry, such as shipping corporations, trade unions, shippers, and others, signed the document. (Tetemadze *et al.*, 2021)

In response to the crew change crisis that left hundreds of thousands of seafarers stranded on ships during the COVID-19 pandemic, an extension of the Neptune Declaration on Seafarers' Welfare and Crew Change was developed, known as Neptune Principles. These principles aim to improve working conditions for seafarers by increasing transparency around mental health, connectivity, beach leave and working/rest hours. Willingness is needed from existing parties to promote the necessary changes at sea, and the Neptune Principles provide a framework for establishing a clear set of standardised indicators to assess the mental health and wellbeing of seafarers, promote industry transparency and encourage mutual accountability. (Мгеладзе and Сурманідзе, 2021) (Wong, 2023)

The primary commitments of the Neptune statement include the following:

- It is strongly recommended that governments and international organisations consider seafarers as essential workers, giving them a priority for vaccinations and allowing them to be exempt from travel restrictions.
- Establish and put into practice health protocols that are considered the gold standard based on best practices currently in place.
- The declaration encourages cooperation between many stakeholders, including governments, ship-owners, trade unions and international organisations, to manage the

difficulties associated with crew changes. (Мгеладзе and Сурманідзе, 2021) (Wong, 2023)

The Neptune Declaration remains active in 2024, as it mandates maritime stakeholders to enhance seafarer welfare and address persistent issues, including delayed crew turnover and its impact on mental health. Despite the resolution of the immediate COVID-19 crisis, challenges such as these remain and the Declaration remains a foundation for ensuring the health, safety and fair treatment of seafarers, who are essential to global supply lines.

4.3. ESG CHALLENGES AND OPPORTUNITIES FOR THE SHIPPING INDUSTRY

The corporate agenda in various sectors is dominated by issues related to the environment, sustainability and governance. However, although every company is aware of the general importance of integrating these ideas into its strategy, the requirements that are most relevant to each sector are different. (MundoMaritimo, 2023)

According to the paper titled *Capital Perspectives: Navigating ESG Risks in the Maritime Sector* that was written by Woodrow, "69% believe the sector excels in risk management, indicating a communication gap in showcasing ESG efforts." The research was commissioned by Woodrow and involved interviewing one hundred people in the UK who held senior positions in financial services organisations with clients in the shipping industry. The survey was conducted in accordance with ESOMAR recommendations, and Censuswide was responsible for carrying out the fieldwork. The results were collected between 24th and 29th September in the year 2023. (MundoMaritimo, 2023)

4.3.1. VARIOUS ELEMENTS OF RISK AND DISRUPTIONS

It is believed that the most important risk factors in shipping are worker safety, the impact of climate change and technological disruption. Shipping, maritime technology, and ports are considered to be the most risky industries. Two out of every three respondents believe that the marine industry is more vulnerable to environmental, social, and governance concerns than other businesses. The survey findings show that investors agree that the risks associated with the industry fall somewhere in the range of significantly higher and somewhat higher compared to those of other industries. This suggests that investors feel a greater sense of prudence and urgency, which prevailing perception raises important questions about the characteristics of perceived threats: Does the shipping industry inherently present a greater number of environmental, social and governance (ESG) risks, or are

these perceptions the result of a lack of information or misperceptions? (MundoMaritimo, 2023)

On the other hand, the data reveals a a complex relationship between actual and perceived risk management in the shipping industry. The absence of communication within the shipping industry and the financial markets is one of the possible explanations for this difference. It is possible that the business is ahead of the curve when it comes to implementing ESG risk management techniques; yet, the industry has not been able to adequately convey these efforts to investors and other stakeholders. Institutions that have understanding of the sector may be aware of the inherent high risks that are connected with the marine industry due to their exposure, but they may believe that the sector is doing a suitable job in minimizing these risks, as stated in the investigation. (MundoMaritimo, 2023)

4.3.2. AWARENESS AND OPENNESS TO THE PUBLIC

The survey results state that more than six out of ten respondents are considering selling their shipping assets because they are concerned about the sector's exposure to environmental, social and governance (ESG) risks. The majority of respondents are in agreement that marine enterprises are less aware of the environmental, social, and governance risks that they face in comparison to other industries. According to respondents, the industry considered most vulnerable to environmental, social and governance (ESG) economic risks is shipping, which includes container shipping, tanker shipping and bulk shipping, as well as maritime technology and equipment. This sentiment is particularly strong among equity fund managers, while it is weakest among hybrid fund managers, according to the results of the survey. (MundoMaritimo, 2023)

Respondents are also concerned about the growing demand for transparency. According to the poll results, investors increasingly prefer companies that publicly admit their environmental, social, and governance (ESG) deficiencies and report on reform measures, along with supporting evidence. This is because greater transparency implies better risk management and continued value protection. Investors now see opacity in the disclosure of environmental, social and governance (ESG) data as an indication of hidden vulnerabilities in a company's operations that pose financial risks to them. (MundoMaritimo, 2023)

4.4. THE FUTURE OF ESG CONCEPT IN SHIPPING

ESG concepts that emphasise reducing environmental impacts, promoting social responsibility and ensuring corporate transparency and ethics are gaining ground in all sectors, including shipping. Given the central role of the shipping sector in global trade and especially because of its significant contribution to greenhouse gas emissions, it is under increasing pressure to align with global sustainability goals. Consequently, the future of the environmental, social and governance (ESG) concept in the shipping sector is expected to become more important as global sustainability requirements increase. This shift towards ESG is driven by a combination of regulatory changes, market demands and investor priorities, signaling that ESG in shipping will become more integrated and transformative over time. ('ESG Climate Survey: Shipping is now featuring Social and Governance topics high on the agenda', 2024) ('What is ESG? The Impact of ESG on shipping companies (MARITIME ESG)', 2024)

The environmental criterion is one of the primary motivators for the implementation of ESG principles in the shipping industry. As previously stated, because the sector is responsible for about 2-3% of global carbon dioxide emissions, the International Maritime Organization has set an ambitious goal of achieving zero emissions in the coming years. However, to achieve these targets, shipping companies are under intense pressure to adopt cleaner technologies and explore electric and hybrid propulsion systems. In this direction, the introduction of self-driving and energy-efficient ships is projected to revolutionize ship operations and lessen their environmental footprint. (Wan *et al.*, 2017) (Ludovic Laffineur *et al.*, 2023) (*2023 IMO Strategy on Reduction of GHG Emissions from Ships*, 2023)

Furthermore, the industry faces pressure to address not only carbon emissions but also other environmental issues such as water pollution, ballast water management, and sulphur emission reduction. Compliance with more stringent restrictions, such as the IMO's 2020 sulphur cap, is only the beginning. Future environmental expectations in shipping are likely to focus on circular economy principles, encouraging recycling, reusing ship materials and promoting environmentally friendly shipbuilding practices. (*2023 IMO Strategy on Reduction of GHG Emissions from Ships*, 2023)

Beyond environmental issues, the social aspect of ESG is becoming equally important for the shipping industry. This dimension covers labour rights, safety standards, crew welfare and community engagement. With more than 1.6 million seafarers working worldwide, ensuring fair treatment, decent working conditions and mental and physical wellbeing on board ships is essential.

(Beyond Environmental Impact: The Case of Social in ESG | Deloitte Netherlands, 2023) (ITF Seafarers, 2020) The COVID-19 pandemic highlighted the vulnerabilities of seafarers, as many were left at sea for extended periods due to travel restrictions. As a consequence, since companies are expected to improve working conditions, provide better support systems, and maintain compliance with international labor regulations in the immediate future, there is no doubt that there will be a greater focus on seafarers' wellbeing. (ITF Seafarers, 2020) Communities affected by shipping activities, especially those located in port cities, are also included in the scope of social responsibility. Shipping companies should demonstrate their commitment to community involvement, promoting local economic development and minimising adverse impacts such as noise pollution or health risks associated with emissions in these areas. (Dr. Theo Notteboom and Dr. Athanasios Pallis, 2020)

The governance aspect of ESG emphasizes accountability, transparency, and ethical management practices. Shipping companies are expected to implement strong governance frameworks to ensure compliance with international standards, anti-corruption measures and sustainable business practices. As investors and stakeholders increasingly prioritise ESG criteria, companies will be more closely reviewed in terms of decision-making processes, risk management and supply chain transparency. (Ahmad, Yaqub and Lee, 2023)

CHAPTER 5: CONNECTING CREW WELLBEING WITH ESG PRINCIPLES IN THE SHIPPING INDUSTRY

5.1. GENERAL ASPECT

As the world becomes more aware of the value of sustainable and ethical business practices, applying ESG principles has become critical in the shipping industry, due to the fact that they provide businesses with comprehensive guidance on how to conduct their operations in a manner that is both environmentally and socially beneficial. These principles adhere to high moral standards because they address some of the most important concerns, such as reducing emissions, controlling pollution, ensuring the safety of employees, having a positive impact on the community, adhering to regulations, and managing risks.

Consequently, incorporating environmental, social, and governance principles into shipping operations is not just necessary from a legal or ethical standpoint, but it is also a beneficial commercial strategy. In particular, in this way, shipping companies acquire the ability to improve their reputation, increase their operational efficiency, and secure access to financing if they align themselves with global sustainability goals and meet the expectations of investors, consumers, and other stakeholders.

5.2. THE ESG SOCIAL CRITERION AND WELLBEING

Since ESG principles have a significant impact on a variety of stakeholders, including employees, communities, and consumers, its social criterion becomes particularly relevant to the majority of industries, including the shipping sector. This is why if companies concentrate on important aspects such as diversity, community participation, human rights, and labor procedures their social responsibility can be improved. Each company's reputation can also be enhanced, and as a result, they can help to the achievement of sustainable development goals. Furthermore, meeting social requirements can lead to increased levels of employee happiness, improved operational efficiency and increased stakeholder trust, all of which are ultimately beneficial to the long-term performance of the industry. (Shapsugova, 2023) (Pfajfar *et al.*, 2022)

The health of the shipping industry workforce is a vital aspect of ESG principles, as there is no doubt that the wellbeing of seafarers and shore-based personnel is a social obligation and also a factor for operational efficiency and safety. Under the social dimension of ESG framework, companies are expected to foster a healthy and supportive work environment, recognizing the

demanding nature of maritime work, which includes physical strain, and mental health challenges. For this reason, companies that comply with ESG principles establish programs that promote physical and mental wellbeing. To achieve this goal companies offer regular health checks, fitness initiatives, and access to counseling which can help to mitigate negative situations such as feelings of isolation, and stress. In addition, proper nutrition, a safe working environment and adequate rest periods are a priority to comply with international health requirements applicable to the shipping industry. (*Focus on seafarer wellbeing – a reflection on the “S” in “ESG”, 2022*) (*Putting the ‘S’ into ESG in maritime | LR, 2022*)

There are many international labour regulations, such as the Maritime Labour Convention (MLC), that apply to business organisations involved in shipping, as it is extremely important to ensure that workers in this industry are safe and healthy. More precisely, these standards ensure that crew members have adequate living conditions and receive mental health care. To avoid accidents and injuries, the marine industry must also follow strong health and safety regulations, which assist assure access to medical treatment and a safe work environment. (Mantoju, 2021) (*‘welfare-guide.pdf’, no date*)

Among the most important concerns is the protection of workers' rights, which includes the elimination of practices such as forced labor and human trafficking while complying to international labor standards and obligations. These regulations and commitments stipulate that employment processes must be ethical and transparent in order to prevent abusive practices from occurring. (*‘Ending-child-labour-forced-labour-and-human-trafficking-in-global-supply-chains.pdf’, no date*) Furthermore, it is presumed that policies are in place to prevent discrimination based on sexual orientation, gender, religion, or nationality. Especially in order to rectify gender inequalities, it is helpful to encourage the participation of women in fields that have traditionally been dominated by men. (Stamarski and Son Hing, 2015)

It is also crucial to recognize the significance of providing seafarers with opportunities for career growth and continual training since this will boost their skills improvement and overall job satisfaction, reducing at the same time the likelihood of accidents occurring. (*The Importance of Continuous Learning in Maritime Careers, 2024*)

As shipping companies often operate in or near coastal communities, their activities can have significant social and economic impacts locally. Because of that, shipping companies also have the obligation to uphold the communities in which they operate. This can be accomplished by providing locals with employment opportunities or by contributing to the construction of essential facilities

such as schools, hospitals, and transportation networks. Therefore, in order to achieve this objective as well as to provide information and briefings on social issues and projects, it is necessary for shipping to have effective communication with local communities, authorities, and investors. (Fallah Shayan *et al.*, 2022)

5.3. MEASURES TO PROMOTE CREW'S WELLBEING

Ship-owners and operators should develop a clear policy and provide appropriate training to masters, as well as company crew and shore-based human resources departments, with a view to promoting the general wellbeing of crew members on board ship. Firstly, appropriate on-board amenities should be provided to maintain the health and wellbeing of the crew at a high level. In addition, in order to deal appropriately with persons identified as dangerous on board, the master should coordinate with the crew and the company's human resources departments and take preventive measures to identify them. (Sampson and Ellis, 2019)

In any case, as a starting point, the HR and crew management teams should ensure that the following are complied with:

1. Ensuring quality food and hygiene for all crew members.
2. Providing opportunity for rest and regular exercise.
3. Establishing a positive team environment to boost morale and performance.
4. Promoting shore-leaving whenever possible, which provides an opportunity for recreation and respite from job duties.
5. Empowering the crew with exercises and abilities to handle acute stressors. A thoroughly trained seafarer gains confidence and reduces stress.
6. Developing policies and providing necessary training for preventing bullying and harassment. This will help to reduce actions that harm others and threaten their wellbeing. (Sampson and Ellis, 2019)
7. Providing communication technology to keep crew members in touch with family and friends.
8. Promoting social events and physical activity while taking cultural variations into consideration.
9. Providing accessible counselling to individuals.
10. Psychological first aid training should be provided to at least one person on board.

11. During group meetings, crew members should be encouraged to disclose their experiences of mental health issues to reduce stigmatisation.
12. Anti-harassment and anti-bullying regulations must be implemented and monitored regularly. (Abreo, 2021)

HR and crew management teams may find it useful to consult the practical guidelines for shipping companies on improving mental wellbeing. This guide, which was developed by the National Commission for Occupational Health and Safety at Sea in partnership with the UK Chamber of Shipping, Nautilus International and the National Association of Rail, Maritime and Transport and published on 23 March 2021, includes a number of examples of strategies to support the wellbeing of seafarers are included in the guidance. Additionally, the guidance contains several model tools, such as a risk assessment form. (Abreo, 2021)

Moreover, a great number of ship-owners are aware of the fact that a significant number of sailors are currently onshore and do not know when they will be able to return to work. Remaining in contact with the crew will be of the utmost importance. This can be accomplished by the distribution of crew newsletters, the scheduling of group video chats with the sailors, and the transmission of regular updates via e-mail or the mail. (Abreo, 2021)

5.4. EXAMPLES OF SHIPPING COMPANIES WITH A FOCUS ON ESG PRINCIPLES AND CREW WELLBEING

Numerous shipping corporations have implemented Environmental, Social, and Governance standards that place a high priority on the health and safety of the workforce. The following are some examples of companies that are considered to be at the forefront of the shipping industry and stand out due to the strategies that they employ:

5.4.1. MAERSK

In order to ensure the health and happiness of its workers, Maersk, which is one of the largest shipping firms in the world, makes significant investments.

All Maersk employees, regardless where they are located in the world, have access to the Employee Assistance Program (EAP), which provides helpful assistance for a great deal of different issues. This program can be used for a variety of purposes, including providing staff with financial assistance, legal counsel, and most critically, mental health care. The company's employees that used it have reported that it is simple to operate. A further benefit is that the EAP team is quick to

respond, informative, and makes the process of getting support seamless.(Janeé Ortiz, 2023)

Maersk's values, especially uprightness, which emphasises the importance of doing the right thing even under difficult circumstances, have contributed significantly to fostering a culture of psychological safety within the company. The confidence that colleagues will honor their commitments, even in difficult times, is deeply encouraging and serves as a reminder that, although individuals are prone to making mistakes, everything will work out well because they are guided by their shared values. (Janeé Ortiz, 2023)

Another of Maersk's beliefs is Constant Care, which goes beyond simple client focus. It encourages mutual support between colleagues, fosters awareness of each other's needs and inspires the pursuit of excellence in the way an individual communicates with others. The culture of Continuous Care is an inherent aspect of Maersk's culture and ethos, which the employee may encounter on a daily basis. (Janeé Ortiz, 2023)

Connecting global supply networks is only one aspect of what is meant by "world integration." The aim of Maersk demands the leadership of the firm to do everything in its power to connect varied skills and points of view in workplaces that are equitable and inclusive, and in which every individual has the feeling that they belong among their peers. At Maersk, initiatives on diversity, equality and inclusion are areas that continue to grow. According to the company's statement, there is an ongoing goal and challenge to remove the barriers, whether they are conscious or unconscious, that limit full involvement in the development of the company's mission of connecting the globe for the overall benefit. (*Diversity, Equity and Inclusion (DEI) at workplace*, 2024)

Through the cultivation of a culture that is built in values and ethics that are highly appreciated, the Maersk workforce is certain that it will be successful. This culture is characterized by trust and openness. Employees who are culturally aware can contribute in speeding up the interchange of ideas and generate innovation. This is because the ability to collaborate effectively and sensitively across diverse cultures and regions is a basic competency for a successful global organization. They do this by removing obstacles to collaboration. (*Diversity, Equity and Inclusion (DEI) at workplace*, 2024)

Networking and mentoring programs significantly affect people who require assistance the most. MIX - the Maersk Inclusion for Excellence network - illustrates the constructive engagement of individual coworkers. MIX is an international network composed of numerous local groups that invite all individuals to participate as it enables employees who feel marginalized or neglected to discuss their experiences, build resilience, and cultivate projects that can be disseminated across the

MIX network. (*Diversity, Equity and Inclusion (DEI) at workplace, 2024*)

The Maerk's SOS (Speak Out Safely) campaign advocates for the enhancement of mental wellbeing for everyone. It fosters psychological safety, enabling individuals to comfortably express their emotions. It enhances knowledge of the indicative indicators of mental health difficulties and provides both HR and senior management with the necessary competencies and resources. (*Diversity, Equity and Inclusion (DEI) at workplace, 2024*)

There is also a considerable amount of emphasis placed on the development of Flexible Work Arrangements, which offer each employee the opportunity to modify their working pattern in conjunction with their line manager whenever it is achievable. Ultimately, flexible working arrangements enable Maersk's employees to balance their professional and personal responsibilities, while also positively influencing engagement and productivity. (*Diversity, Equity and Inclusion (DEI) at workplace, 2024*)

5.4.2 ANGELICOUSSIS GROUP

Angelicooussis Shipping Group, which is recognized as one of the most prominent shipping businesses in the Greek maritime industry, takes a serious approach to integrating corporate social responsibility (CSR) into the culture of the organization. The CSR program encompasses executing all business operations in accordance with established ethical, professional, and legal standards, providing development and training for personnel both ashore and onshore, fostering workplace equality, and ensuring exemplary standards in the technical and operational maintenance of the fleet. (DOUKAS, 2022)

For Angelicooussis Shipping Group, crew healthcare is a fundamental component of corporate social responsibility. Consequently, a significant aspect of Angelicooussis Shipping Group's business culture is ensuring adequate health care for vessel crew members. Nonetheless, while the crew dedicates considerable time offshore delivering essential medical care, diverting or evacuating the vessel during an emergency might incur substantial expenses for a firm. (DOUKAS, 2022)

MedAssist.Online faces this difficulty by providing approved medical solutions and bringing the doctor to the vessel when it is considered necessary. For this objective it provides cost-effective and reliable medical care solutions, capable of operating at sea with little to no bandwidth while reinforcing a company's adherence to international standards. The program includes three intuitive applications, each of which is designed for different functions in order to assist crew members during onboard emergencies. The MedAssist Live App tackles the issue of delivering medical

assistance in the absence of on-site experts. The Live App enables a remote professional to provide assistance electronically, as though they were physically present beside each individual. The software provides real-time visual training and advice using augmented reality, in any location and at any time deemed necessary. Additionally, the Skills App offers guidance for executing basic medical procedures. The Heart App solution, which incorporates Bluetooth sensor technology, will produce a 12-lead hospital-grade ECG. Additionally, the ECG result can be transmitted as a PDF to professionals with a simple click. (DOUKAS, 2022)

5.4.3. *MARAN TANKERS*

Maran, as the management company of ocean bulk carrier vessels, is dedicated to ensuring maritime safety, preventing human injury, illness, or loss of life, safeguarding the environment—particularly the marine ecosystem—preventing pollution, and avoiding property damage through the establishment, implementation, maintenance, and continuous enhancement of an Occupational Safety and Health (OSH) and environmental management system. ('PoliciesMDM.pdf', no date)

The aforementioned policy adheres to the rules and regulations of the flag state(s) of the managed vessels, in addition to international regulations, conventions, and pertinent standards and guidelines. It adheres to the stipulations of the International Maritime Organization (IMO) Resolution A741/18 - the ISM Code, as amended by MSC 273 (85), the ER.336/15-02-2006, as integrated into SOLAS Chapter IX in 1994, the ILO Maritime Labour Convention 2006, and the ISO 14000:2015 and ISO 45000:2018 standards. ('PoliciesMDM.pdf', no date)

In order to achieve the intended results and meet the requirements, Maran:

- Provides a comprehensive documented system for setting and improving Occupational Safety and Health and environmental objectives.
- Identifies, assesses, minimizes risks, establishes safeguards and prepares for emergencies related to both Occupational Safety and Health and environmental protection.
- Continuously reviews the safety management system, including the Occupational Safety and Health and environmental management system.
- Maintains high standards of Occupational Safety and Health and environmental awareness by communicating its policy to both shore-based and shipboard personnel, declaring their individual responsibilities and encouraging them to participate in the implementation of the Policy.
- Confirms the medical fitness of its employees on recruitment and continuously verify it to

ensure that they can perform their work without undue risk to themselves or others

- Provides and implements voluntary health and hygiene promotion programs designed to enhance employee wellbeing, welfare and control health and safety risks. These programs should complement, but not interfere with, workers' responsibility for their own health care. Information about employees through the implementation of these programs should be considered confidential and should not be disclosed to non-medical personnel except upon request and permission of the employee concerned, when required by law, when dictated by compelling public health reasons, or when necessary to enforce the Company's drug and alcohol policy.
- Provides safe practices in the operation of the ship for a safe working environment. ('PoliciesMDM.pdf', no date)

The company asserts that every employee is entitled to a workplace devoid of harassment. As a consequence it unequivocally forbids all types of harassment, encompassing verbal, physical, or written harassment based on sex, race, color, creed, religion, age, sexual orientation, national origin, disability, marital status, alienage or citizenship status, genetic predisposition or carrier status, or any other legally protected classification. All department leaders are accountable for guaranteeing that no staff member, whether onshore or aboard, is subjected to any type of harassment. ('PoliciesMDM.pdf', no date)

The company also enforces a zero tolerance policy regarding all forms of harassment. Any breach of this policy will result in disciplinary measures, including termination. According to the company's statement, it will not condone any sort of harassment, whether on board or ashore, irrespective of employment position, seniority, rank, or professional association. Violation will result in disciplinary measures, including termination of employment. Incidents of harassment must be promptly reported to the department manager and/or the general manager. An inquiry into each complaint will be promptly initiated according to Maran. ('PoliciesMDM.pdf', no date)

5.4.4. EASTERN PACIFIC SHIPPING (EPS)

Since the company's fleet is experiencing remarkable growth in a rapidly evolving landscape in order to accommodate this increase, EPS has transitioned its culture from overseeing vessels to guiding individuals. To strengthen this cultural transformation as well as to improve the quality of life on board while investing in the future generation of seafarers, Eastern Pacific Shipping has revitalized its approach to seafarer engagement and wellbeing through the Life at Sea Programme.

(Desai, 2022)

Improving the seafaring experience requires the reconfiguration of on-board living spaces to foster an inclusive atmosphere conducive to cooperation. EPS worked with experienced designers to create modern, bright and spacious onboard seating areas that foster camaraderie, promote a sense of belonging and foster an integrated culture between sea and land - essential elements for a sense of safety and appreciation. The company's redesigned plan for vessel accommodations includes communal mess halls, contemporary entertainment rooms equipped with flat-screen televisions, video and board games, guitars, complimentary Wi-Fi in shared spaces, and many amenities—all designed to facilitate robust relationships among seafarers while at sea. (Desai, 2022)

To foster a fitness culture, EPS outfitted each EPS-managed vessel with cutting-edge gymnasiums. The EPS Community has access to virtual coaches who provide suggestions and exercises through a Physical Readiness Programme to promote and underscore the significance of physical wellbeing. The objective is to attain balanced strength, endurance, and mental resilience through functional and bodyweight training. Our fitness culture was prominently displayed as our marine and shore teams participated alongside thousands in the 2022 EPS Around the World Fundraiser. The collective, comprising individuals from all sectors of the maritime industry, traversed a total of 217,448 kilometers while generating S\$1.58 million for The Mission to Seafarers. (Desai, 2022)

While the aforementioned benefits are undeniably useful, the physical and psychological obstacles of living at sea, along with the long-term worldwide effects of COVID-19, have taken a severe toll on the mental health of the company's employees. Accordingly, EPS recognises, in a statement, that further measures are required to ensure the emotional wellbeing of the organisation's community. To mitigate this issue, EPS established a partnership with a professional mental health service provider to break down the stigma around mental health and offer its team access to insights, strategies, mental health exercises and round-the-clock assistance from a trained clinical psychologist. (Desai, 2022) (Lee *et al.*, 2023)

Maintaining communication with family and the EPS's community globally is also considered by the company as vital to mental wellbeing. For this reason, EPS has boosted internet connectivity and speed at sea, allowing seafarers to communicate with loved ones through free monthly data plans and free Wi-Fi in public areas. In addition, it implemented an internal social network to cultivate a dynamic, interactive and engaging community. This digital platform connects the growing community of 6,000 members via mobile devices, facilitating organic conversations, sharing best practices, celebrating achievements and participating in company-wide competitions

and challenges. Seafarers can engage in two-way dialogues with senior management, which is vital to fostering a sense of inclusivity across the organisation. (Desai, 2022)

5.4.5. HAPAG-LLOYD

Hapag-Lloyd, a multinational enterprise specializing in container transportation and international shipping, prioritizes the safety and wellbeing of its employees on land and at sea in order to assist and sustain their long-term health and productivity. For ensuring that the company uses specific procedures, whether preventive or corrective, are mostly determined by the nature of the activity and the workplace. In this context, the impact of an integrated occupational safety and health management system (OSH management) is important. Hapag-Lloyd believes that thorough employee safety practices and on-board rescue drills are as vital as infection control measurements. (*Strategy - Hapag-Lloyd, 2024*)

Throughout 2023, the company's initiatives focused on mental health. Following this objective employees and their families receive mental health support through a partnership with the Fürstenberg Institute. In addition, therapies that are based on needs and preventive measures tailored to current needs, such as the five-week digital mental health program, are frequently provided. (*Strategy - Hapag-Lloyd, 2024*)

According to Hapag-Lloyd, one of the most critical priorities is improving passenger safety. When each member start working for the first time on one of Hapag-Lloyd's vessels, is trained on the safety protocols and procedures, as well as the applicable laws and norms. Every new employee hired by the company should immediately become familiar with the practices described in the emergency preparedness training. In addition, at least once a month, during maritime deployments, training sessions on acceptable behavior in the event of a fire or evacuation should be provided. In addition, during maritime deployments, training seminars on evacuation methods and fire safety standards are held at least once a month. At least once a year, training lectures on various marine accident scenarios, such as collisions or vessels running aground, are also provided. On-land training is also conducted on a regular basis. Every five years, crew members receive basic safety training that lasts several days and teaches them how to deal with threats and hazards on board, Hapag-Lloyd, as a worldwide firm, should naturally welcome and cherish cultural and socioeconomic diversity, and should actively promote it. (*Strategy - Hapag-Lloyd, 2024*)

Diversity is an issue that is strongly ingrained in the company's values and is becoming increasingly crucial in employee development. Diversity is a key focus in the company's human

resources strategy. Hapag-Lloyd employs people from over 100 different countries. Their different cultures, perspectives, and ideas are valued contributions to ensuring a workplace atmosphere of trust, respect, and understanding. Everyone's ability to grow based on their strengths and engage objectively with one another is respected. Hapag-Lloyd also aims to promote women to managerial roles on a targeted basis. The organization is implementing a number of methods to address the challenge of attracting and inspiring women for leadership positions. By 2030, the goal is to increase the percentage of women in leadership positions at the four senior levels of the shipping industry. (*Strategy - Hapag-Lloyd, 2024*)

Hapag-Lloyd provides its customers with excellent service and high quality products, delivered by skilled and motivated employees. The company invested more than EUR 8.7 million in staff training and professional development in 2023 covering the training and continuing education needs of each employee for an average of 17 hours. In addition, as part of the three-year talent development program, employees are mentored by internal mentors, senior managers and HR management and development trainers. Another component of the talent development strategy is Hapag-Lloyd's Agile Leadership Program (ALPHA). This three-year program, which is internationally oriented, is aimed at senior managers in the onshore business. (*Strategy - Hapag-Lloyd, 2024*)

DISCUSSION

The integration of crew wellbeing with environmental, social and governance (ESG) principles in the shipping industry is an important development towards sustainable and responsible management practices in the sector. This thesis explored the complex relationship between crew welfare and ESG concept in various dimensions, providing a comprehensive analysis of theoretical frameworks, practical applications and future implications.

Crew wellbeing: A cornerstone of operational success

Chapter 2 set the stage of the study by defining crew wellbeing and highlighting its multifaceted impact on the performance of an organisation. It emphasised that crew wellbeing goes beyond mere physical health to include issues of psychology, safety and operational effectiveness. The examination of factors affecting crew wellbeing highlighted the great importance of seafarers' living conditions, workload management and diversity, revealing how these elements directly affect job satisfaction, retention rates of employees and overall company reputation.

ESG principles: a holistic approach to corporate responsibility

In Chapter 3, the thesis delved into the key ESG principles - environmental, social and governance – and how this concept affects companies and their stakeholders. In particular, the ways in which environmental aspects, such as emissions reduction and waste management, social dimensions, such as community engagement and labour practices, and governance aspects, such as transparency and accountability, collectively contribute to sustainable business practices were analysed in detail. Additionally, both the challenges and opportunities associated with their implementation were highlighted. From investor expectations to regulatory compliance and operational risk management, the adoption of ESG principles presents numerous benefits, including improved risk management, enhanced brand reputation and access to capital.

ESG principles in the shipping industry

Chapter 4 explored the integration of ESG principles and their relevance for the shipping sector. By integrating environmental stewardship, social responsibility and ethical governance,

companies not only enhance their operational resilience but also their reputation and attractiveness to investors and stakeholders. The analysis highlighted that fostering a culture of accountability and care for crew members enhances overall organizational resilience and long-term sustainability. Furthermore, the assessment of the regulatory frameworks already in place in the EU highlighted the growing importance of environmental, social and administrative compliance as both a competitive advantage and a regulatory necessity.

Linking crew wellbeing to ESG principles

Chapter 5 explored the link between crew wellbeing and ESG principles in the shipping sector, demonstrating how prioritising crew wellbeing aligns with sustainable management practices. In addition, case studies from leading shipping companies such as Maersk, Eastern Pacific Shipping and the Angelikousis Group highlight best practices for applying environmental, social and governance (ESG) principles to crew welfare efforts. These case studies also demonstrate how proactive policies can create innovation and market leadership.

CONCLUSION

As a final conclusion, this thesis has demonstrated that environmental, social, and governance (ESG) principles and crew wellbeing are not only compatible with one another, but also synergistic aspects that contribute to the sustainable growth of the shipping sector itself. Companies that make the welfare of their crews a priority not only fulfill their ethical obligations, but they also improve their operational performance and avoid the risks associated with regulatory noncompliance and reputational damage. The shifting legal landscape, in conjunction with the growing demands of stakeholders, necessitates a proactive approach to the incorporation of environmental, social, and governance (ESG) themes into company strategy.

In the coming years, success in the shipping industry will likely depend on how effectively companies can present new ideas and adapt to changing ESG standards and similar expectations. Transparency, accountability and continuous improvement of crew welfare practices will not only ensure compliance with the rules, but will also make companies more resilient and successful in a global market where sustainability is becoming increasingly important.

Ultimately, the thesis calls for an integrated approach in which crew wellbeing is a fundamental aspect of ESG policies. This strategy can pave the way for a more responsible and resilient shipping industry that balances profits with social and environmental responsibility. Those companies that successfully integrate employee wellbeing into their environmental, social and governance frameworks are more likely to emerge as leaders in a sustainable future.

REFERENCES

'2021_Crew Welfare Management and Mental Wellness_2nd-ed-web_2.pdf' (no date). Available at:

https://wwwcdn.imo.org/localresources/en/MediaCentre/HotTopics/Documents/2021_Crew%20Welfare_Management_and%20Mental_Wellness_2nd-ed-web_2.pdf (Accessed: 13 October 2024).

2023 IMO Strategy on Reduction of GHG Emissions from Ships (2023). Available at: <https://www.imo.org/en/OurWork/Environment/Pages/2023-IMO-Strategy-on-Reduction-of-GHG-Emissions-from-Ships.aspx> (Accessed: 14 October 2024).

Abila, S. *et al.* (2023) 'Empowering Seafarers as Agents of Their Mental Health: The Role of Information and Communication Technology in Seafarers' Well-Being', *Inquiry: A Journal of Medical Care Organization, Provision and Financing*, 60, p. 00469580231162752. Available at: <https://doi.org/10.1177/00469580231162752>.

Abreo, S. (2021) *ESG and Covid-19: How employers can promote seafarer wellbeing*, Watson Farley & Williams. Available at: <https://www.wfw.com/articles/esg-and-covid-19-how-employers-can-promote-seafarer-wellbeing/> (Accessed: 3 November 2024).

Ahmad, H., Yaqub, M. and Lee, S.H. (2023) 'Environmental-, social-, and governance-related factors for business investment and sustainability: a scientometric review of global trends', *Environment, Development and Sustainability*, pp. 1–23. Available at: <https://doi.org/10.1007/s10668-023-02921-x>.

Ahmad, H., Yaqub, M. and Lee, S.H. (2024) 'Environmental-, social-, and governance-related factors for business investment and sustainability: a scientometric review of global trends', *Environment, Development and Sustainability*, 26(2), pp. 2965–2987. Available at: <https://doi.org/10.1007/s10668-023-02921-x>.

Alareeni, B.A. and Hamdan, A. (2020) 'ESG impact on performance of US S&P 500-listed firms', *Corporate Governance: The International Journal of Business in Society*, 20(7), pp. 1409–1428. Available at: <https://www.emerald.com/insight/content/doi/10.1108/CG-06-2020-0258/full/html> (Accessed: 31 October 2024).

Albert, M.-N., Nadia, L. and Guy, E. (2016) 'From a Seafarers Career Management to the

Management of Interwoven Sea- and Shore-Based Careers’, *SAGE Open*, 6. Available at: <https://doi.org/10.1177/2158244016634146>.

Alusch H. Amoghli (2024) *The importance of community engagement and social impact for corporations*. Available at: <https://www.linkedin.com/pulse/importance-community-engagement-social-impact-alusch-h-amoghli-gdkve/> (Accessed: 13 October 2024).

Anderson, M. (2024) *Attracting top talent: A cornerstone of your HR strategy*, *Insperity*. Available at: <https://www.insperity.com/blog/attracting-top-talent-in-a-competitive-job-market/> (Accessed: 31 October 2024).

Baratta, A. *et al.* (2023) ‘The Impact of ESG Practices in Industry with a Focus on Carbon Emissions: Insights and Future Perspectives’, *Sustainability*, 15(8), p. 6685. Available at: <https://doi.org/10.3390/su15086685>.

Beyond Environmental Impact: The Case of Social in ESG | Deloitte Netherlands (2023). Available at: <https://www.deloitte.com/nl/en/issues/climate/beyond-environmental-impact-the-case-of-social-in-esg.html> (Accessed: 14 October 2024).

Bribery and corruption in the shipping industry | Global law firm | Norton Rose Fulbright (2015) <https://www.nortonrosefulbright.com/en/knowledge/publications/179ff17f/bribery-and-corruption-in-the-shipping-industry>. Available at: <https://www.nortonrosefulbright.com/en/knowledge/publications/179ff17f/bribery-and-corruption-in-the-shipping-industry> (Accessed: 14 October 2024).

Brooks, S.K. and Greenberg, N. (2022) ‘Mental health and psychological wellbeing of maritime personnel: a systematic review’, *BMC Psychology*, 10(1), p. 139. Available at: <https://doi.org/10.1186/s40359-022-00850-4>.

Caesar, L., Cahoon, S. and Fei, J. (2015) ‘Exploring the range of retention issues for seafarers in global shipping: opportunities for further research’, *WMU Journal of Maritime Affairs*, 14. Available at: <https://doi.org/10.1007/s13437-015-0078-0>.

‘Challenges of implementing an ESG strategy – The Arthur Lok Jack Global School of Business’ (no date). Available at: <https://lokjackgsb.edu.tt/challenges-esg/> (Accessed: 14 October 2024).

Christodoulou, A. and Cullinane, K. (2022) ‘Potential alternative fuel pathways for compliance with the “FuelEU Maritime Initiative”’, *Transportation research part D: Transport and environment*, 112, p. 103492. Available at: <https://www.sciencedirect.com/science/article/pii/S1361920922003182> (Accessed: 5 November 2024).

Cimatti, B. (2016) ‘Definition, development, assessment of soft skills and their role for the quality of organizations and enterprises’, *International Journal for quality research*, 10(1), p. 97. Available at: <http://ijqr.net/journal/v10-n1/5.pdf> (Accessed: 15 October 2024).

Corporate Communications PT ABM Investama Tbk (2022) *Application of ESG Principles in the Company’s Business and Investment Model | ABM Investama | Empowering Energy*. Available at: <https://abm-investama.com/page-detail/325/231/application-of-esg-principles-in-the-companys-business-and-investment-model> (Accessed: 14 October 2024).

Dahles, H. and Susilowati, T. (2015) ‘Business resilience in times of growth and crisis’, *Annals of Tourism Research*, 51. Available at: <https://doi.org/10.1016/j.annals.2015.01.002>.

Daniels, D.M. (2017) ‘Effects on Multicultural Crews on Shipping Safety’. Available at: <https://scholarworks.calstate.edu/downloads/x059c828x> (Accessed: 17 April 2024).

Dathe, T. *et al.* (2024) *Implementing Environmental, Social and Governance (ESG) Principles for Sustainable Businesses: A Practical Guide in Sustainability Management*. Springer Nature. Available at: [https://books.google.com/books?hl=en&lr=&id=fF78EAAAQBAJ&oi=fnd&pg=PR5&dq=Implementing+Environmental,+Social+and+Governance+\(ESG\)+Principles+for+Sustainable+Businesses&ots=oDowqRWOXo&sig=f2MO-y5SUwD2IKmr3STd_McIf5s](https://books.google.com/books?hl=en&lr=&id=fF78EAAAQBAJ&oi=fnd&pg=PR5&dq=Implementing+Environmental,+Social+and+Governance+(ESG)+Principles+for+Sustainable+Businesses&ots=oDowqRWOXo&sig=f2MO-y5SUwD2IKmr3STd_McIf5s) (Accessed: 13 October 2024).

Davis, K.H. *et al.* (2014) *The Ship’s Medicine Chest and Medical Aid at Sea*. 2003rd edn. RTI International. P.O. Box 12194, Research Triangle Park, NC 27709-2194. Tel: 919-541-6000; e-mail: publications@rti.org; Web site: <http://www.rti.org>. Available at: <https://www.rti.org/publication/ships-medicine-chest-and-medical-aid-sea> (Accessed: 29 August 2024).

De Neve, J.-E., Kaats, M. and Ward, G. (2023) ‘Workplace wellbeing and firm performance’. Available at: <https://ora.ox.ac.uk/objects/uuid:8652ce7e-7bde-449f-a5e7-6b0d0bcc3605> (Accessed: 14 October 2024).

Desai, C. (2022) 'Eastern Pacific Shipping', *Eastern Pacific Shipping*, 18 August. Available at: <https://www.epshipping.com.sg/eps-decarbonisation-and-seafarer-wellbeing-efforts-featured-in-safety4sea/> (Accessed: 15 October 2024).

Dictionary, O.E. (2017) 'OED', *nd*). *Oxford English dictionary online*. Retrieved December, 15. Available at: <https://tolkienbooks.net/oed-news-2002-06.pdf> (Accessed: 12 October 2024).

Diversity, Equity and Inclusion (DEI) at workplace (2024). Available at: <https://www.maersk.com/careers/diversity-equity-and-inclusion/belonging> (Accessed: 14 October 2024).

DOUKAS, N. (2022) *Angelicoussis Shipping Group Implements Onboard Digital Health Care with Oriani Hellas and MedAssist.Online Solutions*. Available at: <https://www.nafsgreen.gr/top-stories/10074-angelicoussis-shipping-group-implements-onboard-digital-health-care-with-oriani-hellas-and-medassist-online-solutions.html> (Accessed: 14 October 2024).

Dr. Theo Notteboom and Dr. Athanasios Pallis (2020) 'Chapter 4.5 – Green Port Governance | Port Economics, Management and Policy', 24 September. Available at: <https://porteconomicsmanagement.org/pemp/contents/part4/green-port-governance/> (Accessed: 14 October 2024).

Eleyadath, L., Machinchery, P. and Achari, V. (2021) 'An overview on the treatment of ballast water in ships', *Ocean & Coastal Management*, 199, p. 105296. Available at: <https://doi.org/10.1016/j.ocecoaman.2020.105296>.

Embracing Age Diversity | World Maritime Academy (2024). Available at: <https://e-wma.com/embracing-age-diversity/> (Accessed: 13 October 2024).

'Ending-child-labour-forced-labour-and-human-trafficking-in-global-supply-chains.pdf' (no date). Available at: <https://mneguidelines.oecd.org/Ending-child-labour-forced-labour-and-human-trafficking-in-global-supply-chains.pdf> (Accessed: 14 October 2024).

'ESG Climate Survey: Shipping is now featuring Social and Governance topics high on the agenda' (2024) *SAFETY4SEA*, 24 May. Available at: <https://safety4sea.com/cm-esg-climate-survey-shipping-is-now-featuring-social-and-governance-topics-high-on-the-agenda/> (Accessed: 14 October 2024).

ESG regulations and reporting standards (2024). Available at: <https://permutable.ai/esg-regulations-and-reporting-standards-tracker-2024-last-updated-january-2024/> (Accessed: 4 July 2024).

European Commission (2023) *Sustainable Finance Disclosures Regulation*. Available at: https://finance.ec.europa.eu/regulation-and-supervision/financial-services-legislation/implementing-and-delegated-acts/sustainable-finance-disclosures-regulation_en (Accessed: 5 November 2024).

European Commission (2024) *EU Taxonomy Navigator, European Commission - European Commission*. Available at: <https://ec.europa.eu/sustainable-finance-taxonomy/> (Accessed: 5 November 2024).

Exarchopoulos, G. *et al.* (2018) 'Seafarers' welfare: A critical review of the related legal issues under the Maritime Labour Convention 2006', *Marine Policy*, 93, pp. 62–70. Available at: <https://doi.org/10.1016/j.marpol.2018.04.005>.

Fair Labor Practices and ESG: Achieving Sustainability and Ethical Standards - ESG Research Pro (2023). Available at: <https://esgresearch.pro/fair-labor-practices-and-esg/> (Accessed: 13 October 2024).

Fallah Shayan, N. *et al.* (2022) 'Sustainable Development Goals (SDGs) as a Framework for Corporate Social Responsibility (CSR)', *Sustainability*, 14(3), p. 1222. Available at: <https://doi.org/10.3390/su14031222>.

Fariya, S. *et al.* (2019) 'Developing sustainable green ship recycling facilities in Indonesia: Investigation of current situation', in.

Fatigue (no date) *ITF Seafarers*. Available at: <https://www.itfseafarers.org/en/issues/fatigue> (Accessed: 13 October 2024).

Fei, J. and Lu, J. (2014) 'Analysis of students' perceptions of seafaring career in China based on artificial neural network and genetic programming', *Maritime Policy & Management*, 42, pp. 1–16. Available at: <https://doi.org/10.1080/03088839.2013.873545>.

Feitosa, J. *et al.* (2022) 'Performing in diverse settings: A diversity, equity, and inclusion approach to culture', *International Journal of Cross Cultural Management*, 22, p. 147059582211367.

Available at: <https://doi.org/10.1177/14705958221136707>.

Fenstad, J., Dahl, Ø. and Kongsvik, T. (2016) ‘Shipboard safety: exploring organizational and regulatory factors’, *Maritime Policy & Management*, 43(5), pp. 552–568. Available at: <https://doi.org/10.1080/03088839.2016.1154993>.

Focus on seafarer wellbeing – a reflection on the “S” in “ESG” (2022) *Gard*. Available at: <https://gard.no/articles/focus-on-seafarer-wellbeing-reflection-on-s-esg> (Accessed: 14 October 2024).

Galanakis (2023) *Seafarers’ Promotions Epic*. Available at: <https://www.linkedin.com/pulse/seafarers-promotions-epic-konstantinos-galanakis/> (Accessed: 29 October 2024).

Galanakis, K. (2024) *Investigating the Present Obstacles to Diversity in the Maritime Sector’s Seafarer Hiring and Screening Process | LinkedIn*. Available at: <https://www.linkedin.com/pulse/investigating-present-obstacles-diversity-maritime-hiring-galanakis-ljrzc/> (Accessed: 29 August 2024).

Ghosh, D. and Sekiguchi, T. (2020) ‘Psychological detachment: A creativity perspective on the link between intrinsic motivation and employee engagement’, *Personnel Review* [Preprint]. Available at: <https://doi.org/10.1108/PR-12-2018-0480>.

Govindan, K., Shaw, M. and Majumdar, A. (2021) ‘Social sustainability tensions in multi-tier supply chain: A systematic literature review towards conceptual framework development’, *Journal of Cleaner Production*, 279, p. 123075. Available at: <https://doi.org/10.1016/j.jclepro.2020.123075>.

‘gr_esg_in_the_shipping_sector_noexp.pdf’ (no date). Available at: https://www2.deloitte.com/content/dam/Deloitte/gr/Documents/consumer-business/gr_esg_in_the_shipping_sector_noexp.pdf (Accessed: 13 October 2024).

Guelker, D. (2023) ‘Fishers and seafarers in international law—Really so different?’, *Marine Policy*, 148, p. 105473. Available at: <https://www.sciencedirect.com/science/article/pii/S0308597X22005243> (Accessed: 12 October 2024).

Hammond, B. and O'Brien, A. (2021) 'Pensions and ESG: An institutional and historical perspective', *Wharton Pension Research Council Working Paper*, 202119. Available at: <https://pensionresearchcouncil.wharton.upenn.edu/wp-content/uploads/2021/04/Hammond-OBrien-4.22.21.pdf> (Accessed: 30 October 2024).

'How Much Does the Shipping Industry Contribute to Global CO2 Emissions?' (2024) <https://sinay.ai/>. Available at: <https://sinay.ai/en/how-much-does-the-shipping-industry-contribute-to-global-co2-emissions/> (Accessed: 14 October 2024).

Hugo Hernández-Ojeda Alvírez (2023) *Navigating the challenges and opportunities of ESG compliance*. Available at: <https://www.ibanet.org/navigating-challenges-opportunities-esg-compliance> (Accessed: 14 October 2024).

'IMO SDG Brochure.pdf' (no date). Available at: <https://wwwcdn.imo.org/localresources/en/MediaCentre/HotTopics/Documents/IMO%20SDG%20Brochure.pdf> (Accessed: 12 October 2024).

Importance of Corporate Governance in Modern Business (2023) *iDeals Board*. Available at: <https://idealsboard.com/importance-of-corporate-governance/> (Accessed: 13 October 2024).

Inc, G., Ryan Pendell, and Jim Harter (2019) *10 Gallup Reports to Share With Your Leaders in 2019*, *Gallup.com*. Available at: <https://www.gallup.com/workplace/245786/gallup-reports-share-leaders-2019.aspx> (Accessed: 14 October 2024).

ITF Seafarers (2020) *Imagine a world if you can*, *ITF Seafarers*. Available at: <https://www.itfseafarers.org/en/news/imagine-world-if-you-can> (Accessed: 14 October 2024).

Janeé Ortiz (2023) *Wellbeing and Inclusion at Maersk: Janeé's Story*. Available at: <https://www.maersk.com/news/articles/2023/10/11/wellbeing-and-inclusion-at-maersk> (Accessed: 14 October 2024).

Jensen, H.-J. and Oldenburg, M. (2019) 'Potentially traumatic experiences of seafarers', *Journal of Occupational Medicine and Toxicology*, 14(1), p. 17. Available at: <https://doi.org/10.1186/s12995-019-0238-9>.

Jepsen, J.R., Zhao, Z. and Leeuwen, W.M.A. van (2015) 'Seafarer fatigue: a review of risk factors,

consequences for seafarers' health and safety and options for mitigation', *International Maritime Health*, 66(2), pp. 106–117. Available at: <https://doi.org/10.5603/IMH.2015.0024>.

Jing, Q.-L. *et al.* (2022) 'The Impact of Public Transportation on Carbon Emissions—From the Perspective of Energy Consumption', *Sustainability*, 14(10), p. 6248. Available at: <https://doi.org/10.3390/su14106248>.

Jinga, P. (2021) 'The Increasing Importance of Environmental, Social and Governance (ESG) Investing in Combating Climate Change', in. Available at: <https://doi.org/10.5772/intechopen.98345>.

Kaarle Parikka (2023) *Navigating ESG Frameworks: Understanding GRI, SASB, and TCFD*. Available at: <https://blog.falcony.io/en/navigating-esg-frameworks> (Accessed: 13 October 2024).

Kaptan, M. and Kaptan, B. (2021) 'The investigation of the effects of COVID-19 restrictions on seafarers', *Australian Journal of Maritime & Ocean Affairs*, 15, pp. 1–13. Available at: <https://doi.org/10.1080/18366503.2021.1961360>.

Karakasnaki, M., Pantouvakis, A. and Vlachos, I. (2023) 'Maritime social sustainability: Conceptualization and scale development', *Transportation Research Part D: Transport and Environment*, 121, p. 103804. Available at: <https://www.sciencedirect.com/science/article/pii/S1361920923002018> (Accessed: 15 October 2024).

Karim, R., Roshid, Md.M. and Waaje, A. (2024) 'Circular Economy and Supply Chain Sustainability', in, pp. 1–30. Available at: <https://doi.org/10.4018/979-8-3693-3575-8.ch001>.

Kim, S. and Li, Z. (Frank) (2021) 'Understanding the Impact of ESG Practices in Corporate Finance', *Sustainability*, 13(7), p. 3746. Available at: <https://doi.org/10.3390/su13073746>.

Kitack Lim (2017) *The Role of the International Maritime Organization in Preventing the Pollution of the World's Oceans from Ships and Shipping*, United Nations. United Nations. Available at: <https://www.un.org/en/chronicle/article/role-international-maritime-organization-preventing-pollution-worlds-oceans-ships-and-shipping> (Accessed: 14 October 2024).

Kitada, M. (2021) 'Women seafarers: An analysis of barriers to their employment', *The World of the Seafarer*, 65. Available at:

https://library.oapen.org/bitstream/handle/20.500.12657/43276/2021_Book_TheWorldOfTheSeafarer.pdf?sequence%2%80%89=%E2%80%891#page=68 (Accessed: 19 April 2024).

Kolios, A. (2024) ‘Retrofitting Technologies for Eco-Friendly Ship Structures: A Risk Analysis Perspective’, *Journal of Marine Science and Engineering*, 12(4), p. 679. Available at: <https://doi.org/10.3390/jmse12040679>.

Kulova, I. and Alexieva, V. (2023) ‘ESG strategy: pivotal in cultivating stakeholder trust and ensuring customer loyalty’, *E3S Web of Conferences*, 462. Available at: <https://doi.org/10.1051/e3sconf/202346203035>.

Kushboo Singhania (2024) *Navigating the 2024 Landscape of ESG Regulations and Frameworks / ESG Flo*. Available at: <https://www.esgflo.com/blog-articles/navigating-2024-landscape-of-esg-regulations-and-frameworks> (Accessed: 4 July 2024).

Landry, A., Schweyer, A. and Whillans, A. (2018) ‘Winning the War for Talent: Modern Motivational Methods for Attracting and Retaining Employees’, *Compensation & Benefits Review*, 49, p. 088636871880815. Available at: <https://doi.org/10.1177/0886368718808152>.

Lausche, B. (2023) *Sustainable investing in protected areas and biodiversity: key enabling conditions in policy, law, and institutions*. IUCN, International Union for Conservation of Nature. Available at: <https://doi.org/10.2305/WFBE7266>.

Lavelle, J. (2013) *The Maritime Labour Convention 2006: international labour law redefined*. CRC Press. Available at: https://www.google.com/books?hl=en&lr=&id=A45WAgAAQBAJ&oi=fnd&pg=PP1&dq=MARITIME+LABOUR+CONVENTION,+2006&ots=mlzPG5k4Oz&sig=-_WyfhM2LW0hnfiSs-2RwyefzWo (Accessed: 16 April 2024).

Lee, C.C. and Park, S. (2023) ‘IMPACT OF ESG ON EMPLOYEES’ INTRINSIC MOTIVATION ACROSS GENERATIONS’, 16(50).

Lee, Jeongmin *et al.* (2023) ‘Identifying ESG trends of International container shipping companies using semantic network analysis and multiple case theory’, *Sustainability*, 15(12), p. 9441. Available at: <https://www.mdpi.com/2071-1050/15/12/9441> (Accessed: 15 October 2024).

Lee, J.W. and Song, Y. (2020) ‘Promoting employee job crafting at work: The roles of motivation and team context’, *Personnel Review*, 49(3), pp. 689–708. Available at: <https://doi.org/10.1108/PR-07-2018-0261>.

Ljung, M. and Widell, G. (2014) *Seafarers’ working career in a life cycle perspective: driving forces and turning points*.

Ludovic Laffineur *et al.* (2023) *The implications of the IMO Revised GHG Strategy for shipping*. Available at: <https://globalmaritimeforum.org/insight/the-implications-of-the-imo-revised-ghg-strategy-for-shipping/> (Accessed: 14 October 2024).

Mahmoud, A. *et al.* (2021) ‘“We aren’t your reincarnation!” workplace motivation across X, Y and Z generations’, *International Journal of Manpower*, 42, pp. 193–209. Available at: <https://doi.org/10.1108/IJM-09-2019-0448>.

Majidi Nezhad, M. *et al.* (2024) ‘Marine energy digitalization digital twin’s approaches’, *Renewable and Sustainable Energy Reviews*, 191, p. 114065. Available at: <https://doi.org/10.1016/j.rser.2023.114065>.

Mantoju, Capt.D. (2021) ‘Analysis of impact of the maritime labour convention, 2006: A seafarer’s perspective’, *Journal of International Maritime Safety, Environmental Affairs, and Shipping*, 5(3), pp. 107–119. Available at: <https://doi.org/10.1080/25725084.2021.1955475>.

Maritime Labour Convention, 2006 | International Labour Organization (2024). Available at: <https://www.ilo.org/international-labour-standards/maritime-labour-convention-2006> (Accessed: 12 October 2024).

Martiny, A. *et al.* (2024) ‘Determinants of environmental social and governance (ESG) performance: A systematic literature review’, *Journal of Cleaner Production*, 456, p. 142213. Available at: <https://doi.org/10.1016/j.jclepro.2024.142213>.

Mohammad, W.M.W. and Wasiuzzaman, S. (2021) ‘Environmental, Social and Governance (ESG) disclosure, competitive advantage and performance of firms in Malaysia’, *Cleaner Environmental Systems*, 2, p. 100015. Available at: <https://doi.org/10.1016/j.cesys.2021.100015>.

Mr. Kiran Thorat & Dr. Anand Hiremath (2024) *ESG in Shipping: Ethical Practices and Worker*

Welfare at Alang-Sosiyah Yards, GMS Leadership. Available at: <https://www.gmsinc.net/article/navigating-ethical-seas-the-social-dimensions-of-esg-in-the-shipping-and-ship-recycling-industry> (Accessed: 13 October 2024).

MundoMaritimo (2023) *ESG challenges and opportunities for the maritime industry.* Available at: http://www.mundomaritimo.cl/noticias/esg-challenges-and-opportunities-for-the-maritime-industry?utm_medium=email&utm_campaign=newsletter (Accessed: 14 October 2024).

Nascimento, L.D. *et al.* (2021) 'Historical context of social, environmental and corporate governance (ESG) and its impacts on organizations: A literature review | Seven Editora'. Available at: <https://sevenpublicacoes.com.br/index.php/editora/article/view/4280> (Accessed: 26 October 2024).

Nathan D. Wood, Dr. Robert Moorcroft and Dr. Torill Bigg, Tunley Engineering (2023) *Maritime Transport: Fuels, Emissions and Sustainability, MarineLink.* Available at: <https://www.marinelink.com/news/maritime-transport-fuels-emissions-502716> (Accessed: 14 October 2024).

Nguyen, T.T. *et al.* (2014) 'Current Challenges in the Recruitment and Retention of Seafarers: An Industry Perspective from Vietnam', *The Asian Journal of Shipping and Logistics*, 30(2), pp. 217–242. Available at: <https://doi.org/10.1016/j.ajsl.2014.09.005>.

Nittari, G. *et al.* (2019) 'The right to medical assistance for seafarers. Ethical and practical consequences of the introduction of telemedicine to improve healthcare on board ships', *Marine Policy*, 106, p. 103525. Available at: <https://doi.org/10.1016/j.marpol.2019.103525>.

Ohayon, M.M., Smolensky, M.H. and Roth, T. (2010) 'CONSEQUENCES OF SHIFTWORKING ON SLEEP DURATION, SLEEPINESS, AND SLEEP ATTACKS', *Chronobiology International*, 27(3), pp. 575–589. Available at: <https://doi.org/10.3109/07420521003749956>.

Owen-Burge, C. (2022) *Building a maritime sector that thrives in a world of mounting climate and geopolitical shocks and stresses, Climate Champions.* Available at: <https://climatechampions.unfccc.int/building-a-maritime-sector-that-thrives-in-a-world-of-mounting-climate-and-geopolitical-shocks-and-stresses/> (Accessed: 12 October 2024).

Pantouvakis, A. and Vlachos, I. (2020) 'Talent and leadership effects on sustainable performance in the maritime industry', *Transportation Research Part D: Transport and Environment*, 86, p. 102440.

Available at: <https://www.sciencedirect.com/science/article/pii/S1361920920306271> (Accessed: 15 October 2024).

Penela, A. (2019) 'Enhancing social sustainability at a business level: Organizational attractiveness is higher when organizations show responsibility towards employees', *Business Strategy & Development*, 2. Available at: <https://doi.org/10.1002/bsd2.69>.

Pfajfar, G. *et al.* (2022) 'Value of corporate social responsibility for multiple stakeholders and social impact – Relationship marketing perspective', *Journal of Business Research*, 143, pp. 46–61. Available at: <https://doi.org/10.1016/j.jbusres.2022.01.051>.

'PoliciesMDM.pdf' (no date). Available at: <https://marandry.com/wp-content/uploads/sites/4/2020/11/PoliciesMDM.pdf> (Accessed: 15 October 2024).

Putting the 'S' into ESG in maritime | LR (2022). Available at: <https://www.lr.org/en/knowledge/horizons/october-2022/putting-the-s-into-esg-in-maritime/> (Accessed: 14 October 2024).

Rajapakse, A. and Emad, G.R. (2023) 'Fatigue, an unsolved puzzle that continues contributing to accidents at sea', *Marine Policy*, 155, p. 105745. Available at: <https://doi.org/10.1016/j.marpol.2023.105745>.

Raza, Z. *et al.* (2023) 'Digital transformation of maritime logistics: Exploring trends in the liner shipping segment', *Computers in Industry*, 145, p. 103811. Available at: <https://doi.org/10.1016/j.compind.2022.103811>.

Reilly, C. (2020) *Wellbeing Positively Impacts Firm Performance*, *Forbes*. Available at: <https://www.forbes.com/sites/colleenreilly/2020/06/09/wellbeing-positively-impacts-firm-performance/> (Accessed: 14 October 2024).

Rose, A. (2024) *Overcome the Top 5 ESG Reporting Challenges with Best Practices*. Available at: <https://www.lythouse.com/blog/the-5-main-challenges-of-esg-reporting-and-best-practice> (Accessed: 15 October 2024).

SAFETY4SEA, S. (2024) 'ESG Climate Survey: Shipping is now featuring Social and Governance topics high on the agenda', *SAFETY4SEA*, 24 May. Available at: <https://safety4sea.com/cm-esg->

climate-survey-shipping-is-now-featuring-social-and-governance-topics-high-on-the-agenda/
(Accessed: 4 July 2024).

Sakao, T. *et al.* (2024) ‘Implementing circular economy activities in manufacturing for environmental sustainability’, *CIRP Annals*, 73(2), pp. 457–481. Available at: <https://doi.org/10.1016/j.cirp.2024.06.002>.

Sampson, H. and Ellis, N. (2019) ‘Seafarers’ mental health and wellbeing’, *IOSH* [Preprint]. Available at: <https://orca.cardiff.ac.uk/id/eprint/127214/1/seafarers-mental-health-wellbeing-full-report.pdf> (Accessed: 3 November 2024).

Sean O’Neill (2024) *Employee well-being as an ESG strategy*, *The Corporate Governance Institute*. Available at: <https://www.thecorporategovernanceinstitute.com/insights/guides/employee-well-being-as-an-esg-strategy/> (Accessed: 31 October 2024).

Senbursa, N. and Dunder, E. (2024) ‘The Mediating Effect of Well-Being, Happiness, and Trust in the Relationship Between Work-Life Balance and Work Effectiveness in Seafarers’, *INQUIRY: The Journal of Health Care Organization, Provision, and Financing*, 61. Available at: <https://doi.org/10.1177/00469580241254745>.

Shapsugova, M. (2023) ‘ESG principles and social responsibility’, *E3S Web of Conferences*, 420. Available at: <https://doi.org/10.1051/e3sconf/202342006040>.

Sharma, S. (2024) *ESG and Social Responsibility: Human Rights, Labor, Community*. Available at: <https://www.lythouse.com/blog/esg-and-social-responsibility-human-rights-labor-diversity-and-and-community-engagement> (Accessed: 13 October 2024).

Shen, H. *et al.* (2023) ‘ESG in China: A review of practice and research, and future research avenues’, *China Journal of Accounting Research*, 16(4), p. 100325. Available at: <https://doi.org/10.1016/j.cjar.2023.100325>.

Shin, Y. *et al.* (2022) ‘Actions to halt biodiversity loss generally benefit the climate’, *Global Change Biology*, 28(9), pp. 2846–2874. Available at: <https://doi.org/10.1111/gcb.16109>.

Shivan Nair (2023) *Empowering Seafarers, here and now*. Available at: <https://www.linkedin.com/pulse/empowering-seafarers-here-now-shivan-nair/> (Accessed: 29

October 2024).

Slišković, A. (2023) 'Chapter 8 The Role of Personality Traits, Work Motivation and Job Satisfaction in the Explanation of Seafarers' Well-being', in. Brill. Available at: https://doi.org/10.1163/9789004518841_010.

Stakeholder Communication and ESG: Enhancing Corporate Sustainability - ESG Research Pro (2023). Available at: <https://esgresearch.pro/stakeholder-communication-and-esg/> (Accessed: 14 October 2024).

Stamarski, C.S. and Son Hing, L.S. (2015) 'Gender inequalities in the workplace: the effects of organizational structures, processes, practices, and decision makers' sexism', *Frontiers in Psychology*, 6, p. 1400. Available at: <https://doi.org/10.3389/fpsyg.2015.01400>.

Strategy - Hapag-Lloyd (2024). Available at: <https://www.hapag-lloyd.com/en/company/responsibility/sustainability/strategy.html> (Accessed: 15 October 2024).

Sujanska, L. and Nadanyiova, M. (2023) 'Sustainable Marketing and its Impact on the Image of the Company', *Marketing and Management of Innovations*, 14, pp. 51–57. Available at: <https://doi.org/10.21272/mmi.2023.2-06>.

Svetina, M. *et al.* (2024) 'Factors Impacting Seafarers' Mental Health and Career Intentions', *Inquiry: A Journal of Medical Care Organization, Provision and Financing*, 61, p. 00469580241229617. Available at: <https://doi.org/10.1177/00469580241229617>.

Tenuta, P. and Cambrea, D. (2022) 'ESG Measures and Non-financial Performance Reporting', in, pp. 27–57. Available at: https://doi.org/10.1007/978-3-031-11491-5_3.

Tetemadze, B. *et al.* (2021) 'Seafarers' wellbeing or business, a complex paradox of the industry', *TransNav: International Journal on Marine Navigation and Safety of Sea Transportation*, 15. Available at: <https://yadda.icm.edu.pl/baztech/element/bwmeta1.element.baztech-a9fb45fb-4d14-4f45-bc66-f891669be140> (Accessed: 15 October 2024).

The Importance of Continuous Learning in Maritime Careers (2024). Available at: <https://maritimetrainer.com/blog/continuous-learning-maritime-careers> (Accessed: 14 October 2024).

Thibault Meynier, Sarah H. Mishkin, and Matthew Triggs, Sullivan & Cromwell LLP (2023) *EU Finalizes ESG Reporting Rules with International Impacts*. Available at: <https://corpgov.law.harvard.edu/2023/01/30/eu-finalizes-esg-reporting-rules-with-international-impacts/> (Accessed: 3 July 2024).

Togan, S. (2016) 'The Regulatory Framework in Maritime Transportation', in S. Togan (ed.) *The Liberalization of Transportation Services in the EU and Turkey*. Oxford University Press, p. 0. Available at: <https://doi.org/10.1093/acprof:oso/9780198753407.003.0005>.

Tomer Raanan (2023) *Industry neglects social and governance aspects of ESG to focus on environmental goals*, *Lloyd's List*. Available at: <https://www.lloydslist.com/LL1146558/Industry-neglects-social-and-governance-aspects-of-ESG-to-focus-on-environmental-goals> (Accessed: 14 October 2024).

United Nations - Department of Economic and Social Affairs (2024) *Sustainable Development*. Available at: <https://sdgs.un.org/> (Accessed: 12 October 2024).

Urme, U. (2023) 'The Impact of Talent Management Strategies on Employee Retention', *International Journal of Science and Business*, 28. Available at: <https://doi.org/10.58970/IJSB.2209>.

Walker, D.I. (2022) 'The economic (in) significance of executive pay ESG incentives', *Stan. J.L. Bus. & Fin.*, 27, p. 318. Available at: https://heinonline.org/hol-cgi-bin/get_pdf.cgi?handle=hein.journals/stabf27§ion=12 (Accessed: 31 October 2024).

Wan, Z. *et al.* (2017) 'Decarbonizing the international shipping industry: Solutions and policy recommendations', *Marine Pollution Bulletin*, 126. Available at: <https://doi.org/10.1016/j.marpolbul.2017.11.064>.

Wang, J. *et al.* (2024) 'Shore power for reduction of shipping emission in port: A bibliometric analysis', *Transportation Research Part E: Logistics and Transportation Review*, 188, p. 103639. Available at: <https://doi.org/10.1016/j.tre.2024.103639>.

'welfare-guide.pdf' (no date). Available at: <https://www.ics-shipping.org/wp-content/uploads/2020/08/welfare-guide.pdf> (Accessed: 14 October 2024).

Wellness Consulting / Global Healthcare Resources (no date). Available at:

https://www.globalhealthcareresources.com/wellnessconsulting?__hstc=204538703.ff73d8cefeedd3743e9f68a59580af7e.1728464968030.1728464968030.1728464968030.1&__hssc=204538703.1.1728464968030&__hsfp=2599978687 (Accessed: 13 October 2024).

‘What is ESG? The Impact of ESG on shipping companies (MARITIME ESG)’ (2024) *SHIP IP LTD*, 13 March. Available at: <https://shipip.com/what-is-esg-the-impact-of-esg-on-shipping-companies-maritime-esg/> (Accessed: 14 October 2024).

WHO, C.O. (2020) ‘World health organization’, *Air Quality Guidelines for Europe* [Preprint], (91). Available at: https://brill.com/downloadpdf/display/book/9789004636774/B9789004636774_s048.pdf (Accessed: 12 October 2024).

Wong, C.P. (2023) ‘Impact of the COVID-19 pandemic on the well-being of the stranded seafarers’, *Maritime Business Review*, 8(2), pp. 156–169. Available at: <https://www.emerald.com/insight/content/doi/10.1108/MABR-07-2021-0049/full/html> (Accessed: 15 October 2024).

Yu, Z. *et al.* (2024) ‘How does environmental, social, and governance (ESG) performance determine investment mix? New empirical evidence from BRICS’, *Borsa Istanbul Review*, 24(3), pp. 520–529. Available at: <https://doi.org/10.1016/j.bir.2024.02.007>.

Yuen, K.F. *et al.* (2018) ‘Determinants of job satisfaction and performance of seafarers’, *Transportation Research Part A: Policy and Practice*, 110, pp. 1–12. Available at: <https://doi.org/10.1016/j.tra.2018.02.006>.

Zhang, J. *et al.* (2024) ‘Leveraging environmental corporate social responsibility to promote green purchases: The case of new energy vehicles in the era of sustainable development’, *Journal of Cleaner Production*, 434, p. 139988. Available at: <https://doi.org/10.1016/j.jclepro.2023.139988>.

Zhou, Y., Li, X. and Yuen, K.F. (2023) ‘Sustainable shipping: A critical review for a unified framework and future research agenda’, *Marine Policy*, 148, p. 105478. Available at: <https://www.sciencedirect.com/science/article/pii/S0308597X23000052> (Accessed: 15 October 2024).

Zhu, C. *et al.* (2024) ‘Executive compensation and corporate sustainability: Evidence from ESG

ratings', *Heliyon*, 10(12), p. e32943. Available at: <https://doi.org/10.1016/j.heliyon.2024.e32943>.

Мгеладзе, М. and Сурманідзе, Г. (2021) 'THE CHALLENGES AND IMPACT OF COVID-19 ON SEAFARER'S RIGHTS AND FREEDOMS', *Науковий вісник Херсонської державної морської академії*, 2(25), pp. 6–17. Available at: <http://peterpan.bagcam.az/nvksma/article/download/754/751> (Accessed: 15 October 2024).

