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MASTER OF ART THESIS

**INVESTIGATING THE RELATIONSHIP BETWEEN
SUSTAINABILITY REPORTING AND
GREENWASHING IN CONTAINER
TRANSPORTATION**

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JURY APPROVAL PAGE

We certify that, as the jury, we have read this thesis and that in our opinion it is fully adequate, in scope and in quality, as a thesis for the degree of Master in Science /Master of Arts/ the Doctor of Philosophy/Proficiency in Art.

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ABSTRACT

INVESTIGATING THE RELATIONSHIP BETWEEN SUSTAINABILITY REPORTING AND GREENWASHING IN CONTAINER TRANSPORTATION

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This study investigates the relationship between sustainability reporting and greenwashing in the container transportation sector, a critical component of global trade that accounts for approximately 80% of sea freight. While sustainability reporting has become a standard practice for companies aiming to demonstrate their commitment to environmental and social responsibilities, the accuracy and transparency of these reports are often questioned. The practice of greenwashing, where companies present a misleadingly positive image of their sustainability efforts, undermines the credibility of such reports and poses significant challenges for stakeholders seeking to evaluate corporate performance. The research applies content analysis and semi-structured interviews, utilizing MAXQDA software to systematically analyse qualitative data from sustainability reports of the top container transportation companies. The findings reveal that external pressures such as regulatory requirements and stakeholder expectations significantly influence the preparation of these reports. Despite the emphasis on environmental performance and social responsibility, many companies fail to support their claims with concrete and verifiable data, increasing the risk of greenwashing. This study fills a notable gap in the literature by providing a focused examination of sustainability reporting and greenwashing in the container transportation industry. It offers practical insights for companies and policymakers to enhance transparency and accountability in sustainability practices. The findings suggest that companies should adopt more data-driven and objective approaches to sustainability reporting to build trust and credibility with stakeholders. Moreover, the study highlights the need for ongoing updates and



revisions to research methodologies as new sustainability reports are published and corporate policies evolve.

Keywords: Container Transportation, Sustainability Reporting, Greenwashing





ÖZ

KONTEYNER TAŞIMACILIĞINDA SÜRDÜRÜLEBİLİRLİK RAPORLAMASI İLE YEŞİL YIKAMA ARASINDAKİ İLİŞKİNİN ARAŞTIRILMASI

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Bu çalışma, küresel ticaretin yaklaşık %80'ini oluşturan deniz taşımacılığının kritik bir bileşeni olan konteyner taşımacılığı sektöründe sürdürülebilirlik raporlaması ve yeşil aklama (greenwashing) arasındaki ilişkiyi araştırmaktadır. Şirketlerin çevresel ve sosyal sorumluluk taahhütlerini göstermek amacıyla sürdürülebilirlik raporlaması yaygın bir uygulama haline gelmiş olsa da bu raporların doğruluğu ve şeffaflığı sıklıkla sorgulanmaktadır. Şirketlerin sürdürülebilirlik çabalarını yanıltıcı bir şekilde olumlu gösterdiği yeşil aklama uygulaması, bu raporların güvenilirliğini zedelemekte ve kurumsal performansı değerlendirmeye çalışan paydaşlar için önemli zorluklar yaratmaktadır. Araştırma, nitel verilerin sistematik olarak analiz edilmesini sağlamak amacıyla MAXQDA yazılımı kullanarak içerik analizi ve yarı yapılandırılmış mülakat tekniklerini uygulamaktadır. Bulgular, düzenleyici gereklilikler ve paydaş beklentileri gibi dış baskıların, bu raporların hazırlanmasında önemli bir rol oynadığını ortaya koymaktadır. Çevresel performans ve sosyal sorumluluğa yapılan vurgulara rağmen, birçok şirket iddialarını somut ve doğrulanabilir verilerle desteklemekte yetersiz kalmakta ve bu durum yeşil aklama riskini artırmaktadır. Bu çalışma, konteyner taşımacılığı sektöründe sürdürülebilirlik raporlaması ve yeşil aklama konularını odaklı bir şekilde inceleyerek literatürde önemli bir boşluğu doldurmaktadır. Şeffaflık ve hesap verebilirliğin artırılmasına yönelik şirketler ve politika yapıcılar için pratik içgörüler sunmaktadır. Bulgular, şirketlerin paydaşlarla güven ve güvenilirlik inşa etmek için daha veri odaklı ve nesnel yaklaşımları benimsemeleri gerektiğini öne sürmektedir. Ayrıca, yeni sürdürülebilirlik raporları yayımlandıkça ve kurumsal

politikalar geliřtikçe arařtırma metodolojilerinin srekli gncellenmesi ve revize edilmesi gerektiđine dikkat çekmektedir.

Anahtar Kelimeler: Konteyner Tařımacılıđı, Srdrlebilirlik Raporlaması, Yeřil Yıkama





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Eda Nur Çelik
İzmir, 2025



TEXT OF OATH

I declare and honestly confirm that my study, titled “Investigating the Relationship Between Sustainability Reporting and Greenwashing in Container Transportation” and presented as a Master’s/PhD/Proficiency in Art Thesis, has been written without applying any assistance inconsistent with scientific ethics and traditions. I declare, to the best of my knowledge and belief, that all content and ideas drawn directly or indirectly from external sources are indicated in the text and listed in the list of references.

EDA NUR ÇELİK

Date



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SYMBOLS AND ABBREVIATIONS

ABBREVIATIONS:

CSR Corporate Social Responsibility

ESG Environmental, Social, and Governance

GRI Global Reporting Initiative

ILC International Labor Organization

IMO International Maritime Organization

ISO International Organization for Standardization

MLC Maritime Labour Convention



1. CHAPTER: INTRODUCTION

Historically, the term "logistics" originated from the role of the "logistician," or *chef de l'ôgis*, who was responsible for finding accommodation for Napoleon Bonaparte's soldiers (Van Creveld, 2004). Although it has evolved into a comprehensive concept in the business world, logistics still fundamentally revolves around the efficient movement and management of resources. One of the pillars of the global economy, the logistics sector ensures the uninterrupted movement of goods and services in international trade, supporting the smooth functioning of supply chains. This sector encompasses various modes of transportation, including road, sea, air, rail, pipeline, and inland waterways. Among these, maritime logistics is particularly significant, ensuring the continuity of the supply chain in the increasingly interconnected global economy. Due to its unique features, maritime transport remains irreplaceable, providing a cost-effective and efficient means of connecting international markets and enabling the bulk transportation of goods.

Container transportation stands out as a dominant mode within maritime logistics, accounting for over 80% of global maritime trade volume (UNCTAD, 2019). The ability to transport large quantities of cargo in a single voyage, coupled with the reduced costs compared to other modes of transport, makes container shipping an unparalleled option. This model not only supports the massive scale of global trade but also plays a critical role in maintaining the efficiency and resilience of global supply chains. The development of container transportation, which began in the mid-20th century with innovations such as Malcolm McLean's standardized containers, has revolutionized maritime logistics, enabling seamless transitions between different modes of transport and significantly reducing handling times and costs (Levinson, 2006).

As container transportation has grown, so too have concerns about its environmental and social impacts. Issues such as greenhouse gas emissions, marine pollution, and resource depletion have become more prominent as the scale of operations has

increased. These environmental challenges have underscored the importance of sustainability in container shipping, prompting companies to adopt more sustainable practices and policies. Sustainability in container transportation is not only about reducing environmental impact but also involves promoting social responsibility and economic sustainability. This holistic approach is essential in a sector that plays such a crucial role in global trade and economic development.

To communicate their sustainability efforts and demonstrate accountability, many companies in the container shipping industry have turned to sustainability reporting. These reports serve as a crucial tool for sharing information about environmental, social, and governance (ESG) initiatives, enabling companies to showcase their commitment to sustainability and engage with stakeholders. As sustainability gains prominence, certain companies resort to 'greenwashing,' which involves overstating or falsely portraying their environmental actions to present a more positive image. (Bowen & Aragon-Correa, 2014). Greenwashing not only undermines the credibility of sustainability reports but also poses significant challenges to genuine sustainability efforts in the industry.

In the context of container transportation, greenwashing has become a significant concern. Despite the widespread adoption of sustainability reporting, the sector's complex and extensive operations make it difficult to verify the authenticity of reported practices. The discrepancy between the sustainability claims made in reports and actual practices can lead to misleading perceptions among stakeholders (Shi et al., 2023). For example, claims such as "We will reduce our carbon footprint by 50% by 2025" are often considered greenwashing if not supported by concrete and verifiable data (Ruiz-Blanco et al., 2022). This highlights the need for rigorous examination of sustainability reporting in the container shipping industry to ensure that reported claims accurately reflect reality.

Despite the importance of this issue, there is a notable gap in the literature examining the relationship between sustainability reporting and greenwashing specifically within the container transportation sector. While there are studies that explore this relationship in the broader logistics industry, they often fail to capture the unique dynamics and challenges of the container shipping sub-sector (Uyar et al., 2020). This gap in the literature suggests a need for more focused research to better understand the

extent and nature of greenwashing in container transportation and to develop more effective strategies for promoting transparency and accountability.

This study aims to address this gap by investigating the authenticity of sustainability claims in the container shipping industry. The research questions guiding this study are: How can the sustainability reporting aspects in the container transportation industry be analyzed and, how can sustainability reporting and greenwashing in container transportation be interpreted?

The objectives of this research are to identify the prevalence and indicators of greenwashing practices in the container shipping sector, examine the relationship between the content and transparency of sustainability reports and greenwashing, and develop recommendations to reduce greenwashing and improve sustainability reporting.

By focusing on the container shipping sub-sector, this study contributes to the literature by providing a detailed analysis of sustainability reporting practices and their implications for greenwashing. It aims to fill a critical gap in our understanding of how sustainability is communicated and perceived in this vital industry. The research methodology involves a combination of content analysis of sustainability reports and semi-structured interviews with key stakeholders in the industry. This approach allows for a comprehensive examination of both reported and actual practices, providing valuable insights into the authenticity of sustainability claims.

The findings of this study will offer significant implications for regulators, policymakers, and industry leaders. By highlighting the potential for greenwashing and identifying best practices for sustainability reporting, this research aims to promote greater transparency and accountability in the container shipping sector. Ultimately, the study seeks to contribute to the broader goal of encouraging genuine sustainability practices and fostering trust between companies and their stakeholders.

This thesis includes 7 chapters. The first chapter, Introduction, provides an overview of the research topic, its significance, and the research questions guiding the study. The second chapter, Theoretical Background, delves into the concepts of maritime logistics, container transportation, sustainability, sustainability reporting, and greenwashing, providing a foundation for understanding these topics. The third chapter, Sustainability Reporting and Greenwashing in Container Transportation,

reviews previous studies on sustainability reporting and greenwashing, focusing on container transportation and identifying the research gap addressed by this thesis. The fourth chapter, Research Design and Methodology, outlines the research methodology, explaining the rationale for the chosen methods, including content analysis and semi-structured interviews. The fifth chapter, Implementation of the Study, presents the results of the content analysis on sustainability reporting in container transportation, followed by an analysis of the relationship between sustainability and greenwashing based on interview findings. The sixth chapter, Implications and Discussions, discusses the study's findings in relation to existing literature and explores their implications for both the industry and academia. Finally, the seventh chapter, Conclusion, summarizes the key findings, reflects on the research contributions, and suggests directions for future research.

2. CHAPTER: THEORETICAL BACKGROUND

1.1. Container Transportation

Maritime logistics has been a cornerstone of global trade for centuries, enabling the intercontinental movement of goods and fostering international collaboration. Historically, maritime routes facilitated not only the exchange of products but also the dissemination of cultures, ideas, and technologies (UNCTAD, 2021). The industrial revolution significantly accelerated maritime trade, with innovations such as the steam engine transforming the industry and enabling European states to extend their influence globally (Fletcher, 2013.). Since the 20th century, maritime logistics has evolved into a complex sector, integral to the global economy, accounting for more than 80 percent of world trade by volume (UNCTAD, 2019). This sector encompasses various components, including shipping, ports, shipbuilding, and maritime services, and it operates through different transportation models to meet the increasing demands of global trade. Intermodal transportation, which involves using multiple transportation modes with a single loading, has become particularly significant in this context. This means transporting containers without opening within at least two transportation type.

The emergence of the container as a key element of trade marked a revolutionary change in maritime logistics. This revolution was made possible in the 1950s by the visionary step taken by Malcolm P. McLean. After McLean's invention Container transportation is a vital component of global trade, providing an efficient means of transporting large quantities of goods across the world. (Shi et al., 2023). In his company, which he founded with two trucks, McLean removed the tires and chassis from the containers and loaded the remaining box onto the carrier to reduce costs (Levinson, 2006). This simple yet effective innovation increased efficiency in maritime transportation and laid the foundation for container shipping. In 1967, container reach to Europe for the first-time using container to solve the supply problems of the US army during the Vietnam war. Container transportation became

widespread in the 1970s, reducing costs by 94 percent (Levinson, 2006). In this way, production was no longer tied to a single location. The fact that production is not tied to a single location has enabled the global economy and trade to become more flexible, efficient, and resilient. The implementation of the new system lowered expenses by substituting costly labour with more affordable and efficient capital equipment, while also incorporating maritime transportation into a unified transportation network. Due to the size of the network that maritime logistics companies operate, production has moved to a different dimension. Production could now be done anywhere. However, a standardization was required in the dimensions of these containers. Containers of different sizes were available in both Europe and America. In 1961, the International Organization for Standardization (ISO) carried out standardization at a meeting attended by 11 countries representing international standardization and 15 countries as observers (Levinson, 2006). With the completion of the standardization process, container shipping has led to the transformation of global trade into an industrial identity that meets global needs. However, as the container transportation industry has grown, it has begun to cause certain environmental issues. The environmental impacts of the container transportation industry mostly occur in the seas. Therefore, there has been less global awareness regarding the environmental consequences of container transportation (Cullinane & Bergqvist, 2014). In fact, when the concept of sustainability in container transportation is considered as logistics, which is a part of the supply chain, it affects the sustainability activities of other companies that are not in this sector. At this point, sustainability in container shipping is becoming increasingly important. In the following section, the focus shifts to sustainability in container transportation, exploring how environmental, economic, and social considerations are integrated into this critical area of maritime logistics.

2.1. Sustainability in Container Transportation

Sustainability and sustainable development are among the most discussed topics in our world, which is experiencing increasing environmental degradation over the past few decades. As efforts for continuous development and improving living standards persist, the exponential growth of the global population, coupled with the arithmetic increase in basic raw materials that satisfy human needs, has begun to degrade the environment. With the escalating damage, the concept of sustainability was first

introduced and emphasized in the report titled "Our Common Future," published in 1987 by the United Nations World Commission on Environment and Development, also known as the Brundtland Commission (Huriem Brundtland, 1985). Sustainability is positioned at the core of the triangle of energy, economy, and environment, and thus, it is debated across a wide spectrum ranging from governments and intergovernmental organizations to social scientists, natural scientists, politicians, and local and international environmental organizations. Therefore, sustainability has various definitions. According to Coccossis (1996), sustainability refers to the re-establishment of balance between economic, social, and environmental goals arising from the impacts of human activities on environmental resources over the long term (Butler, 1999). Middleton and Hawkins (1998) define it as a state of balance between human population activities and their natural, social, and cultural environments (Buckley, 2001). According to Burr (1995), sustainability entails careful and sensitive economic development, ensuring that natural and human resources needed by present and future generations are utilized without depletion or damage (Burr, 1995). Though definitions may vary, the fundamental idea underlying sustainability is to utilize natural and human-made resources without depletion, degradation, or impairment, considering the needs of both present and future generations. When the concept of sustainability was first introduced by scientists, it primarily referred to the sustainable use of specific natural resources such as water, soil, or forests over time. However, sustainability not only encompasses environmental aspects but also social and economic dimensions.

The United Nations Conference on Environment and Development (UNCED) held in 1992 led to sustainable development becoming a globally active policy (Byrne & Glover, 2002). Container transportation, which encompasses a significant portion of global trade, also plays a crucial role in Sustainable Development. Responsible practices in maritime transport processes also influence other sectors and encourage them to behave more responsibly in terms of sustainability (Birwatkar, 2017). All international organizations, governments, and other stakeholders need to collaborate to ensure sustainable maritime development and to work together to support all three dimensions of sustainable development (IMO and Sustainable Development, 2019). For this reason, the International Maritime Organization (IMO) came into force in 1958 to regulate international maritime transportation (Convention on the International

Maritime Organization, 2013). The conventions put forward by IMO are ratified and implemented by member countries. Sustainability in maritime can be evaluated economically, socially, and environmentally. However, ensuring the equal implementation of these activities in the process of achieving sustainable development and making maritime transportation processes sustainable may be challenging (IMO and Sustainable Development, 2019.) To promote sustainable development, it is essential to consider an integrated approach that addresses multiple interconnected factors. Achieving harmony among these elements is crucial to fulfilling societal needs and ensuring long-term progress. Within maritime transportation, understanding how these components interact and contribute to the broader sustainability agenda holds significant importance.

In 2015, UNCTAD introduced a framework to illustrate the core aspects of sustainable maritime transport. This framework emphasizes the interplay of diverse factors, including trade efficiency, operational capacity, economic competitiveness, resource management, safety protocols, and the well-being of stakeholders involved. Container transportation, as a key sector in global supply chains, exemplifies the intricate relationships among these dimensions. The expansive scale and operational intricacy of container logistics amplify their impact, underscoring the need for comprehensive strategies to address these multifaceted challenges effectively.

The large volume of transactions in container transportation has a significant impact environmentally, socially, and economically. In this context, it has a distinctive feature and place. Container transportation companies should be aware of this impact and develop their activities by considering the environment and society (Ji et al., 2019). Through a survey of 308 maritime companies, five dimensions of sustainability were identified: “environmental resources, environmental impact, environmental compliance, social sustainability, and economic sustainability”. (Pantouvakis & Vlachos, 2020).

Social sustainability in the maritime sector varies due to the unique working conditions of maritime professions. Seafarers work in confined spaces and cannot leave or evacuate their workplace in a crisis (Doyle et al., 2016). Seafarers endure long separations from their families and friends, spending extended periods in the same place for both work and leisure (Liu et al., 2022). In this regard, the International

Labour Organization's (ILO) Maritime Labour Convention (MLC) was adopted to regulate issues related to the work environment, such as working hours, health, and safety (International Chamber of Shipping Representing the Global Shipping Industry, 2013.). Despite all these challenges, the maritime transportation industry is predominantly male dominated. According to the Post Performance Scorecard between 2016 and 2021, although there has been an increase in female workforce participation in the maritime sector, men still dominate the market, highlighting the need for further initiatives to promote gender diversity and inclusion in this traditionally male-dominated field (UNCTAD, 2022).

The analysis reveals that despite some progress, the port and container transportation sectors remain predominantly male-dominated, with overall female participation still low—17% in ports, and even lower in specific operational roles, such as port operations (6%) and cargo handling (8%) (UNCTAD, 2022). While the importance of social sustainability, including gender equality and improved working conditions, has gained recognition, recent analyses indicate that these aspects remain underdeveloped, particularly in the shipping industry (BSR, 2022). Enhancing female employment and addressing challenging working conditions in container transportation could contribute to achieving sustainable development goals, fostering a more diverse and skilled workforce, and improving the overall quality of life for industry workers (UNCTAD, 2017).

The container transportation industry serves as the most important part of global trade. The growth and increased value of global trade have been made possible by the contributions of this transportation (Dragan et al., 2012). Transporting goods and materials by sea allows for the rapid and efficient movement of products across different geographies, making maritime transportation the lifeblood of the global economy. Container shipping, particularly facilitated using large vessels, has significantly contributed to the development of trade and triggered economic growth. The economic dimension of container transportation encompasses the efficient and effective use of resources (Kuhlman & Farrington, 2010). This includes various elements such as the development of port infrastructure, cost reduction in transportation, enhancement of operational efficiency, and promotion of commercial

activities. Economic sustainability is essential to enhance the competitiveness of this transportation industry and sustain profitability for businesses (Unerman, 2010). Additionally, this dimension ensures the long-term success of the sector through activities such as the efficient operation of ports and terminals, optimization of ship operations, and facilitation of trade. Container transportation also makes significant contributions to employment alongside economic growth. Many individuals are employed in ports, ship operations, logistics firms, and other related areas. Employment in this sector typically provides job opportunities to individuals with various skills and talents, thereby contributing to societal welfare. Moreover, the growth of the container transportation industry leads to increased job opportunities in ancillary sectors, further contributing to economic growth and prosperity. In conclusion, the economic sustainability of container transportation is vital for maintaining the vitality of global trade and supporting economic growth. Therefore, continually improving and enhancing the economic dimension of the industry is crucial not only for container transportation companies but also for the healthy and sustainable growth of the global economy.

The most recognized form of sustainability, environmental sustainability, is the most extensively researched type of sustainability. In recent years, both countries and companies have been placing greater emphasis on environmental sustainability and taking steps in this direction. The fundamental reason for these actions is the 7th Millennium Development Goal, "Ensuring Environmental Sustainability," identified by the United Nations Development Programme (United Nations, 2010). At the 2010 Millennium Development Goals summit, specific targets and indicators were established to promote environmental sustainability.

Among these targets, one of relevance to the logistics sector is the reduction of carbon dioxide emissions. This indicator highlights the significant role of greenhouse gas emissions from logistics activities, including the container industry, in contributing to environmental challenges. Organic fuel waste generated by logistics operations exacerbates these issues, with widespread environmental impacts such as marine pollution, global climate change, and the release of harmful emissions. Ship-based emissions, including nitrogen oxides, hydrocarbons, carbon monoxide, carbon dioxide, and sulphur oxides, degrade air quality and pose risks to both environmental and human health.

In response to these challenges, the container transportation industry is increasingly seeking low-emission, energy-efficient solutions (Zhang et al., 2020.). The International Maritime Organization (IMO), as the leading regulatory authority, plays a critical role in advancing sustainable development within the sector. The IMO's International Convention for the Prevention of Pollution from Ships (MARPOL) addresses various pollution sources, including oil, chemicals, sewage, and garbage (Gollasch et al., 2007). In 2018, IMO member states committed to reducing total annual greenhouse gas emissions from ships by at least 50% by 2050 compared to 2008 levels.

This growing emphasis on sustainability has led businesses to reassess their operational strategies and enhance their environmental performance. Companies in the maritime industry are now not only working to minimize their environmental impacts but are also increasingly using sustainability reporting as a tool to communicate their efforts and build trust with stakeholders. Sustainability reporting has thus become an essential means for organizations to outline their environmental goals and demonstrate their progress in achieving them (Hicks & Dietmar, 2006). With increasing interest in sustainable maritime transportation, container shipping companies need to enhance their environmental performance to reduce their environmental impacts. Companies have not only focused on reducing their environmental impacts but have also felt the need to share these efforts with their stakeholders and communicate them to a wider audience. In response to growing demands, they have started using sustainability reporting as a tool to build trust by outlining their environmental goals and progress. In this context, sustainability reporting has become a critical tool. In the following section, we turn our attention to sustainability reporting, examining its role as a key tool for communicating environmental, social, and governance practices in the maritime logistics sector.

2.2. Sustainability Reporting

The concept of sustainability is a process that encourages the prudent use of all societal, environmental, and economic activities, fostering awareness thereof. With increasing awareness accompanying this process, these activities have found their place both internationally and within companies. The concept of sustainability encountered in business life relates to companies fulfilling their social objectives, such

as economic development and environmental protection, as well as social justice (Wilson et al., 2003). While there appears to be a high number of reports in developed countries with satisfactory explanations, the number of reports is observed to be low in developing countries (Shanhong et al., 2007). Companies are increasingly adopting this understanding by publishing reports. As companies realize the importance of accountability to their stakeholders and the need for transparency, they embrace a transparent approach and use reporting as a tool to express their sensitivity and responsibility towards sustainability. Some companies expect their visibility to increase through these reports, aiming for recognition by stakeholders and the industry (Beloff et al., 2004). Increasing visibility and recognition by companies are crucial. Therefore, the importance of sustainability reports by companies has also increased accordingly. Sustainability reports enable businesses to track progress towards specific goals, facilitate the implementation of environmental strategies, raise awareness of environmental issues within the organization, and express the business message clearly. They enhance sector worthiness through transparency, lead to cost savings and increased efficiency, enhance the company's reputation and business development opportunities, and create a competitive advantage (Kolk, 2004). However, adopting a certain understanding is necessary at this point.

“The Global Reporting Initiative (GRI) leads the way for organizations to measure and report their environmental, social, and economic performance accurately using principles and indicators” (Khalili, 2011). Despite these benefits, the increasing emphasis on sustainability reporting has also given rise to concerns about greenwashing, where companies may exaggerate or misrepresent their sustainability efforts to appear more environmentally responsible than they are. This deceptive practice undermines the integrity of sustainability reports and poses a significant challenge to genuine environmental accountability. While sustainability reporting offers a platform for transparency and accountability, it also opens the door for potential misuse. As companies strive to meet growing expectations, the line between genuine efforts and exaggerated claims can become blurred. This is where the concept of greenwashing comes into play, raising important questions about the authenticity of reported sustainability achievements. In the following section, the discussion transitions to greenwashing, addressing how misrepresentation in sustainability

reporting can undermine trust and hinder genuine progress toward environmental goals.

2.3. Greenwashing

In recent years, rapid globalization and industrialization have led to increased environmental degradation. Issues such as pollution, greenhouse gas emissions, thinning of the ozone layer, and global warming have become increasingly serious threats. This situation, along with the growing awareness of consumers, investors, and other stakeholders about the environment, has led them to place greater importance on environmental and social factors in their purchasing and investment decisions. Consequently, companies are under constant pressure to perform well environmentally before profit. (Kadyan & Aggarwal, 2014). Along with this pressure, the business world is showing a greater inclination towards adopting a management approach called "greenwashing" to meet environmental expectations. Greenwashing refers to the act of spreading misleading or partial information by an organization to create the appearance of being environmentally responsible (Furlow, 2010). Greenwashing can also be defined as the act of presenting a company's environmental practices or the environmental benefits of a product or service to consumers by exaggerating or providing misleading information (Baum, 2012). Consumers exposed to misleading claims due to greenwashing gradually lose their trust in green products or services over time and struggle to make green purchasing decisions.

Greenwashing activities can be examined at four levels: corporate level, strategic level, dark level, and product level, as classified (Torelli et al., 2020).

To address the challenges posed by greenwashing, it is crucial for companies to prioritize transparency and authenticity in their environmental communications. Greenwashing undermines the credibility of genuine sustainability efforts and can lead to skepticism among consumers and other stakeholders. Therefore, implementing rigorous standards for sustainability reporting and adhering to recognized frameworks such as the GRI can help mitigate the risks associated with greenwashing (Khalili, 2011). Furthermore, regulatory bodies and industry watchdogs play a vital role in monitoring and enforcing compliance with environmental claims to ensure that companies do not engage in deceptive practices. In conclusion, while greenwashing

remains a significant issue in the corporate world, increasing scrutiny and demand for genuine sustainability practices can drive companies toward more honest and impactful environmental stewardship. The continuous evolution of regulatory frameworks, coupled with heightened awareness and activism among stakeholders, holds the potential to reduce greenwashing and foster a more sustainable and transparent business environment. The use of greenwashing can be better understood within the framework of Legitimacy Theory, which suggests that companies seek societal approval by aligning their operations and communication with the values and norms of the communities in which they operate (Suchman, 1995). According to this theory, legitimacy is essential for companies to maintain their position in society and ensure long-term survival. By presenting themselves as environmentally responsible through sustainability reports and green marketing, companies aim to gain societal acceptance and avoid scrutiny. However, when companies exaggerate or misrepresent their environmental efforts, they engage in greenwashing as a tool to maintain or enhance their legitimacy.

To illustrate this process, the following diagram (designed by the author) demonstrates how companies use sustainability reports and misleading environmental claims to create a green image, which in turn leads to societal acceptance and ultimately maintains their legitimacy:

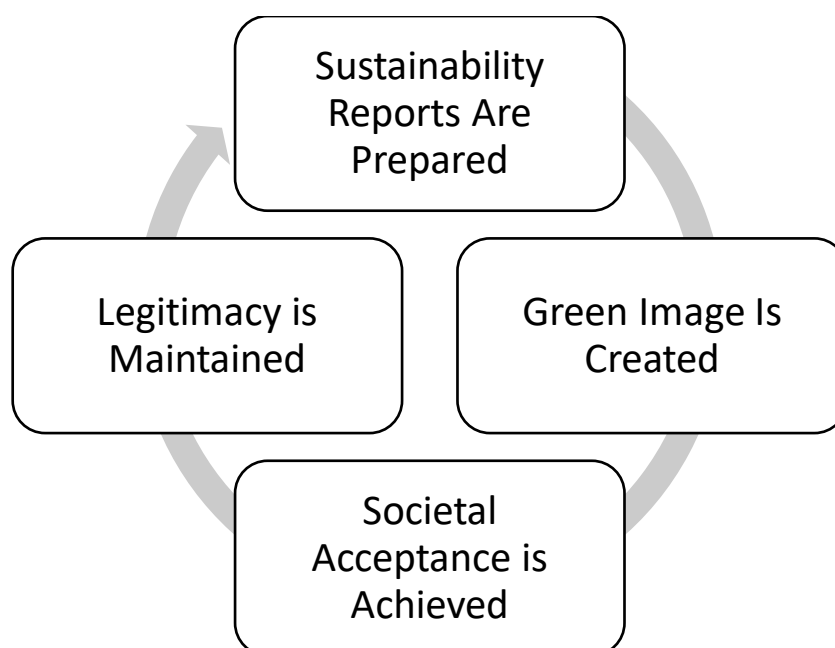


Figure 2.1. The Greenwashing Process Through Legitimacy Theory (Source: Author's own work)

In the diagram, companies first prepare sustainability reports, which highlight their environmental efforts (1). These reports help create a "green image" that appeals to environmentally conscious stakeholders (2). As a result, companies achieve societal acceptance (3), which strengthens their legitimacy and protects them from potential reputational risks (4). This cycle allows companies to maintain a positive image, even when their environmental practices may not align with their public claims.

In conclusion, while greenwashing remains a significant issue in the corporate world, increasing scrutiny and demand for genuine sustainability practices can drive companies toward more honest and impactful environmental stewardship. The continuous evolution of regulatory frameworks, coupled with heightened awareness and activism among stakeholders, holds the potential to reduce greenwashing and foster a more sustainable and transparent business environment. The dynamics of greenwashing and sustainability reporting demonstrate how companies balance public perception and actual environmental responsibility. While this issue spans across various industries, the container transportation sector holds a particularly significant position due to its critical role in global trade and substantial environmental footprint. The following chapter delves into the intricacies of sustainability reporting and greenwashing within the container transportation industry, offering a focused examination of sector-specific challenges, practices, and outcomes.



3. CHAPTER: SUSTAINABILITY REPORTING AND GREENWASHING IN CONTAINER TRANSPORTATION

3.1. Studies on Sustainability Reporting and Greenwashing

The increasing global environmental issues today are leading individuals to behave more environmentally conscious and encouraging brands to develop sustainable strategies. The relationship between marketing and sustainability is gaining increasing importance. Brands aim to gain a competitive advantage and attract consumers' attention by using green marketing strategies. The concept of sustainability aims not only to meet the needs of the present generation but also to achieve a balance that does not compromise the needs of future generations. In this context, proactive and reactive green marketing strategies have emerged.

Companies adopting a proactive approach engage with stakeholders on sustainability, aim to increase customer satisfaction, and prefer active participation in social and environmental issues. On the other hand, companies adopting a reactive approach often follow legal regulations and attempt to create an image of sustainability. These so-called green marketing strategies have led to the emergence of a concept called "greenwashing." (Bowen & Aragon-Correa, 2014). This term defines misleading or contradictory marketing practices intended to appear environmentally friendly.

Greenwashing as a form of fraud enables policy practitioners to regulate Corporate social responsibility (CSR) reporting using tools from the anti-fraud literature and ensure a healthier creation regime in the future. Analysing CSR reporting from the perspective of a fraud investigation may offer a different perspective to see how CSR reporting works (Kurpierz & Smith, 2020).

Studies on the logistics industry indicate that companies with better CSR performance are more inclined to release CSR reports, and those with superior CSR performance tend to publish a greater number of these reports. That's why the research rejected the greenwashing trend in the logistics industry (Uyar et al., 2020). However, another study advocated examining sectors in depth by reducing the size of groups. To understand greenwashing behavior, it needs to be examined on a sector basis. According to the

research, belonging to a certain industry indicates a certain greenwashing behavior (Ruiz-Blanco et al., 2022b).

A recent bibliometric assessment highlights that sustainability reporting practices in G7 and non-G7 nations differ significantly, with varying degrees of greenwashing depending on the region and regulatory environment (Sundarassen et al., 2024). In recent years, the connection between companies' bold claims and greenwashing has been increasingly scrutinized. Research indicates that organizations with poor CSR performance, engaging in greenwashing, may use more complicated and vague language in their reports. This approach is intended to reduce the likelihood of negative reactions from investors regarding less favorable information(Wang et al., 2018).

Among companies that submit sustainability reports, firms suspected of greenwashing have significantly higher cost of equity capital than firms not suspected of greenwashing (Weber, 2018). In fact, small-scale companies often have difficulty integrating these Environmental, social, and governance (ESG) factors into their activities due to insufficient resources. Therefore, smaller firms may need more support from regulators and governments. Although small-scale companies do not attract public attention now, they are expected to attract attention in the future (Yu et al., 2020). However, the integration of external auditing mechanisms has proven to reduce greenwashing tendencies, particularly in the energy sector, where higher CSR performers not only adhere to GRI guidelines but also seek external assurance to verify the accuracy of their reports (Karaman et al., 2021). Furthermore, emerging technologies such as artificial intelligence (AI) are being used to detect inconsistencies in sustainability reporting, helping to identify greenwashing practices more efficiently (Moodaley & Telukdarie, 2023).

Overall, recent research stresses the importance of a holistic approach to sustainability reporting. Companies must not only be transparent in their environmental claims but also ensure that their actions align with their stated commitments (Free et al., 2024; Gupta, 2024). This intersection of technology and sustainability reporting provides new avenues for ensuring transparency and accountability. In greenwashing studies, internal and external auditors play an important role in reducing companies' greenwashing tendencies. Research conducted with 1,603 companies in China found that a robust internal control system, including effective communication channels, a

solid information transmission mechanism, and strict monitoring, can prevent greenwashing motives from succeeding. Even if a company has the intent to engage in greenwashing, the lack of favourable conditions and the transparency of the company often exposes such motives, rendering them ineffective. (Huang & Huang, 2022.) On the other side, according to research conducted in the energy sector, external auditing reduces the tendency of companies to greenwash. Research in the energy sector shows that, beyond publishing CSR reports, companies with strong CSR performance also highlight their commitment by following GRI guidelines in their reports and ensuring the credibility of their content through external assurance statements (Karaman et al., 2021).

Another study in the energy sector examined sustainability reports and interviews as a case study, revealing that they prompted diverse corporate responses to climate change. These responses ranged from instrumental approaches, such as the natural resource-based view, to more normative and aspirational approaches like corporate citizenship and political CSR (Toft & Rüdiger, 2020). This presented the impact of both political pressures and individual development on companies.

International organizations have set goals for determining the quality of sustainability reports. However, it seems that this has negative results in some sectors. It shows that after GRI clarified the principle of prioritization in the Mining and Metal sector in 2016, the reports in this sector remained unchanged, and the quality of public disclosure of financial services decreased further with the reduction of environmental emphasis without removing social disclosures (Zharfpeykan, 2021) .

While greenwashing changes society's view of the company, it also affects the brand value of the company. Research conducted among industrial companies in Ukraine demonstrated that a one-point rise in greenwashing results in a 0.56-point decline in the company's green brand, with a load factor of 0.78 (Pimonenko et al., 2020). This finding indicates that when companies are perceived as misleading in their environmental commitments, their brand image as an environmentally responsible entity is significantly weakened. In addition, the studies are a tool for sustainability reporting activities and the development of the company's income generation capacity over time. In other words, it appears to be in line with what has been shown in the most recent literature showing that failure to control the environmental impact of the activity

carried out has negative effects on economic-financial performance (Pizzi, 2018.). However, a study conducted within the scope of supermarkets in Germany has shown that companies rarely report negative information. Although companies generally focus on similar areas, such as supply chain, employees, environment/climate, and society. The quality of their reporting varies considerably. Negative information is seldom disclosed, and the predominant strategies for legitimization are 'abstraction' and 'highlighting facts'(Saber & Weber, 2019)

Table 3.1. List of the Studies on Sustainability Reporting and Greenwashing

Author(s)	Aim of the Study	Field/Sector	Method
Zhihong et al. (2018)	To analyse the connection between CSR performance and the clarity of CSR reports.	General	Content analysis and Readability analysis
Jessica et al. (2018)	To analyse whether CSR performance is linked to the clarity and comprehensibility of CSR reports	Banking Sector	Logistic regression mode
Pizzi (2018)	To analyse the impact of CSR on financial and economic performance.	Italian Financial Market	Empirical model
Pimonenko et.al (2020)	To analyse characteristics, such as the level of disclosure and external assurance, along with the CSR performance of reporting firms, help explain the to account for the disparities in the cost of equity capital among firms that provide CSR disclosures.	Ukraine Industrial Companies	Content analysis, structural equation modelling, and Fishbourne methods

Saber& Weber (2019)	To analyse the performance, a comprehensive review is conducted, focusing on the latest trends, methodologies, and outcomes in the field.	Grocery	Content analysis
Elli et al. (2020)	To analyse strategies to comprehensively mitigate firms' greenwashing practices across ESG dimensions, a detailed examination is conducted.	Large Cap Firms	Forecasting
Huang et al. (2020)	To analyse the significance of internal control mechanisms in enhancing the quality and extent of green information disclosure among Chinese firms, the research is conducted to determine whether effective internal control systems contribute to more transparent and reliable environmental reporting.	Chinese Firms	Empirical research
Uyar et al. (2020)	To analyse the relationship between CSR performance and CSR reporting within the logistics sector, the study is conducted.	Logistic	Content analysis
Toft et al. (2020)	To analyse, creates a framework to assess how companies address the ethical dimensions of climate change, applying it through a	Energy	Literature review

	case study involving three Danish energy companies. The research explores the strategies these companies use to meet climate change goals and the ethical challenges they face along the way.		
Kurpierz et al. (2020)	To analyse, the models used in fraud accounting research show a notable overlap with those applied in greenwashing studies, demonstrating how researchers and policymakers focused on effective sustainability policies can leverage insights from fraud accounting literature to gain a deeper understanding of greenwashing and develop strategies to address it.	Accounting	Content analysis
Ruiz et al. (2022)	To analyse the characteristics that determine whether firms are prone to greenwashing.	S&P 100 Stock Companies	Content analysis
Zharfpeykan (2021)	To analyse, examines why companies are increasingly publishing standalone sustainability reports, which are both costly and potentially expose them, and analyses how companies strategically use these reports	Mining and Metal	Content analysis

	to gain legitimacy through either 'representative' reporting of both positive and negative information or by engaging in 'greenwashing'.		
Karaman et al. (2021)	To analyse the connection between four key dimensions of CSR practice which included performance, reporting, compliance with the (GRI) guidelines in CSR report preparation, and the validation of report credibility through an external assurance statement.	Energy	Content analysis
Moodaley, et al. (2023)	To analyse, investigates the concurrence of greenwashing, sustainability reporting, and AI, using AI for detecting greenwashing in reports.	Various sectors (e.g. energy, engineering, finance)	Systematic literature review, bibliometric and thematic analysis
Mingzhu et al. (2023)	To analyse how sustainability reporting can serve as both greenwashing and creating shared value, the dual roles of information disclosure are examined.	General corporate sector	Content analysis
Sundarasan, et al. (2024)	To analyse, sustainability reporting and greenwashing practices through a bibliometric assessment, comparing G7 and non-G7 nations.	G7 and non-G7 nations	Bibliometric analysis

Free et al. (2024)	To analyse the role of sustainability assurance in combating greenwashing, the effectiveness of assurance practices is reviewed, and future research is called for.	Sustainability assurance sector	Literature review and research agenda for future studies
Jones et al. (2024)	To analyse the responsibilities of practitioners in ensuring accurate and reliable sustainability reporting, the ethical role they play is explored.	Financial Sector	Conceptual review
Gupta (2024)	To analyse whether sustainability reporting is a viable approach for promoting transparency and accountability in the banking industry, the issue is investigated.	Banking industry	Empirical analysis

Upon reviewing the literature, many significant studies have been conducted on sustainability reporting and greenwashing (i.e. Uyar et. al, 2020; Pizzi, 2018; Toft et. al, 2020; Saber& Weber, 2019). These studies examine how companies report their CSR and ESG performances and the impacts of these reports on stakeholders. The general findings from these studies cover CSR performance and reporting, greenwashing behaviours, green branding and greenwashing, the quality of sustainability reporting, and identifying greenwashing. These works provide crucial insights into understanding the relationship between sustainability reporting and greenwashing. It is emphasized that companies should be more transparent and honest when reporting their CSR and ESG performances. Additionally, adopting integrated and holistic approaches is recommended to reduce greenwashing behaviours. However, there is a noticeable gap in the literature concerning sustainability reporting

and greenwashing within the maritime industry. For this reason, this research is necessary to address these specific gaps and provide a deeper understanding of the sector's unique challenges and practices. In the following section, the focus shifts to sustainability reporting specifically within the container transportation sector, exploring its unique challenges and practices in relation to environmental and social responsibility.

3.2. Sustainability Reporting in Container Transportation

Container transportation, considered the backbone of global trade, is an important part of the world economy. However, the environmental impacts of this sector, particularly issues such as carbon emissions and marine pollution, are a major concern in terms of sustainability. In this context, sustainability reporting by container shipping companies has become an important component of their efforts to reduce their environmental impact and achieve more sustainable operations. Companies have a variety of reasons beyond applicable regulatory requirements to publish sustainability reports. Much of the existing research cites legitimacy theory as one of the most likely explanations for the increase in sustainability reporting over the past decade. Legitimacy theory is based on the idea that in order for companies to continue to operate successfully, they must operate within the boundaries of what society defines as socially acceptable (Unerman & Bennett, 2004). The existing literature on the sustainability of the container transportation industry generally focuses on motivations, critical success factors, and the relationship between sustainability and business performance (Tran et al., 2020). These studies reveal how sustainability practices in the container transportation industry impact business performance and identify the factors that determine success.

Recently, topics such as stakeholder management and sustainability reporting in the container transportation industry have attracted researchers' interest. Stakeholder engagement through social media in container transportation. This study examines how social media can enhance companies' sustainability efforts and interactions with stakeholders (Surucu-Balci et al., 2020). The importance of developing sustainable businesses and ensuring stakeholder engagement in sustainable container transportation (Yuen et al., 2020). These studies demonstrate that effective stakeholder management plays a critical role in achieving sustainability goals.

The importance of stakeholder management and sustainability reporting in the container transportation industry has been highlighted. Sustainability reports published by container transportation companies to evaluate the industry's performance within the framework of the United Nations' Sustainable Development Goals (SDGs) (X. Wang et al., 2020). These studies analyse how container transportation companies report their performance under the 17 Sustainable Development Goals set by the UN in 2015 (Allison et al., 2013). However, the sustainability reporting regime is still fragmented and disorganized (Fisch, 2018). Companies with superior sustainability performance publish high-quality reports to stand out in the market, while those with poor performance prefer ambiguous reports to conceal their true performance and maintain legitimacy (Hummel & Schlick, 2016). This situation underscores the need for a renewed and practical sustainability reporting framework for the container transportation industry (Hummel & Schlick, 2016).

The effectiveness of sustainability reporting in the container transportation industry, focusing on how companies can accurately and transparently present their sustainability performance. Research emphasizes the need for a holistic approach and effective stakeholder management implementation. (Tran et al., 2020). In this context, it is crucial to develop and standardize sustainability reporting practices in the container transportation industry (Fisch, 2018). In the following section, the discussion transitions to greenwashing in container transportation, analysing how misleading sustainability claims can undermine the credibility of environmental reporting in this sector.

3.3. Greenwashing in Container Transportation

Previously, significant studies have been conducted on CSR reporting in the logistics sector. Notably, the 2020 study titled "Is corporate social responsibility reporting a tool of signalling or greenwashing? Evidence from the worldwide logistics sector" investigated the association between CSR performance and CSR reporting, drawing on signalling and greenwashing theories. This study used the ESG indicator, composed of CSR performance components, as a proxy and derived its data from the Thomson Reuters Eikon database for the years 2012 to 2018. The findings indicated that companies with stronger CSR performance are more inclined to publish a greater number of CSR reports, supporting the validity of signalling theory while dismissing

the notion of greenwashing. These findings offer various implications for the logistics sector, academics, firms, shareholders, and other stakeholders. However, this study generally addressed the logistics sector without distinguishing between sub-sectors. The logistics sector encompasses a wide range of areas, including maritime, air, and land transportation. Therefore, this research, which focuses on the general logistics sector, does not sufficiently reflect the unique dynamics and characteristics of each sub-sector. Specifically, research on greenwashing and sustainability reporting in the maritime sector, and more precisely in container transportation, is limited. The scarcity of studies in the maritime sector highlights the need for such research in sub-sectors like container transportation. Container transportation is a critical sector forming the backbone of global trade, and examining sustainability practices and greenwashing tendencies in this area is of great importance.

In this study, the concepts we have addressed aim to establish a foundation for understanding the interaction between sustainability reporting and greenwashing in the container transportation sector. First, by explaining general logistics concepts such as maritime logistics and container transportation, we detailed the industry on which our study focuses. We then moved on to the topic of sustainability in maritime logistics, examining why sustainability is important in this sector and its areas of application. This provided a basis for understanding companies' efforts to reduce their environmental and social impacts.

In the section on sustainability reporting, we explored how these reports reflect businesses' sustainability commitments and their way of fulfilling responsibilities towards stakeholders. This concept is critical for understanding greenwashing, as reports are often the main tool businesses use to showcase their sustainability performance. At the same time, they can be used by companies to present unsustainable practices as if they were sustainable. By defining the concept of greenwashing, we found the opportunity to question the sincerity of companies' sustainability claims. Addressing why and how greenwashing occurs in this context will allow us to evaluate the credibility of sustainability reports.

The reason for examining sustainability reporting and greenwashing together is to investigate how much businesses' sustainability claims reflect reality. By analysing the interaction of these two phenomena specifically within the container transportation

sector, we aim to determine whether greenwashing is being conducted in the industry. Bringing these concepts together provides us with a valuable perspective, both theoretically and when interpreting the findings of the study.

By examining sustainability reporting and greenwashing within the container transportation sector, this chapter has provided a theoretical foundation for understanding the alignment—or misalignment—between corporate claims and actual practices. To build upon this groundwork, the next chapter outlines the research design and methodology employed in this study, detailing the tools, techniques, and processes used to collect and analyse data effectively.



4. CHAPTER: RESEARCH DESIGN AND METHODOLOGY

4.1. Research Gap in the Domain and Problem Statement

A study has been found in the literature that investigates the relationship between sustainability reporting and greenwashing in the logistics sector. According to the results of this study, companies with higher CSR performance are more likely to publish a CSR report, and it has been determined that firms with higher CSR performance publish a greater number of CSR reports. This study, which rejects the tendency for greenwashing in the logistics sector, utilized a dataset from 2012 to 2018 and was published in 2020 by Ali Uyar and colleagues under the title "Is Corporate Social Responsibility Reporting a Tool of Signalling or Greenwashing? Evidence from the Worldwide Logistics Sector."

However, this study primarily examined the logistics sector, without differentiating between its various sub-sectors. The logistics industry covers a broad spectrum, including maritime, air, and land transportation (Song, Panayides, 2012). As a result, the research, while centred on the overall logistics sector, does not adequately capture the distinct dynamics and specific characteristics of each individual sub-sector.

Therefore, no study has been found that sufficiently addresses the unique dynamics and characteristics of the maritime sector in the context of greenwashing and sustainability reporting. The need for such research is particularly evident in container transportation, which holds the largest share in maritime trade. Understanding sustainability practices and greenwashing tendencies in this sector, which forms the backbone of global commerce, is of great importance.

Following the identification of the research gap, the aim of this study becomes clear. This research seeks to address a significant gap in the literature by exploring whether the sustainability efforts of companies in the container transportation sector are authentic or if they demonstrate elements of greenwashing. While there are general studies focused on the logistics sector, this research narrows the focus to a specific sub-sector—container transportation—which will provide a deeper understanding of the accuracy of sustainability reporting and the extent of greenwashing practices within this field.

By examining the specific greenwashing tactics employed in container transportation, this study will offer valuable insights for regulators, policymakers, and industry stakeholders. These insights will be crucial in the development of stricter guidelines and standards for sustainability reporting, promoting greater transparency and accountability. Additionally, the findings will assist companies in refining their sustainability practices and reporting methods, thereby enhancing their credibility and fostering trust with stakeholders.

Ultimately, this research will contribute to the broader objective of encouraging genuine sustainability in the maritime industry, particularly in container transportation, a sector essential to global trade.

4.2. Research Questions and Aim of the Study

The relationship between sustainability reporting and greenwashing is fundamentally about how companies communicate their sustainability performance and the accuracy of this communication. Sustainability reports aim to transparently present companies' environmental, social, and economic performance to stakeholders. However, greenwashing involves manipulating these reports to create the impression that companies are more sustainable than they are. Companies may resort to greenwashing to gain a competitive advantage, comply with legal pressures, and meet stakeholder expectations.

Sustainability reports are a critical tool for communicating companies' commitments and performance to stakeholders, including investors, customers, employees, and regulatory bodies. However, greenwashing practices undermine the credibility of these reports. Exaggerated or false information erodes stakeholder trust and damages the company's reputation, negatively impacting its long-term success and ability to achieve sustainability goals. Compliance with legal and regulatory requirements is also crucial, but greenwashing casts doubt on the accuracy of these reports and can lead to legal consequences. Companies must ensure their reports are based on genuine data and are transparent.

The motivations for greenwashing in sustainability reports are manifold. Companies often engage in greenwashing to manage their reputation by appearing environmentally responsible, thereby attracting positive media attention and

improving relationships with stakeholders such as customers and investors. In highly competitive markets, companies might feel pressured to match or surpass their competitors' sustainability claims without making actual sustainable investments. The increasing consumer demand for sustainable products drives companies to appeal to environmentally conscious consumers, hoping to increase sales and market share. Moreover, investors are placing greater emphasis on ESG factors when making investment decisions. As a result, companies may engage in greenwashing by exaggerating their sustainability accomplishments to attract investment. The danger of greenwashing lies in concealing true sustainability performance. Sustainability reports should reflect companies' genuine efforts and progress in reducing environmental and social impacts. However, greenwashing presents this performance as better than it actually is, obscuring real progress and making objective evaluation difficult. Thus, examining the relationship between sustainability reporting and greenwashing is critical. Therefore, this study investigates the relationship between sustainability reporting and greenwashing in container transportation. The research question is as follows:

- How can we analyse the sustainability reporting aspects in the container transportation industry?
- How can we interpret sustainability reporting and greenwashing in container transportation?

This research will determine the discrepancy between what is stated in the sustainability reports and the actual practices through a series of questions posed to container transportation companies, thus revealing whether they are engaging in greenwashing. The objectives of the study are:

- Determine the prevalence and indicators of greenwashing practices in the container transportation sector.
- Examine the relationship between the content and transparency of sustainability reports and greenwashing.
- Develop recommendations and strategies to reduce greenwashing practices and improve sustainability reporting.

This study aims to explore the critical relationship between sustainability reporting and greenwashing, specifically within the container transportation sector. Sustainability reports are designed to showcase a company's commitment to environmental and social responsibilities, but these claims are not always an accurate reflection of actual practices. Greenwashing occurs when companies exaggerate or misrepresent their sustainability efforts to enhance their public image without making significant, tangible changes. By analyzing the content of sustainability reports, this research will uncover whether the claims made by companies in the container transportation sector genuinely reflect their sustainability efforts or if they are a strategic tool for greenwashing.

The study's objective is not only to identify instances of greenwashing but also to examine how sustainability reporting is used as a communication tool—either as a transparent reflection of sustainability practices or as a mechanism for creating a misleading public perception. This is crucial because if sustainability reporting is frequently used for greenwashing, it undermines the credibility of the entire sustainability movement in the container transportation industry. Therefore, this research will provide insights into the integrity of sustainability reports and the extent to which they align with real environmental performance.

By doing so, the study will serve multiple purposes: it will help evaluate whether companies are truly fulfilling their environmental and social responsibilities, inform the development of more stringent regulatory frameworks, and ensure that sustainability reporting becomes a more reliable and transparent tool. Ultimately, the findings will contribute to advancing genuine sustainability in the container transportation industry, encouraging companies to adopt more responsible and honest business practices that align with global environmental and social standards. This will foster greater accountability and help promote trust between companies and their stakeholders.

4.3. Proposed Research Design

The section outlines the research implemented to explore the relationship between sustainability reporting and greenwashing in the container transportation sector. A structured approach was adopted to ensure a comprehensive and detailed investigation,

leveraging both qualitative and quantitative methodologies. The Figure 4.1. below illustrates the step-by-step process of the research design.

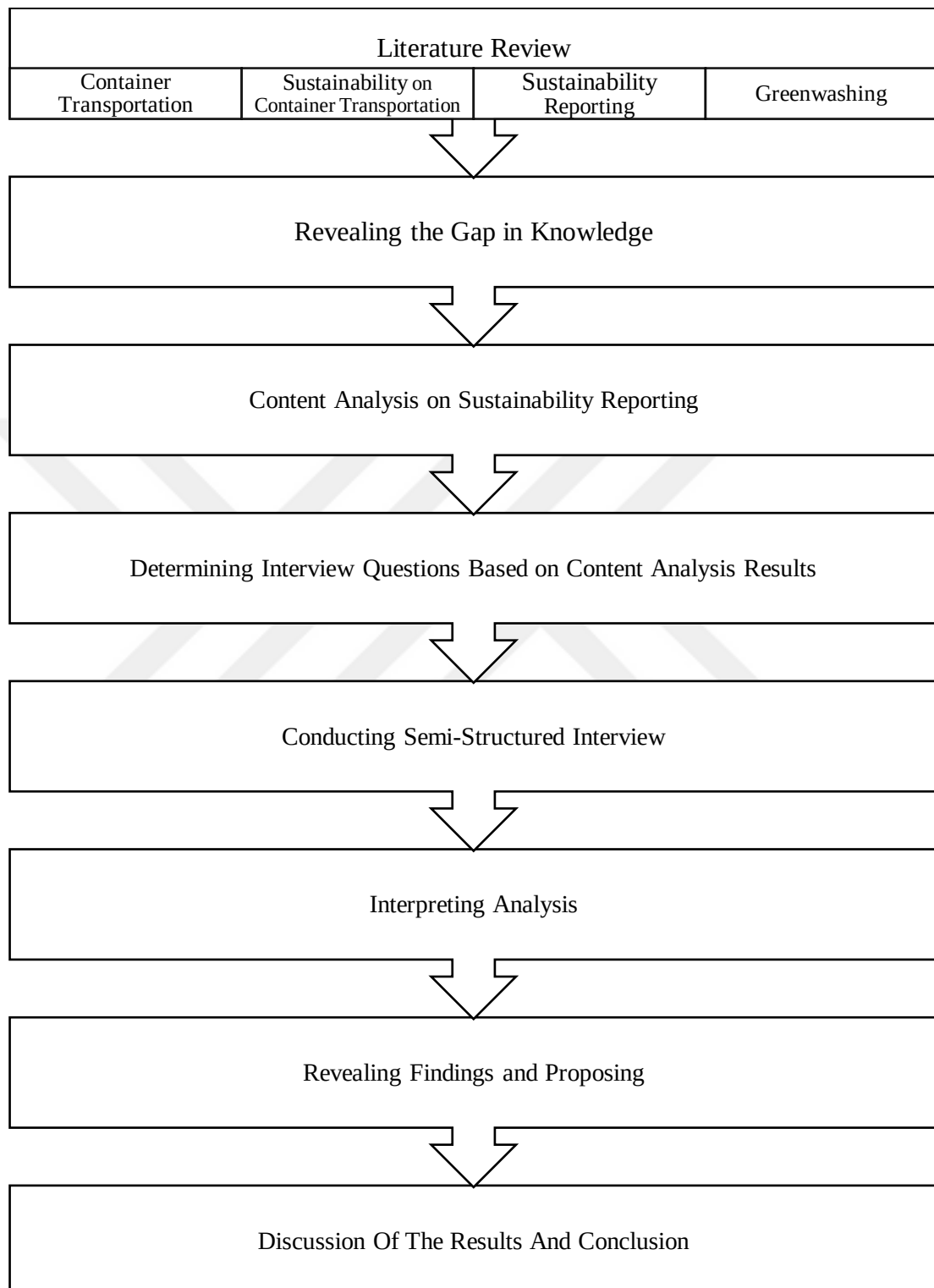


Figure 4.1. Research Flowchart

This research was conducted systematically by following specific steps. Initially, an extensive literature review was carried out on container transportation, sustainability practices within this sector, sustainability reporting, and greenwashing. This literature review provided a comprehensive understanding of the significant role container transportation plays in sustainable development and the relationships between sustainability reporting and greenwashing in this sector.

The next step involved identifying gaps in the existing knowledge. This process revealed deficiencies in understanding the relationship between sustainability reporting and greenwashing specifically in the container transportation sector. To address these gaps, a content analysis on sustainability reporting was conducted. This analysis examined the sustainability reports published by the top 30 container transportation companies based on TEU and identified the dominant themes within these reports.

Based on the results of the content analysis, semi-structured interview questions were developed. These questions were designed to understand whether the sustainability efforts of companies in the container transportation sector reflect reality or if they are examples of greenwashing. The interview questions were derived from the previous content analysis results to gather in-depth information about the companies' sustainability policies and practices.

The data obtained from the interviews were combined with the content analysis results and analyzed. This analysis provided a better understanding of the current state of sustainability reporting in the container transportation sector and offered recommendations to enhance transparency and reduce greenwashing practices. The research findings provided valuable insights for developing more transparent and reliable sustainability reporting practices in the sector, thoroughly evaluating the relationship between sustainability and greenwashing in the container transportation sector.

4.4. Methodology

This study employs two methods: content analysis, and semi-structured interviews. Content analysis was used to systematically examine the sustainability reports of container transportation companies, identifying key themes and concepts within the

reports. This method serves as a suitable tool for understanding the sustainability efforts and priorities of these companies, providing an objective analysis of the information presented in existing reports. Content analysis is crucial for assessing the accuracy and transparency of the companies' reporting and for determining the prevalence of greenwashing practices (Horúcková & Baudassé, 2017).

Semi-structured interviews were chosen to deeply investigate the relationship between sustainability reporting and greenwashing. This method allows for a comprehensive understanding of participants' experiences and perspectives regarding sustainability policies and practices. Semi-structured interviews are flexible and encourage detailed and candid responses from participants. This flexibility enables the collection of rich data, essential for evaluating whether sustainability efforts reflect reality and for identifying instances of greenwashing.

By using these two methods in conjunction, this study aims to gain a broader perspective on the current state of sustainability reporting in the container transportation sector and to enhance the transparency of sustainability practices within the industry.

4.4.1. Content Analysis

Content analysis is a versatile research method that has been widely employed across various academic disciplines, including sociology, communication studies, psychology, and political science. This systematic analytical approach involves the study of text, media, communication, or information to derive valid inferences about a phenomenon of interest. The method can be applied using both quantitative and qualitative techniques, allowing researchers to explore both the manifest and latent content within the data (Im et al., 2023). One of the key advantages of content analysis is its ability to analyse large volumes of data over an extended period, spanning diverse fields of study (White & Marsh, 2006). The approach can be used to compare objects, identify individuals' characteristics or hidden intentions, and analyse the attributes of a specific era or context (Im et al., 2023). Quantitative content analysis typically involves categorizing research data and analysing the relationships between the derived categories (Im et al., 2023). This deductive approach involves the use of pre-defined categories and variables based on findings from prior research (Chandra.K.,

2004). In contrast, inductive approaches to content analysis tend to take a more open-ended view of the content, often involving smaller samples and a qualitative orientation (Chandra.K., 2004).

Qualitative content analysis, on the other hand, generates categories largely from the data itself, applying them through close reading and analysing the results solely through qualitative means (Forman & Damschroder, 2007) . One of the key tools used in content analysis is computer-assisted software, which allows researchers to systematically analyse large volumes of text data. The use of such tools is especially important in the era of big data, as they enable efficient processing and categorization of vast amounts of information that would be challenging to manage manually. These content analysis tools help in analysing large amounts of data. Leximancer, one of the many available analysis tools, was utilized in this study.

Leximancer is a software tool used to extract meaningful concepts and relationships from text data. This tool automatically identifies themes and concepts within the text and visualizes the connections between them. This allows for systematic and objective analysis of text data. The use of Leximancer, particularly in large datasets, facilitates the quick and efficient processing of data and provides deep insights in qualitative analysis (Gkevrou & Stamovlasis, 2022). One of the key features that sets Leximancer apart from other text analysis tools is its ability to identify and extract the underlying concepts and their connections within a text, rather than simply searching for pre-defined keywords (Bommarito II et al., 2021). This concept-based approach allows researchers to uncover latent themes and insights that may not be immediately apparent through a more superficial analysis(Zhao et al., 2023.) These features make Leximancer an ideal tool for in-depth examination and comprehensive analysis of the relationship between sustainability reporting and greenwashing in the container transportation sector. In this study, large datasets were analysed using Leximancer, a tool known for its ability to process data quickly and efficiently. This software facilitated a systematic and objective analysis of extensive text data, transforming it into meaningful concept maps that reveal key themes and connections.

4.4.2. Semi-Structured Interview

This study employs a methodology centred on semi-structured interviews as the main data collection tool. Semi-structured interviews, a widely recognized qualitative research method, facilitate the gathering of open-ended data, allowing the researcher to gain a deep understanding of participants' thoughts, emotions, and beliefs regarding a specific topic. (Longhurst, 2009). Unlike formal, structured interviews, which adhere to a rigid format of predetermined questions, semi structured interviews follow a more conversational approach, focusing on specific themes while maintaining flexibility (Adams, 2015).

This method was chosen to deeply understand the participants' experiences, motivations, and the complexities surrounding the phenomena being investigated. Semi structured interviews are a versatile qualitative research method that allows for the collection of open-ended data. This approach enables researchers to explore participants' thoughts, feelings, and beliefs about a particular topic in depth. Unlike formal, structured interviews, semi structured interviews follow a more conversational format, focusing on specific themes while maintaining flexibility. This approach provides a balance between the researcher's need for rigor and the participants' opportunity to share their perspectives openly (Burnard et al., 2008).

The utilization of semi structured interviews is a well-established and increasingly popular approach in geographic research, as it allows for the investigation of complex social phenomena, such as issues of meaning, identity, subjectivity, politics, knowledge, representation, and power (Fossey et al., 2002). Moreover, the growing awareness of researcher positionality and reflexivity has further contributed to the popularity of this methodological approach, as it enables the researcher to engage with participants in a more open and transparent manner (Longhurst, 2009).

In the context of this study, there are several important reasons for choosing semi-structured interviews to examine the relationship between sustainability reporting and greenwashing in the container transportation sector. The flexibility of this method allows for an in-depth exploration of complex and sensitive topics; this is crucial for discussing potentially controversial greenwashing practices without the constraints of a rigid format (Mohammed, 2023.). Semi-structured interviews enable the asking of

questions tailored to the knowledge and experiences of different participants, thereby enriching the data collected and uncovering detailed insights. This approach is also suitable for the study's aim to capture detailed and contextually rich data (Karatsareas, 2022). Allowing participants to express their thoughts in their own words provides a deeper understanding of motivations, challenges, and strategies related to sustainability reporting and greenwashing; this is essential for developing comprehensive insights and practical recommendations. Finally, semi-structured interviews support the reflexive nature of this research. The ability to respond and adapt to participants' input in real-time enhances the validity and reliability of the findings. Data analysis will enable systematic evaluation and interpretation of qualitative data collected through semi-structured interviews (Mohammed, 2023.). This process is essential for uncovering patterns, themes, and insights that contribute to a deeper understanding of the relationship between sustainability reporting and greenwashing in the container transportation sector. In this study, MAXQDA was used to analyse the interview transcripts, enabling the identification and categorization of key themes related to sustainability reporting and greenwashing. MAXQDA is a widely recognized and versatile tool that has been utilized in a variety of research disciplines, including professional communication (Hoover & Koerber, 2011). The software supports various qualitative data analysis methods, including thematic analysis, which is particularly relevant for this study. This tool ensured that the rich qualitative data collected from the interviews was systematically analysed and effectively utilized to draw meaningful conclusions about the transparency and authenticity of sustainability practices in the container transportation sector.

As a summary, semi-structured interviews were chosen due to their ability to facilitate an in-depth exploration of complex and sensitive topics, such as greenwashing, allowing participants to freely share their perspectives. This method is essential for capturing nuanced insights into sustainability reporting practices, making it particularly suitable for examining the authenticity of these practices in the container transportation sector. Additionally, MAXQDA was selected to systematically analyse the interview data, ensuring that the findings are robust, reliable, and aligned with the study's aim to provide a comprehensive understanding of the relationship between sustainability reporting and greenwashing. The research design and methodology outlined in this chapter provide a solid foundation for investigating the relationship

between sustainability reporting and greenwashing in the container transportation sector. With semi-structured interviews offering deep qualitative insights and MAXQDA ensuring systematic data analysis, the study is well-equipped to uncover meaningful patterns and themes. In the following chapter, the focus shifts to the implementation phase, where the research methods are applied, and the data collection process is carried out to bring the study's objectives to fruition.





5. CHAPTER: IMPLEMENTATION OF THE STUDY

This chapter focuses on the implementation of the research methods outlined in the previous chapter. It presents the findings and analysis derived from the content analysis of sustainability reports and the semi-structured interviews conducted with key stakeholders in the container transportation sector. The chapter is divided into two main sections: content analysis of sustainability reporting and an examination of the relationship between sustainability reporting and greenwashing.

To provide a clear structure and illustrate the methodological approach used in this study, the following diagram outlines the process employed for both content analysis and semi-structured interviews:

5.1. Content Analysis on Sustainability Reporting in Container Transportation

Content analysis is an effective method for identifying greenwashing by examining the discourse and narratives within sustainability reports. This method helps us understand how consistent and valid the companies' sustainability claims truly are (Ruiz-Blanco et al., 2022). By systematically examining the language, metrics, and claims within these reports, inconsistencies between reported sustainability efforts and actual practices can be identified. When companies claim to have achieved specific sustainability targets in their reports but fail to provide concrete and verifiable data to support these claims, the risk of greenwashing emerges. Content analysis plays a critical role in identifying such discrepancies and assessing the reliability and accuracy of the reports. For instance, statements like "We will reduce our carbon footprint by 50% by 2025" can be considered greenwashing if not backed by concrete steps and verifiable data towards achieving this goal. Content analysis, when combined with other qualitative methods like interviews or case studies, offers robust triangulation, enhancing the reliability of findings related to greenwashing in CSR reports (Wilson, 2021). This method helps determine the prevalence of greenwashing practices in sustainability reporting. It reveals the tactics companies use to present their environmental responsibilities more favourably than they are and provides recommendations to enhance the credibility of sustainability reports. Therefore, in this

study, content analysis was conducted on the sustainability reports of container transportation companies to determine whether they engage in greenwashing.

In this study, the selection of container transportation companies was based on their TEU (Twenty-foot Equivalent Unit) ranking. Specifically, study focused on the top 30 companies in the industry according to their TEU capacity. The TEU ranking is a widely recognized metric that measures the volume capacity of container ships, providing a standard method to compare the scale and operational scope of different companies within the sector.

The decision to use the TEU ranking as the basis for selecting companies is supported by several key considerations:

Industry Representation:

- By selecting the top 30 companies based on TEU capacity, ensure that the study encompasses a significant portion of the global container transportation industry. These companies represent a major share of the market, allowing us to capture a comprehensive view of sustainability practices and reporting standards within the industry.

Operational Scale and Impact:

- Companies with higher TEU capacities typically have larger operational scales and, consequently, greater environmental impacts. By focusing on these leading companies, the study aims to analyse the sustainability efforts of those with the most significant influence on global trade and environmental sustainability.

Data Availability:

- Leading container transportation companies are more likely to publish detailed and regular sustainability reports due to their size, resources, and stakeholder expectations. This increases the likelihood of obtaining comprehensive and reliable data for content analysis.

Benchmarking and Comparability:

- Utilizing TEU rankings allows for a consistent and objective criterion for company selection, facilitating benchmarking and comparability

across the selected companies. This consistency is crucial for identifying trends, best practices, and areas needing improvement within the industry.

Stakeholder Relevance:

- The top-ranked companies often have more significant interactions with a broad range of stakeholders, including investors, regulators, customers, and environmental organizations. Analysing their sustainability reports can provide valuable insights into how these companies address stakeholder concerns and demonstrate their commitment to sustainable practices.

By selecting the top 30 container transportation companies based on TEU ranking, one of the aims of this study is to provide a detailed and representative analysis of sustainability reporting within the industry. This approach ensures that the findings are relevant, comprehensive, and applicable to the broader context of global container transportation and environmental sustainability. Based on these reasons, the companies included in our study with their data are as follows. It includes data analysis from the year companies started publishing until 2022.

Table 5.1. Companies Data

Company Name	Report Name	When Started To Publish	How Many Report	Founded	Ships	Countries
Mediterranean Shipping Company (MSC)	Sustainable Report	2016	7	1970	725	Switzerland
A.P. Moller-Maersk	Sustainable Report	2010	13	1904	698	Denmark
CMA CGM Group	CSR	2017	6	1978	594	France
China COSCO Shipping	Sustainable Report	2017	6	1961	465	China
Hapag Lloyd	Sustainable Report	2017	6	1970	248	Germany
Evergreen Marine Corporation	CSR	2014	9	1968	208	Taiwan
One (Ocean Network Express)	Sustainable Report	2019	5	2017	205	Japan
Hyundai Merchant Marine	Sustainable Report	2019	4	1976	75	South Korea
Yang Ming Marine Transport Corporation	CSR	2012	12	1972	93	Taiwan
ZIM Integrated Shipping Services	Sustainable Report	2018	5	1945	137	Israel
Wan Hai Lines	CSR	2014	9	1965	142	Taiwan
PIL (Pacific International Lines)	Sustainable Report	2021	2	1967	91	Singapore
Shandong International	ESG	2020	3	2010	101	China

Transportation Corporation (SITC)						
Korea Marine Transport Company (KMTC)	-	-	-	1954	65	South Korea
Zhonggu Logistics Corporation	ESG	2021	2	2010	105	China
Islamic Republic of Iran Shipping Lines (IRISL Group)	-	-	-	1979	30	Iran
X-Press Feeders Group	Sustainable Report	2020	3	1972	87	Singapore
Unifeeder	-	-	-	1977	82	Denmark
TS Lines	-	-	-	2001	49	Hong Kong
Antong Holdings (QASC)	-	-	-	1998	93	China
Sinokor Merchant Marine	-	-	-	1999	76	South Korea
SeaLead Shipping	-	-	-	2017	23	United Arab Emirates
Emirates Shipping Line	-	-	-	2017	16	United Arab Emirates
Swire Shipping	Sustainable Report	2012	11	1816	35	China
RCL (Regional Container Lines)	-	-	-	1980	35	Thailand

Global Feeder Shipping LLC	-	-	-	1986	24	United Arab Emirates
SM Line Corporation	-	-	-	2016	15	South Korea
Matson Inc	Sustainable Report	2019	4	2012	29	United States
China United Lines (CULines)	-	-	-	2005	24	China
Arkas Line / EMES	-	-	-	1996	33	Turkey

In this study, 30 container transportation companies were analysed. Out of the 30 companies, 17 have published sustainability reports, while the remaining 13 companies have not disclosed any sustainability activities to the public. These 17 companies have collectively published a total of 107 sustainability reports to date.

Key points from the analysis include:

Early Adopter:

- According to the Table 5.1. Maersk began its sustainability reporting in 2010, positioning itself as a pioneer in transparency regarding sustainability practices in the sector.

Companies Without Reports:

- 13 companies in the study have not published any sustainability reports. This lack of transparency raises questions about their commitment to sustainability and their practices in environmental, social, and governance (ESG) areas.

Geographical Distribution:

- Figure 5.1 illustrates the companies analysed come from diverse geographical regions, including Europe, Asia, and the Middle East.

This geographical diversity highlights different regional approaches to sustainability reporting. We can see Figure 5.1 Number of Sustainability Reports Published by Region.

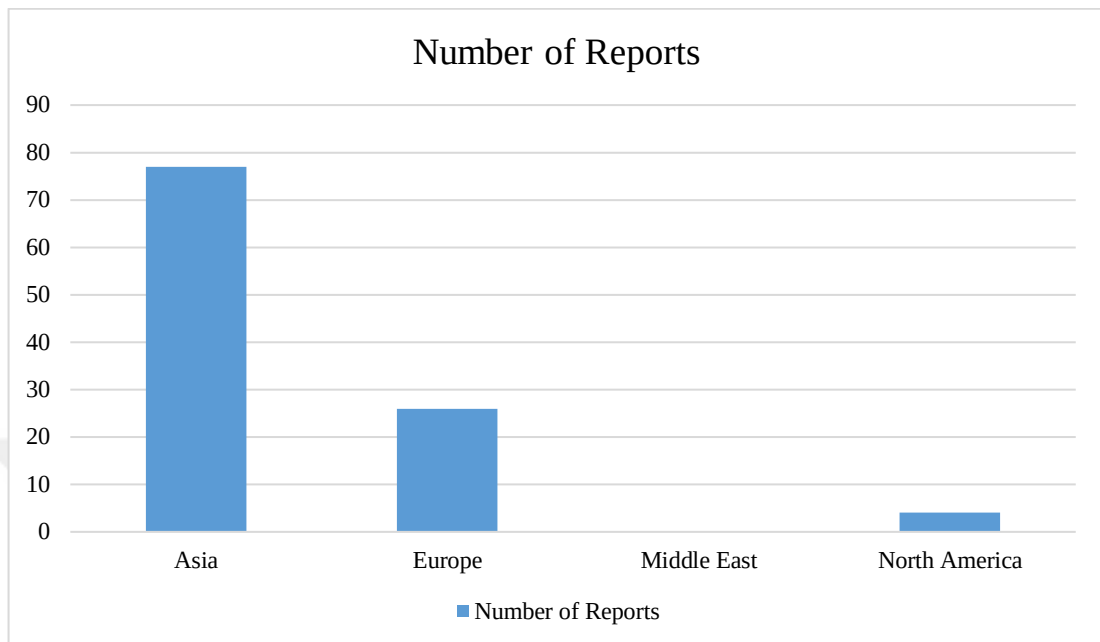


Figure 5.1. Number of Sustainability Reports Published by Region

As seen in the figure, the Asia region stands out as the most active area in sustainability reporting, with a total of 77 reports. This indicates a high level of awareness and responsibility among companies in the region regarding environmental and social issues. The Europe region, with 26 reports, also holds a significant position but does not exhibit the same intensity in reporting as Asia. The Middle East and Africa and the Americas, with 3 and 4 reports respectively, show much lower levels of reporting activity, reflecting a less proactive stance on sustainability and transparency compared to other regions. This suggests that while Asia and Europe adopt a more proactive approach to sustainability, the Middle East and Africa and the Americas need further development in this area

Variability in Reporting Start Dates:

- The start dates for publishing sustainability reports vary widely among the companies. For example, Mediterranean Shipping Company (MSC) began in 2016, while Swire Shipping started in 2012. This variability suggests differing levels of readiness and commitment to sustainability reporting within the industry

To have a more impactful analysis, the publication dates of the reports can be divided into two periods: before and after 2015. Among the 30 companies, 5 started publishing sustainability reports before 2015, while there has been a significant increase in companies publishing reports after 2015, especially in 2017. There are several reasons for this trend: Paris Agreement: The Paris Climate Agreement, signed in 2015, is an international treaty designed to address climate change. With 186 countries as signatories, the agreement establishes targets for reducing greenhouse gas emissions to curb global temperature increase and mitigate the effects of climate change. As part of this agreement, the maritime transportation sector was included in sustainability efforts, with specific targets to reduce carbon emissions from ships and strengthen zero-carbon policies. Given that maritime transportation is a significant source of greenhouse gas emissions due to its role in global trade, the regulations implemented in this sector are crucial.

The emphasis on environmental dimensions has encouraged maritime transportation companies to adopt various measures, including improving energy efficiency, using alternative fuels, promoting technological innovations specific to maritime transportation, and reducing their carbon footprint. reducing the environmental impact of maritime transportation, improving energy efficiency, controlling carbon emissions, and enhancing maritime safety and operational efficiency. The emphasis on Environmental, Social, and Governance (ESG) policies suggests that companies failing to develop such policies could face penalties, including the rejection of their ships and potential compensation claims. This acts as a sanction for companies not adhering to their environmental responsibilities and underscores the seriousness of zero-carbon policies. Consequently, companies in the maritime transportation sector are expected to make various strategic changes to comply with environmental policies and regulations. Additionally, for these efforts to be effective in combating global climate change, an international collaborative approach is essential. IMO's strategic goals are significant steps towards ensuring sustainability in the maritime transportation sector and combating global climate change. These efforts aim to progress in alignment with the Paris Climate Agreement and the United Nations' Sustainable Development Goals. In this context, actors in the maritime transportation sector are expected to adopt policies and practices that comply with these goals. Therefore, the year 2015 has been a pivotal year for new and serious steps towards

sustainability in maritime transportation, and the analysis of sustainability reports in this study focuses on those published after 2015. Between 2015 and 2022, a total of 93 reports were published. These reports have been analysed using the Leximancer tool, a content analysis software that allows for the extraction of key themes and concepts from large volumes of textual data.

5.1.1. Results of the Content Analysis

The content analysis of the sustainability reports from the top 30 container transportation companies, spanning the period from 2015 to 2022, yielded several key insights. During this process, a total of 93 reports were analysed. Using the Leximancer tool, the predominant themes and concepts within these reports were identified. These themes and concepts reflect the companies' sustainability efforts and priorities. Table 5.2. illustrates the analysis result of sustainability reports. For a detailed version, please refer to Appendix A.

Table 5.2. shows the most frequently mentioned words and their frequencies (as percentages) in the sustainability reports of container shipping companies from 2015 to 2022. The number of reports per year is also indicated. This analysis helps us understand the main themes in the sustainability reports and how these themes have evolved over time.

General observations from this analysis indicate that the themes of Employees and Management have consistently ranked at the top throughout all the years. This shows that employee welfare and management practices are at the core of the sustainability efforts of container shipping companies. Environmental Issues, especially words related to emissions and safety, have been frequently mentioned across all years. Notably, the frequency of the word "emissions" increased in 2019 and 2020, which may reflect the impact of the Paris Climate Agreement and IMO initiatives. The words "fuel" and "energy" are prominent themes in the sustainability reports, indicating the importance placed by companies on energy efficiency and the use of alternative fuels. Health, safety, and protection-related terms such as "health," "safety," and "protection" frequently appear in the reports, reflecting the industry's commitment to ensuring employee welfare and maintaining safe operations. The words "standards" and "regulations" were significant themes, particularly from 2015 to 2017. This indicates

that companies were reporting on the regulations and standards they had to comply with.

Looking at the changes over time, from 2015 to 2017, the words "employees" and "management" were used with the highest frequency. Environmental and emissions topics were also important themes during this period. From 2018 to 2020, the use of the word "safety" increased, indicating a growing importance of safety issues. Additionally, in 2020, the word "COVID" began to appear noticeably in the reports, reflecting the impact of the pandemic on company behaviour and its incorporation into the reports. In recent years (2021-2022), the words "sustainability" and "carbon" have been used more frequently. This indicates that sustainability and carbon footprint issues are becoming increasingly important. The increasing frequency of terms like "ESG" shows a growing emphasis on holistic sustainability practices and the integration of ESG criteria into business strategies.

The content analysis of sustainability reports reveals several key themes and trends evolving over time. The continuous focus on employees and management highlights the importance of human resources and leadership in driving sustainability. The increasing emphasis on environmental concerns related to emissions and energy efficiency reflects the industry's response to global environmental challenges and regulatory pressures. The impact of the COVID-19 pandemic is also evident, showing how external factors can influence sustainability reporting. When study group the words that appear in the analysis of all these sustainability reports, could see 4 main headings.

When categorizing the words that appeared in the analysis of all these sustainability reports, four main headings emerged: Human, Environment, Corporate Governance, and External Factors. These categories were derived from the key themes identified in the content analysis, structuring the findings to reflect the main focus areas and evolving priorities in sustainability reporting.

Table 5.2. Categorizing the Results of Sustainability Report Analyses

HUMAN	ENVIRONMENT	CORPORATE GOVERNANCE	EXTERNAL FACTORS
Employees	Emissions	Standards	Covid
Stakeholders	Fuel	Legal	Pandemic
Customers	Waste	Regulations	
Personnel	Recycling		
	Energy		
	Carbon		

Between 2015 and 2022, content analysis of sustainability reports from container transportation companies reveals that the main themes are categorized into four major headings: Human, Environment, Corporate Governance, and External Factors. These themes demonstrate the areas of focus and priorities within the sustainability reports of these companies. The categories such as Human factors, environmental issues, corporate governance principles, and external factors indicate that the sustainability efforts in the container transportation sector are addressed comprehensively. According to do Table 5.2 there is no data on the subcategory of sustainability related to the economy. The primary reason for this is that companies publish separate annual reports to showcase their economic activities. These annual reports provide detailed information on the company's financial performance, including income and expenses, profitability ratios, investments, and other financial details. As a result, economic topics are less frequently covered in sustainability reports.

However, economic sustainability is also a crucial component of the overall sustainability framework. Economic sustainability refers to a company's ability to remain financially viable, grow, and create value for its stakeholders in the long term. Therefore, there is a strong relationship between economic performance and

sustainability goals. By incorporating more economic topics into their sustainability reports, companies can better explain how they balance their environmental and social responsibilities with their economic performance. This can help stakeholders better understand and evaluate the company's overall sustainability strategy.

Specifically, companies can include the following economic sustainability topics in their sustainability reports:

- **Financial Performance and Growth:** Information on the company's financial status, revenue growth, profitability, and long-term growth strategies.
- **Investments and Innovation:** Investments in sustainable technologies and innovation projects.
- **Risk Management:** Measures taken to address economic uncertainties and market fluctuations.
- **Value Chain and Supply Management:** The economic sustainability of the supply chain and contributions to local economies.
- **Stakeholder Relations:** Economic relationships with customers, suppliers, investors, and other stakeholders and value creation processes.

Expanding the scope of sustainability reports to include economic sustainability topics can help companies better reflect their overall sustainability performance. This enables stakeholders to make more informed decisions and more effectively evaluate the company's sustainability strategies.

In conclusion, this content analysis thus contributes to answering one of the key research questions of this study: "How can the sustainability reporting aspects in the container transportation industry be analyzed?" because the content analysis of sustainability reports from container transportation companies provides comprehensive insights into the themes and trends that have emerged over the years. By categorizing these themes into Human, Environment, Corporate Governance, and External Factors, the analysis highlights the areas where companies focus their sustainability efforts. The analysis also points to the importance of including economic sustainability in these reports to give stakeholders a more complete picture of the companies' overall sustainability performance.

In this study, the connection between sustainability reporting and greenwashing was explored through a content analysis of sustainability reports. This analysis was conducted to systematically evaluate the authenticity and transparency of the sustainability claims made by companies. By examining the language, metrics, and narratives presented in these reports, the aim was to identify potential discrepancies between reported sustainability efforts and actual practices, which could indicate greenwashing. The data set generated from this content analysis served as the foundation for developing interview questions. The identified themes and inconsistencies guided the formulation of questions that delve deeper into the motivations, challenges, and strategies behind the companies' sustainability communications. This approach ensures that the interviews are tailored to probe specific areas of concern, providing more detailed insights into how and why certain sustainability claims are made. This methodology not only strengthens the study by triangulating data from both reports and interviews but also enhances the robustness of the findings related to greenwashing.

5.2. Analysing Relationship Between Sustainability Reporting and Greenwashing

The aim of the study to analyse the relationship between sustainability reporting and greenwashing in the container transportation sector. The analysis will be conducted with one of the top 30 companies in terms of TEU, which publishes sustainability reports, through semi-structured interviews with employees working in the field of sustainability. The purpose of this analysis is to determine whether the sustainability efforts of companies in the container transportation sector reflect reality or whether they exhibit examples of greenwashing, using the semi-structured interview questions provided in the study. The analysis aims to explore the authenticity of the claims made in sustainability reports. By examining the consistency between the reported initiatives and actual practices, the study seeks to uncover any discrepancies that may suggest greenwashing. The findings from this analysis will provide a better understanding of the current state of sustainability reporting in the container transportation sector and offer recommendations for increasing transparency and reducing greenwashing practices.

The implementation of semi-structured interviews will allow participants to share their in-depth views and experiences regarding sustainability policies and practices. During the interviews, information will be gathered on the companies' motivations for achieving sustainability goals, the challenges they face, and the strategies used to reach these goals. Additionally, participants will be asked about the content of their companies' sustainability reports and the level of transparency of these reports. In conclusion, these semi-structured interviews will be a crucial tool for assessing the accuracy of sustainability reporting and the prevalence of greenwashing practices in the container transportation sector. The findings will provide important insights for developing more transparent and reliable sustainability reporting practices in the industry.

5.2.1. Defining Semi-Structure Interview Questions

The semi-structured interview questions were developed to deeply examine the relationship between sustainability reporting and greenwashing in the container transportation sector. The development process of the interview questions aims to comprehensively understand the experiences and perspectives of the participants in alignment with the research objectives.

Question Development Process:

Determining Research Objectives: The initial step involved defining the main objectives of the research. Since this study aims to analyse the relationship between sustainability reporting and greenwashing, the questions were designed to elucidate this relationship.

Literature Review: Existing literature on sustainability, greenwashing, corporate social responsibility (CSR), and related topics was reviewed. This review established the theoretical foundations of the interview questions and guided which topics the questions should cover.

Categorization of Interview Questions: The questions were divided into different categories aligned with the research objectives. These categories were created to structure the interviews and facilitate the in-depth exploration of specific themes. The main categories are:

- **Warm-Up Questions:** General and introductory questions to help participants relax and begin the interview.
- **Definition of Sustainability and General Involvement:** Questions aimed at understanding the participants' general views on sustainability and their companies' sustainability efforts.
- **Internal and External CSR Involvement:** Questions evaluating the involvement and awareness of internal and external stakeholders regarding sustainability.
- **Greenwashing and Transparency Trap:** Questions examining awareness of greenwashing practices and transparency standards.

Contribution of Sustainability Reporting Analysis: The interview questions are based on the categorization results of the sustainability reporting analysis conducted above. The four main categories identified in this analysis (Human, Environment, Corporate Governance, External Factors) were considered while shaping the questions. This approach ensures that the prominent themes in the reports are thoroughly addressed in the interviews.

Customized and Flexible Questions: Given the nature of semi-structured interviews, the questions were designed to be customized and flexible. This allows participants to provide detailed information and enables the researcher to ask follow-up questions as needed. The questions were crafted to address specific themes but were left flexible enough to be guided by the participants' responses.

As a result of this process, questions have been developed to comprehensively and deeply examine the relationship between sustainability reporting and greenwashing. Thus, an effective data collection tool has been created to evaluate the authenticity and transparency of the sustainability efforts of companies in the container transportation sector. While developing these interview questions, various studies in the literature were also utilized. The contributions of these studies to the literature are as follows:

Mohammed, Ahmed, and Shawky (2023) highlighted the importance of the role of internal audits and audit committees in mitigating greenwashing in sustainability reporting. Their study emphasizes the necessity of internal and external audit processes to ensure transparency in ESG reporting. This research provides a significant

methodological foundation for evaluating the accuracy and reliability of companies' sustainability claims.

Khalil and O'Sullivan (2017) investigated the potential benefits of banks disclosing social information to the public, noting that such disclosures reflect the companies' commitments to social responsibility and their level of transparency. This study serves as an essential reference point for understanding how sustainability reporting impacts the environmental and social performance of companies.

Brunton, Eweje, and Taskin (2017) pointed out the critical role of communicating corporate social responsibility (CSR) policies to internal stakeholders in demonstrating the actual transparency and responsibility of companies. Their research explores the awareness of employees regarding CSR policies and initiatives within their companies, assessing the perception and impact of these policies internally.

Bachurina (2021) examined the role of key stakeholder groups in companies' sustainability initiatives and their interest in these efforts. Her study provides valuable insights into the pressures and expectations of stakeholders on sustainability reporting, aiding in the identification of greenwashing practices.

Lastly, Limbach (2022) analyzed the role of sustainability reporting in addressing environmental hazards such as chemical management and wastewater treatment in the fashion industry. This study evaluates the potential impact of sustainability reporting on improving environmental performance, helping to understand how companies fulfill their environmental responsibilities.

These sources have guided the development of semi-structured interview questions and formed the methodological basis of the research. The structured questions developed for this study have been reviewed and approved by the Ethics Committee of Yaşar University, ensuring that the research adheres to the highest ethical standards. The semi-structured interview questions are as follows:

Table 5.3. Semi-Structure Interview Questions

Warm-Up Questions	“Can you tell me about your role and responsibilities within the maritime industry?”	
	“How long have you been involved in the maritime industry, and what motivated you to work in this field?”	
Sustainability Definition and General Sustainability Involvement	“What is your definition of sustainability and what do you think about sustainability in this case?”	Mohammed, Ahmed, & Shawky, 2023)
	“Could you share some examples of sustainability activities in your company? Could you elaborate on main objectives your company is aiming to pursue with existing and future sustainability policies?”	Mohammed, Ahmed, & Shawky, 2023)
	“How is the sustainability activity is executed in your company? Do you have a separate sustainability department and employees with certain titles and responsibilities in this department?”	Mohammed, Ahmed, & Shawky, 2023)
	“Your company started publishing a sustainability report in 2016. What motivated you about this?”	(Khalil & O’Sullivan, 2017)
	“Are you familiar with the processes in sustainability reports? What is the impact or contribution of employees to this process?”	(Brunton, Eweje, & Taskin, 2017)
	“Where does the board get its sustainability reporting assurance? i.e. Is the sustainability reporting assurance performed by an internal or external team? If it is the responsibility of an internal team, do you get audited by any auditing company to prove your transparency?”	Mohammed, Ahmed, & Shawky, 2023)

Internal and External CSR Involvement	“Considering the various dimensions of your company's sustainability initiatives, could you please elaborate on the key stakeholder groups that play a crucial role or have a significant interest in your sustainability involvement?”	(Bachurina, 2021)
	“Are employees aware of the sustainability policy and initiatives in which their companies are engaged? / Do employees identify with the sustainability policy and initiatives of their company?”	(Brunton, Eweje, & Taskin, 2017)
	“Do you feel any external stakeholder pressure related to your sustainability involvement?”	(Bachurina, 2021)
	“What are the main methods you use to communicate your sustainability policies and activities to external stakeholders? I.e: (1) Emails or newsletter; (2) Online Virtual Presentations; (3) Paid advertisement; (4) Annual reports; (5) Other (specify).”	(Bachurina, 2021)
	“Do you find sustainability policies of your company to be transparently embedded into the company's operations? What do you avoid ensuring this transparency?”	(Bachurina, 2021)
Greenwashing and Transparency Trap	“In fact, the maritime industry is effect to many environmental hazards to environment. Under what headings do you evaluate these dangers?”	(Bachurina, 2021)
	“Considering the environmental aspects of emissions, carbon footprint, fuel usage, waste management, recycling practices, and energy consumption in your industry, how does sustainability reporting contribute to addressing and mitigating occupational and environmental hazards caused by chemicals?”	(Limbach, 2022)

	Specifically, how do your sustainability efforts in emissions, carbon reduction, fuel efficiency, waste management, recycling, and energy conservation play a role in overcoming such hazards?”	
	“Focusing on fuel and the carbon pollution: What impact has sustainability reporting and the demand of stakeholders to be transparent about practices on fuel and the carbon management and wastewater management?”	(Limbach, 2022)
	“How does external factors affect the concept of corporate social responsibility? For example, problems in the red sea, covid 19, economic crises or wars.”	(Burgdorf, 2021)
	“Recently, several certifications have emerged to prove the quality and higher standards of firms in every sector, including now their environmental and social impact as part of those standards. What is the role of these certificates? Is it only for benchmarking or would you say that it triggers transparency somehow?”	(Hergueta, 2021)
	“How familiar are you with the aspect of greenwashing? Please share your views on it and main drivers of greenwashing.”	(Bachurina, 2021)
	“What do you think can help to keep the highest standards of transparency for sustainability activity of your company or can hold the company from being accused of greenwashing?”	(Bachurina, 2021)

The semi-structured questions developed were posed to the interviewees, and the data obtained helped shape the data collection process discussed in the following section.

5.2.2. Data Collection

The data collection process for this study was conducted within a specific case company, chosen for its prominent role in the container transportation sector and its active engagement in sustainability practices. Following the changes introduced by the United Nations in 2015 and subsequent steps taken by the International Maritime Organization (IMO), this company has declared the implementation of significant sustainability initiatives and a strong commitment to environmental reporting. These factors make it an ideal case for examining the relationship between sustainability reporting and greenwashing. Semi-structured interviews were used in this data collection process to gather comprehensive and relevant data, effectively addressing the research questions and objectives.

To gain a more in-depth understanding of the connection between sustainability reporting and greenwashing in the container transportation sector, semi-structured interviews were conducted. The interviews targeted key personnel within the selected companies who are directly involved in sustainability initiatives and reporting. A total of 8 participants, including sustainability managers and executives, were selected based on their roles and responsibilities within their respective companies. The profiles of the participants can be seen in the table below:

Table 5.4. Profiles of the Participants Based on Their Roles and Responsibilities within Their Respective Companies.

Interviewee	Role and Responsibilities	Experience
1	Sustainability Manager	10 Years
2	Sustainability Manager	22 Years
3	Manager of Asset Management -	1 and Half Years
4	Sustainability Department	4 Years
5	Sustainability Reporting, Methods, and Communication Department	2 Year
6	Sustainability Manager	1 and Half Years
7	Sustainability Manager	6 Months
8	Asset Management Department	1 and Half Years

The interview questions were designed to cover various aspects of sustainability practices, including the definition of sustainability, specific sustainability activities, the execution of sustainability initiatives, and the impact of sustainability reporting. The questions also aimed to explore the participants' views on greenwashing and transparency within their companies.

The process of conducting interviews was structured to ensure that participants were carefully selected, the interviews were scheduled at convenient times, and ethical guidelines were rigorously followed. Participants were chosen from among the top 30 container transportation companies, with a focus on individuals actively engaged in sustainability efforts within their organizations. This selection criterion ensured that those interviewed possessed significant expertise and experience in sustainability practices.

To accommodate geographical constraints, interviews were arranged through online platforms, allowing participants from various locations to join at times suitable to them. Ethical considerations were paramount throughout this process. All interviews were conducted with the informed consent of participants, who were assured that their responses would remain confidential and anonymous. The study also received approval from the Yaşar University Ethics Committee, further confirming adherence to ethical standards.

Each interview was designed to last approximately 40 minutes and was conducted in a conversational style, promoting open, detailed responses. The semi-structured format provided the interviewer with the flexibility to delve into specific topics based on participant responses, encouraging a richer exchange of information. With participants' consent, all interviews were transcribed to ensure accurate data capture for subsequent analysis.

This thorough data collection process, which combined content analysis and semi-structured interviews, establishes a strong foundation for assessing the authenticity and transparency of sustainability efforts in the container transportation sector. The insights gained from this approach contribute to a nuanced understanding of the prevalence and impact of greenwashing within the industry.

5.2.3. Results and Implications

The findings obtained through MAXQDA software, used to analyse data from semi-structured interviews on sustainability reporting and greenwashing, will be presented. MAXQDA is software used for analysing qualitative data, helping us identify the main themes, concepts, and relationships that emerged in the interviews. The prominent concepts categorized are as follows:

Table 5.5. Part of Sustainability Definition and General Sustainability Involvement Analysis Result

Human	Environment	Corporate Governance	External Factors
- Employee	-Sustainability	- Transparency	- External

- Internal	- Environmental	- Economic	
- Social	- Carbon	- Efficiency	
-Stakeholder	- Decarbonization		
	- Energy		
	- Consumption		
	- Emission		
	- Footprint		
	- Waste		

According to the analysis results, the term "sustainability" was found to be the most frequently used term in the interviews on Table.5.5. . This indicates that sustainability holds central importance in the strategic goals of companies. The consistent emphasis on the term "sustainability" throughout all interviews highlights how serious companies are about sustainability and how they place this concept at the core of their business processes. Also, Table 5.5. show the concept of "external pressure" plays a significant role in shaping sustainability policies. External pressure prompts companies to enhance their performance in sustainability and become more transparent. These pressures typically stem from regulations, customer expectations, demands from civil society organizations, and market competition. The necessity to comply with regulations compels companies to develop and effectively implement their ESG (Environmental, Social, and Governance) policies. Additionally, investor demands, which are among the external pressures, increase companies' accountability in sustainability. This contributes to improving not only their environmental performance but also their social and governance practices. The impact of external pressures on companies accelerates the steps taken towards achieving sustainability goals and leads to the adoption of more comprehensive sustainability strategies. Not only has external pressure emerged as significant, but regulations and stakeholder expectations also play a crucial role in shaping the company's sustainability policies. In this context, it is understood that the highest factor in the company's expansion of its sustainability goals stems from external pressures.

Table 5.6. Internal and External CSR Involvement

HUMAN	ENVIRONMENT	CORPORATE GOVERNANCE	EXTERNAL FACTORS
Employee	Environmental	Policy	Stakeholder
Customer		Regulatory	External Pressure
Social		Communication	Investor
		Transparency	

This analysis observed that on Table.5.6. companies need to support their transparency and environmental performance with measurable metrics. These metrics help objectively evaluate how much progress companies are making towards their sustainability goals. Additionally, transparency has emerged as an important element in sustainability reporting, playing a critical role in building trust. Companies' emphasis on the principle of transparency increases their accountability to stakeholders and demonstrates that their sustainability efforts are genuine and measurable. Even before delving into the analysis of greenwashing and the transparency trap, the mention of transparency underscores the value placed on this issue by the company. By adopting transparency policies, companies enhance their accountability to stakeholders and demonstrate their commitment to sustainability goals.

Table 5.7. Part of Greenwashing and Transparency Trap Analysis Result

HUMAN	ENVIRONMENT	CORPORATE GOVERNANCE	EXTERNAL FACTORS
Stakeholder	Environmental	Transparency	External
Employee	Fuel	Greenwashing	
Person	Carbon	CSR	
	Emission	Regulatory	
	Footprint	Internal	

	Low carbon	Efficiency	
	Low emission		
	Renewable		

The significant emergence on Table 5.7. of employees and stakeholders indicates that, while the company claims not to engage in greenwashing, transparency helps build trust in this regard. By embracing transparency policies, the company increases its accountability to stakeholders and demonstrates its dedication to sustainability goals. The detailed consideration of environmental factors has been deemed important because they provide measurable and concrete evidence. This demonstrates companies' commitment to reducing their environmental impacts and the concrete steps they are taking to achieve these goals. Evaluating environmental performance sustainability goals.

Table 5.8. The General Evaluation of Sustainability Reports from 2015 to 2023

HUMAN	ENVIRONMENT	CORPORATE GOVERNANCE	EXTERNAL FACTORS	ECONOMY
Employee	Environmental	Transparency	External	Economic
Social	Carbon	Policy	Pressure	Financial
Internal	Fuel	Regulatory		
Stakeholder	Emission	Certification		
Education	Waste			
Healthcare	Efficiency			
	Footprint			
	Recycle			
	Pollution			
	Technology			
	Decarbonization			
	Energy Efficiency			
	Low Sulfur			
	Low Emission			
	Low Carbon			
	Damage			

	Greenwashing			
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The prominence of stakeholders in every category in the results shows that they have a significant impact on the formulation of sustainability policies. This indicates that companies take stakeholder expectations into account when determining their sustainability strategies and strive to meet these expectations. For example, stakeholders play a critical role in shaping sustainability policies and are a significant factor in their successful implementation. Additionally, the impact of employees on sustainability was found to be important, and it was observed that social factors were considered in the analysis results. Employee participation in and support for sustainability initiatives within the company play a crucial role in achieving sustainability goals. This demonstrates how companies prioritize internal communication and employee engagement when implementing sustainability policies. Furthermore, the significant emergence of employees and stakeholders indicates that, while the company claims not to engage in greenwashing, transparency helps build trust in this regard. By embracing transparency policies, the company increases its accountability to stakeholders and demonstrates its dedication to sustainability goals.

Comparing this analysis result with the content analysis of sustainability reports, many points of alignment are observed. Stakeholders have a significant impact on determining sustainability policies. This was frequently emphasized in the MAXQDA analysis and was addressed under the "Stakeholders" section in the sustainability reports. It can be interpreted that the demands and expectations of stakeholders play a critical role in shaping companies' sustainability strategies, and this point shows complete consistency with the sustainability reports. Similarly, the role of employees also shows consistency in both analyses. In fact, the social aspect, one of the branches of sustainability, yields the same results in both analyses. In both analyses, topics such as carbon, energy, waste, and emissions have come to the forefront. These topics demonstrate the company's efforts to minimize environmental impacts and achieve sustainability goals. The frequent mention of environmental factors is due to their scalability and provision of concrete evidence. This shows that companies use standardized metrics to measure and report their environmental performance. Additionally, these topics can be evaluated as concrete indicators of companies' efforts towards environmental sustainability. Looking at the relationship between the two

analyses, regulations and legal compliance topics stand out. Compliance with regulations is critical for the success of companies' sustainability strategies. This demonstrates companies' commitment to both meeting legal requirements and addressing stakeholder expectations.

The data obtained from the semi-structured interviews on sustainability reporting and greenwashing show that the company is taking serious steps towards achieving its sustainability goals and that elements such as transparency, stakeholder engagement, and compliance with regulations play a critical role in this process. These findings are largely consistent with the content of sustainability reports and reveal the key elements that companies consider when determining and implementing their sustainability strategies. The critical elements captured in the interviews also support the external pressure identified as the biggest factor in the analysis results of the sustainability steps reflected in the publication of sustainability reports. The concept of sustainability has been in existence for many years, and according to data scans, the earliest sustainability report in the maritime transportation sector was written in 2010. There was a significant increase in the publication of sustainability reports by companies after 2015, especially starting in 2017. One of the critical questions posed to participants in the interviews aimed to understand whether the publication of sustainability reports in 2017 was influenced by the Paris Agreement in 2015 and the strategic plan developed by the International Maritime Organization (IMO) in line with the United Nations' development goals. Participants were asked:

QUESTION: Your company started publishing a sustainability report in 2017. What motivated you about this?

Follow-up Question: Why didn't you start publishing reports before 2017?

Since sufficient answers were not obtained from the first question, a follow-up question was directed to all 8 participants in our study. As a result of these questions, 7 participants responded to the first question by saying that the motivation was "to regularly share the company's sustainability policies with stakeholders and demonstrate transparency and accountability." However, one participant answered the question as follows: "Our motivation for starting to publish sustainability reports in 2017 was to align with global standards and transparency expectations...."

The participant emphasized that it had become an expectation and that companies had to meet it.

The answers to the follow-up question can be generally divided into two categories:

Responses from employees who worked at the company before 2017:

- “...we wanted to introduce the concept of sustainability to our stakeholders more comprehensively. We needed more systematic and extensive work in this area. We developed our sustainability strategy and established the necessary infrastructure to start reporting. During this process, we aimed to build more transparent communication with our stakeholders. In line with our goals, we needed to lay certain foundations in the early stages and initiate the reporting processes...”
- “...before 2017, our sustainability efforts were more internal and less formalized...”
- “...before 2017, sustainability reporting was not a priority, and the necessary infrastructure and data collection processes were not fully in place...”

Responses from employees who started working at the company after 2017:

- “...I can say that the company has a structure that can quickly adapt to requirements and changing conditions. Publishing a sustainability report might not have been a necessity at that time...”
- “...the growing importance of sustainability and increased regulatory requirements prompted us to start reporting in 2017. It was likely a response to both internal and external pressures...”
- “...I think the company adapted to emerging sustainability trends and stakeholder expectations...”
- “...increasing regulatory requirements and stakeholder expectations led to this decision...”

Participants who worked at the company before 2017 attributed the transition to sustainability reporting more to internal motivations and preparation processes. Their responses emphasized the need for the company to introduce the concept of

sustainability to its stakeholders in a more comprehensive manner. They indicated that the necessary infrastructure and systematic efforts for sustainability reporting were not fully in place before 2017. During this period, the company was intensely preparing to develop its sustainability strategies and create the appropriate infrastructure for reporting processes. However, the fundamental motivation for this preparation process can be understood from the participants' responses. They emphasized the necessity of introducing the concept of sustainability to stakeholders more comprehensively and establishing transparent communication. This shows that the company turned to sustainability reporting to better articulate its sustainability strategies and to establish a more open dialogue with its stakeholders. This also highlights the influence of stakeholder impact on sustainability reporting and efforts. Increasing expectations and awareness levels are compelling companies to act. On the other hand, when considering the responses of participants who started working at the company after 2017 as an external perspective, they emphasized the importance of external pressures and regulations in the transition to sustainability reporting. The participants mentioned that the transition to sustainability reporting was related to the growing importance of sustainability and increasing regulatory requirements. This indicates that companies turned to sustainability reporting in response to both internal and external pressures. The necessity to comply with sustainability trends and stakeholder expectations was emphasized. The participants expressed that sustainability reporting aimed to respond to these trends and expectations. From this conclusion, stakeholder expectations, current trends, and external regulations contributed to the development of sustainability reporting and sustainability efforts of companies.

From the participants' responses, it is understood that the concept of sustainability in their companies is not treated as a separate element but is seen as an integral part of their business strategies and operations. As one participant specifically mentioned, the company places sustainability at the core of its business strategy: "...As a company, by placing sustainability at the core of our business strategy...." This statement shows that the concept of sustainability holds fundamental importance in the company's overall business approach. Here, sustainability is not merely compliance or a requirement but is positioned as a key element shaping the company's strategic goals, providing a competitive advantage, and being the key to long-term success.

Another participant emphasized the integration of sustainability into daily operations and long-term strategies: "...In our company, sustainability means integrating these principles into our daily operations and long-term strategies..." This statement reveals that sustainability principles are not just policies or documents but are made part of daily operations and long-term planning. This indicates that sustainability is applied and internalized at every level and in every area of the company's activities.

Another aspect demonstrating the company's serious approach to sustainability is the existence of a dedicated sustainability department. This department's division into areas such as regulations and sustainability are another indication of how deeply sustainability is integrated into the company. This comprehensive integration minimizes the risk of greenwashing by the company. The deep integration of sustainability with business strategies and daily operations proves that the company's efforts in this area are genuinely serious and concrete. This makes it easier for the company to provide concrete evidence and transparent reports supporting its sustainability claims and prevents accusations of greenwashing.

In conclusion, these two responses highlight how deeply integrated and strategically important the company's approach to sustainability is. In these companies, sustainability is seen not as a separate project or program but as a fundamental element of the way business is conducted. This approach ensures a more effective and holistic path to achieving sustainability goals. At the same time, such integration contributes to building a more reliable and transparent image for the company among both internal and external stakeholders.

According to the research findings, it has been observed that the company in the container transportation sector is not engaged in greenwashing activities. This conclusion was reached by analysing the main ideas presented in the company's sustainability reporting and a series of responses provided by its employees. The company's placement of the sustainability concept at the core of its business strategy and its integration into daily operations proves that its sustainability efforts are genuine and concrete.

Considering sustainability as part of the business strategy and integrating it into operations ensures an effective path towards achieving sustainability goals. The company views sustainability not just as a policy but as a fundamental element of its way of conducting business, acting accordingly. This demonstrates the company's commitment to achieving its sustainability goals and the concrete steps it is taking in this direction.

In the interviews, the contributions of employees and stakeholders to sustainability policies and their adoption of these policies emerged as significant findings. The active participation of employees in sustainability initiatives shows that the company's efforts in this area are supported by a broad base. Additionally, the expectations and demands of stakeholders play a critical role in determining and implementing sustainability policies.

The analysis results also reveal the company's determination to comply with external pressures and regulations. External pressures prompt the company to enhance its sustainability performance and be more transparent. These pressures stem from regulations, customer expectations, demands from civil society organizations, and market competition. It is understood that the company takes these external pressures into account when determining and implementing its sustainability policies and responds to them.

These findings align with the company's sustainability report reviews. For example, stakeholder influence is a key aspect emphasized in both the findings and the reports. The company clearly demonstrates in its reports that stakeholder demands and expectations are integral in shaping its sustainability strategies. Similarly, the emphasis on environmental focus in the findings is consistently reflected in the reports. Topics such as carbon emissions, energy use, and waste management are extensively discussed, showing the company's commitment to minimizing environmental impacts and achieving sustainability goals. The frequent mention of these topics in the reports, along with the use of standardized metrics, indicates a data-driven approach to measuring and reporting environmental performance, which enhances transparency and accountability. Regulatory compliance is another major theme that appears in both the findings and the reports. The detailed sections on

compliance with legal standards, alongside interview insights about meeting regulatory expectations, demonstrate that this is a crucial element of the company's sustainability strategy. This dual focus on compliance and proactive engagement in sustainable practices is evident in both the reported data and interview responses. Overall, the detailed and data-driven nature of the sustainability reports, combined with their alignment with the interview findings, illustrates a clear commitment to genuine and transparent sustainability practices. This consistency between the reports and the interview insights strengthens the credibility of the company's sustainability claims and reduces the risk of greenwashing. The length of the reports and the abundance of quantitative data demonstrate the company's commitment to fulfilling its environmental and social responsibilities. By adopting a data-driven and evidence-based approach to better monitor and report their environmental performance, the company's approach to sustainability becomes clearer.

This research highlights the critical need for companies that publish sustainability reports to adopt more transparent and verifiable practices. The findings underscore the importance of companies clearly defining their sustainability strategies and practices, ensuring these strategies are not only articulated but also deeply integrated into their daily operations. To bolster the credibility of their sustainability efforts, it is essential for companies to support their claims with concrete, verifiable data.

Moreover, the study strongly advocates for companies to embed their sustainability policies at the core of their business strategy. This integration should not be superficial; rather, it must permeate all levels of the organization, influencing decision-making processes and operational activities. By doing so, companies will not only be better positioned to achieve their sustainability goals but also enhance their credibility and trustworthiness among stakeholders.

The contribution of this study is significant as it offers practical recommendations for companies in the container transportation sector and beyond. By addressing the potential for greenwashing through rigorous content analysis, this research provides a framework for companies to critically assess and improve their sustainability reporting practices. The implications extend beyond individual companies, as the adoption of these practices can lead to industry-wide improvements in transparency and accountability. Furthermore, this study contributes to the broader literature on

sustainability reporting and greenwashing by filling a gap in research specific to the maritime and container transportation sectors. It provides insights that are crucial for policymakers, industry leaders, and researchers interested in promoting genuine sustainability practices. Ultimately, the findings from this study can help shape future guidelines and regulations, ensuring that sustainability reports are not just marketing tools, but accurate reflections of a company's true environmental, social, and economic impact. The findings of this study offer valuable contributions to both academic literature and industry practice, highlighting actionable strategies for enhancing transparency and accountability in sustainability reporting within the container transportation sector. As the analysis underscores the importance of addressing greenwashing risks through rigorous reporting standards, the next chapter delves into the broader implications of these findings. By exploring their significance for companies, policymakers, and other stakeholders, the discussion aims to provide a comprehensive understanding of how these insights can drive meaningful change across the industry.

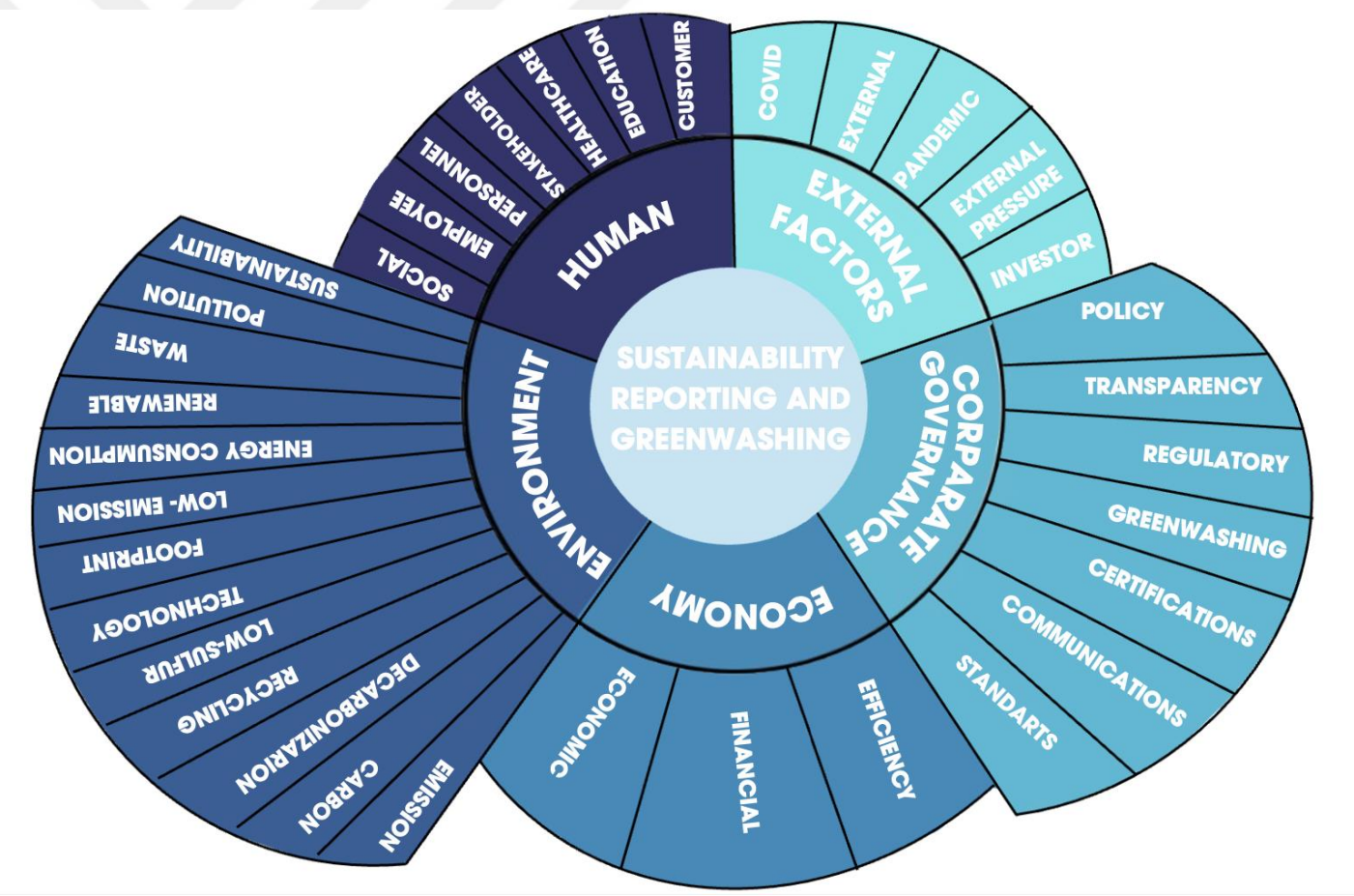


6. CHAPTER : IMPLICATIONS AND DISCUSSIONS

The container transportation sector plays a significant role in global trade due to its substantial contribution to managing environmental and social impacts. Companies prepare sustainability reports to manage these impacts and fulfil their responsibilities towards stakeholders. However, the accuracy and transparency of these reports are often questioned, and in some cases, greenwashing the tendency of companies to present their environmental performance as better than it emerges. This study was conducted to investigate the relationship between sustainability reporting and greenwashing in the container transportation sector. It examines how companies in this sector report their sustainability performance and whether these reports reflect tendencies toward greenwashing. Findings obtained through both content analysis and semi-structured interviews provide crucial insights into how companies present their environmental and social performance in sustainability reports. Particularly, the structure of these reports, the language used, and the accuracy of the data presented play a critical role in understanding greenwashing tendencies.

Within the companies analyzed in this research, it was observed that the preparation of sustainability reports is often driven by external factors such as stakeholder pressure, regulations, and competition. This observation is mainly due to the fact that 13 out of 30 companies began publishing sustainability reports following the 2015 Paris Agreement and the strategic goals set by the IMO. According to the analysis results of, can see sustainability reporting is organized into five different categories.

Figure 6.1. A Framework for Sustainability Reporting and Greenwashing in Container Transportation



The proposed frameworks presented in Figure 6.1, visualizes the main categories derived from the analysis of sustainability reports. Sustainability Reporting serves as the central node, branching into five key themes: Human, Environment, Corporate Governance, External Factors, and Economy. According to these categories from the sustainability reports, deficiencies in the concepts in these categories were identified.

The Human dimension of the framework shows sub-categories such as Employee, Customer, Stakeholder, Social, Personnel, Education, and Healthcare. This figure highlights the different social and human elements that companies consider in their sustainability reports. Additional sub-categories such as diversity and inclusion, employee training programs, or community involvement could also be relevant. Including these would provide a broader understanding of how companies engage with their workforce and society. The absence of these additional factors could indicate that companies focus mainly on general employee and stakeholder themes, potentially missing other crucial aspects like workforce diversity or health and safety standards. This concept map provides a visual representation of how the human aspect is multifaceted in sustainability reporting, focusing not just on employees but also on stakeholders and their role in shaping sustainability policies.

The Environment dimensions of the framework include sub-categories like Sustainability, Carbon, Emission, Waste, Energy Consumption, Footprint, Recycling, Pollution, and others. This map shows the comprehensive nature of environmental factors in sustainability reporting and how companies manage and report on these aspects. The map could be expanded to include specific initiatives like renewable energy projects, water management, or biodiversity conservation efforts. This would provide a more detailed view of the environmental practices companies are engaging in. If the analysis does not cover these detailed initiatives, it could imply a lack of transparency or depth in the environmental data reported by companies. Additionally, not addressing specific climate change adaptation measures might suggest companies are not fully aligning with global sustainability goals. This figure illustrates how companies report environmental metrics, which are often standardized and can provide concrete evidence of efforts. However, the depth and specifics of these reports can vary, influencing the credibility of their sustainability claims.

The Corporate Governance dimension of the framework includes sub-categories such as Transparency, Policy, Regulatory, Standards, Certification, Communication, and Greenwashing. It highlights the importance of governance in sustainability reporting and how companies use these elements to build credibility. The map could further detail aspects like anti-corruption measures, board diversity, or ethical sourcing policies, which are often part of governance strategies. These additional sub-categories could provide a clearer picture of how companies manage their sustainability commitments at the governance level. The absence of such detailed measures might indicate that companies focus mainly on surface-level governance aspects like transparency and certification without diving into more substantial governance practices. This map shows how governance plays a role in ensuring companies maintain credibility and accountability. However, the lack of detailed measures could suggest areas where companies could enhance their transparency efforts to avoid greenwashing accusations.

The External factors dimension of the framework highlights sub-categories such as External Pressure, Investor, External, Covid, and Pandemic. This figure illustrates how external elements, including investor expectations and global events, influence sustainability strategies. Other potential sub-categories could involve government policies, NGO influence, or international agreements like the Paris Agreement. Including these could demonstrate how external forces beyond direct stakeholder pressure shape company strategies. Not covering these broader external influences might suggest a limited view of how companies respond to global sustainability challenges. If external factors are only focused on immediate pressures like investor demands, it might indicate a reactive rather than proactive approach to sustainability. This figure shows the relevance of external factors in shaping corporate sustainability, but the depth and diversity of these influences can determine the robustness of a company's sustainability strategy.

The Economy dimension of the framework encompasses sub-categories such as Economic, Financial, and Efficiency. This map highlights the financial dimensions of sustainability and how economic performance, and efficiency are integrated into sustainability reports. However, the evaluation of this category remains somewhat limited. The map could expand to cover economic risk management, sustainable

investments, or long-term financial planning aligned with sustainability goals. These additional sub-categories would provide a more holistic view of how companies incorporate economic considerations into their sustainability efforts. The limited evaluation of the economy category might be due to the fact that annual economic reports are published separately from sustainability reports. As a result, the economic aspect of sustainability reporting may not fully capture the broader financial strategies or risk management practices. To address this, the Economy category should be reassessed in conjunction with financial annual reports to provide a more comprehensive and accurate representation of economic sustainability. This figure shows how the economic factors are crucial for sustainability reporting, as they connect financial health with sustainable business practices. However, without integrating data from financial annual reports, the depth of economic integration in sustainability strategies may remain restricted. Companies should therefore consider evaluating the economic aspects of sustainability reporting alongside their financial statements to ensure a comprehensive and aligned approach.

Companies generally emphasize their environmental performance and social responsibility projects in these reports, but in cases where these performances are not supported by verifiable and concrete data, the risk of greenwashing increases. Some participants stated that the content of sustainability reports has a limited capacity to reflect the company's actual performance, leading to trust issues among stakeholders. In particular, failing to support claims regarding environmental sustainability targets with concrete data undermines the credibility of these reports and may lead to accusations of greenwashing.

In the company where this study was conducted, the performance data and goals presented in sustainability reports were examined in detail. Interviews with the team responsible for developing the company's sustainability strategies revealed that the activities undertaken to achieve the environmental targets stated in the reports and the impact of these activities are often ambiguous and lack concrete indicators. For example, although the company states it has a goal to reduce carbon emissions, there is no clear information on how it plans to achieve this target and what specific steps will be taken in this regard. This situation increases the risk of the company's reports being perceived as greenwashing and can damage stakeholders' trust in the company.

The language and expressions used in reporting sustainability performance by the company emerged as a noteworthy finding throughout the research. Although the company claims to have a strong commitment to environmental and social responsibility, it is observed that they avoid providing concrete examples and measurable outcomes related to fulfilling these commitments. Specifically, the exaggerated and generic language used in sustainability reports suggests a tendency to present a more favourable picture to stakeholders by concealing the company's true performance. Such expressions reinforce the perception of greenwashing and suggest that the company is not presenting its sustainability performance transparently.

In this context, the thesis's findings indicate that companies should adopt a more transparent and accountable approach when preparing sustainability reports. Clearly articulating the methods used and the results obtained during the process of achieving sustainability goals will enhance the credibility of the reports and reduce the perception of greenwashing. Companies should particularly support the processes of achieving the sustainability targets mentioned in their reports with concrete examples and verifiable data, which will reinforce stakeholders' trust in the company.

The study's results emphasize that to reduce greenwashing tendencies, sustainability reports need to be prepared more objectively and with a data-driven approach. For the company examined in this study, it was found that more emphasis should be placed on transparency and accuracy principles in sustainability reporting. The company should adopt an approach that genuinely aims to contribute to society and the environment rather than merely meeting stakeholder expectations when setting its sustainability strategies. In this context, it is recommended to strengthen internal and external audit mechanisms and to subject these reports to independent verification processes to increase the accuracy of the information provided in sustainability reports.

The findings of this thesis indicate that the lack of transparency and concrete data in sustainability reports increases the perception of greenwashing. Specifically, the absence of clear steps toward achieving environmental targets negatively impacts stakeholder trust. Jones (2023) emphasizes that sustainability reports should not only fulfil legal requirements but also demonstrate ethical and transparent practices. In this

context, this study observed that the company analyzed did not fully meet these responsibilities, contributing to an increased perception of greenwashing.

Moreover, Moodaley and Telukdarie (2024) highlight the potential of using artificial intelligence and advanced technologies in sustainability reporting to enhance accuracy and reduce the risk of greenwashing. However, in the reports analyzed in this thesis, there was insufficient evidence of technology-based verification mechanisms. This limitation reduces the reliability of the reports and hinders the transparent presentation of the companies' efforts toward environmental goals.

The findings also align with the study by Xu, Li, and Xu (2024), which underscores that a lack of transparency in sustainability reports strengthens the perception of greenwashing and weakens stakeholder relationships. As observed in this study, the absence of clear and measurable information regarding the companies' processes for achieving environmental targets makes the credibility of these reports questionable.

Additionally, Sundarassen et al. (2024) examined the differences in sustainability reporting between G7 and non-G7 countries and emphasized that the language used in these reports could influence greenwashing tendencies. In the reports analyzed in this study, the language describing the achievement of sustainability targets was often vague and exaggerated. Such expressions could be seen as a tool used by companies to mask their actual performance in sustainability efforts.

In conclusion, the findings of this thesis are consistent with existing literature on the risks of greenwashing and the reliability of sustainability reporting. Companies need to report their processes for achieving sustainability goals more transparently and measurably. Furthermore, subjecting these reports to independent verification processes will reduce the risk of greenwashing and enhance stakeholder trust.



7. CHAPTER: CONCLUSION

This study aims to examine the relationship between sustainability reporting and greenwashing in the container transportation sector. Container transportation, a critical sector forming the backbone of global trade, plays a key role in evaluating sustainability practices and the reporting of these practices. In this study, semi-structured interviews and content analysis methods were used to thoroughly examine the sector's sustainability reports and greenwashing practices.

At the outset, general logistics concepts, such as maritime logistics and container transportation, were explained to clarify the focus area. Then, the importance of sustainability in maritime logistics was addressed, exploring why sustainability practices are crucial in this sector and the areas where they are applied. In the section on sustainability reporting, the ways in which companies reflect their sustainability commitments and fulfil their responsibilities to stakeholders were examined. These reports are essential tools for businesses to showcase their sustainability performance. However, they can also be used to present unsustainable practices as sustainable. In this context, the concept of greenwashing was defined, and the sincerity of companies' sustainability claims was questioned.

The study aims to analyse how these two phenomena interact specifically within the container transportation sector and determine whether greenwashing is present in the industry.

This research makes a significant contribution by specifically examining the relationship between sustainability reporting and greenwashing in the container transportation sector. While there are studies on these two concepts within the general logistics sector, a literature review revealed no studies focused on maritime logistics and, specifically, sub-sectors like container transportation. The gap in the literature on greenwashing and sustainability reporting within the maritime sector, and especially in container transportation, highlights the originality of this study. Moreover, evaluating the sustainability practices in container transportation—one of the key drivers of global trade—and how these practices are reported provides an important

perspective for identifying greenwashing tendencies in the sector. In this context, the study aims to provide valuable findings that are both theoretical and practical, offering insights specific to the sector.

The findings of this study offer important recommendations for preventing greenwashing practices and making sustainability reporting more effective and transparent in the container transportation sector. Transparency in sustainability reporting is a fundamental principle that enables companies to present their sustainability performance and commitments accurately and openly to stakeholders. Transparency enhances the reliability and accountability of reporting processes, allowing companies to assess their environmental and social impacts more honestly. This, in turn, contributes to both companies and stakeholders making informed decisions and taking more effective steps towards achieving sustainability goals.

Transparency also plays a key role in preventing greenwashing practices. Companies' false or exaggerated claims in sustainability reports can damage stakeholders' trust and harm the company's reputation. A transparent reporting process, however, requires companies to openly share not only their successes but also their challenges and areas for improvement. This approach clearly demonstrates companies' determination and responsibility in achieving their sustainability goals. In sectors like container transportation, where environmental impacts are high, transparency stands out as a way to show that sustainability efforts are supported by realistic and concrete actions. By presenting their efforts to reduce environmental impacts and contribute to society with concrete data, companies can enhance the credibility and effectiveness of such reports. This, in turn, encourages the adoption of higher sustainability standards across the industry.

Consequently, transparency in sustainability reporting forms the basis of the relationship that companies establish with society and their stakeholders while fulfilling their environmental and social responsibilities. The principle of transparency not only increases the credibility of sustainability reports but also strengthens companies' long-term success and reputation. Adopting a more transparent and accountable approach in achieving sustainability goals will contribute significantly to establishing trust across the industry and promoting sustainable business models.

These findings emphasized important points. However, the thesis has some limitations. First, the thesis covers only sustainability reports from 2015 to 2023. Annual updates to companies' sustainability policies and the addition of new reports may necessitate continuous revision of the developed questionnaire. This may increase the validity and reliability of the study findings with each new report, while potentially limiting the long-term validity of existing findings. Moreover, the sustainability reports used in the study are voluntarily prepared by companies, which can result in significant variations in content and scope from one company to another. This makes it difficult to compare and generalize the data, complicating the determination of whether the findings are equally applicable to other companies in the industry. Qualitative analysis methods used in the study, particularly content analysis and semi-structured interviews, are based on the researcher's interpretations, which introduces a risk of subjectivity. To minimize this limitation, it is recommended that the findings be reviewed and validated by other researchers. Additionally, broadening the scope of the study by involving a larger participant group and using different data collection methods would help reduce subjectivity in interpreting qualitative data.

Considering these limitations, future research could be designed to include more comprehensive data sets and cover different logistics sectors to enhance the validity and generalizability of the findings. Future studies can provide a broader perspective on the relationship between container transportation and sustainability reporting. Conducting similar analyses in different geographical regions and among container transportation companies of various sizes can offer a broader perspective across the industry. Moreover, examining sustainability reporting and greenwashing tendencies in different logistics sub-sectors can reveal common trends and differences through cross-sector comparisons. In future research, it will also be essential to include comprehensive interviews and surveys with various stakeholder groups (such as customers, suppliers, investors, environmental organizations, and employees) to better understand how sustainability reporting is perceived and how societal perceptions of greenwashing evolve. Such interviews can provide critical insights into how sustainability reports are perceived and how societal perceptions of greenwashing develop.

In conclusion, enhancing transparency in sustainability reporting is not only crucial for fostering trust and accountability but also for ensuring the long-term success of companies in their sustainability efforts.



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