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Legal Disputes under Time Charter in Connection with the Stranding of the *MV Ever Given*

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Abstract: The *MV Ever Given*'s stranding in the Suez Canal in March 2021 prompted renewed awareness of the heightened risk of marine accidents in narrow channels as global shipping companies continuously expand vessel sizes. However, there has been limited consideration of ways to improve accident response, and little analysis of future-oriented liabilities and damage compensation schemes for similar maritime accidents. First, key issues related to the Suez Canal stranding accident were analyzed based on web crawling using the R studio program (Version: R-4.0.5) to extract text data from unstructured format text (HTML tags). We designed the research questions to address the key issues/disputes, such as definitions of legal terms related to the *Ever Given*'s stranding accident and the declaration of a general average (G/A), liability for maintaining seaworthiness, source of command authority over the captain, and liability for compensation for delay in delivery. Then, the liability of stakeholders was legally interpreted through causal inductive reasoning based on relevant legal theories and precedents. To help secure safe and sustainable shipping routes, this study demystifies the problems resulting from the side effects of the trend of ultra-large vessels based on technology bias, and will contribute to responses to similar accidents in the future.

Keywords: *Ever Given*; Suez Canal; stranding; web crawling; liability; vessel

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1. Introduction

1.1. Research Background

The opening of the Suez Canal in 1869 greatly facilitated global commerce by providing a direct route for ships to move between Asia and Europe. The New Suez Canal is an artificial waterway in Egypt, opened in 2015 to provide a second shipping route along part of the Suez Canal. The New Suez Canal is expected to expand international trade along the fastest shipping route between Europe and Asia and save sailing hours in both directions. Although the Suez Canal has a competitive relationship with the Transpolar Sea Route, the Trans-Siberia Railroad, and the Cape of Good Hope in terms of shipping through Eurasia, it is still preferred over those routes due to advantages such as time reduction, shipping efficiency, and profit. Due to these strengths, the Suez Canal has solidified its role as a key channel for Asian and European trade, with an average of approximately 51.5 vessels a day (approximately 18,800 per year) as of 2019, and as a global logistics hub, with about 12% of world trade moving through it [1]. Despite its high importance, however, the Suez Canal has responded to various maritime risks with complementary post-measures rather than precautionary responses. Representative accident cases in which the Suez Canal has been temporarily closed due to maritime risk include the following. First, the Six-Day War between Israel and some Arab states, in 1967, limited vessel traffic for eight years due to mines and sunken vessels [2]. Second, in 2004, the tanker *Tropic Brilliance* ran aground, limiting normal vessel traffic in the Suez Canal for three days [3]. Third, in February 2016,

the bulk carrier *New Katerina* ran aground for 12 days, again limiting vessel traffic in the canal [4]. Fourth, in 2017, the 21,000 TEU (twenty-foot equivalent unit)-class *OOCL Japan* was stranded due to engine failure, once more limiting ship traffic in the Suez [5]. The most representative bottleneck straits in the world are the Panama Canal, connecting the Pacific Ocean and Atlantic Ocean; the Gibraltar Strait, connecting the Mediterranean Sea and Atlantic Ocean; the Malacca Strait, connecting the Pacific Ocean and Indian Ocean, and the Suez, connecting the Indian Ocean and Mediterranean Sea. However, canal management departments, including the Suez Canal Authority (SCA), have been underprepared for the expanding size, increasing speed, and increasingly minimal crews of vessels, and SCA emergency response facilities and staffing have not grown in proportion.

In 1956, the 58 TEU-class *Ideal-X*, a modified tanker, appeared as the world's first dedicated container ship, and the sizes of container ships have continued to expand ever since. In 2018, HMM, a Korean national maritime container company, ordered twelve 24,000 TEU-class container ships with a twin-island design, which are the largest container ships in history [6]. In the liner service sector, the operating vessel size in global shipping companies has expanded for complex reasons, including the rapid development of ship-building technology, the maximization of economies of scale by reducing operating and labor costs per unit, the reducing of greenhouse gas emissions, growing shipping alliances, and joint services [7]. However, on March 23, 2021, the *Ever Given*'s stranding in the Suez Canal caused an accidental bottleneck, prompting global shipping and logistics companies to pay renewed attention to the issue of globalization bottlenecks caused by Suez Canal blockage, and the side effects of the trend of ultra-large vessels [8,9]. After the accident, due to the considerations of sustainable business, some shipping and logistics portfolios are expected to be redistributed to other routes, such as those mentioned above. However, the most important key factor in each case will still be the safety and efficiency of the vessel.

In short, the expansion of vessel sizes centered on container ships has not been properly addressed in the field because of cost concerns, although experts have pointed out an increase in marine perils, such as unexpected ship collisions and strandings [10–13]. The *Ever Given*'s stranding accident, unlike previous accidents, was a case in which a large vessel completely blocked the narrow canal in a two-way manner. As a result, complicated legal issues have arisen among stakeholders, such as shipowners, charterers, ship management companies, shippers, and the SCA [10,11], and these are likely to arise again in future cases [14].

Thus, given the importance of keeping major shipping routes safe and sustainable [15,16], the 2021 *Ever Given* stranding accident in the Suez Canal is "a wake-up call" for the shipping and logistics industries, and provides researchers with a key case for the testing of theoretical solutions to the problematic side effects of the trend towards ultra-large vessels [8,9] in the global supply chain of shipping and logistics, such as increasing the cost of detouring, the expansion of delay damage, and liability for damages.

1.2. Outline of Accident

The *Ever Given*, a 20,124 TEU super-large container ship with a length of 399.94 m and a beam of 58.8 m, departed from the Port of Tanjung Pelepas in Malaysia on 13 March 2021, and began its voyage to the Port of Rotterdam in the Netherlands on 31 March. However, on 23 March 2021, the Suez Canal accident [17] occurred in a west-bound convoy from Asia to Europe, as shown in Figure 1; the stranding has been blamed on narrow channels, vessel size, strong winds, poor operation, and rule violations.

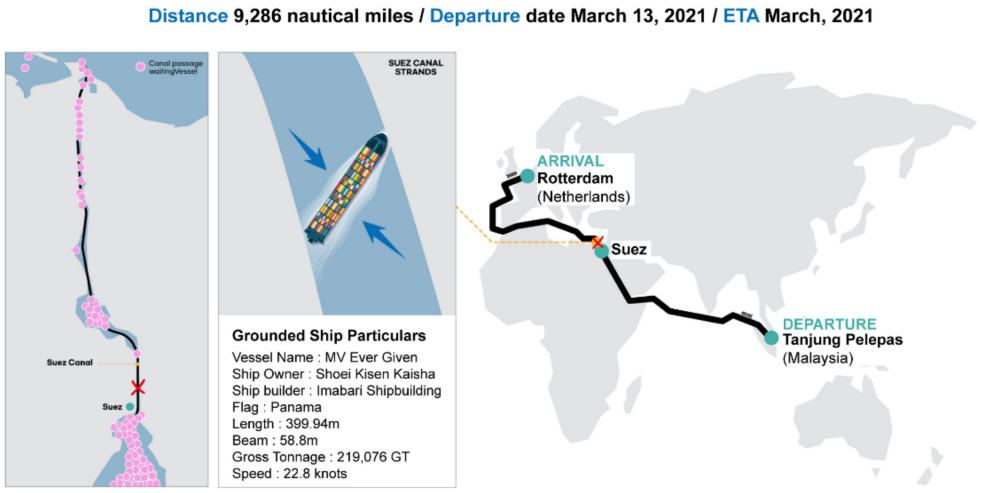

Figure 1. Outline of *Ever Given*'s stranding accident in Suez Canal. Source: Created by authors.

Soon after the accident, the positions of stakeholders were clearly different, and to some extent, adversarial. The SCA pointed to technical problems with the ship as a root cause, stating that it would claim about USD 1 billion in compensation for lost transit fees during the accident period, canal damage, dredging, salvage operations, and loss of reputation [18,19]. Meanwhile, the Taiwanese shipping company Evergreen, which is responsible for the operation of the *Ever Given*, claimed that it was not responsible for the delay in delivery, and that Shoei Kisen Kaisha (SKK), the shipowner, had liability for compensation for various financial damages [20]. After that, the scientific investigation and causal confirmation, conducted using a Voyage Data Recorder (VDR), an Auto Identification System (AIS), track analysis and interviews with officials, found multiple causes for the unprecedented accident. According to the investigation, strong winds threw the ship off course, and then a series of commands from pilots made the situation worse, leading the vessel to slam into both banks of the canal. Moreover, the SCA violated the Rule of Navigation Section II, Art. No. 11 (pilotage) about deploying tugboats next to any vessel of the *Ever Given*'s size while navigating in the Canal to prevent direct collision with the canal's embankment. Nevertheless, as of September 2021, when we are writing this paper, individual stakeholders are still trying to escape responsibility for the accident, or to reduce the scale of compensation [21]. Therefore, we review the core problems of the accident and determine the direction of this study by examining the progress of the responsibility issues that have arisen between individual stakeholders in a time series after the *Ever Given*'s stranding accident.

According to the situation report for the *Ever Given*, the progress of the stranding accident and refloating work based on local time was as follows [22]: On 23 March 2021, at about 8:00 local time, the *Ever Given* was stranded in the Suez Canal. On 25 March, the shipowner, SKK, designated SMIT Salvage (Netherlands) and Nippon Salvage (Japan) as salvage companies, and began salvage work on the *Ever Given*. On 26 March, the salvage companies developed a detailed plan for removing sand and mud around the *Ever Given*'s bulbous bow and re-floating the ship at high tide. As of 28 March, the salvage companies were working with the SCA to remove more than 20,000 tons of sand and mud, and decided to deploy additional salvage tugboats from the sandbank. At around 15:04 local time on 29 March, the rescue company succeeded in refloating the *Ever Given*, which was towed to the Great Bitter Lake for inspection of its seaworthiness. The vessel was officially impounded by Egyptian courts from 13 April. On 4 July, an undisclosed settlement was agreed upon between SKK and SCA. Finally, on 7 July, after about 3 months (106 days) of seizure, the Egyptian court released the vessel, and it resumed its journey to the Port of Rotterdam.

1.3. Aims

The previous findings on the key issues discussed in this study are all based on the liabilities between shipowners and time charterers, both of whom are party to the time charter. In practice, time charters have been made between shipowners and time charterers in accordance with international shipping practices, such as "Baltime 1939," "Revised 1974," "New York Produce Exchange (NYPE) 1981," and "Shelltime Form 4" [23]. The time charter is essentially initiated by the shipowner, providing the vessel and a crew of seafarers, but ultimately, the time charterer leads the operation of the vessel, so there is a clear cost-sharing aspect to accidents such as the *Ever Given* episode [24,25].

Therefore, this study selects the *Ever Given*'s stranding accident as a representative case for interpreting liability under the time charter with expansion of vessel size, and seeks to determine the logic of subsequent liabilities based on the associated legal principles and precedents. Considering the potential liability issues, based on various official opinions raised by SCA officials, time charterers, shipowners, and global insurers, this study selects as the main subjects the Japanese shipowners, SKK, who are directly responsible for managing hulls and engines; German ship management company Bernhard Schulte Shipmanagement (BSM), who substantially managed the *Ever Given*; the Egyptian SCA, engaged in direct management of the Suez Canal; and the Taiwanese time charterers, Evergreen, who held freight transportation responsibility. It then seeks to review liability on this basis. Through this approach, this study looks again at the side effects of the trend towards ultra-large vessels from the perspective of ensuring sustainable development, providing a basis for the consideration of various future issues by scholars and practitioners, and will contribute to the prevention of similar accidents and the promotion of rapid compensation for damages.

To this end, the relevant legal issues shall be analyzed in Sections 3 and 4, in order to help the maritime industry by presenting legal theory-based information and drawing a reasonable interpretation in terms of future-oriented problem solving. It should be noted that this study only discusses problems related to the time charter within the contract period, since the legal disputes between the parties are not completely closed.

1.4. Key Issue and Research Questions

Beginning 23 March 2021, the Suez Canal was closed for approximately seven days in both directions, raising international oil prices and diverting some waiting vessels to the Cape of Good Hope [26]. As a result, global shippers suffered direct and indirect damage due to the disconnection in the maritime logistics supply value chain and the delay in delivery. The *Ever Given*'s stranding accident is a case showing the side effects of the trend toward ultra-large vessels, providing important insights to shipbuilding companies, which have been interested in developing ship technology and infrastructure exclusively [27]. From this point on, these actors must not only focus on ships, as they have done so far, but are also required to pay attention to improving the infrastructure of related facilities (such as ports, canals, and aqueducts) in the global maritime logistics supply value chain, and to establishing a legal basis for all stakeholders to agree upon. In other words, only efforts and investments in technology development, safety management, emergency response, and the establishment of a legal system across the global maritime logistics supply chain, undertaken all together, will enable the smooth response to unexpected major accidents, and enable rapid compensation for damages.

As fundamental research, this study aims to focus on legal disputes from a problem-solving perspective. From 23 March to 23 April 2021, a total of 115 documents related to the *Ever Given*'s stranding accident were extracted through web crawling and text mining, and major keywords were analyzed, as shown in Figure 2.

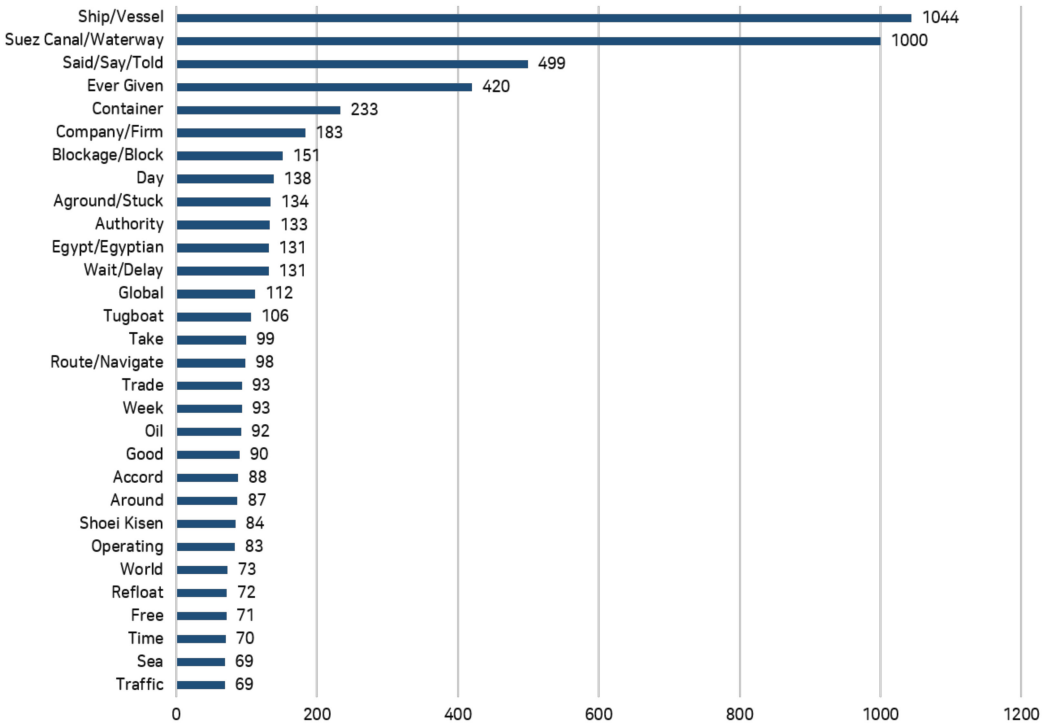

Figure 2. Keywords from the term frequency analysis. Source: Created by authors with R (Version: R-4.0.5).

Finally, based on the major keywords, we interpret the legal disputes surrounding the accident. To this end, we also considered reviewing the detailed official agreement or judgment. However, this has still not been disclosed, by agreement between the Egyptian court and the stakeholders. Accordingly, we derive the legal disputes by utilizing the keywords derived from the third-party perspectives of the global media, the fragments of information from the Egyptian court's verdict, and the authors' own insights, as shown in Figure 3.

The first dispute involves determining the correct legal definitions of terms, which are mainly divided into two parts: first are terms related to the *Ever Given*'s stranding, such as "Ever Given", "blockage (block)", "Suez Canal (waterway)", "aground (stuck)", "Shoei Kisen", and "operating"; and second is the general average (G/A) declared by SKK regarding the enormous cost of refloating the stranded *Ever Given*, examining keywords such as "Ever Given", "company (firm)", "aground (stuck)", "tug boat", "Shoei Kisen", and "refloat". The second dispute relates to keywords such as "ship (vessel)", "Ever Given", "company (firm)", "authority", and "operating", and whether due diligence had been maintained with regard to the *Ever Given*'s seaworthiness. The third dispute relates to keywords such as "Suez Canal (waterway)", "company (firm)", "authority", "route (navigate)", and "operating", and involves the issue of command (navigation) authority with regard to the vessel during the passage of the Suez Canal. The fourth dispute relates to keywords such as "Suez Canal (waterway)", "container", "blockage (block)", "day", "Egypt (Egyptian)", "wait (delay)", "trade", "Shoei Kisen", and "time", and involves the issue of delays in the delivery of cargo and the liability for compensation that followed the suspension of traffic through the canal.

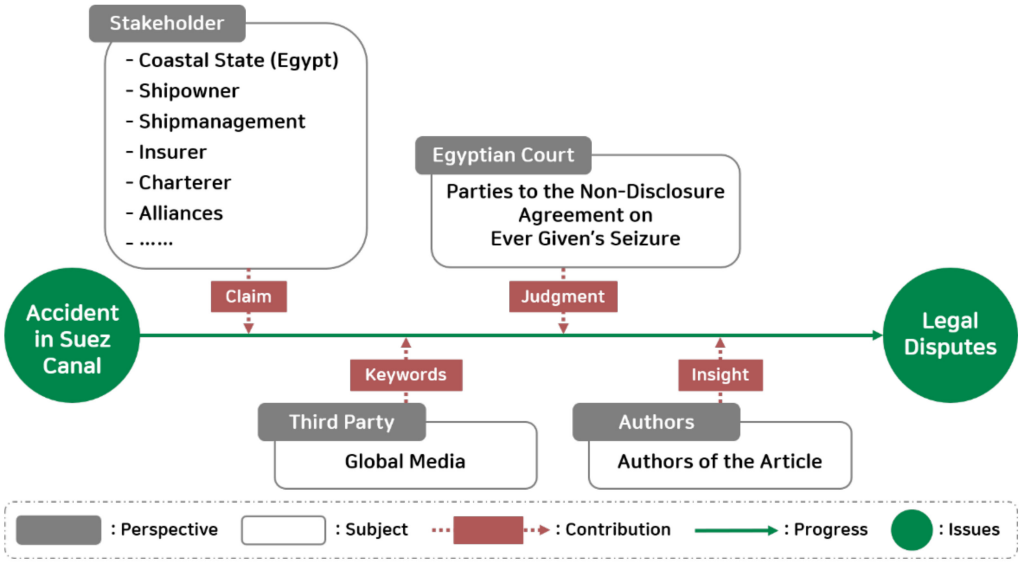

Figure 3. Flow chart presenting legal disputes. Source: Created by authors.

Following these four disputes, the research questions are as follows.

- Question 1. What is the legal dispute on the correct legal definition of terms related to *Ever Given*'s stranding and the declaration of G/A?
- Question 2. What is the legal dispute on whether due diligence for *Ever Given*'s seaworthiness has been maintained?
- Question 3. What is the legal dispute on the status of command (navigation) authority over the captain under the time charter while passing the Suez Canal?
- Question 4. What is the legal dispute on the liability for compensation for delay in delivery due to the suspension of Suez Canal operations?

1.5. Literature Review

Several previous studies have provided insights into legal issues related to the benefits and disadvantages of ultra-large vessels, the legal meaning of good faith and seaworthiness under marine insurance, liability for the shipowner's commanding authority under contract of pilot services during the passage of the Suez Canal, and delay of cargo delivery. Here we review these studies and connect them to the present case.

On the (economic and environmental) benefits and disadvantages of ultra-large vessels, Notteboom and Rodrigue [7] found that larger vessels produced considerable reductions in cost per TEU of capacity provided; however, further scale advantages at sea incurred diseconomies of scale at seaports. They argued that growing vessel size has led to a massification of unit cargo at sea, which in turn requires seaports to implement an atomization process. Panayides and Wiedmer [28] provided an effective understanding of collaboration among service providers, starting from the business structure of liner services. Tran and Haasis [11] concentrated on capacity expansion and the growth of ship size, and demonstrated that investing in new capacity will lead to higher total revenue of operators but lower unit revenue. Moreover, they pointed out that, for large container ships to directly take advantage of scale economies, in addition to shipping cost, other factors, such as port cost, inventory cost, transshipment cost, and inland transportation cost, should be taken into consideration. Malchow [29] reviewed those further effects of lower slot costs and lessons learned: consistently, an increase in ship size was found not to significantly reduce transport costs. Nevertheless, all necessary efforts to prepare ports for ships of increasing size are growing proportionally with every additional meter of draught and beam. Ha and Seo [30] showed that freight rate had a significant positive impact and bunker fuel price a significant negative effect on total profits. Pedersen and Zhang [10] provided simple expressions involving the structural dimensions and building

material of ships, showing that the density distribution for collision and grounding damage normalized by the main dimensions of the ship depends on the size of the ship—a larger ship has a higher probability of greater relative grounding damage length than a smaller ship. Shin et al. [31] explored why most container shipping companies in Europe with positive earnings purchase large vessels instead of chartering vessels, while some ocean carriers with poor financial performance (negative earnings), such as the Hanjin Shipping Company, instead charter larger ships, with higher charter rates and longer durations.

The second review, of the legal meaning of good faith and seaworthiness under marine insurance, proceeded as follows. Kay [32] focused on the duty of good faith, imposed by Section 17 of the English *Marine Insurance Act 1906*, which states that "A contract of marine insurance is a contract of the utmost good faith, and, if the utmost good faith is not observed by either party, the contract may be avoided by the other party." Park et al. [33] aimed to analyze the *Institute Act* 1/7/76 as well as to suggest a reasonable level of additional premium for breach of warranties through not only a comparative analysis between the *Institute Warranties* clauses and those of the corresponding *Institute Warranties* used by Japanese Fire and Marine Insurance companies, but also considering the current circumstances of changes in climatic conditions, vessel design, navigation and communication requirements, and capabilities from the perspective of guarantees of seaworthiness. Kampantais [34] aimed to examine whether the current seaworthiness legal framework can encompass autonomous unmanned ships. Kim and Cheong [23] analyzed South Korea's historical position on cases involving the extent of the shipowner's liability and willful misconduct or other reckless acts or omissions committed.

The third review, of the legal status of shipowners commanding authority under the contract of the pilot service, was as follows. Yoshimoto [35] examined the concept of a time charter, and we must consider what types of use of the vessel fall within this category. In this respect, early American court decisions recognize that under the more familiar time charter, the charterer does not contract for the vessel per se, but rather contracts for the service of the vessel rendered by the owner through the owner's master and crew. Adăscăliţei [36] focused on the whether the owner of the vessel operates a liner service, or a charter undertakes that his vessel, while performing its obligations under the contract of carriage, will not deviate from the contract of carriage. Kunnaala et al. [37] reviewed usage as a guideline for developing a pilotage process model and indicators for measuring the effectiveness and quality of the pilotage process. Lee and Kim [38] included wide comparisons of other special provisions with the existing time-charter by basing it on "Supply Time 2005", which is the worldwide standard form of time charter in the offshore support vessel market, and its investigation, aiming to provide practical guidance and procedures for the implementation of arbitration and applicable law issues in legal disputes between parties. Rialland et al. [39] demonstrated how a standard set of key performance indicator definitions and corresponding benchmark values can greatly simplify the design of a performance-based contract scheme by providing well-defined references for both shipowners and ship managers. Kim [40] announced that many countries insert default rules into maritime law to apply it to a case wherein there is no agreement; this serves to enhance legal stability. China, Japan, and Germany are among such countries.

The fourth review, of the legal status of delay for cargo delivery, was as follows. Nunes [25] demonstrated that while charterers may escape the risks associated with operating a shipping company, a prudent charterer should still be concerned about potential liabilities to third parties, the ship's crew, and the environment in connection with the transportation of its product, particularly if that cargo has been classified as a "dangerous cargo" by local or international law. Von Ziegler [41] reviewed the liability of the carrier for loss, damage, or delay based on Article 17 (Basis of liability) of the Rotterdam Rules. The carrier is liable for loss and damage to goods, as well as for delay in delivery, if the claimant proves that the loss, damage or delay, or the event or circumstance that caused or contributed to it, took place during the period of the carrier's responsibility. Von Ziegler [42] demonstrated why the prevailing international rules for the law of carriage of goods by sea

have not included harmonized rules on possible liability for delay, and for the most part have left the issue to national law, which in turn to a great extent has left the issue of liability for delay in maritime transport to the parties to contract freely on a time element and on how the contract is to function in the event of any delay. Sturley et al. [43] discussed that the intrinsic merits of a new carriage convention can be disagreed on. They recalled the many discussions and conferences from the late 1970s about whether to adopt the Hamburg Rules and the particularly forceful views of some in the shipping and insurance industries who warned against changing the existing system. Plomaritou [44] discussed the distribution of the liabilities and expenses between the shipowner and charterer in the most representative types of charter regarding the aspects of the vessel, the seaworthiness, the avoidance of unjustifiable deviations, the ship's arrival at the port, the loading/discharging operations, the delivery of cargo, and so on. Aladwani [45] discussed the impact of multimodal carriage on the obligation of, and liability related to, seaworthiness, and proposed that a multimodal approach should not be used with some types of sea carriage, such as container carriages. Throughout the thesis, proposals for both regimes concerning changes to areas where the risk between contracting parties is imbalanced are provided.

2. Research Design and Method

2.1. Theory

This study offers legal theory-based information to address the research questions, derived from key issues such as the theory of charter contracts based on the principles of maritime-related trust, focusing on the *Ever Given*'s stranding accident in the Suez Canal. To that end, the first step must be the establishing of facts based on the outcome of the final stakeholder settlement or legal action. Descriptive theory is concerned with characterizing and explaining law, and is standardly distinguished from normative theory, which seeks to provide an account of the supporting framework that aims to improve on descriptive theory. In order to minimize gaps in maritime, ship, and cargo management technologies that reflect the latest ship operation and management technologies and environments, applying the existing legal theory during the argument process, we will apply an inductive method of study based on related precedents and clauses. Through this approach, a legal interpretation for solving major disputes in a future-oriented manner will be possible.

The analysis utilized the R program (version: R-4.0.5) and found that word roots such as "ship", "canal", "said", "suez", "vessel," "container", "ever given", "day", "company", and "author" were frequently used, as shown below in Figure 4.

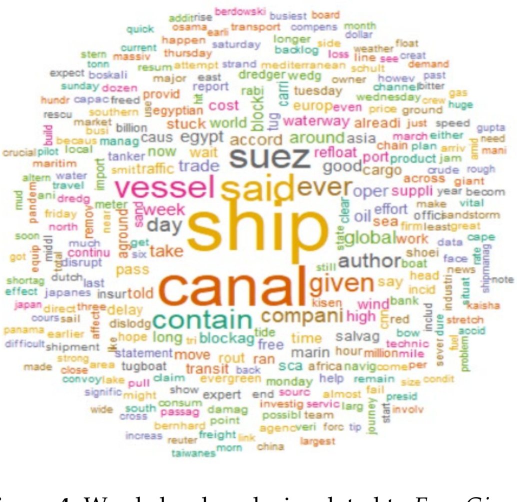

Figure 4. Word cloud analysis related to *Ever Given* accident. Source: Created by author with the R studio program (Version: R–4.0.5).

Then, the top 30 keywords were derived by rearranging words that can be synthesized, such as "ever" and "given", and those that have very similar meanings, such as "ship"

and "vessel". As a result, the most repeated words about accidents were "ship (vessel)" (1044 times) 1000 times for "suez canal (waterway)", and 420 times for "ever given". Specifically, these included keywords on recovery from accidents by refloating stranded vessels (including 134 usages of "aground (stuck)", 106 of "tugboats", and 72 of "refloats"), keywords on the suspension of the canal's operations (151 usages of "blockage", 138 of "day", 131 of "wait", 98 of "navigate", and 69 of "traffic"), keywords related to the major subject of the accident (183 usages of "company (firm)" and 84 of "shoei kisen"), and keywords related to authority and responsibility in the accident (including 133 usages of "authority" and 83 of "operating").

2.2. Outline of Research

Using the R program, this study analyzed 115 documents related to the *Ever Given* accident collected through web crawling from 23 March to 23April 2021. We analyzed the frequency of the resulting keywords to draw out the key issues and design research questions based on them. Then, through causal inductive reasoning, we interpreted the liability based on legal theory and precedence regarding the legal status and responsibility between the aforementioned individual subjects. We grouped through a relationship diagram the legal disputes on the time charter relationship between the time charterer (Evergreen in Taiwan) and the shipowner (SKK in Japan), and the ship management consignment agreement relationship between the shipowner and the ship management company (BSM). Through this, agents such as internal and external shipping companies, insurers, insurance brokers, register of shipping, and ship management companies will be able to understand the side effects of the trend in ultra-large vessels in terms of peril management, develop improvement plans to reduce damage in the event of similar cases in the future, and maintain sustainability in the shipping and logistics industry.

3. Legal Status and Responsibility Relating to the *Ever Given*'s Stranding Accident in the Suez Canal under the Time Charter

3.1. Time Charter

This study defined the concept of time charter as follows: the vessels, crew, cargo, etc., that are necessary to maintain a shipping company require the investment of enormous capital, time, and manpower, as well as the formation of various contractual relationships. Of the various contracts, the time charter contract, which began to be widely used in England in the 1850s, was mainly developed to support the shipping of lumber and ore across the Baltic Sea [46]. By entering into a time charter contract, global shipping companies use the status of a time charter, which is granted by the shipowner, to command the necessary navigation for a vessel's operation while entrusting the shipowner with the cost and burden of preserving and managing the physical assets (e.g., vessel's hull and machinery) and human assets (e.g., appointment, dismissal, and salary of captain and crew), thereby operating a grand fleet with little capital.

Shipping companies essentially gain internationality by operating a business that uses ships to transport cargo, or one that leases and charters ships. Of the various contracts that are used to guarantee internationality, a time charter is a contract that stipulates the following: a shipowner leases a vessel (that is seaworthy with respect to its hull and machinery) and its crew to a charterer for a certain period of navigation, and in return, the charterer will pay a set charterage to the shipowner based on their contract. In addition, according to the objective of a charterer, a time charterer is categorized as a "carrier type of time charterer", in which large shippers charter vessels to transport their cargo, or as an "enterprise type of time charterer", in which the shipping companies charter vessels to secure a fleet. Therefore, the charterer, a party to a time charter contract, is referred to as the time charterer, and is the legally responsible subject who pays the charterage and operates a fleet by being granted the exclusive right to use and benefit from the captain, crew, and chartered vessel for a certain period of time. In practice, a charterer can also delegate the legal right (by a shipowner) to use their name for official cargo documents, such as a bill of

lading (B/L), as well as the right to change the funnel mark and paint color of the vessel's exterior hull in order to manage the chartered vessel together with its own fleet [24,25].

As a general framework of time charter is a charter contract that promises the shipping of cargo with the use of a vessel for an agreed-upon period of time, standard contractual clauses should include a vessel that is seaworthy in terms of its hull and machinery, as well as including seafarers with sufficient navigation capabilities [47,48]. Ultimately, the major disputes regarding the *Ever Given*'s stranding have to do with ascertaining the cause of the accident and the subject that has liability for compensation when determining the responsible subject. In other words, the key issues are how well the shipowner and time charterer uphold the principles of good faith, seaworthiness, and due diligence according to the agreed-upon clauses of the time charter contract [49].

The following is a precedent case regarding the due diligence and seaworthiness of a shipowner in terms of a time charter associated with *Ever Given*'s stranding accident in the Suez Canal: the Papera Traders Co. Ltd. and Others vs. Hyundai Merchant Marine Co. Ltd. and the *Eurasian Dream* case (In the Queen's Bench Division (Commercial Court), in the High Court London, 7 February 2002 (The *Eurasian Dream*) LLR 719 (2002) Vol. 1 [50]). The implication of these cases is that, in accordance with Article 3, paragraph 1 (b) of the Hague–Visby Rules, they emphasize the shipowner's responsibility to guarantee seaworthiness with regard to properly manning, equipping, and supplying the ship. Mr. Justice Cresswell of the English Commercial Court found that the loss and damage of the cargo (motor vehicles) occurred due to the negligence of the ship's seafarers because a fire had broken out when the seafarers on board the *Eurasian Dream* started the vehicles' engines using batteries and simultaneously refueled them with gasoline. As a result, Cresswell ruled that the shipowner, who was responsible for the management of the ship's crew as the ship's manager, was liable for violating the due diligence regarding the ship's seaworthiness. As shown in the above British case, the due diligence in the *Ever Given*'s stranding accident is the key issue that anticipates the reason and result.

3.2. Analysis of Relationship between Major Responsible Subjects

3.2.1. Overview of Relationship between Interested Parties

Essentially, in terms of a time charter, the legal relationship between a shipowner and time charterer is determined by the contract between the two parties in accordance with the principle of freedom of contract. However, in practice, the legal relationship between a shipowner and time charterer is based on generally used standard clauses, such as "Baltime 1939," "Revised 1974," "NYPE 1981," and "Shelltime Form 4", depending on the type of cargo, with certain modifications being made to the clauses according to the agreement between the parties. In particular, the *Ever Given*, which ran aground on 23 March 2021, is a 20,124 TEU-class ultra-large container ship, chartered and operated by Taiwan-based Evergreen, which provides a joint service with COSCO (China) and CMA-CGM (France) through the Ocean Alliance [28]. Moreover, the cargo loaded onto and shipped by the *Ever Given* not only consists of cargo received by Evergreen as the ocean carrier on the B/L, but also of cargo loaded with COSCO and CMA-CGM (who are involved in a shipping alliance with Evergreen) as different carriers on the B/L. Meanwhile, the actual shipowner of the *Ever Given* (which was chartered by Evergreen) is SKK, a subsidiary of Japan's largest shipbuilding company, Imabari Shipbuilding. SKK is a non-operating owner (NOO) whose core business is a leasing business in the area of time chartering, which is based on the ownership and management of vessels and not their direct operation. In addition, as a shipowner, SKK leaves the professional maintenance and management of its vessels' seaworthiness to the German ship management company BSM, as shown in Figure 5. Japanese NOO build a series of vessels on the basis of their main bank's capital under the condition of leasing them under a flag of convenience (FOC) as long-term charter ships, and then lease the vessels to global charterers (such as Evergreen) that want flexible fleet expansion while using only a small amount of capital [30].

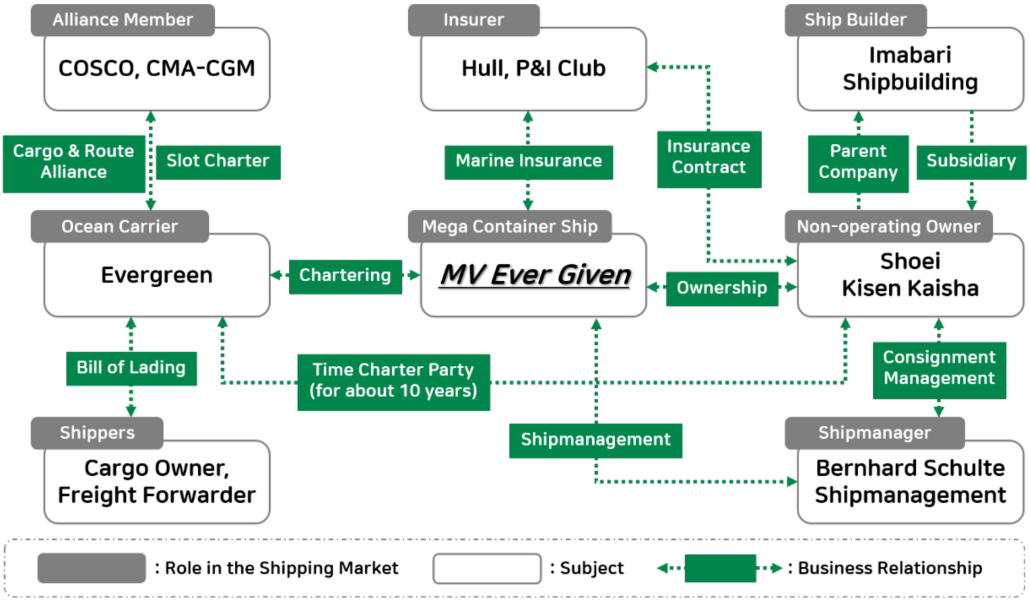

Figure 5. Stakeholder relationship diagram of *Ever Given*. Source: Created by authors.

3.2.2. Current Situation of Shoei Kisen Kaisha and Its Legal Status as a Shipowner

SKK is a ship-leasing company founded in 1962, and is a subsidiary of Imabari Shipbuilding, the largest shipbuilding company in Japan. SKK's main area of business is the chartering of ships; the company mainly builds series of vessels such as bulk carriers, pure car carriers (PCC), and container ships, and leases them long-term to global shipping companies. For example, the *Ever Given* is one of six 20,000 TEU-class container ships that were built by the parent company Imabari Shipbuilding for Evergreen, according to SKK's own shipbuilding plans [51]. Ultimately, SKK, a NOO, is gaining competitiveness by actively utilizing the global network of its parent company to use most of its fleet to enter into long-term charter contracts (that are in a package form and link ship building, ship financing, etc.) with ship-operating disponent owners, such as CMA-CGM, China Shipping Container Line, United Arab Shipping Co., and Evergreen [52]. However, with the *Ever Given*'s recent stranding, SKK demonstrated its limitations as a NOO by relying on the German ship management company BSM with regard to the technical and management aspects of the accident due to its own lack of ship-managing manpower, which is at the center of various legal disputes that will be addressed in Section 4 of this study. According to the standard forms of time charters such as "Baltime 1939", "Revised 1974", "NYPE 1981", and "Shelltime Form 4", responsibilities regarding a ship's operation are still imposed on the shipowner regardless of whether or not the ship was being directly operated by the shipowner [38]. Moreover, the time charterer's command (navigation) authority over the captain in terms of the ship's navigation is recognized to be within the scope that is necessary to achieve the commercial objectives of the charter contract, and the liability regarding the navigation and management of the vessel resides entirely with SKK, the substantive owner [47]. For example, according to Clause 6 of the NYPE (1993), shipowners must prepare and pay for the vessel's insurance, all the provisions, and the necessary supplies, except as otherwise stipulated. Furthermore, pursuant to Clause 7 of the NYPE, time charterers must pay for all the following expenses during the period of the charter, except as otherwise stipulated: all kinds of fuel, port charges, pilotages, towages, agencies, commissions, consular charges (excluding expenses related to the captain and seafarers), as well as other usual expenses, except for the expenses stipulated in Clause 6 of the NYPE (1993). However, it is stipulated that the shipowner is responsible for the costs incurred when the vessel enters the port due to adverse weather conditions or reasons that the vessel is responsible for. Therefore, if we distinguish between the two parties from the perspective of their legal status, possession with regard to the vessel's operation belongs to

the shipowner, SKK, while the commercial use of the vessel, or the business aspect, belongs to the time charterer Evergreen. Thus, the relationship of liability between parties can be distinguished [53].

3.2.3. Current Situation of Evergreen and Its Legal Status as a Charterer

Evergreen Marine Corporation is a Taiwanese conglomerate in the field of shipping and logistics, as well as tourism, established on 1 September 1968; as of May 2021, its container capacity (loading capacity) ranks seventh in the world [54]. Because of the increasing presence of chicken in the shipping market, which is linked to the environmentally friendly impact of the IMO 2020 regulation and the expanding size of ships in the liner sector, Evergreen is enhancing its fleet portfolio and the competitiveness of its global liner service by cooperating with the NOO, SKK and time-chartering ultra-large container ships [51]. Therefore, as a disponent owner or chartered owner, Evergreen is a legal subject that is responsible for paying a stipulated charterage to the actual shipowner SKK in return for using their vessel for a certain period of navigation. In addition, Evergreen can be independently issued B/L from various shippers with which it has an alliance relationship, and is thus able to determine the type and quantity of cargo [55]. It can also legally exercise the right to command commercial matters as an ocean carrier. Ultimately, as a time charterer, Evergreen can exercise its exclusive right to use the delivered vessel within the stipulated scope, and if there is a problem with the captain or seafarers' management of the ship, Evergreen has the right to request to the NOO that they be replaced [56]. If the request of the time charterer (Evergreen) is deemed to be justified, SKK is obligated to replace the seafarer in question without delay at the next port. Furthermore, on the premise that the vessel is anchored in a safe port, SKK must provide the time charterer with the right to freely use the vessel so that loading and unloading operations can be carried out freely and safely. As such, Evergreen can exercise legal rights, such as the right to have commercial command, the right to freely use the vessel, and the right to have seafarers replaced, while being imposed with the relevant legal responsibilities and liabilities at the same time.

The following is a precedent case regarding the commercial command by time charter associated with Evergreen's right to freely use *Ever Given* for loading and unloading operations even despite the accident in the Suez Canal. When examining the case of Belcore Maritime Corporation vs. F.Lli. Moretti Cereali S.p.A. (the "Mastro Giorgis" case) [57], which relates to the free exercise of commercial command by time charterers, Mr. Justice Lloyd (based on the word "whatsoever" that was included in the off-hire clause of the NYPE time charter) ruled that a time charterer can go off-hire if the charterer's commercial command is hindered and free use of the vessel is limited as a result; this is because it is judged that all causes (whether the have to do with the vessel's physical state or with legal matters) related to the shipper's seizure of a vessel due to the shipowner's poor management of cargo fall under the matter of "detention by average accidents to ship or cargo". As shown in the above case, Evergreen is time-chartering ultra-large container ships and SKK is a NOO that should be regulated by the NYPE; this is the most widely circulated type of time charter party. According to the NYPE, navigational matters fall upon the shipowner, while business matters fall upon the time charter.

3.2.4. Current Situation of BSM and Its Legal Status as a Ship Management Company

BSM is a representative global ship management company based in Germany—a third-party ship management company that was established by the Schulte Group in 2008 with the integration of the following four ship management companies to provide comprehensive maritime services: Hanseatic Shipping (1972), Dorchester Atlantic Marine (1978), Eurasia Group (1981), and Vorsetzen Bereederungs und Schiffahrtskontor (1999) [58]. BSM provides professional ship management services (centered on the areas of technical management and crew management) to NOOs with abundant funds, such as Danaos (Greece), Seaspan (Canada), Shoei Kisen Kaisha (Japan), Ciner (Turkey), and Zodiac (United Kingdom). Furthermore, BSM provides a package of services that include chartering, insurance,

technical advisory support and construction supervision, agency work, the provision of food for ships, and the management of facilities. In particular, based on the ISO 9001:2008 certification and IMO Model Courses, BSM established the Hanseatic Maritime Training School in Cyprus in 1983, the BSM Crew Service Centre Philippines in the Philippines in 1999, and the BSM Maritime Training Centre for Advance Learning in India in 2000. Through this, BSM has enhanced their provision of services by training and re-educating the high-quality seafarers that NOOs are in need of. As a result, BSM's competitiveness is recognized by shipowners [59]. In addition, BSM utilizes the LiveFleet application [60] to provide operational, technical, and financial information of its managed vessels in order to accommodate the real-time requirements of NOOs in accordance with the digitalization and networking of vessels, as well as their expanding size and increased speed.

With regard to the *Ever Given*, the BSM is entrusted by the NOO, SKK, to manage the ship with regard to manning and technical management. From a legal standpoint, as BSM has an agency relationship with SKK, their contractual relationship is not one that is based on a simple agreement, but is an one based on a fiduciary relationship for forming a ship management agreement. If the BSM only enters into a contract with a shipowner regarding the ship's manning, it bears the obligation to comply with the shipowner's instructions. At the same time, if a breach of contract occurs, the ship management company bears the responsibility for failing to fulfill the contract, or liability for damages [39]. In the case of the *Ever Given*, as BSM does not have independent, final decision-making authority regarding the manning of ships that belong to SKK, BSM's legal status as a shipowner cannot be recognized. When we examined precedents, there was a case involving a tanker that had become stranded in the Magellan Strait/Patagonia Channel [61]. Mr. Justice Steel, who presided over the case, denied the shipper's claim, concluding that the shipper could not prove the vessel's unseaworthiness and that the shipowner did not make mistakes with regard to their instructions involving the vessel's navigation [62]. However, as BSM entered into a ship management contract with SKK, which includes the management of seafarers and the ship's technical management, the Indian seafarers on board the *Ever Given* entered into an employment contract directly with BSM, and their legal status as employees of BSM were established. Accordingly, responsibilities regarding seafarers' repatriation, salary, welfare, etc., lay with the ship management company, BSM. However, in the case of in-house ship management companies such as NYK Ship Management (NYKSM), the parent company delegates all rights regarding the technical management, commercial management, and crew management of a particular ship. Therefore, in this atypical case, the ship management company may be designated as the subject responsible for all liabilities. However, this does not pertain to the case of the *Ever Given*.

Ultimately, with regard to the *Ever Given* accident, BSM (as a third-party ship management company) has the obligation to uphold its duty of loyalty and not go against the interests of the shipowner, as well as the obligation to maintain the vessel's seaworthiness. Accordingly, BSM supported the efforts to salvage the vessel by providing SKK with technical information pertaining to the *Ever Given*, whose bulbous bow was wedged in the embankment of the Suez Canal.

3.2.5. Current Situation of SCA and the Legal Status of SCA-Employed Pilots

SCA is an Egyptian government agency that was established on 26 July 1956. However, the SCA is not restricted by certain laws and policies of the Egyptian government, and instead has exclusive authority regarding the management, operation, use, maintenance, and improvement of the Suez Canal [63]. In particular, the SCA applies maritime transport law in preference to the existing International Regulations for Preventing Collisions at Sea (COLREG) by establishing navigation rules based on local regulations called the "Rules of Navigation" for all vessels passing through the Suez Canal. In addition, the SCA provides a northbound–southbound convoy system as well as pilot services to ensure the safe navigation of vessels passing through the narrow channel of the Suez Canal. Furthermore, the SCA provides navigation circulars, navigation statistics, etc., both online and offline,

to share information on issues such as weather, traffic volume, perils, and terrorism with interested parties worldwide.

Under the time charter contract, the time charterer, Evergreen, is obligated to pay the Suez Canal toll for passage through the Suez Canal, and it can be presumed that Evergreen entered into a pilotage contract that, according to "Chapter 5 Toll Structure and Rates, Other Dues and Charges", stipulates that two pilots will provide their pilotage-related services to allow the vessel to pass safely through the Suez Canal [64]. This type of pilotage contract is recognized as an employment contract, and SCA-employed pilots have the legal status of an employee who assists the captain of the *Ever Given*. In other words, in relation to the *Ever Given*'s recent stranding, the captain is legally in the position of an employer with regard to the SCA-employed pilot, and together with the duty officer, has the obligation to supervise the SCA pilot's acts of pilotage within the narrow channel. This means that the *Ever Given*'s captain is not exempt from liability with regard to the safe operation of the vessel, even though an SCA-employed pilot was on board the vessel [65].

Although the *Ever Given*'s captain realistically considered the distinct geographic characteristics of the Suez Canal's narrow channel and thus delegated the right to operate and command the 20,124 TEU-class ultra-large container ship to an SCA-employed pilot, the fundamental pilot in command (PIC) responsibility regarding the vessel is legally vested in the captain of the *Ever Given* [66]. Therefore, the duty officer and the captain of the *Ever Given* have a legal obligation to monitor and supervise pilots so that negligence in navigation will not be committed by an SCA pilot. The following provides a legal basis to support the above: SCA "Rules of Navigation" SECTION II PILOTAGE Art. 11—Pilotage: (1) A—General: "Masters are held solely responsible for all damages or accidents of whatever kind resulting from the navigation or handling of their vessels directly or indirectly by day or night. The pilot is not held responsible for any damages sustained during transit owing to his advice since the master or his deputy is the sole responsible for the ship." Nonetheless, there exist implied obligations for both the captain and the pilot, such as the obligation to share information in real time regarding distinct weather changes, shallow water effects, bank effects, etc., that could occur in narrow channels such as the Suez Canal, as well as the obligation to get a grasp on the vessel's situation through the appropriate use of duty officers and helmsmen who are assigned to the bridge [37,67]. Therefore, if negligence in navigation (resulting from the concerned parties' negligent management of the vessel) is proven to be the direct cause of the accident in the future, it is judged that there will be liabilities for each subject; moreover, the "perils of the seas rivers lakes or other navigable waters", which is contained in Clause 6, paragraph 1 of the English Institute Time Clauses—Hulls, 1983 [68], as well as the "negligence of Master, Officers, Crew or Pilots" in Clause 6, paragraph 2 (3), are included in the perils covered [69,70].

According to Article 4 of the Navigation Rules, an owner, operator, and/or charterer of a vessel is liable for any damage caused either directly or indirectly by the vessel to itself or to SCA properties or personnel. This would include any physical injury or material loss resulting from the obstruction of navigation in the Suez Canal. The SCA has the power of legal execution in the case of *Ever Given*'s stranding in the Suez Canal to investigate the root causes, the liability of the involved parties, and the estimated compensation to recover the incurred loss.

4. Legal Questions over the *Ever Given*'s Stranding Accident in the Suez Canal

4.1. What Is the Correct Legal Definition of Terms Related to the Ever Given's Stranding and the Declaration of G/A?

First, if we review the *Ever Given*'s stranding accident to examine the legal definition of the accident-related terms, we know that the *Ever Given* became "stranded" after making "contact" with the embankment of the Suez Canal due to multiple causes, as aforementioned in Section 1.2. Regarding the term "contact", loss and damages caused by a collision have been covered by insurance in the past, as in the case of Union Marine Insurance Co vs. Borwick (1895) 2 QB 279, in which the hull of a ship made contact and collided with a breakwater due to strong winds. However, due to developments in the areas of ship

design and shipbuilding technology, there is a more limited interpretation of the current hull insurance policy, which limits the loss and damage caused by actual contact with other ships. In addition, in accordance with the Lisbon Rules 1987 (Rule C "Subject to the application of the numbered rules the Claimant shall be entitled to recover only such damages as may reasonably be considered to be the direct and immediate consequence of the collision"), when a ship suffers damages without making direct contact with another ship, such as due to waves that are caused by the other ship's wrongful approach, or when a ship becomes stranded or collides with the port, quay wall, pier, etc., while avoiding the wrongful navigation of another ship, such cases of indirect contact do not count as collisions. According to the basic data that have been reported in the media so far, it can be interpreted that the *Ever Given*'s stranding accident occurred when the vessel made direct contact with the embankment of the Suez Canal, and the bulbous bow was wedged in the canal embankment without the *Ever Given* being in a situation of mutual interference and interaction with other vessels or of interference caused by factors such as waves or actions to avoid other vessels. Therefore, the *Ever Given*'s stranding accident does not correspond with a collision that can be interpreted as a direct or indirect contact made between two or more vessels at sea or in inland waters due to an act or omission of an act regarding their operation, thereby causing damage to another vessel or to the persons or objects in the vessel.

In addition, although the concept of stranding generally includes the concepts of grounding and touch and go, in the case of the *Ever Given*, a narrow interpretation of the concept is possible, indicating a grounding, which is when a vessel has run aground on sand or reefs. The concept of touch and go, in which navigation is possible for a vessel after its collision with an object, does not apply to the *Ever Given*'s situation [71].

As a result, if the accident were to be strictly classified from a marine insurance perspective, the accident would broadly fall under the category of a stranding accident and, more narrowly, correspond to a grounding accident (when the vessel made contact with the embankment of the Suez Canal) [72]. Therefore, the *Ever Given*'s hull insurer, which is Japan's Mitsui Sumitomo Insurance (under MS&AD Insurance Group Holdings Inc., Tokio Marine & Nichido Fire Insurance Co., and Sompo Japan Insurance Inc.), must cover the cost required for the vessel's salvage operation, safety inspection, condition survey from the register of shipping, and other repairs after receiving a survey report that focuses on the causes of accidents and damages with regard to stranding accidents, and not on the coverage of the collision clause.

Second, the G/A is essentially determined in accordance with the York–Antwerp Rules (1994) at a port or place of the ocean carrier's choice. Under positive law or contracts, if accidents, perils, damages, or disasters occur before or after the commencement of navigation, ocean carriers are not liable for their occurrence or consequences, regardless of their cause and regardless of whether they are due to negligence. Furthermore, shippers must jointly share the G/A with the ocean carrier in terms of any sacrifices, losses, or payments of expenses incurred in relation to the G/A, as well as paying for salvage charges and special charges incurred in relation to the cargo [73,74]. According to Section 66, paragraph 2 of the *Marine Insurance Act 1906* (MIA), a G/A act is stipulated to be an act in which extraordinary expenses (e.g., salvage charges) that do not occur in the normal navigation of vessels are reasonably paid because of the occurrence of an accident (e.g., stranding) that will lead to huge damages if the vessel loaded with cargo is left as it is, and as a result, actions are taken (e.g., requesting salvage tugboat services) to save the vessel and cargo [75].

As the shipowner of the *Ever Given*, SKK declared a G/A for the amount that was paid to salvage the ship after its stranding accident because the objective and core theory behind the principle of G/A is for the salvaged ship's owner and shippers, who are connected to the shipowner's actions, to share the costs, as this is a way of protecting themselves. According to Section 66, paragraph 2 of the MIA, there are two types of G/A costs: G/A sacrifice and G/A expenditure. G/A sacrifice refers to the physical damage (to the ship and

cargo) that occurs in order to protect the ship and cargo [73,74]. Accordingly, in Section 4.1, as SKK declared a G/A, it is a matter of legal dispute to determine which damages could be included. For example, with regard to the *Ever Given*'s stranding, the hull damage (e.g., damage to the flat bottom, screw propeller, web frame, and rudder) that could occur in the process of refloating the ship to protect it and its cargo is called refloating damage [76], and the cost of repairing this type of damage can be included in the G/A as a G/A sacrifice. However, grounding damage is included in the category of a particular average, and as it is covered by marine insurance, it is not covered by cargo insurers or P&I clubs. In addition, as the *Ever Given* is insured under a hull insurance policy and the ship's cargo is insured under a cargo insurance policy, the insurance is structured such that the ship's G/A contribution is paid by the hull insurer, and the cargo's G/A contribution is paid by the cargo insurer. In this situation, the G/A is covered by the insurer because the owner of the assets that constitute a shipping company ensures their insurable interest in return for coverage of the G/A [77].

Although the principle of the G/A is a reasonable system that aims to manage the interests of all the concerned parties in a common risk group through the sharing of damages and costs that result from the group's prevention of common perils, there is a limitation in that, depending on the case, it takes a long time and considerable cost to calculate the G/A when a ship accident occurs and a G/A is declared, owing to the expanding sizes of container ships. Even though the *Ever Given* was released by the Egyptian authorities on 7 July 2021, SKK must work together with the UK P&I Club to prevent damages (due to delays in delivery and the occurrence of a G/A) from being incurred by global shippers. In addition, as an ocean carrier, Evergreen must establish an advanced, sustainable cargo compensation system to protect shippers' trust in the company and to prevent the damages from being transferred to shippers [78].

4.2. Has Due Diligence for Ever Given's Seaworthiness been Maintained?

Section 39 (Warranty of Seaworthiness of Ship), paragraph 4 of the MIA stipulates that a ship is considered to be seaworthy when it is reasonably fit enough in all regards to withstand the ordinary marine perils that may occur during an insured maritime voyage, and Section 39, paragraph 5 of the MIA stipulates that in a time policy, there is no implied warranty that the ship must be in a state of seaworthiness at any stage of a maritime voyage [79]. However, if the insured knowingly allows the navigation of an unworthy ship, it is stipulated that the insurer is not liable for any damages incurred as a result of the ship's unseaworthiness. In other words, according to the legal principles of the MIA, the concept of seaworthiness in marine insurance signifies the ability to withstand ordinary perils during a particular voyage. However, a definitive and absolute standard regarding whether a ship is in a state of seaworthiness cannot be specified, and it must be determined according to the specific circumstances of specific voyages. Ordinarily, the insured has the ship insured by the insurer under a time policy, and not a voyage policy, in the case of a time charter, and the warranty of seaworthiness is thereby an express warranty [33].

However, in the time policy of the MIA, the privacy of the insured (which is a condition of the insurer's immunity from liability for reasons of unseaworthiness) is a concept in common law, which means that the insured is aware not only of the cause of the ship's unseaworthiness but also that the ship will not be able to withstand ordinary marine perils due to that cause. In other words, the insured's privacy is a concept that includes the insured's positive knowledge of the ship's unseaworthiness as well as the insured's act of turning a blind eye to the ship's unseaworthiness, or not taking action to secure the ship's seaworthiness despite knowing that it may be unseaworthy [31]. Therefore, the time charterer Evergreen must verify that due diligence was exercised to ensure the *Ever Given*'s seaworthiness with the shipowner and ship management company at the beginning of the voyage, and share the information. If this process of verification is not followed properly, Evergreen (as the ocean carrier and time charterer) will not be able to claim immunity for reasons such as negligence in navigation if Evergreen's violation of its overriding duty

has a causal relationship with the accident [80]. In other words, if damage occurs to the cargo that is loaded on Evergreen's chartered vessel, the *Ever Given*, due to the ship's long-term detention by the SCA, Evergreen will basically assert negligence in navigation, etc., in order to claim immunity with regard to the cargo damage, and as a prerequisite for such an immunity, the *Ever Given*'s state of seaworthiness must have been clearly verified in advance [81].

The "Torepo" (2002) EWHC 1481 (Admlty) (2002) [62] case is a representative precedent with regard to the above subject. In this case, the charterer's claim that the *Torepo*'s stranding was due to the incompetence of the ship's seafarers and the shipowner's lack of due diligence was rejected by Mr. Justice David Steel, who found that the pilot, as the sole expert on board with nautical charts, informed the ship's duty officer that no changes needed to be made to the navigation plan, and that the charts could be used to supplement the existing navigation plan. In this way, the English Admiralty Court of the Queen's Bench Division pointed out that there was a problem with the pilot's navigation of the ship through a narrow canal and, at the same time, ruled that the ship's lack of seaworthiness could not ultimately be proven to have been the cause of the accident. Therefore, it was recognized that the difficult burden of proof regarding a shipowner's due diligence lies with the charterer of the ship.

4.3. What Is the Status of Command (Navigation) Authority over the Captain under Time Charter while Passing the Suez Canal?

The charterer of a bareboat charter (BBC), unlike that of a time charter, has the right to appoint and supervise the captain, as well as having command (navigation) authority with regard to the captain [82]. However, under a time charter, the captain of the *Ever Given* is appointed by the shipowner, SKK, as described in Section 3 of this study. Therefore, under the legal contract of a time charter, the time charterer, Evergreen, has the right to use the delivered vessel within the stipulated scope, as well as the right to command with regard to the captain. In other words, Evergreen can legitimately exercise command (navigation) authority over the captain when it comes to the commercial operation of the *Ever Given*. If SKK violates these rights, it must compensate for the damages (in the form of off-hire) that result from the vessel's inability to be operated, in accordance with Clause 8 (employment clause) of the NYPE. The Whistler International Ltd. vs. Kawasaki Kisen Kaisha Ltd. (The "Hill Harmony") (2001) [83] case is a representative example of the above issue. In this case, the court held that the time charterer, Kawasaki Kisen Kaisha (K Line), did not have complete occupation possession of the vessel, but could exercise command (navigation) authority over the captain, who had been appointed by the shipowner, Whistler International, based on the charterer's ability to freely exercise the right to use the vessel in terms of its commercial operation. In light of such a precedent, the time charterer, Evergreen, must have substantive occupation of the *Ever Given* in order to yield a profit by using the vessel, as well as to legally guarantee the right to supervise and have command (navigation) authority over the captain. In accordance with this circular reasoning, Evergreen may make a claim for damages against the shipowner if damage is incurred because the time charterer's appropriate navigation instructions were not properly carried out due to the negligence of the captain, seafarers, or other crew members of the ship who had been hired under the responsibility of the shipowner.

Article 704 of Japan's Commercial Code stipulates that a time charter takes effect when one of the parties provides an equipped vessel with seafarers appointed on board for the other party to use for a specified period of time, in exchange for payment of the charterage. In addition, according to Article 705 of Japan's Commercial Code, the time charterer can instruct the captain with regard to decisions involving the course and other matters necessary for the use of the vessel [35]. However, it is stipulated that the time charterer's instructions will not be recognized with regard to inspections that are carried out before the vessel's departure, and other matters related to the vessel's safety, even within the aforementioned scope. In particular, it is stipulated in Article 706 of Japan's Commercial Code that the time charterer is responsible for bearing the cost of the vessel's fuel, pilotage

fees, entry and exit fees, and other normal expenses related to the use of the vessel [84]. However, in the case of a standard international time charter, as there is no such explicit provision, it is necessary to determine the subject of the liability for damages, or whether the time charterer or shipowner will bear the expenses based on the detailed clauses of the time charter. For example, with regard to the *Ever Given*, Evergreen (the time charterer) is responsible for expenses such as the necessary pilotage fees, towage fees, canal tolls, and fuel costs, based on the conditions of the contract, for which the shipowner would have paid to complete the navigation based on the command (navigation) authority including the right to command the captain if the shipowner actually operates the vessel [85]. On the other hand, SKK is responsible for the salaries of seafarers and repair costs for the vessel, which are necessary to guarantee the vessel's seaworthiness.

Evergreen, which time chartered a vessel along with its captain and seafarers to make up for the shortage of vessels, has a legal status (as the subject of a shipping company) similar to that of a bareboat charterer because, although it does not have the right to have complete occupation of the vessel, it clearly has command authority over the captain and seafarers, as well as the right to request replacements, and exercises the right to issue B/L on behalf of the captain. Nevertheless, Evergreen's command (navigation) authority over the captain and seafarers is limited to the field of the commercial operation of the vessel. Therefore, unless there are special circumstances, Evergreen is not liable for acts of misconduct by the captain and seafarers with regard to the events that may occur during a general voyage, such as ship collisions, strandings, fires, explosions, and acts of marine pollution [36]. If it is proven that the *Ever Given*'s stranding accident occurred because of the captain or seafarers' negligence in navigation, and damages are incurred by third parties, SKK (as the employer of the captain and seafarers), not Evergreen (the time charterer), must bear the liability for compensation regarding such damages. However, if the time charterer, Evergreen, is recognized to bear the responsibility for reasons relating to acts of misconduct, it is considered that the time charterer may bear the liability for compensation separately. However, depending on the detailed clauses of the time charter between Evergreen and SKK, it is judged that there will be room for dispute over the issues regarding the *Ever Given*'s stranding accident.

A summary of these points is as follows: First, if SKK is directly specified as the ocean carrier under the time charter, SKK will bear the obligations and liabilities as an ocean carrier. Second, if Evergreen enters into a contract of carriage of goods by sea with a third party regarding the transport of a full container load (FCL) or less than container load (LCL), and issues a B/L for each, the time charterer takes on the role of an ocean carrier, and bears the same liability as the shipowner for the damages incurred by third parties. For example, as commercial matters regarding the carriage of cargo are related to the use of ships, the time charterer must bear the liability for delays in delivery and third-party shippers. Third, as the shipowner can still exercise its command (navigation) authority over the captain and seafarers with regard to their navigation ability, the employer, SKK, has liability for third-party damages caused by the captain and seafarers' acts of misconduct [40]. For example, as navigation abilities regarding the navigation of a ship are based on a ship's seaworthiness being secured by a shipowner under a time charter, the shipowner must bear the liability of related third-party damages.

Ultimately, the relationship of liability could change according to whether the cause of the *Ever Given*'s stranding accident is found to lie with the negligent navigation of the captain, seafarers, or other crew members who were hired under the shipowner's responsibility. Furthermore, if Evergreen gave wrongful instructions regarding the ship's navigation, this must be proven by SKK. In the end, when a time charter is viewed from the perspective of real rights—that to have effective "possession" of something is to have its own factor control—then the shipowner has control with regard to the sphere of the ship's crew members (via the captain and seafarers). However, with regard to the commercial field, the time charterer is thought to have control through their command (navigation) authority, which is based on the legal theories of time charters. The liabilities of the parties

involved must be distinguished in accordance with the cause of the accident based on the above legal theories.

4.4. Where Does Liability Rest for Compensation for Delay in Delivery Due to the Suspension of Suez Canal Operations?

Considering that more than 80% of global merchandise trade is carried out through marine transportation [86], delays in the delivery of cargo are inevitable due to various reasons, such as the outbreak of infectious diseases such as COVID-19, acts of piracy, unusual weather conditions, ship collisions, and demurrage at ports [87]. The maritime shipping industry has made efforts to unify the legal system that governs international maritime shipping, in the following (chronological) order: Hague Rules, Hague–Visby Rules, Hamburg Rules, and Rotterdam Rules. These efforts are carried out in order to minimize sharp legal disputes that involve the responsibility of the ocean carrier, the issuer of the B/L, and the actual damages incurred by the shipper with regard to delays in delivery [41]. An ocean carrier is not only responsible for the carriage of cargo, but must also uphold the due diligence with regard to the loading, stowage, storage, management, and unloading of cargo, and the most important aspect is the ocean carrier's due diligence [45]. The above is based on and supported by Article 4 (due diligence), paragraph 2 of the Hague–Visby Rules, which states that the ocean carrier has a strict duty to perform its responsibilities "properly and carefully", as shown in the following: "Subject to the provisions of Article IV, the carrier shall properly and carefully load, handle, stow, carry, keep, care for, and discharge the goods carried" [88]. Therefore, in Section 4.4, we aim to examine whether Evergreen upheld its due diligence as an ocean carrier in safely delivering the cargo from the place of departure to the destination within the agreed-upon period of time, in accordance with the time charter.

First, it is judged that physical damage would not have occurred to the cargo loaded on the *Ever Given*, because there was no peril of cargo being lost at sea from an external standpoint, despite the stranding accident. However, in the case of refrigerated and frozen cargo in refrigerated containers, damage may occur if the cargo spoils as its delivery is increasingly delayed due to the Egyptian court's seizure of the *Ever Given*. In the end, damage is incurred by the numerous shippers due to delays in delivery, as the time wasted during the *Ever Given*'s stranding in the Suez Canal, the time spent at a safe port inspecting the vessel's safety, as well as the time during which the *Ever Given* is held in detention, accumulates. As a B/L ordinarily takes the place of a contract of carriage for the transportation of containers, the possessor of the B/L can make a claim for damages (as a plaintiff) regarding the delays in delivery against Evergreen, which bears the liability with regard to the cargo's shipping [44]. However, one additional point to consider is that an individual ocean carrier that is in an alliance relationship with, for example, CMA-CGM, COSCO, etc., or is involved in a slot charter agreement with Evergreen, can make a claim for damages against Evergreen regarding the additional expenses that may be incurred if the *Ever Given* is left neglected or its cargo is unloaded at a location that is not a port of discharge, as a result of the vessel's seizure by the Egyptian court [89].

Although there are almost certainly differences that are dependent on the court's jurisdiction and the provisions stipulated in the B/L between Evergreen and the shippers [90], the limitation of liability per package is possible if the Hague–Visby Rules are applied in this case, determining that Evergreen's period of responsibility as an ocean carrier lasts from when the cargo is loaded to when the cargo is unloaded from the vessel, or from tackle to tackle. On the other hand, as the Hamburg Rules of 1978 (Article 6, paragraph 1[b]) stipulate the ocean carrier's liability with regard to delays in delivery, they would broaden the scope of Evergreen's liability if they were to be applied in this case, which is unlike the Hague Rules and the Hague–Visby Rules, which stipulate that the ocean carrier is not liable with regard to delays in delivery. In particular, according to the Hamburg Rules, Evergreen's period of responsibility lasts from the receipt of the shipper's cargo to its delivery. Moreover, in accordance with these rules, the burden of proof is imposed on Evergreen regarding not only the direct loss or damage of goods, but also the financial dam-

age that results from the delay in delivery itself [91,92]. In addition, while the Hague–Visby Rules require that shippers notify the carrier in writing within three days of delivery if the loss or damage of goods is not evident, the Hamburg Rules extend this period to 15 days (Article 19, paragraph 2), and stipulate that the consignee loses the right to claim damages for delays if they do not notify the carrier in writing within 60 days of delivery (Article 19, paragraph 5). On the other hand, if the Rotterdam Rules of 2009 (Article 43 Obligation to accept delivery) were to be applied, Evergreen's period of responsibility regarding delays in delivery would begin when the ocean carrier or performing party receives the goods for their carriage, and then would end when the goods are delivered to the consignee (i.e., from door to door) [42,43]. In the end, if it is proven that the ocean carrier and time charterer Evergreen is not guilty of negligence in navigation with regard to the cause of the delays in delivery (within the period of responsibility), Evergreen will be exempted from liability. However, if this is not the case, it is likely that the ocean carrier will be liable for the financial damage caused by delays in delivery.

5. Discussion

The *Ever Given* has now been released, and north-/southbound traffic in the Suez Canal has resumed, having returned to normal on July 7, 2021. Depending on the final cause of the stranding accident, the liabilities of individuals will arise, and the owner, operator, and/or charterer of the vessel will be required to prepare for a number of claims. As shown in Table 1, the captain, shipowner, time charterer, and insurer will potentially be liable.

Table 1. The main body for potential liabilities regarding the stranding accident.

Item	Liability of Pilotage	Liability for General Average (G/A)	Liability for Seaworthiness	Liability for Navigation	Liability for Cargo Delay
Main body	Shipowner	Hull and cargo insurer	Shipowner	Time charterer	Shipowner and ocean carrier

According to the report *Chokepoints: Maritime Economic Concerns in Southeast Asia* (1999) [93], joint research by the NDU (National Defense University) and CNA (Center for Naval Analysis), global shipping companies are passive in investing in additional costs in safety management, given that they practically favor detours though the Sunda Strait and Makassar Strait, even if costs are added, rather than dredging investments to secure safety in the Malacca Strait. To date, the global maritime industry has been concerned only with the technology-based expansion of vessel size and cost reduction in shipping and logistics, and lacks awareness of the importance of the mainstay of the global economy associated with supply chain management: safety, emergency response, and a swift damage compensation system [94].

Eventually, from a strategic perspective regarding securing safe and sustainable shipping routes, time charterers, shipowners, ship management companies and insurers should deliberate over how the expansion of vessel size has ripple effects in the future, and maintain continuous mutual cooperation to ensure a balance between the speed of technology development and ports, shipping routes, safety management, crew management, and legal compensation system reviews [29]. Furthermore, in the wake of the *Ever Given*'s stranding accident, practitioners need to constantly revise and supplement the major legal questions mentioned in Chapter 4 in order to establish a cooperative system that can support the relief and return of victims through quick compensation in the event of damage.

6. Conclusions

As noted in the *Ever Given* case, maritime experts have consistently pointed out the need for facility investment and regular dredging for the safety of vessel navigation, such as securing the width and depth of the Suez Canal. However, stranding and grounding accidents have occurred continuously in the past. Therefore, this study reviewed the legal

status of major subjects under the time charter for an agile response and for establishing a damage compensation system in narrow channels such as the Suez Canal, given the increasing accident likelihood due to the expansion of vessel size, increased vessel speed, and enhanced joint service in the liner service shipping sector. As a result, we draw the groundwork for future legal proceedings and negotiation processes through the legal interpretation of the precedents, legal theories, and clauses of international agreements regarding the following issues: the definition of key legal terms related to the stranding accident and the declaration of the G/A, the obligation to maintain a ship's seaworthiness, the subject of the right-to-command in relation to the captain (under a time charter), and the liability for compensation for delays in delivery.

Through analyzing the aforementioned legal issues, we draw some conclusions related to solving liability problems concerning the stranding accident, as follows:

- First, the *Ever Given*'s stranding accident corresponds with a grounding, not a collision, which generally refers to direct or indirect contact between two or more vessels due to an act or omission of an act regarding their operation. Therefore, the *Ever Given*'s hull insurer must cover costs, as is the case in accidents and damages related to stranding accidents, and not based on the coverage in the collision clause;
- Second, although SKK, the owner of the *Ever Given*, can declare a G/A for the amount paid to salvage the vessel after its stranding, in accordance with the law of G/A, it still remains a matter of legal dispute to determine which damages could be included. In the *Ever Given*'s case, the vessel and its cargo are insured under a hull insurance policy and cargo insurance policy, respectively, so the G/A for the vessel and its cargo is covered by each insurer;
- Third, if the time charterer Evergreen wants to claim immunity with regard to the cargo damage, the process of verifying that due diligence was exercised properly in ensuring the *Ever Given*'s seaworthiness and sharing the information with the shipowner and ship management company should be concluded in advance. When the process is successfully completed, Evergreen can assert the negligence in navigation and claim immunity for the cargo damage issue;
- Fourth, when a time charter is viewed from the perspective of real rights, the shipowner has control with regard to the sphere of the crew members, including the captain and seafarers. However, with regard to the commercial field, the time charterer is thought to have control through its command and navigation authority, based on the legal theories of time charters. However, depending on the detailed clauses of the contract between Evergreen (the charterer) and SKK (the shipowner), there will be room for further dispute over such issues regarding the *Ever Given*'s stranding accident;
- Finally, liability for compensation for cargo damage related to the *Ever Given*'s stranding accident will change depending on the court's jurisdiction and the provisions stipulated in the B/L between Evergreen and the shippers. Meanwhile, in accordance with the applied maritime conventions, such as the Hague Rules, the Hague–Visby Rules, and the Hamburg Rules, a limitation of liability per package may be possible. Furthermore, if it is proven that the ocean carrier and time charterer, Evergreen, is not guilty of negligence in navigation related to the cause of the delays in delivery, Evergreen will be exempted from liability.

Of course, it may be meaningless to draw conclusions on how future legal disputes may change, due to the lack of information on the formal position of each stakeholder on the investigation into the cause of the *Ever Given*'s stranding accident. Moreover, after the *Ever Given* was released from seizure on 7 July 2021, the majority of problems related to the stranding accident seemed settled. However, this judgment on releasing the *Ever Given* is covered by a non-disclosure agreement, and is just the beginning of the legal disputes ahead between shipowner, shippers, insurers, alliance members, and so on. Therefore, this study has significance for drawing reasonable interpretations in terms of future-oriented problem solving, contributing to "a wake-up call" for the global shipping and logistics industry regarding the side effects of the trend towards ultra-large vessels in terms of sustainability.

Although the digitalization and platformization of the global shipping industry are expected to continue to develop in the future, the legal issues of maritime accidents based on human errors will continue to expand as ships become larger and faster, with fewer people on board. Therefore, it is necessary to maintain a good balance between speed of technological development, infrastructures, operations systems, legal systems, and, especially, research on preparing standardized legal and institutional solutions for disputes among various charter parties.

Despite this study's meaningful discussions and conclusions, it has some limitations. As we do not have access to confidential information, we cannot secure the initial results of the accident investigation, the settlement between SKK and SCA, or the formal position of each stakeholder on the investigation into the cause of the stranding. Therefore, recognizing that detailed final judgment would take a long time, and regarding the variety of compensation issues among the stakeholders, it is highly recommended that future studies suggest what legal framework might be the most reasonable for responding to other similar accidents.

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