



Sea Accidents in Sulawesi According to Public Perceptions in Online Media Frames

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ABSTRACT

Marine accidents are an important issue in Indonesia and are often featured in online media coverage. However, representations of marine accidents in the media are not entirely neutral and usually influence public perceptions. This study identifies a gap in the literature regarding how online media framing influences public understanding of marine accidents, especially in Sulawesi waters. This study aims to analyse the news framing of two media outlets, CNN Indonesia and Detik.com, and connect the results of this Analysis with in-depth interviews with sea transportation users at Makassar Port. The research method uses the framing analysis model of Zhongdang Pan and Gerald M. Kosicki. The results showed differences in framing between the two media. CNN Indonesia emphasised bad weather as the leading cause, while Detik.com focused more on the investigation process and the search for victims. Interview results supported this Analysis, revealing that while sea transport remains the leading choice due to economic factors, media coverage had a significant emotional impact, such as worry and sadness. Respondents also highlighted the lack of educational information in the news. The conclusion of this study shows that online media framing influences the public's perception of risk regarding shipping safety. Therefore, more informative and educative reporting is needed to improve public literacy. The media, government and society need to work together to create more transparent communication and support shipping safety. This research provides important insights for improving marine safety through better public communication approaches.

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1. Introduction.

Marine accidents are one of the crucial issues that often occur in Indonesia, an archipelago with sea transport routes that form the backbone of connectivity between regions. One of the regions with a high intensity of shipping activity is Sulawesi, where sea routes are the main link for community mobility and logistics distribution. Unfortunately, marine accidents in this region are still a significant problem. According to data from the Indonesian National Transportation Safety Commission [1], Several marine accidents that occurred in the waters showed weaknesses in the safety aspects of shipping, both in

terms of ship infrastructure, extreme weather, and standard operating procedures (SOPs), as well as in Sulawesi waters.

The consequences of these accidents are not only material losses but also psychological trauma, loss of life, and a decrease in the level of public trust in sea transport [2], [3], [4].

Along with the development of information technology, online media has become a primary source for obtaining information related to marine accidents. Various news portals present reports, analyses and opinions that form narratives about these events. However, the representation of marine accidents in online media is not always neutral. The framing process by the media plays a vital role in shaping public perceptions of marine safety issues. [5], [6]. Framing involves how the media selects and emphasises certain aspects of an event, thus influencing how the public understands the root of the problem, the responsible actors, and the proposed solutions. [7], [8]. This is crucial because public perception can impact public policy,

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government response, and public awareness of shipping safety. [9], [10]. While many studies have been conducted on marine accidents in Indonesia, there are limited studies that specifically explore how online media framing influences public perception. Most existing studies focus on technical aspects, such as weather factors, ship conditions and navigation systems, without linking how information about the accident is produced and received by the public. Understanding the construction of media narratives is very important to know how much the media plays a role in shaping public opinion. This gap is the primary basis of this research. By examining online media framing, we can identify how the media shapes public perceptions regarding the causes, impacts and solutions of marine accidents in Sulawesi.

This research has several primary objectives. First, to analyse how online media framed news stories related to the Sulawesi Sea accident. Secondly, to understand the impact of the framing on public perceptions, including how the public assessed the causal factors of the accident and the responsibilities of related parties. Third, recommendations should be provided to stakeholders, including the government, shipping industry, and media, to improve information literacy and public awareness of marine safety. This research is expected to make theoretical and practical contributions, particularly in communication, transport and public safety studies.

Furthermore, this research uses a framing analysis approach as a conceptual framework. Framing analysis not only looks at the content of the message but also the structure, context, and purpose behind the message's production. In online media, framing can include the selection of headlines, the use of images, the choice of sources, and the presentation of data that can influence readers' opinions. With this approach, research can explore how the media constructs narratives about marine accidents, both explicitly and implicitly. For example, do the press blame technical factors such as ship damage or highlight external factors such as bad weather and human negligence? These findings will provide insights into certain biases or patterns in reporting marine accidents.

The geographical context of Sulawesi is also an important reason to focus on this research. Sulawesi has complex water characteristics, ranging from narrow straits to high seas prone to extreme weather. The shipping infrastructure in this region still faces various challenges, such as limited navigation technology and lack of supervision of SOP implementation [11], [12]. In such situations, online media is often the public's primary source of understanding the problem and risks involved. Therefore, it is essential to know how much the information presented by online media can help or worsen the public's perception of shipping safety. This research can contribute to public media literacy by understanding online media framing. Media literacy is the ability to access, analyse and evaluate information received from the media so that people can form opinions based on objective facts. In the case of sea accidents, good media literacy can help people not to be easily influenced by sensationalised or biased narratives. In addition, this research can serve as a basis for developing more effective communication strategies for the government and other stakeholders in deliver-

ing information related to marine safety.

The Sulawesi Sea accident was a technical and communication issue involving various actors, including the media. By examining online media framing, this research seeks to fill a gap in the existing literature while providing relevant stakeholder recommendations. This research is essential from an academic perspective and has practical implications for improving shipping safety and public trust in maritime transport.

2. Method.

This research uses a qualitative approach with a framing analysis method to explore how online media framed the coverage of the Sulawesi Sea accident. The framing analysis was conducted based on the model developed by Zhongdang Pan and Gerald M. Kosick, which includes four main elements: (1) syntactic structure, (2) script, (3) thematic, and (4) rhetorical [13], [14], [15]. With this model, the research can reveal the narrative structure built by online media related to the issue of marine accidents. The primary data used in this study are news articles from online media that reported marine accidents in the Sulawesi region during a specific period. The selection of news was made purposively, considering relevance, media popularity, and reporting frequency. The media taken as samples include national and local news portals with a wide range of readers. To ensure the validity of the data, each news story will be analysed in depth by considering the time context, source of information, and narrative structure.

In addition, this research also involves in-depth interviews with people who are active readers of online media. These interviews aim to understand how media framing influences their perception of marine accidents, including their views on the causes, impacts and proposed solutions. Respondents were purposively selected to cover a range of backgrounds, such as fishermen, shipping businesses and the general public living in the coastal areas of Sulawesi. Here are the framing tools of the Zhongdang Pan and Gerald M. Kosicki model.

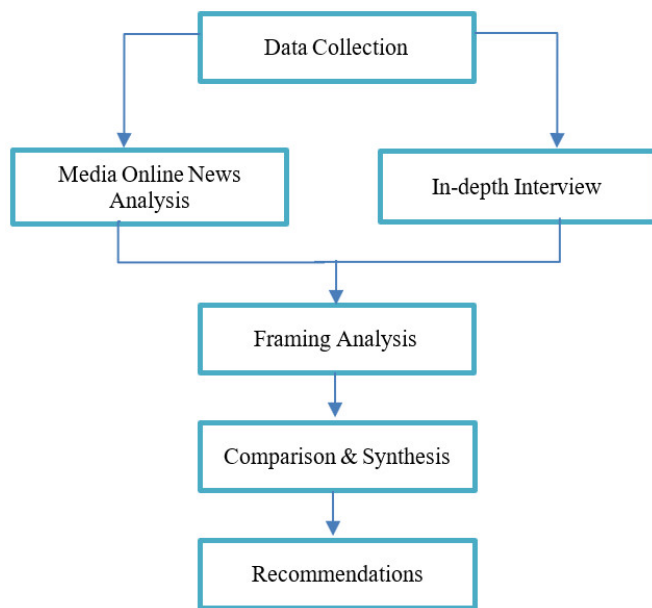
Table 1: Zhongdang Pan and Gerald M. Kosicki Model Framing Device.

Structure	Structure	Structure
Syntax How journalists organise facts	News scheme	Headline, lead, later, information, quote, source, statement, closing
Script The way the journalist tells the fact	Completeness of news	5W+1H
Thematic How journalists write fact	Detail, coherence, tense, pronouns	Paragraph, proposition, sentence, relationship between sentences
Rhetorical The way the journalist emphasizes the fact	Lexicon, graphics, metaphors	Words, idioms, images, photos, graphics

Source: Siregar et al (2023) [16].

The data analysis process is done in stages. First, the collected news stories will be categorized based on themes and framing elements. Secondly, the results of the framing analysis will be compared with the interview data to identify congruence or differences between media narratives and community perceptions. Thirdly, the findings will be synthesized to produce relevant recommendations for stakeholders, including the government, media and the general public. With this approach, the research is expected to provide a comprehensive picture of how online media framed the issue of sea accidents in Sulawesi and its impact on public perception. The results of this study are also expected to serve as a foundation for further in-depth studies related to the relationship between media, risk communication, and shipping safety. For an easier understanding of the research flow, it can be seen in Figure 1.

Figure 1: Research Flow.



Source: Author.

Table 4 provides information to the contrary, Detik.com chose a more cautious and investigative approach in framing the news. The cause of the accident is not explained with certainty in this news, and it is even mentioned that the reason is 'unknown.' The main focus of the news is on finding the victims, further investigation, and the involvement of the victims' families in providing initial information. This shows that Detik.com is more likely to highlight the uncertainty of the situation and the importance of investigation as part of reporting responsibility. This framing is supported by rhetorical elements such as direct quotes from Basarnas and the victims' families, which give the news a human interest feel and depth. Thus, the Analysis of the two news stories about the sea accident in Takalar Waters, South Sulawesi, showed significant differences in how the two media framed the event. CNN Indonesia and Detik.com, the two news portals chosen for this research, have different approaches to presenting information to the public, reflecting their respective narrative focus.

Referring to thematic Analysis, CNN Indonesia emphasises the collective efforts of the community and government in dealing with the accident's impact more. This can be seen from the use of interviewees such as the Makassar MPA Operations Section Head, who talks about coordinating the SAR team and supporting the local community. In contrast, Detik.com highlights more individual elements, such as the families of the victims trying to find information about the fate of the missing people. This difference reflects how each media outlet chose the main themes it deemed relevant to its audience. At the rhetorical level, CNN Indonesia uses illustrative images showing large waves, providing a visual impression supporting the flawed weather narrative.

On the other hand, Detik.com included photos of search operations by Basarnas, which were more contextually relevant and provided visual evidence of searching for victims. These visual choices show differences in each media's communication strategy to attract readers' attention. From a script perspective, both news outlets present the 5W+1H elements with different levels of completeness. CNN Indonesia is more detailed in explaining 'why' the accident occurred, while Detik.com focuses more on 'how' the search process was conducted. This shows that CNN Indonesia's framing aims to provide direct explanations to readers, while Detik.com focuses more on developing the story as the investigation progresses.

In conclusion, this Analysis shows that the media plays an important role in shaping public perceptions of marine safety issues. CNN Indonesia and Detik.com, despite reporting the same event, offer different narratives based on their editorial focus. These findings highlight the importance of media literacy for the public to understand bias and framing in the news and the need for the media to be more transparent and balanced in reporting events involving the public interest.

In addition to news framing data, researchers also interviewed five respondents who are users of sea transportation at Makassar port, revealing that economic factors are the main reason people choose sea transportation. Most respondents stated that the more affordable cost of sea transport is the primary consideration, even though other modes of transport are available. This shows that sea transport remains a strategic choice for people with limited budgets. However, media coverage of shipping accidents had a significant emotional impact. All respondents admitted to feeling sad, concerned or even worried every time they read or hear news of a marine accident, especially if there are casualties. However, the level of trust in the safety of marine transport varied among respondents. Some continue to believe in the safety of shipping, arguing that accidents are often caused by human error or unavoidable weather conditions. Conversely, there were also respondents who admitted that their trust had been compromised, which then influenced their decisions, such as cancelling a trip or choosing a vessel based on its safety track record.

The impact of the news on behaviour was also seen in the form of greater vigilance. Some respondents stated they now pay more attention to weather conditions, choose boats with good safety facilities, and ensure complete information before travelling. However, media coverage was also criticised by

some respondents who felt that the information presented lacked depth and often only emphasised the emotional side without providing a detailed explanation of the cause of the accident. This suggests that media coverage, while able to influence public perceptions, has not fully provided the education needed to improve understanding of shipping safety [19], [20]. In conclusion, news coverage of shipping accidents considerably influences people's risk perceptions, although the impact on decisions to use sea transport varies. Most respondents continued to use sea transport with more caution, while a minority considered alternative modes of transport. This finding illustrates the importance of the media in shaping public perceptions while pointing to the need for more informative and educative reporting to help the public understand shipping safety issues more comprehensively.

The results of the framing analysis of the two news articles revealed different approaches to framing the marine accident in Takalar Waters, which directly influenced public perceptions of marine safety issues. CNN Indonesia prioritised external factors such as bad weather as the leading cause, while Detik.com emphasised the uncertainty of the cause and the investigation process. This difference reflects how the media shapes narratives that can influence public opinion and public behaviour related to shipping safety issues. From the perspective of public perception, CNN Indonesia's narrative tends to create an understanding that unavoidable natural conditions entirely caused this accident. This may reduce public attention to other factors, such as ship management or human negligence [21].

In contrast, the framing used by Detik.com, which highlights the importance of investigations, may trigger the public to demand transparency from the authorities and raise awareness of the importance of strict implementation of shipping SOPs [22]. In addition, the framing of the two media outlets also influenced the public's response to the rescue effort. With its focus on cooperation between the authorities and the community, CNN Indonesia gave the impression of optimism and solidarity in the face of tragedy. On the other hand, Detik.com, which emphasised the investigative steps and the role of the victims' families, portrayed the accident as a complex issue requiring a more holistic approach.

In the context of media literacy, this difference in framing shows that people need to be able to analyse the news critically. Narratives focusing on lousy weather may overlook systemic issues such as the lack of shipping supervision. In contrast, narratives that overemphasise investigations may create the perception that the accident resulted entirely from human error. Therefore, the public needs to evaluate news from various sources to gain a fuller understanding. [23], [24].

Furthermore, the results of interviews with five respondents at Makassar Port reinforce the findings of this framing analysis. Respondents stated that economic factors are the main reason for choosing sea transportation, even though they are aware of the risks that may occur. The emotional impact of media coverage is also widely felt, with the majority of respondents admitting to feeling sad, concerned or worried every time they read news of a marine accident, especially if it involves fatalities. This suggests that media coverage influences how people

understand risk and affects their emotions and decisions about using marine transport.

News framing that overemphasises the emotional side, such as on CNN Indonesia, can create the perception that marine accidents are entirely caused by external factors such as bad weather. In contrast, Detik.com's more investigative framing encourages readers to think critically about internal factors, such as SOP compliance and vessel management. Interview respondents also highlighted the importance of more in-depth information from the media, which evokes emotions and provides education regarding preventive measures for marine accidents [25]. This finding suggests that media coverage has a double impact: on the one hand, it increases public awareness of shipping safety risks, but on the other hand, uninformative coverage can create anxiety without providing concrete solutions [26]. Therefore, there is a need for more balanced reporting, which focuses on the factors that cause accidents and offers education to improve public understanding of shipping safety issues.

Conclusions.

This research shows that online media framing is vital in shaping public perceptions of marine accidents. Analysis of two news articles from CNN Indonesia and Detik.com revealed differences in the focus of the information presentation. CNN Indonesia emphasised lousy weather as the leading cause, while Detik.com prioritised the investigation of the cause and the involvement of the victims' families. This difference in framing illustrates how the media can influence public opinion by presenting information from different perspectives. CNN Indonesia's framing, which focuses on lousy weather, tends to create the perception that marine accidents are unavoidable, thus reducing attention to ship management and compliance with shipping SOPs.

In contrast, Detik.com's framing highlights the importance of investigations and encourages readers to be more critical of responsible parties, including ship operators and regulators. The narratives shaped by the media strongly influence public perceptions of marine accidents. Narratives that centre on external factors can reduce the sense of individual or institutional responsibility, while narratives that emphasise investigations can increase demands for transparency and accountability. The interviews showed that while sea transport remains a strategic choice due to economic factors, media coverage significantly impacts people's emotions and decisions. Respondents have become more cautious by paying attention to weather conditions, choosing vessels with good safety facilities, and confirming travel information before departing. However, they also criticised media coverage that lacked depth and emphasised the emotional side without providing adequate education. Therefore, the media must present balanced information, covering external factors such as weather and internal factors such as shipping management and regulations. The research also highlights the need for increased media literacy among the public so that they can evaluate information.

Recommendation.

As a recommendation, the government and other stakeholders need to ensure that information related to shipping safety is delivered transparently and thoroughly to the public. The media also has a responsibility to report events in a balanced manner, incorporating both external and internal factors. This way, the public can better understand marine safety risks and the importance of preventive measures to reduce the likelihood of future accidents.

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References.

- [1] KNKT, "Laporan dan Informasi Statistik Kecelakaan Pelayaran Indonesia," Komisi Nasional Keselamatan Transportasi Indonesia. Accessed: Jan. 11, 2025. [Online]. Available: <https://knkt.go.id/statistik>
- [2] Z. I. Awal and K. Hasegawa, "A Study on Accident Theories and Application to Maritime Accidents," *Procedia Eng.*, vol. 194, pp. 298–306, Jan. 2017, doi: 10.1016/j.proeng.2017.08.149.
- [3] C. T. U. Le and M. L. Campbell, "Public's perceptions of marine bioinvasive risks and responsible parties – Implications for social acceptability and better-informed communication in the marine biosecurity context," *Mar. Pollut. Bull.*, vol. 185, p. 114283, Dec. 2022, doi: 10.1016/j.marpolbul.2022.114283.
- [4] J. V. H. Fontes *et al.*, "Marine Accidents in the Brazilian Amazon: The Problems and Challenges in the Initiatives for Their Prevention Focused on Passenger Ships," *Sustainability*, vol. 15, no. 1, Art. no. 1, Jan. 2023, doi: 10.3390/su15010328.
- [5] K. Chen *et al.*, "How Climate Movement Actors and News Media Frame Climate Change and Strike: Evidence from Analysing Twitter and News Media Discourse from 2018 to 2021," *Int. J. Press.*, vol. 28, no. 2, pp. 384–413, Apr. 2023, doi: 10.1177/19401612221106405.
- [6] Y. Cao, X. Wang, Z. Yang, J. Wang, H. Wang, and Z. Liu, "Research in marine accidents: A bibliometric analysis, systematic review and future directions," *Ocean Eng.*, vol. 284, p. 115048, Sep. 2023, doi: 10.1016/j.oceaneng.2023.115048.
- [7] D. Nguyen and E. Hekman, "The news framing of artificial intelligence: a critical exploration of how media discourses make sense of automation," *AI Soc.*, vol. 39, no. 2, pp. 437–451, Apr. 2024, doi: 10.1007/s00146-022-01511-1.
- [8] A. M. Guess, P. Barberá, S. Munzert, and J. Yang, "The consequences of online partisan media," *Proc. Natl. Acad. Sci.*, vol. 118, no. 14, p. e2013464118, Apr. 2021, doi: 10.1073/pnas.2013464118.
- [9] P. Panagiotidis, K. Giannakis, N. Angelopoulos, and A. Liapis, "Shipping Accidents Dataset: Data-Driven Directions for Assessing Accident's Impact and Improving Safety Onboard," *Data*, vol. 6, no. 12, Art. no. 12, Dec. 2021, doi: 10.3390/data6120129.
- [10] S. Fan, Z. Yang, J. Wang, and J. Marsland, "Shipping accident analysis in restricted waters: Lesson from the Suez Canal blockage in 2021," *Ocean Eng.*, vol. 266, p. 113119, Dec. 2022, doi: 10.1016/j.oceaneng.2022.113119.
- [11] S. Fan and Z. Yang, "Accident data-driven human fatigue analysis in maritime transport using machine learning," *Reliab. Eng. Syst. Saf.*, vol. 241, p. 109675, Jan. 2024, doi: 10.1016/j.ress.2023.109675.
- [12] H. Wang, Z. Liu, X. Wang, T. Graham, and J. Wang, "An analysis of factors affecting the severity of marine accidents," *Reliab. Eng. Syst. Saf.*, vol. 210, p. 107513, Jun. 2021, doi: 10.1016/j.ress.2021.107513.
- [13] N. Rochmawati, P. Pawito, and S. Hastjarjo, "The Framing Analysis of Gibran Rakabuming Raka's Coverage as Vice Presidential Candidate on Tribunnews.com," *East Asian J. Multidiscip. Res.*, vol. 2, no. 12, Art. no. 12, 2023, doi: 10.55927/ea-jmr.v2i12.7005.
- [14] N. R. P. N. E. Oktaviant and S. Sufyanto, "Analysis of the Framing of Anies Baswedan's Formula-E News in Liputan6.com and Republika.co.id Media," *Procedia Soc. Sci. Humanit.*, vol. 7, pp. 715–733, Sep. 2024, doi: 10.21070/pssh.v7i.639.
- [15] N. Siregar, S. E. Nursyamsi, N. K. Dewi, and H. Purnama, "Framing Analysis In Terms Of Media Functions In Kumparan.Com Media News," *Asia Pac. J. Bus. Econ. Technol.*, vol. 2, no. 03, pp. 51–63, Jun. 2022.
- [16] A. M. Siregar, H. Sazali, and A. Achiriah, "ANALISIS FRAMING MODEL ZHONGDANG PAN DAN GERALD M. KOSICKI DALAM PEMBERITAAN PEMBERANTASAN PUNGUTAN LIAR DI PELABUHAN PT. PELINDO 1 PERIODE 1 JUNI – 30 JUNI 2021," *SIBATIK J. J. Ilm. Bid. Sos. Ekon. Budaya Teknol. Dan Pendidik.*, vol. 2, no. 3, Art. no. 3, Feb. 2023, doi: 10.54443/sibatik.v2i3.704.
- [17] L. M. Mashudi, "KM Bintang Tamalate Kecelakaan di Perairan Takalar, 4 ABK-1 Penumpang Hilang," *detiksulsel*. Accessed: Nov. 14, 2024. [Online]. Available: <https://www.detik.com/sulsel/berita/d-7571684/km-bintang-tamalate-kecelakaan-di-perairan-takalar-4-abk-1-penumpang-hilang>.
- [18] cnnindonesia, "Kapal Karam di Perairan Takalar Sulsel, 5 Penumpang Dilaporkan Hilang," *cnnindonesia.com*. Accessed: Jan. 11, 2025. [Online]. Available: <https://www.cnnindonesia.com/nasional/20241004060707-20-1151371/kapal-karam-di-perairan-takalar-sulsel-5-penumpang-dilaporkan-hilang>
- [19] M. Chinmi, R. F. Marta, C. G. Haryono, J. Fernando, and J. K. Goswami, "EXPLORING ONLINE NEWS AS COMPARATIVE STUDY BETWEEN VENDATU AT INDIA AND RUANGGURU FROM INDONESIA IN COVID-19 PANDEMIC," 2022, Accessed: Jan. 12, 2025. [Online]. Available: <https://dspace.uc.ac.id/handle/123456789/6962>
- [20] C. Xie, J. Zhang, Q. Huang, Y. Chen, and A. M. Morrison, "An analysis of user-generated crisis frames: Online public responses to a tourism crisis," *Tour. Manag. Perspect.*, vol. 41, p. 100931, Jan. 2022, doi: 10.1016/j.tmp.2021.100931.
- [21] B. Zarouali, M. Makhortykh, M. Bastian, and T. Araujo, "Overcoming polarisation with chatbot news? Investigating the

impact of news content containing opposing views on agreement and credibility,” *Eur. J. Commun.*, vol. 36, no. 1, pp. 53–68, Feb. 2021, doi: 10.1177/0267323120940908.

[22] K. Yan, Y. Wang, L. Jia, W. Wang, S. Liu, and Y. Geng, “A content-aware corpus-based model for analysis of marine accidents,” *Accid. Anal. Prev.*, vol. 184, p. 106991, May 2023, doi: 10.1016/j.aap.2023.106991.

[23] A. M. Guess and K. Munger, “Digital literacy and online political behaviour,” *Polit. Sci. Res. Methods*, vol. 11, no. 1, pp. 110–128, Jan. 2023, doi: 10.1017/psrm.2022.17.

[24] O. Vorobel, T. T. Voorhees, and D. Gokcora, “Language learners’ digital literacies: Focus on students’ informa-

tion literacy and reading practices online,” *J. Comput. Assist. Learn.*, vol. 37, no. 4, pp. 1127–1140, 2021, doi: 10.1111/jcal.-12550.

[25] S. Fu, Y. Yu, J. Chen, Y. Xi, and M. Zhang, “A framework for quantitative analysis of the causation of grounding accidents in arctic shipping,” *Reliab. Eng. Syst. Saf.*, vol. 226, p. 108706, Oct. 2022, doi: 10.1016/j.ress.2022.108706.

[26] Y. Zhang, X. Sun, J. Chen, and C. Cheng, “Spatial patterns and characteristics of global maritime accidents,” *Reliab. Eng. Syst. Saf.*, vol. 206, p. 107310, Feb. 2021, doi: 10.1016/j.ress.2020.107310.