

The Importance of HSE (Health, Safety, And Environment) Communication on A Voyage

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ABSTRACT:

The shipping industry is an important sector in the global economy. However, this industry also has high occupational safety and health (K3) risks. One of the efforts to minimize this risk is to communicate the HSE (Health, Safety and Environment). This research aims to analyze the importance of the role of HSE and its implementation in shipping. This research adopts a qualitative approach. The data collection technique used is a literature study. The data obtained was then analyzed through three stages, namely data reduction, data presentation, and drawing conclusions. The research results indicate that communication related to HSE in the shipping sector is crucial to creating a safe, healthy, and environmentally friendly work environment for all ship crew and passengers. Open and continuous HSE communication also plays an important role in building a strong safety culture in the shipping sector. Additionally, the benefits of HSE communications are not only limited to improving safety but also help ensure health in the workplace. This shows that effective HSE communication improves safety and health outcomes and supports overall productivity and well-being in the shipping industry, demonstrating its crucial role in sustaining operational excellence.

Keywords: Communication, Health, Safety, Environment, Shipping.

INTRODUCTION

Shipping is an integrated system that includes water transportation, port management, safety, security, and maritime environmental protection (Bokau, 2024). Sea transportation is crucial for an archipelagic country like Indonesia, consisting of 17,000 islands with a vast ocean uniting them. Sea transportation is considered the backbone of the Indonesian economy because it connects and facilitates the flow of goods and people between islands (Ministry of Transportation, 2014). Therefore, effective development and management of maritime transportation is very important to support sustainable economic growth (Rochwulaningsih et al., 2019).

However, the shipping industry is also exposed to high risks related to occupational safety and health (K3). K3 is collaboration, mutual understanding, and participation between employers and employees in a company to comply with mutual duties and obligations related to work safety, health, and security (Pramesti et al., 2023). The aim is to increase productivity and create a safe and healthy work environment for employees, customers, and visitors, hoping to reduce or prevent work accidents and work-related illnesses (Zebua et al., 2022). K3 implementation is based, among other things, on:

1. Law No. 1 of 1970 concerning Work Safety
2. Minister of Manpower Regulation No. 5 of 1996 concerning K3 Management Systems
3. PP No. 50 of 2012 concerning Implementation of Occupational Safety and Health Management Systems
4. OHSAS 18001 international standards for implementing the K3 Management System

One of the efforts to minimize risks in the shipping industry is to communicate the HSE (Health, Safety, and Environment). HSE is an integrated approach to ensuring the protection of health, safety, and environmental sustainability in the workplace. This approach includes policies, practices, and procedures designed to prevent work accidents, work-related illnesses, and environmental damage caused by an organization's operational activities. HSE aims to create a safe, healthy, and environmentally friendly work environment for everyone involved in the organization's activities (Mobaraki et al., 2017; Poursoleiman et al., 2015).

Previous research by (Pattisinai et al., 2020) shows that construction companies often ignore the concept of occupational safety and health (K3), which is an important part of labor protection and is the basic right of every worker. Based on the results of research on construction workers, the education level of workers in Surabaya tends to be low. Hence, socialization and education from the company are the main keys to enforcing K3 discipline during work, especially in facing the conditions of the COVID-19 pandemic.

Other research by Defrianto (2015) shows that HSE (Health Safety and Environment) persuasive communication can increase safety awareness in PT. Dimas Drillindo Duri-Riau pays attention to the six elements of persuasive communication before HSE persuades employees. HSE at PT. Dimas Drillindo already has credibility; this can be seen from observing its appearance, control issues, and having a K3 certificate in the oil and gas sector, which makes employees pay greater attention to them.

The results of this research can be used to design more effective training programs for ship crews (Dewan & Godina, 2023). A good training program can include risk communication, the use of personal protective equipment (PPE), and emergency response procedures so that crew members are better prepared to face various situations. This research aims to analyze the importance of the role of HSE and its implementation in shipping (Amir-Heidari et al., 2016).

RESEARCH METHODS

This research employs a qualitative approach to gain a deeper understanding of the social or human phenomena under investigation. Qualitative research is well-suited for exploring the subjective experiences, perceptions, motivations, and interactions of individuals or groups within their natural contexts (Adlini et al., 2022). This approach is particularly effective in studies where the goal is to uncover insights, patterns, and meanings that are not easily quantifiable.

The primary data collection method is a literature study. In this context, a literature study involves systematically gathering, analyzing, and synthesizing information from diverse written sources that are relevant to the research topic. The literature selection process is guided by specific inclusion and exclusion criteria. Inclusion criteria include relevance to the research objectives, publication recency (2014-2024), source credibility, and whether the literature has undergone peer review. Exclusion criteria include outdated information, sources lacking rigorous academic standards, and works with limited relevance to the topic.

The literature review draws from databases such as Google Scholar, Scopus, and other reputable academic repositories. The reliability and relevance of sources are ensured by prioritizing peer-reviewed articles, books by reputable publishers, and conference papers from well-regarded academic institutions. The data obtained is analyzed through three stages: data reduction (identifying key themes and concepts), data presentation (organizing the data in a structured format), and conclusion drawing (interpreting the findings in relation to the research objectives).

RESULTS AND DISCUSSION

The shipping sector is recognized as a sector with a high risk of accidents. Incidents such as ship sinking or fires are major issues related to the safety and security of marine transportation (Eliopoulou et al., 2016). Therefore, safety and security have always been a top priority for marine transportation users around the world. Safety in shipping is a very important aspect and the main focus of the shipping industry. It is concerned with accident prevention and involves various aspects such as attitudes, values, and activities that ensure safety standards are met. Neglect of shipping safety not only increases the risk of accidents but also brings negative economic and environmental impacts, such as increased medical costs, decreased production, pollution, and inefficient energy use (Hendrawan, 2019).

The impact of shipping sector accidents is not only a direct obstacle but also causes indirect losses such as damage to machinery and work equipment, temporary disruption of work and production processes, and damage to the work environment. Therefore, companies in the shipping sector are required to provide a guarantee of shipping safety and security protection. Based on the Shipping Law (Law No.17 of 2008), shipping safety and security includes the safety and security of transportation in waters and ports and the protection of the maritime

environment. Shipping safety is an internationally applicable concept that encompasses the protection of life and property through regulation, management, and technological development for all forms of transportation moving through territorial waters wherever located (Harrison, 2017).

In relation to shipping safety, the communication ability of individuals on board to interact and socialize with others is important (Österman et al., 2020a). Effective communication facilitates the interaction process between onboard individuals so that shipping safety goals can be achieved. Communication skills are very important in the world of shipping because they encourage the delivery of messages properly and effectively (Listriyawati, 2020). Companies need to develop communication systems that support the implementation of occupational health and safety, such as HSE (Health, Safety, and Environment) communication. HSE means that the company is responsible for occupational safety, health, and environmental management. The provision of the HSE division in the company has been regulated in Law No. 1 Year 1970 on Occupational Safety.

HSE focuses on maintaining the environment, health, and safety of workers, especially in high-risk industries such as the shipping industry (Akamangwa, 2016). Another term for HSE is K3 (Occupational Health and Safety), which has a similar function in ensuring employee safety in the workplace. Occupational safety and health is a way of protecting employees from accidents and occupational diseases. The function of HSE is to inform employees about the importance of using safety equipment in the field and encourage them to follow safety standards. HSE directs all employees to work according to safety standards set by ISO (International Organization for Standardization) and organizational work standards (Defrianto & Lubis, 2015).

The basic concepts underlying the need for HSE as a safety analysis include several important points (Hajipour et al., 2021). First, every accident or work incident always has a cause. Second, every job or task can be broken down into a sequence of simpler stages of the work process. Third, potential hazards can be identified at each stage of the work process. Fourth, potential hazards that can cause accidents or losses at each stage of the work process can be prevented and controlled. Therefore, the importance of HSE becomes very clear.

Communication about HSE in the shipping sector is crucial in creating a safe, healthy, and environmentally friendly working environment for all crew members and passengers (Österman et al., 2020b). The importance of this communication is reflected in its benefits for improving everyone's safety. Clear and timely communication of safety procedures, potential hazards, and changing conditions is essential in preventing accidents and incidents. Effective information can help the crew to understand the risks and take appropriate preventive measures. According to Adinata (2022), safety communication aims to convey ideas and knowledge from one person to another so that the message can be remembered and motivate certain actions. So that accidents can be avoided. With a good understanding of the early signs or signals that indicate potential

risks, crew members can observe and understand changes in the internal and external environment so that risks can be detected and alerted early (Harnawati, 2024).

In addition, open and continuous HSE communication plays an important role in building a solid safety culture in the shipping sector. When HSE communication is open, team members feel more comfortable reporting issues or potential hazards without fear of negative consequences (Silla et al., 2017). This reporting is important to identify and address risks before they develop into serious incidents. When team members feel heard and valued, the team will be more proactive in maintaining a safe and healthy work environment, be more alert to potential hazards, and be more likely to follow safety procedures with more discipline. Thus, by building a safety culture through open and continuous HSE communication, shipping companies can create a safer and healthier work environment.

Furthermore, another benefit of HSE communication is that it not only plays a role in improving safety but also helps to ensure health in the work environment. A study on employee welfare facilities showed that there is a significant correlation between how much a company provides safety equipment and how compliant employees are in using the equipment. This research highlights that the fatalistic notion that accidents only happen due to bad luck, without taking into account prevention efforts, has been the focus of extensive research (Jonathan & Mbogo, 2016). In other words, investing in workplace safety helps maintain employee health by reducing the risk of accidents. HSE communication helps maintain employee health, especially in the shipping sector, through several approaches, such as the following:

1. HSE can prevent work injuries

Effective communication regarding safety procedures and using personal protective equipment (PPE) helps reduce the risk of physical injuries such as cuts, fractures, or other injuries on board. Clear information on the operation of equipment and handling of hazardous materials is also critical to protecting the physical health of crew members.

2. Occupational disease prevention efforts

In a shipboard environment, there is a risk of exposure to various hazardous chemicals and unhealthy environmental conditions. Proper communication regarding the use of chemicals, good ventilation, and ergonomic layouts can help prevent occupational diseases such as respiratory illnesses, dermatitis, or chemical poisoning.

3. Improved mental well-being

Mental well-being is also an important focus of HSE communication. When employees feel supported and secure that they are well-protected by the company, they tend to work more calmly and effectively. Supportive and open communication encourages crew members to discuss issues they face and seek support from coworkers and management.

The further importance of HSE is not only due to its role in protecting humans, but also due to its contribution in safeguarding the environment. HSE plays a significant role in reducing

negative impacts on the environment through effective waste management (Ramos et al., 2020). Efforts such as better waste management and pollution reduction are essential to maintain the balance of the ecosystem. In the shipping industry, the implementation of HSE is crucial to prevent marine pollution.

In addition, oil spill accidents from large tankers can be catastrophic and have long-term impacts on marine ecosystems, the environment, and local economies. These maritime accidents are often complex and caused by a combination of events or processes, which can result in the loss of human life and marine life and irreparable ecological, environmental, and economic damage (Dominguez-Péry et al., 2021). However, with clear communication of regulations and best practices, oil, wastewater, and garbage spills can be prevented. This is particularly important as such pollution can damage marine biodiversity and coastal ecosystems. Therefore, adherence to environmental guidelines is essential to reduce the risk of pollution. Meanwhile, educating on energy-saving practices can help reduce fuel consumption and greenhouse gas emissions. This lowers vessel operating costs and reduces the company's carbon footprint at sea (Dewan & Godina, 2024). It can be argued that effective communication on HSE and sustainability can encourage a more environmentally friendly and sustainable shipping sector.

Because of the important role HSE communication plays in safety, health, and the work environment, it has long-term impacts such as improved performance. Organizations that adopt a proactive approach to occupational safety and health report higher profit margins and lower accident rates (Haslam et al., 2016). A safe and healthy work environment increases employee productivity. An environment free from the risk of injury or illness makes employees feel comfortable and more focused at work. In addition, effective HSE communication helps reduce employee absenteeism due to injury or illness. With minimal health issues, employees can work consistently and optimally.

Then, companies that have effective HSE programs can also build a good reputation in the eyes of employees, customers, and the general public (Ramos et al., 2020). Employees who work in a safe and healthy environment tend to be more satisfied and loyal. Employees feel more at home, which reduces turnover rates. Employees who feel safe and comfortable tend to stay longer in the company, reducing recruitment and training costs (Haslam et al., 2016). On the customer side, they tend to trust and support companies that demonstrate a commitment to safety and health. Companies that pay attention to HSE show concern not only for profits but also for human welfare and the environment. Meanwhile, companies that demonstrate responsibility for safety, health, and the environment receive positive recognition from society. The company is perceived as a socially and environmentally responsible entity. A good reputation in the eyes of society can result in strong community support, which is important for the sustainability of the company's operations, especially in the areas where it operates (Jilcha & Kitaw, 2017).

The important roles that HSE has and its application in the shipping sector cannot be ignored. The importance of HSE requires every shipping sector to create and improve optimal HSE communication. The following are some recommendations to improve HSE communication in shipping:

1. Provide comprehensive HSE training to all crew members.
Thorough and continuous training is essential to ensure all crew members understand and can properly implement HSE practices. This includes training on safety procedures, emergency response, and risk management.
2. Implementation of an open and supportive culture
Building a culture where crew members feel comfortable reporting issues, providing feedback and sharing ideas is essential. This creates a transparent and collaborative working environment, where issues can be identified and resolved quickly.
3. Use of various communication channels
The use of multiple communication channels, such as meetings, training, newsletters, and bulletin boards, helps ensure that HSE information reaches all crew members. This approach ensures that everyone stays informed and can participate in HSE discussions.
4. Clear, concise, and easy-to-understand HSE communication
HSE information should be conveyed in a way that everyone easily understands. Clear and concise communication helps prevent misunderstandings and ensures that all crew members are aware of their responsibilities and the procedures to be followed.
5. Crew involvement in the development and implementation of the HSE program
Involving crew members in the development and implementation of the HSE program ensures that the program is relevant and can be effectively implemented. This involvement also increases ownership and commitment to the success of the HSE program.
6. Regular monitoring and evaluation of the HSE communication program
Regular monitoring and evaluation of the HSE communication program is important to ensure that the program is working well and achieving its objectives. This evaluation allows for necessary adjustments and improvements to enhance the effectiveness of the program.

Implementing these recommended steps, shipping companies can ensure that their HSE communications are effective and help create a heightened awareness of the importance of safety and health, as well as individual responsibility in maintaining the work environment. Thus achieving safety, health, and environmental objectives with their impact to improve performance and a good image for the shipping sector.

CONCLUSION

Communication related to HSE (Health, Safety, and Environment) in the shipping sector plays a very important role in creating a safe, healthy, and environmentally friendly work

environment for all ship crew and passengers. So, with open and continuous HSE communication, efforts to build a strong safety culture in the shipping sector can be more effective. This communication not only increases awareness of safety hazards and procedures but also ensures that each individual in the work environment understands their responsibilities in maintaining health and safety. In addition to the benefits of improving safety, effective HSE communication also helps ensure worker health is well looked after, which in turn supports overall productivity and well-being in the workplace.

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