Safety Factors: The features of a mature safety culture are called safety factors. These include safety awareness, promotion of safety, feedback, respect, communication, problem identification, reward safety, responsibility, empowerment, multi-cultural operations, integrity, anonymous reporting, and hiring quality people, etc.

Safety Management System: A documented process for managing risks that integrates operations and technical systems with the management of financial and human resources to ensure the safety of the organization, public and environment.

Seafarer: Any person onboard a vessel, including the Master, who is not a passenger.

DISCUSSION

Safety Culture

In the past couple of decades there has been a realization that the reliability of complex work systems in achieving operational goals safely depends not only on technology, but also on social structures. This was the repeated finding of a number of investigations into well-publicized disasters undertaken in the late 20th century and into the 21st century. As a result, in all hazardous industries it is now accepted good practice to have a Safety Management System (SMS) in place, and to institutionalize safe working practices through the development of a mature safety culture.

Therefore, the importance in assessing the social processes behind the safety performance of the maritime and other potentially hazardous industries has been acknowledged. Accident investigations have moved away from a focus on proximal circumstances operating at the individual level, to investigating more latent, systemic organizational or managerial flaws. Collaborative efforts with the maritime industry in assessing maritime safety culture have been undertaken in an effort to potentially reduce the number and severity of maritime accidents/incidents.

Safety culture is defined in a number of different ways, but generally contains the following elements (Zhang *et al.*, 2004):

- Safety culture is a concept defined at group or higher level and reflects on the shared values among all the shipboard, shore side, and organization members.
- Safety culture is concerned with formal safety issues within an organization.
- Safety culture emphasizes the contribution from everyone at all levels of the organization.
- The safety culture of an organization has an impact on its employees' behavior at work and potentially away from work.
- Safety culture may be reflected by the relationship between the reward system and safety performance.
- Safety culture is reflected in the organization's willingness to develop and learn from errors, incidents, and accidents.
- Safety culture embraces communication and teamwork.

The literature on safety culture often distinguishes between safety culture and safety climate, where the result of a safety culture survey is called 'safety climate' to show that it is a snapshot of the organization taken at a certain point in time. However, this distinction is not always upheld, sometimes safety climate refers to local (group) subculture instead. For the sake of simplification, the term 'safety culture' is used throughout this write-up.