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## Understanding Maritime Safety Culture and its Possible Implications for Practice

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## **19) Understanding maritime safety culture and its possible implications for practice.**

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In many industrial sectors it is recognized that the safety culture affects the safety performance, the safety work and improvement processes for safety. However, safety culture studies in the maritime sector are rare as well as research on organizational factors in maritime ergonomics. In order to maintain and improve safety within the maritime sector more knowledge is needed about safety culture and its expression in artifacts, attitudes and behaviours. The current approach to safety culture is focused on good organizational learning and is based on nine safety culture aspects which were investigated using questionnaires on board six Swedish passenger ships in international traffic (four ropax vessels and two high speed crafts). The aim of the study is to investigate the relationships between the nine safety culture aspects, using cluster analysis. Found cluster solutions or groupings of the safety culture aspects can give more knowledge about the maritime safety culture concept and serve as a base for safety culture and safety improvements. Although determining the number of clusters is a subjective process, the result showed similar cluster solutions across vessels. Often the aspects Safety-related behaviours/Risk perception/Attitudes towards safety constitute one cluster and the aspects Working situation/Communication another. Reporting and Learning often ends up in two separate clusters/aspects. This is also the case for Flexibility and Justness. Furthermore, having a somewhat differing safety organization, ropax vessels and high speed crafts could have different characteristics regarding the safety culture. However, very similar cluster solutions were found for four of the six vessels including the two high speed crafts. The found results yield potential for better understanding of safety culture aspects. For example, the Reporting of incidents and the Learning from collected information were not especially closely related as they often belong to different clusters. In practice, and in many sectors, the learning from incident reports is often weak or lacking.

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