

Risk Factors Affecting Container and Bulk Shipping Safety: Survey Research in Poland*

¹Ludmiła FILINA-DAWIDOWICZ, ²Per HILLETOFTH, ¹Joanna SEK, ¹Daria MOZDRZEN

³Aleksandra KULETA

¹West Pomeranian University of Technology in Szczecin, Poland

²University of Gävle, Sweden

³POLSTEAM - Polish Shipping Company, Poland

Correspondence should be addressed to: Ludmiła FILINA-DAWIDOWICZ, ludmila.filina@zut.edu.pl

* Presented at the 43th IBIMA International Conference, 26-27 June 2024, Madrid, Spain.

Abstract

The risk factors affecting shipping safety are examined to improve the efficiency of goods transport by sea. However, the impact of seafarers' work environment, taking into account their levels of responsibility on container and bulk vessels, has not been comprehensively studied in the available literature. Therefore, this study aims to analyse and compare seafarers' perception of risk factors affecting shipping safety considering the work environment. For this study, a questionnaire was developed, and survey was carried out among Polish seafarers performing selected management, operation and support functions on container and bulk ships. Selected groups of risk factors affecting shipping safety were analysed. Based on collected opinions of surveyed seafarers, a ranking of examined factors was created. According to the respondents, human and systemic factors are of crucial importance and have the greatest impact on shipping safety. Considering the opinions of seafarers, the important solutions that can be implemented to increase the safety of ship crews were revealed. These solutions include shortening contracts, loosening tight schedules, using modern equipment on ships and other. Research results may be used by shipowners involved in maritime fleet management to improve shipping safety and sustainability.

Keywords: maritime transport; risk factors; seafarers; work environment; shipping safety