

Identifying the Determinants of Compliance with Maritime Environmental Legislation in the North and Baltic Sea Area: A Model Developed from Exploratory Qualitative Data Collection

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Abstract : Ship operators on the North and Baltic Sea have been experiencing increased political interest in marine environmental protection and cleaner vessel operations. Stricter legislation on SO₂ and NO_x emissions, ballast water management and other measures of protection are currently being phased in or will come into force in the coming years. These measures benefit the health of the marine environment, while increasing company's operational costs. In times of excess shipping capacity and linked consolidation in the industry non-compliance with environmental rules is one way companies might hope to stay competitive with both intra- and inter-modal trade. Around 5-15% of industry participants are believed to neglect laws on vessel-source pollution willingly or unwillingly. Exploratory in-depth interviews conducted with 12 experts from various stakeholder groups informed the researchers about variables influencing compliance levels, including awareness and apprehension, willingness to comply, ability to comply and effectiveness of controls. Semi-structured expert interviews were evaluated using qualitative content analysis. A model of determinants of compliance was developed and is presented here. While most vessel operators endeavour to achieve full compliance with environmental rules, a lack of availability of technical solutions, expediency of implementation and operation and economic feasibility might prove a hindrance. Ineffective control systems on the other hand foster willing non-compliance. With respect to motivations, lacking time, lacking financials and the absence of commercial advantages decrease compliance levels. These and other variables were inductively developed from qualitative data and integrated into a model on environmental compliance. The outcomes presented here form part of a wider research project on economic effects of maritime environmental legislation. Research on determinants of compliance might inform policy-makers about actual behavioural effects of shipping companies and might further the development of a comprehensive legal system for environmental protection.

Keywords : compliance, marine environmental protection, exploratory qualitative research study, clean vessel operations, North and Baltic Sea area

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