

UNIVERSITI TEKNOLOGI MARA

**THE RELATIONSHIP BETWEEN
SAFETY CLIMATE AND SAFETY
PERFORMANCE AMONG
MALAYSIAN SEAFARERS' WITH
KNOWLEDGE AND SKILL AS THE
MEDIATOR**

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ABSTRACT

Shipping is the main transportation of goods, as it can carry a large quantity of goods and save cost. Thus, it is crucial to ensure the safety of seafarers, goods and the ship in reaching the destination safely. The increasing number of maritime incidents globally and locally has drawn a crucial need for this research to be conducted. There is an urgent need for better understanding of the seafarers' safety climate and how it affects their performance. Thus, the adoption of a strategic approach is needed in planning and improving safety climate among seafarers as it is considered a leading indicator of safety performance. This research aimed to study the relationship of safety climate components towards safety performance. It specifically studied on Malaysian seafarers in Peninsular Malaysia as the representative for the whole seafarers in Malaysia. This research is based on the data obtained from survey questionnaire that polled seafarers' perception regarding safety climate at their workplace. The study covered a sample of 233 seafarers working on board ships in Peninsular Malaysia who participated in a cross-sectional survey. The data were analysed using Statistical Package for Social Science and Partial Least Squared – Structural Equation Modelling to examine the factors and its level of significance that influence safety performance with knowledge and skill as the mediator. The research suggested that training appears to be the factor that has significant direct and indirect relationship with safety performance. The results of the study also suggested that a holistic strategic approach is needed for the seafarers, focusing on training, safety focus and safety communication and feedback to enhance safety performance. It is expected that the study can contribute to the mitigation of maritime incidents in Malaysia.

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CHAPTER ONE

INTRODUCTION

1.1 Preamble

Ensuring high level of safety remains a top issue to all industries. Shipping industry, one of the main transportation modes, plays an important role in the world's trading and global economy (Alfan, Zakaria, Azmi, & Mustapha, 2016). As the shipping industry is expanding tremendously, leading to worldwide traffic at sea, the growing number of vessels have big potential to incidents and hazards (Baalisampang, Abbassi, Garaniya, Khan, & Dadashzadeh, 2018). Shipping incurs low cost in trading, import and export and ninety percent (90%) of the world trading currently is carried out by shipping activities (Chauvin, Lardjane, Morel, Clostermann, & Langard, 2013; Yuen, Loh, Zhou, & Wong, 2018).

Although trading and transportation by ship takes a long time, the demand is still high, and it remains as an option to transport goods in large quantity and save cost. In order to reach the destination from port to port safely, the seafarers play vital role in ensuring the safety of all personnel, property and environment. Therefore, it is important for the seafarers to have a positive safety climate as they are fully responsible on board ships and they are exposed to risks. Apparently, an oil tanker does not sail only with the objective of carrying out a safe transit, but it must also ensure that the oil is delivered in an appropriate and cost-efficient manner (Merrick, Grabowski, Ayyalasomayajula, & Harrald, 2005).

Most of the incidents result in a large number of fatalities have focused on the issues of maritime safety (Havold, 2000). Investigations on incidents also revealed that a large contribution have human related causes and by focusing on culture or climate aspects, the understandings of the underlying mechanisms leading to incidents might increase as well (Havold, 2000). Over thirty years since 1980, research has discovered that safety climate has become an important foundation for organizations. Safety climate is considered to be a leading indicator of safety performance (Zohar, 2010). Many studies on safety climate have shown the importance of organizational factors as a result of an error (Shappell & Wiegmann, 2003). For instance, according to