

UNIVERSITI TEKNOLOGI MARA

**DEVELOPMENT OF SAFETY
PERFORMANCE MODEL
BASED ON SAFETY CLIMATE
AND SAFETY COMPETENCE
IN PARAMEDIC TRAINING
INSTITUTE IN MALAYSIA**

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ABSTRACT

Meeting the objectives of Occupational Safety and Health Master Plan (OSHMP2020) such as immediate reduction of accident rate and inculcating a preventive safety culture, the issue of safety performance at the government paramedic training institute in Malaysia was identified. The issues include what factors can influence the improvement of safety performance and contribute to a preventive safety culture in the institute. It became a question when looking at the increasing trend of incidents reported to the Department of Occupational Safety and Health (DOSH) Malaysia by the government sector and local authorities that recorded an increase in incident rates from year to year. This research aims to evaluate the safety climate and safety competence indicators and their influence on safety performance in achieving the main objective of developing a safety performance model based on safety climate and safety competence in paramedic training institute in Malaysia. This research used a stratified random sampling strategy to obtain data from 258 respondents who completed a self-administered questionnaire based on five dimensions of predicted safety performance factors. Partial Least Squares Structural Equation Modelling (PLS-SEM) was used to test the measurement model and structural model. Measurement model analysis showed that all indicators for the three variables: safety climate, safety competence, and safety performance passed the reliability and validity assessment, hence provided support to be included in path model. The examination of structural models revealed a significant direct relationship between two dimensions of safety climate (management commitment and supervision in safety and safety system) and safety competence with safety performance. The data also showed an indirect association between safety climate dimensions and safety performance, demonstrating the significance of safety competence as a mediator. The proposed model is also examined for prediction accuracy (R^2), effects (f^2), and relevance (Q^2) in assessing safety performance that resulted at the moderate level. Furthermore, Importance-Performance Map Analysis (IPMA) investigated the average score for safety climate dimensions and safety competence as predictor constructs to safety performance. According to the findings, management commitment and supervision in safety are the essential aspects in influencing safety performance. The IPMA analysis also revealed that worker participation, safety system, and safety competence perform well in determining safety performance. This research is likely to assist paramedic training institute in Malaysia in understanding the function of different dimensions of safety climate and safety competence as intermediate factors in boosting their safety performance.

Keywords: Safety Performance, Safety Climate, Safety Competence, Paramedic, Training Institute, IPMA, PLS-SEM

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