

ANALISIS HUBUNGAN *SELF EFFICACY* TERHADAP STRES DAN KELELAHAN PADA PENGEMUDI KAPAL PENUMPANG

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ABSTRAK

Kecelakaan kapal di Indonesia masih tinggi dan sebagian besar disebabkan oleh faktor manusia, termasuk stres dan kelelahan. *Self-efficacy* sebagai keyakinan individu terhadap kemampuannya diyakini berperan protektif terhadap tekanan psikologis di lingkungan kerja maritim. Penelitian ini bertujuan menganalisis hubungan *self-efficacy* terhadap stres dan kelelahan pada pengemudi kapal penumpang. Penelitian menggunakan *design of experiment* dengan tiga skenario simulasi melalui *Full Mission Bridge Simulator 360°*, melibatkan 35 pelaut kapal penumpang. Data dikumpulkan menggunakan kuesioner *General Self-Efficacy Scale* (GSES), kuesioner stres pelaut, dan kuesioner kelelahan berdasarkan *Industrial Fatigue Research Committee* (IFRC), kemudian dianalisis menggunakan *Structural Equation Modeling–Partial Least Squares* (SEM-PLS). Hasil penelitian menunjukkan bahwa *self-efficacy* berpengaruh negatif dan signifikan terhadap stres pada seluruh kondisi simulasi, yang menunjukkan bahwa semakin tinggi *self-efficacy*, semakin rendah tingkat stres yang dialami pelaut. Sementara itu, *self-efficacy* hanya berpengaruh negatif dan signifikan terhadap kelelahan pada kondisi beban kerja menengah, sedangkan pada kondisi normal dan beban kerja tinggi pengaruhnya tidak signifikan. Selain itu, stres berpengaruh positif dan signifikan terhadap kelelahan hanya pada kondisi *baseline*, sedangkan pada skenario dengan kompleksitas yang lebih tinggi hubungan tersebut tidak signifikan. Penelitian ini merekomendasikan penerapan *Scenario-Based Confidence Training* (SBCT), *Fatigue Risk Management During Simulation* (FRMS), dan *Maritime Self-Efficacy Enhancement Program* sebagai upaya untuk meningkatkan kesiapan psikologis, mengelola kelelahan, dan mendukung efektivitas pelatihan simulator dalam meningkatkan keselamatan operasional pelayaran.

Kata Kunci: *Self-efficacy*, Stres Pelaut, Kelelahan, Keselamatan Maritim, SEM-PLS

ANALYSIS OF THE RELATIONSHIP BETWEEN SELF EFFICACY AND STRESS AND FATIGUE IN PASSENGER SHIP DRIVERS

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ABSTRACT

Ship accidents in Indonesia remain relatively high, with the majority attributed to human factors, particularly stress and fatigue. Self-efficacy, defined as an individual's belief in their ability to perform tasks successfully, is considered a protective factor against psychological stress in the maritime work environment. This study aimed to analyze the effect of self-efficacy on stress and fatigue among passenger ship operators. The research employed a design of experiment approach using three simulation scenarios conducted through a 360° Full Mission Bridge Simulator, involving 35 passenger ship operators. Data were collected using the General Self-Efficacy Scale (GSES), a seafarer stress questionnaire, and the Industrial Fatigue Research Committee (IFRC) fatigue questionnaire. The data were then analyzed using Structural Equation Modeling–Partial Least Squares (SEM-PLS). The results indicated that self-efficacy had a significant negative effect on stress across all simulation conditions, suggesting that higher levels of self-efficacy were associated with lower levels of perceived stress among the participants. Furthermore, self-efficacy had a significant negative effect on fatigue only under the moderate workload condition, while its effects under the baseline and high-workload conditions were not statistically significant. In addition, stress had a significant positive effect on fatigue only during the baseline condition, whereas the relationship became non-significant under more complex simulation scenarios. Based on these findings, this study recommends implementing Scenario-Based Confidence Training (SBCT), Fatigue Risk Management During Simulation (FRMS), and the Maritime Self-Efficacy Enhancement Program to strengthen psychological readiness, manage fatigue, and enhance the effectiveness of simulator-based training in improving maritime operational safety.

Keywords: *Self-efficacy, Seafarer Stress, Fatigue, Maritime Safety, SEM-PLS*