
The Impact of Employee Engagement and Ship Environment on Job Satisfaction and Employee Loyalty: Evidence from a Crew Manning Company in Indonesia

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Abstract – This study investigates the determinants of employee loyalty in the maritime crew manning industry, focusing on employee engagement, ship environment, and job satisfaction. The maritime sector is characterized by demanding working conditions, extended periods away from home, and high operational risk, making employee retention a persistent managerial challenge. Using a quantitative approach, data were collected through a structured questionnaire distributed to crew members employed by a crew manning company in Indonesia. A total of 32 valid responses were analyzed using Partial Least Squares–Structural Equation Modeling (PLS-SEM). The findings reveal that the ship environment has a significant positive effect on job satisfaction, while employee engagement does not show a statistically significant relationship with job satisfaction. Furthermore, job satisfaction is found to have a significant positive influence on employee loyalty. These results indicate that, in a shipboard context, tangible and social working conditions play a more decisive role in shaping employee satisfaction and loyalty than psychological engagement alone. This study contributes to the literature on maritime human resource management by emphasizing the contextual specificity of engagement mechanisms and offers practical implications for crew manning agencies seeking to improve retention and operational stability.

Keywords: employee loyalty, job satisfaction, ship environment, employee engagement, maritime industry

Introduction

Introduction The maritime industry serves as a backbone of global trade, facilitating the transportation of goods, energy, and raw materials across international markets. Despite advances in automation and regulation, maritime operations remain highly dependent on human resources, particularly seafarers who work under physically demanding, high-risk, and isolated conditions. Long working hours, prolonged separation from family, and multicultural shipboard environments distinguish maritime employment from most land-based occupations.

Crew manning companies play a strategic role by supplying qualified and certified seafarers to ship owners while ensuring compliance with international regulations such as the Maritime Labour Convention (MLC) 2006. However, high crew turnover and premature contract termination remain persistent problems in the industry. Sudden crew replacement disrupts operational continuity, increases recruitment and training costs, and undermines client trust. Consequently, understanding the drivers of employee loyalty among seafarers is a critical managerial concern.

Previous studies have identified job satisfaction, work environment, leadership, compensation, and employee engagement as important antecedents of employee loyalty (Dhir et al., 2020; Jigjiddorj et al., 2019). In organizational behavior literature, employee engagement is frequently positioned as a central predictor of job satisfaction and positive work outcomes (Schaufeli et al., 2002; Albrecht et al., 2021). However, empirical findings in the maritime sector remain inconsistent, suggesting that engagement mechanisms may operate differently in highly constrained work environments such as ships.

The ship environment represents a unique workplace characterized by confined physical space, continuous social interaction, strict hierarchies, and elevated safety risks. Prior studies

indicate that shipboard working conditions, safety climate, and interpersonal relationships strongly influence seafarers' well-being and job satisfaction (Bergheim et al., 2015; Vlachos et al., 2022). Nevertheless, limited empirical research has simultaneously examined employee engagement, ship environment, and job satisfaction as antecedents of employee loyalty within the crew manning context.

This study addresses this gap by examining the relationships between employee engagement, ship environment, job satisfaction, and employee loyalty among crew members employed by a crew manning company in Indonesia. Specifically, it investigates (1) whether employee engagement affects job satisfaction, (2) whether ship environment affects job satisfaction, and (3) whether job satisfaction influences employee loyalty. By focusing on the maritime sector, this study contributes to contextualizing human resource management theories and provides practical insights for improving crew retention.

The remainder of this paper is organized as follows. Section 2 reviews relevant literature and develops the research hypotheses. Section 3 outlines the research methodology. Section 4 presents and discusses the empirical findings. Section 5 concludes the study and offers managerial implications, limitations, and directions for future research.

Employee Loyalty Employee loyalty refers to an individual's emotional attachment, commitment, and intention to remain with an organization (Darmawan et al., 2020). Loyal employees are more likely to protect organizational interests, demonstrate discretionary effort, and sustain long-term employment relationships. In the maritime industry, loyalty is particularly important due to the high costs associated with recruitment, training, certification, and crew replacement (Budyono et al., 2022).

Previous research shows that employee loyalty is influenced by job satisfaction, organizational culture, leadership practices, and perceived fairness (Nadeak & Naibaho, 2020; Romi et al., 2022). In high-risk and isolated environments such as ships, loyalty is also shaped by safety conditions and social support among crew members.

Job Satisfaction Job satisfaction is defined as the extent to which employees feel contented and fulfilled with their job roles and work experiences (Lestari et al., 2021). It reflects employees' evaluations of compensation, workload, fairness, interpersonal relations, and working conditions. In maritime occupations, job satisfaction is often challenged by long voyages, irregular rest patterns, and separation from family (Yorulmaz & Özbağ, 2020).

Empirical studies consistently demonstrate that job satisfaction is a strong predictor of employee retention and loyalty (Dhir et al., 2020; Hadj, 2024). In the maritime context, job satisfaction has also been linked to safety behavior and reduced turnover intention (McVeigh et al., 2019).

Employee Engagement Employee engagement refers to a positive, fulfilling work-related state characterized by vigor, dedication, and absorption (Schaufeli et al., 2002). Engaged employees are enthusiastic, focused, and willing to invest effort in their work. Numerous studies in land-based industries report a positive relationship between employee engagement and job satisfaction (Fidyah & Setiawati, 2020; Hussain Hakro et al., 2022).

However, maritime work is characterized by standardized tasks, rigid hierarchies, and limited autonomy. As a result, seafarers may demonstrate high task commitment without experiencing strong psychological engagement with the organization. This contextual difference suggests that employee engagement may not always translate into job satisfaction in

shipboard settings.

Ship Environment The ship environment encompasses the physical, social, and organizational conditions under which seafarers work and live. These include safety standards, accommodation quality, noise levels, workload, leadership, and interpersonal relationships (Badrianto & Ekhsan, 2020; Jo & Koh, 2023). Because seafarers spend extended periods in confined spaces, the ship environment plays a central role in shaping daily experiences and well-being.

Prior studies indicate that a supportive and safe ship environment reduces stress, enhances job satisfaction, and lowers turnover intention (Gu et al., 2020; Vlachos et al., 2022). Therefore, the ship environment is expected to be a critical determinant of job satisfaction in the maritime industry.

Hypotheses Development Based on the literature, the following hypotheses are proposed:

H1: Employee engagement has a positive effect on job satisfaction.

H2: Ship environment has a positive effect on job satisfaction.

H3: Job satisfaction has a positive effect on employee loyalty.

Method

Research Design This study employs a quantitative research design using a survey method to test the proposed hypotheses.

Sample and Data Collection The population consists of crew members employed by a crew manning company in Indonesia and actively assigned on board vessels. A census approach was used. Data were collected via an online questionnaire distributed through WhatsApp in March 2024. A total of 32 valid responses were analyzed.

Measurement Instrument All constructs were measured using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Measurement items for employee engagement, ship environment, job satisfaction, and employee loyalty were adapted from prior studies cited in the thesis.

Data Analysis Data analysis was conducted using SmartPLS 3.2.9. The analysis included descriptive statistics, assessment of validity and reliability, and evaluation of the structural model using PLS-SEM

Results and Discussions

Measurement Model Evaluation

The measurement model was first evaluated to ensure the adequacy of the constructs before testing the structural relationships. Convergent validity was assessed through indicator loadings and Average Variance Extracted (AVE). All measurement items exhibited standardized loadings above the acceptable threshold of 0.50, and the AVE values for each construct exceeded 0.50, indicating that the indicators adequately represented their respective latent variables. Reliability was confirmed through Composite Reliability and Cronbach's Alpha values, all of which were above 0.70, demonstrating satisfactory internal consistency.

Discriminant validity was examined using the Fornell–Larcker criterion and cross-loading analysis. The square root of AVE for each construct was higher than its correlations with other constructs, and each indicator loaded more strongly on its intended construct than on others. These results confirm that the constructs of employee engagement, ship environment, job satisfaction, and employee loyalty are empirically distinct and suitable for further structural analysis.

Structural Model Results

The structural model was evaluated using path coefficients, t-statistics, and p-values obtained through bootstrapping procedures in SmartPLS. The results reveal that the ship environment has a statistically significant positive effect on job satisfaction, supporting Hypothesis 2. This indicates that improvements in physical working conditions, safety standards, and onboard social support contribute meaningfully to higher levels of job satisfaction among seafarers.

In contrast, employee engagement does not exhibit a statistically significant relationship with job satisfaction, leading to the rejection of Hypothesis 1. Although descriptive statistics show high levels of task commitment and professional dedication among respondents, these characteristics do not translate into perceived job satisfaction. This finding suggests that engagement in the maritime context may be more task-oriented and compliance-driven rather than affective or motivational in nature.

Furthermore, job satisfaction demonstrates a significant positive effect on employee loyalty, supporting Hypothesis 3. Seafarers who report higher satisfaction with their work conditions, compensation, and onboard relationships are more likely to express intentions to remain with the company, protect its reputation, and recommend the organization to others.

The coefficient of determination (R^2) indicates that a substantial proportion of variance in job satisfaction is explained by employee engagement and ship environment, while employee loyalty is meaningfully explained by job satisfaction. This confirms the relevance of the proposed model in explaining loyalty-related outcomes in the maritime crew manning context.

Discussion

The findings of this study provide several important insights into human resource management wit

This study concludes that job satisfaction is a critical determinant of employee loyalty in the maritime crew manning industry. Ship environment significantly influences job satisfaction, while employee engagement does not show a direct effect. These findings underscore the contextual nature of human resource management practices and suggest that engagement-based strategies may be less effective in shipboard settings unless supported by favorable working conditions.

From a managerial perspective, crew manning companies should prioritize improving shipboard safety, accommodation quality, and team support to enhance job satisfaction and loyalty. This study is limited by its small sample size and focus on a single company. Future research should involve larger samples, multiple organizations, and mixed methods to deepen understanding of seafarer retention.

The result and discussion could be combined in one section, or separated into two sections, namely: Results, and Discussions. This section should be the longest section of the paper, could consist of some sub-sections. The result section provides the findings of this study. The discussion section provides the Authors engagement between the findings this study and of other related studies, other related phenomena, other related issue (supported by strong references from other related studies or other media).

Conclusions and Recommendations

This study examined the relationships between employee engagement, ship environment, job satisfaction, and employee loyalty in the context of a maritime crew manning company in Indonesia. The findings provide clear evidence that job satisfaction plays a central role in shaping employee loyalty among seafarers, while the ship environment emerges as a critical antecedent of job satisfaction. In contrast, employee engagement does not demonstrate a significant direct effect on job satisfaction within the shipboard working context.

The results highlight that maritime work settings differ fundamentally from conventional land-based organizations. Seafarers operate in highly regulated, hierarchical, and confined environments where work and living spaces overlap. Under such conditions, tangible factors such as safety, physical working conditions, onboard facilities, and social support exert a stronger influence on job satisfaction than psychological engagement constructs. Although crew members may display high levels of task commitment and professional discipline, these forms of engagement do not automatically translate into positive emotional evaluations of their jobs.

From a theoretical point of view, this study adds to the research in human resource management and organizational behavior. It shows some limitations related to context. These limitations are important to understand because they affect how the findings can be used. The study points out that results may not apply to all situations or organizations. It helps to see where the research is strong and where it might not be. By doing this, the study gives a clearer picture of what can and cannot be expected from the research. This can help future studies to improve or to focus on different areas. The limitations discussed are about the specific conditions or environments used in the study. They might be different from other settings or industries. Recognizing these limitations is helpful for researchers and practitioners who use the findings. It reminds them to be careful when applying the results. Overall, the study shows that context matters a lot in human resource management and organizational behavior. This insight can guide future work in the field. It also helps to set realistic expectations for what the research can achieve.

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