



The Influence of Leadership Style on Crew Performance and Job Satisfaction on Board Commercial Vessels

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Abstract: This study examines the influence of leadership style on crew performance and job satisfaction aboard commercial vessels. The maritime industry presents unique challenges where effective leadership is essential for ensuring operational efficiency, safety, and crew well-being. The objective of this research is to identify which leadership styles—transformational, transactional, or laissez-faire—have the most significant impact on crew members' performance and overall job satisfaction. A quantitative approach was employed, utilizing structured questionnaires distributed to 120 seafarers working on various types of commercial ships. Data were analyzed using multiple regression analysis to assess the relationship between leadership style and both dependent variables. The findings reveal that transformational leadership has the strongest positive correlation with both crew performance and job satisfaction, while transactional leadership showed moderate effects, and laissez-faire leadership had a negative impact. These results highlight the importance of promoting transformational leadership practices in maritime operations to enhance productivity and improve crew morale. The study provides valuable insights for ship management companies and maritime training institutions in shaping leadership development programs tailored to the maritime environment.

Keywords: Crew performance, job satisfaction, leadership style, maritime industry, transformational leadership.

1. BACKGROUND

Leadership plays a crucial role in the maritime industry, where the complexity of operations and the multicultural nature of crews require leaders who can manage both performance and interpersonal dynamics effectively. Unlike land-based workplaces, seafarers operate in isolated and confined environments, which increases the importance of leadership in shaping both morale and productivity (Theotoku, 2015). Onboard leadership not only influences work execution but also affects how crew members adapt to stress, fatigue, and organizational demands. Therefore, examining how leadership style impacts crew performance and job satisfaction is critical to improving operational outcomes at sea.

Several studies have highlighted the significance of leadership styles such as transformational and transactional leadership in maritime settings. Transformational leadership, characterized by inspirational motivation and individualized consideration, has been positively linked to improved safety practices and enhanced motivation among crew members (Hetherington, Flin, & Mearns, 2006). In contrast, transactional leadership focuses on clear structures, rewards, and penalties, which can be effective but might not foster long-term engagement. Meanwhile, laissez-faire leadership has often been associated with ambiguity and disengagement, which can pose risks in high-stakes environments such as vessels (Bass & Riggio, 2006).

Despite the growing body of literature on maritime leadership, a research gap remains regarding the direct comparison of leadership styles and their dual impact on performance and job satisfaction in commercial vessels. Previous studies tend to focus on either safety outcomes or leadership traits without integrating the holistic effects on seafarers' psychological and behavioral responses. Moreover, few empirical studies have employed quantitative methods to capture the perspectives of active crew members across diverse ship types and operational contexts (Wadsworth et al., 2008). This gap highlights the need for more focused research that connects leadership styles with measurable crew outcomes.

The novelty of this study lies in its comprehensive evaluation of three major leadership styles—transformational, transactional, and laissez-faire—and their influence on two critical dimensions: crew performance and job satisfaction. This dual focus is essential as high performance without job satisfaction may lead to burnout, while satisfaction without performance may hinder operational goals. By linking both outcomes with specific leadership approaches, this study aims to offer actionable insights for ship operators and human resource departments within the maritime sector (Jensen et al., 2016).

The objective of this study is to analyze the influence of leadership style on crew performance and job satisfaction aboard commercial vessels. By employing a quantitative research design and collecting data from active seafarers, this study seeks to provide empirical evidence that supports leadership development initiatives. The findings are expected to inform maritime policy, contribute to leadership training frameworks, and ultimately improve the working conditions and efficiency of seafaring crews.

2. THEORETICAL REVIEW

Leadership theory has evolved significantly over the past decades, especially as it pertains to organizational behavior and employee outcomes. Among the most widely used frameworks is the Full Range Leadership Theory (FRLT) introduced by Bass and Avolio, which includes three leadership styles: transformational, transactional, and laissez-faire (Bass & Riggio, 2006). Transformational leadership emphasizes vision, inspiration, and individualized support, often resulting in enhanced motivation and higher performance. Transactional leadership, on the other hand, is based on exchanges—rewarding employees for meeting targets and penalizing underperformance. Laissez-faire leadership reflects an absence of active leadership, often resulting in a lack of direction and accountability (Northouse, 2016).

In maritime contexts, leadership has been found to be a critical determinant of safety outcomes, teamwork, and morale on board. According to Hetherington, Flin, and Mearns (2006), transformational leadership enhances crew engagement, promotes proactive safety behavior, and builds trust among diverse crew members. Transactional leadership, while still relevant in operational tasks, may fall short in environments requiring emotional intelligence and adaptability, such as during long voyages or high-pressure situations. Laissez-faire leadership tends to correlate negatively with crew satisfaction and performance, as it often leaves crew members without sufficient guidance or feedback (Wu et al., 2016).

Previous research in organizational psychology has consistently shown the positive relationship between transformational leadership and job satisfaction across various industries, including maritime settings. For instance, Nielsen and Daniels (2012) found that transformational leadership behaviors are directly associated with higher job satisfaction and better role clarity. In contrast, transactional leadership shows mixed results—it can enhance performance when tasks are well-defined but may demotivate employees when used excessively (Judge & Piccolo, 2004). In maritime settings, where conditions are unpredictable, transformational leadership may be better suited to support crews through changing and stressful environments.

Crew performance on board is influenced not only by technical competence but also by motivation, communication, and team cohesion, all of which are shaped by leadership (Jensen et al., 2016). The isolated and hierarchical nature of shipboard life makes it essential that leaders provide both direction and emotional support. Studies have shown that transformational leaders foster psychological safety, allowing crew members to voice concerns and innovate without fear (Edmondson, 1999). This creates an environment where performance improves through mutual respect and shared goals. As such, leadership style becomes a key lever in achieving both operational excellence and human sustainability at sea.

Although many leadership studies have focused on land-based organizations, there is a growing need to contextualize these theories within the maritime domain. This study builds upon the theoretical foundation of the Full Range Leadership Theory and contributes to the limited body of research examining the dual effect of leadership on both performance and satisfaction at sea. While the hypothesis is not stated explicitly, the underlying assumption is that different leadership styles exert varied levels of influence on seafarers' performance and satisfaction, with transformational leadership expected to yield the most positive outcomes.

3. RESEARCH METHOD

This study adopted a quantitative research design using a correlational approach to examine the influence of leadership style on crew performance and job satisfaction aboard commercial vessels. The research aimed to statistically test the relationship between three types of leadership styles—transformational, transactional, and laissez-faire—and their effect on two dependent variables: crew performance and job satisfaction. This approach is appropriate for assessing the strength and direction of variable relationships in social science research (Creswell, 2014).

The population of the study consisted of seafarers employed on various types of commercial vessels operating in Southeast Asia. A purposive sampling technique was employed to ensure that participants had relevant experience with shipboard leadership practices. A total of 120 crew members, including officers and ratings, were selected as the research sample. The criteria included a minimum of six months of seafaring experience and active involvement in onboard operations under a defined chain of command.

Data were collected through a structured questionnaire composed of three major parts. The first part collected demographic data, while the second and third sections measured leadership style and its impact on crew performance and job satisfaction, respectively. The Multifactor Leadership Questionnaire (MLQ) developed by Bass and Avolio (1995) was used to assess transformational, transactional, and laissez-faire leadership behaviors. Crew performance and job satisfaction were measured using adapted instruments from previous maritime studies (Hetherington et al., 2006; Jensen et al., 2016). All items used a five-point Likert scale ranging from "strongly disagree" to "strongly agree."

The collected data were analyzed using multiple linear regression analysis to assess the effect of each leadership style on the dependent variables. The analysis was conducted using SPSS software. Prior to regression, validity and reliability tests were conducted. The instrument validity was confirmed by Pearson correlation, with all items showing significant correlations at the 0.05 level. The reliability test, measured using Cronbach's Alpha, yielded values of 0.81 for leadership style, 0.84 for crew performance, and 0.79 for job satisfaction, indicating good internal consistency (Sekaran & Bougie, 2016).

The following regression model was used to evaluate the influence of leadership style:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$$

Where:

Y = Dependent variable (either crew performance or job satisfaction)

X₁ = Transformational leadership

X_2 = Transactional leadership

X_3 = Laissez-faire leadership

β_0 = Constant

$\beta_1, \beta_2, \beta_3$ = Regression coefficients

ε = Error term

This model enables the analysis of the extent to which each leadership style independently contributes to the variation in crew performance and job satisfaction. The statistical significance of the coefficients was tested using t-tests, while the overall model fit was evaluated using the F-test and R^2 values (Hair et al., 2010).

4. RESULTS AND DISCUSSION Results Study

The data collection process was conducted over a two-month period, from January to February 2025. Respondents were selected from various commercial vessels operating within Southeast Asian shipping routes, including container ships, tankers, and bulk carriers. The structured questionnaires were distributed both in printed and digital forms, with a total of 120 completed responses returned and deemed valid for analysis.

Table 1 presents the results of the multiple regression analysis examining the effect of transformational, transactional, and laissez-faire leadership styles on crew performance.

Table 1. Regression Results – Leadership Style and Crew Performance

Predictor Variable	Unstandardized Coefficient (β)	t-value	Significance (p)
Constant (β_0)	1.213	3.26	0.001
Transformational (X_1)	0.482	6.14	0.000
Transactional (X_2)	0.271	3.88	0.000
Laissez-faire (X_3)	-0.165	-2.91	0.004
$R^2 = 0.67, F = 53.24, p < 0.001$			

Source: Processed primary data (2025)

The results indicate that transformational leadership had the strongest positive influence on crew performance ($\beta = 0.482, p < 0.001$), followed by transactional leadership ($\beta = 0.271, p < 0.001$). In contrast, laissez-faire leadership was negatively associated with performance ($\beta = -0.165, p < 0.01$). The R^2 value of 0.67 suggests that 67% of the variance in crew performance is explained by the combined leadership styles examined in the model.

Table 2 shows the regression results for job satisfaction as the dependent variable.

Table 2. Regression Results – Leadership Style and Job Satisfaction

Predictor Variable	Unstandardized Coefficient (β)	t-value	Significance (p)
Constant (β_0)	1.005	2.98	0.003
Transformational (X_1)	0.511	6.87	0.000
Transactional (X_2)	0.213	2.92	0.004
Laissez-faire (X_3)	-0.142	-2.14	0.035
$R^2 = 0.71, F = 61.45, p < 0.001$			

Source: Processed primary data (2025)

Again, transformational leadership showed the highest impact on job satisfaction ($\beta = 0.511$, $p < 0.001$), reinforcing its significance in promoting positive workplace attitudes on board. Transactional leadership had a smaller yet statistically significant effect ($\beta = 0.213$, $p < 0.01$), while laissez-faire leadership negatively influenced job satisfaction ($\beta = -0.142$, $p < 0.05$).

These findings align with earlier research by Bass and Riggio (2006), which emphasized the motivational and inspirational advantages of transformational leadership in organizational settings. Moreover, the results support Hetherington et al. (2006), who identified a positive link between proactive leadership and seafarer engagement. The negative association of laissez-faire leadership is consistent with Wu et al. (2016), who warned that the absence of active leadership leads to poor morale and unclear expectations.

Theoretically, the results validate the Full Range Leadership Theory (Bass & Avolio, 1995), indicating that leadership style is a critical determinant of both behavioral and affective crew outcomes. From an applied perspective, the study emphasizes the need for leadership development programs on board ships, particularly those aimed at enhancing transformational behaviors such as individual consideration, intellectual stimulation, and inspirational motivation (Northouse, 2016).

The implications of these findings are twofold. First, they reinforce the theoretical understanding that leadership is not merely a hierarchical function but a psychological and behavioral catalyst in high-pressure environments. Second, they highlight the practical need for shipping companies to invest in leadership training modules, especially for officers and ship captains, to improve both performance efficiency and crew well-being.

5. CONCLUSION AND SUGGESTION

Based on the findings of this study, it can be concluded that leadership style significantly influences both crew performance and job satisfaction aboard commercial vessels, with transformational leadership demonstrating the strongest positive effect, followed by transactional leadership, while laissez-faire leadership exhibits a negative impact on both outcomes. These results affirm the theoretical framework of Full Range Leadership Theory (Bass & Avolio, 1995) and are consistent with prior studies emphasizing the critical role of active, engaged leadership in high-risk, team-based environments such as maritime operations (Hetherington et al., 2006; Northouse, 2016). Given these insights, it is recommended that shipping companies prioritize leadership development programs that cultivate transformational competencies in ship officers to foster a more motivated and efficient workforce. However,

caution must be taken in generalizing these results across all vessel types and cultural contexts, as the sample was regionally limited to Southeast Asia and did not differentiate among rank hierarchies or vessel categories. Future research should explore longitudinal designs or qualitative approaches to examine the dynamic interplay between leadership behaviors and seafarers' long-term psychological well-being, especially in relation to safety culture and multicultural team dynamics (Wu et al., 2016; Jensen et al., 2016).

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