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The role of emotional intelligence in enhancing leadership performance and psychological resilience among ship crews

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Abstract. The maritime sector increasingly values not only technical skills, but also emotional resilience and interpersonal competence. This study examines the role of emotional intelligence (EI) in improving leadership performance, crew well-being, and operational safety onboard. Key EI components are reviewed in relation to the maritime context. The paper contrasts authoritarian and emotionally intelligent leadership styles, showing their effects on morale, stress, and risk management. Strategies for developing EI at sea are discussed, including formal training and informal onboard practices. Although primarily theoretical, the article outlines future directions for empirical research among cadets and officers. The aim is to support curriculum development and leadership training in maritime education. Emotional intelligence is presented not as an optional skill, but as a strategic factor in creating safe, resilient, and human-centered shipboard environments.

Keywords: emotional intelligence, leadership, stress management.

1. Introduction

The maritime sector poses challenges like isolation, high demands, multicultural crews, and psychological stress. Emotional intelligence is vital for individual resilience and teamwork cohesion in this environment. Previous research has indicated that EI significantly enhances leadership performance, interpersonal communication, and collective problem-solving in high-stress and safety-critical industries.

Emotional intelligence is the ability to identify, understand, regulate, and effectively apply emotions both for oneself and in interactions with others. Emotional intelligence, defined not just as an intrinsic competence, but as a series of observable and developable behaviors, plays an essential role in the effectiveness of leaders [1]. It includes essential dimensions such as self-awareness, emotional self-regulation, intrinsic motivation, empathy, and interpersonal skills. In the maritime context, where interpersonal dynamics directly affect operational safety and crew well-being, the development and application of EI competences are essential. Recent theoretical models, such as the trait emotional intelligence framework, emphasize that emotional intelligence reflects individuals' self-perceptions about their emotional abilities, integrating it within broader personality structures [9].

This article explores the role of emotional intelligence applied to the maritime sector, focusing on its relevance for leadership positions. The article proposes strategies for strengthening emotional intelligence among seafarers. Through an integrated analysis of theoretical models and practical examples, emotional intelligence is highlighted as a key factor in promoting resilience, cooperation and

ensuring a strong safety culture on board ships. Emotional intelligence is built around five essential components that influence how a person perceives, manages and values emotions, both in their personal and professional lives.

Through self-awareness, people learn to recognize their own emotions and understand their influence on their thoughts and behaviour. This process supports personal reflection and contributes to making more balanced decisions.

Emotional self-regulation involves the ability to manage impulses and maintain appropriate behaviour, even in tense situations. This avoids impulsive or inappropriate reactions that can negatively affect relationships or work results.

Motivation directs emotional energy towards achieving goals. It fuels perseverance, maintains commitment and strengthens psychological resilience when obstacles arise.

Empathy allows understanding the emotions and perspectives of those around them. It is a key element in building relationships based on trust, respect and authentic collaboration.

Social skills are found in the way we communicate, manage relationships, and coordinate teamwork. They play an important role in maintaining a balanced, productive, and cooperative atmosphere.

2. Emotional intelligence in the maritime sector

Understanding the basic components of emotional intelligence provides a solid starting point for their application in professional environments. In the maritime domain, these components take on specific valences, influenced by operational conditions, long periods of isolation and multicultural interactions. Life on board is often marked by confined spaces, constant noise, accumulated fatigue and other stressors that amplify the emotional demands on seafarers.

Self-awareness is essential in this context. Officers, sailors and cadets must be able to recognize their emotional states and manage them effectively. Early identification of signs of fatigue, stress or irritation can prevent wrong decisions at critical moments, such as naval manoeuvres or technical interventions. Whether we are talking about short or long voyages, monitoring emotional state helps to adapt to the pace of work and frequent changes in tasks.

Self-regulation is essential for maintaining emotional balance in confined environments. Tensions between departments, cultural misunderstandings, and accumulated exhaustion may easily escalate. Noise, constant vibration, and sleep disturbances contribute to emotional overload. The ability to control frustration, anger, or anxiety ensures functional communication and supports the safety of onboard operations.

Motivation sustains performance during repetitive or physically intense duties. Extended voyages, extreme weather, and limited personal space can diminish morale. Seafarers who show intrinsic motivation complete their responsibilities diligently and contribute to team stability. Their attitude reinforces discipline and encourages perseverance among colleagues.

Empathy is fundamental in managing relationships among diverse crews. Cultural, linguistic, and religious differences may influence group dynamics. Variations in dietary preferences, communication patterns, and daily habits require understanding and flexibility. Leaders who cultivate empathy reduce interpersonal tension and promote respect, especially in multicultural teams engaged in joint activities.

Social skills facilitate collaboration across roles and ranks. Effective communication is vital for transmitting instructions clearly and avoiding errors. Language barriers or unclear expectations can compromise safety. Leaders with strong social competencies encourage open dialogue, coordinate efficiently, and mediate conflicts. These abilities are especially important on vessels with multinational crews, where cooperation depends on clarity, patience, and mutual trust.

In maritime operations, emotional intelligence is not optional. It enhances leadership capacity, supports mental resilience, and reinforces team cohesion. Applying these skills in daily work ensures better adaptation to operational stress and contributes to a safer and more effective shipboard environment.

3. Real-life examples onboard

Emotional intelligence holds particular relevance in the maritime sector, where challenging working conditions test both technical expertise and interpersonal abilities among crew members and leaders. Observations from shipboard environments indicate clear distinctions between leadership styles, emphasizing the critical role of emotional intelligence in shaping operational performance and collective well-being.

Authoritarian leadership remains prevalent in some maritime settings. In such contexts, senior officers often rely on strict discipline, neglect rest periods, and exert constant pressure on subordinates. This style, marked by low empathy and limited emotional flexibility, tends to generate interpersonal tension, fatigue, and communication breakdowns. As a result, team cohesion deteriorates, and the likelihood of operational errors increases.

In contrast, emotionally intelligent leadership produces markedly different outcomes. Leaders who practice openness, active listening, and respect for personal boundaries foster a positive work environment. By acknowledging the emotions and needs of crew members and offering support in difficult moments, they cultivate motivated and cooperative teams. These environments encourage mutual respect, strengthen group identity, and significantly reduce conflict and accident rates.

Such evidence confirms that leadership style is not merely a personal trait but a key factor in crew well-being and safety. In maritime operations, where errors can have severe consequences, emotionally intelligent leadership is a strategic imperative. Leaders who manage their own emotions and respond appropriately to others contribute to resilience, cohesion, and a safer organizational climate.

Real-world experiences on board ships demonstrate that operational success and crew well-being are intrinsically linked to the level of emotional intelligence demonstrated by leaders. In a field where psychosocial challenges are as omnipresent as technical challenges, training and cultivating emotional intelligence at all hierarchical levels is emerging as an indispensable priority for the future of maritime navigation.

4. Leadership styles comparison

Onboard ships, the leadership style adopted by officers profoundly influences crew dynamics, operational safety and the psychological well-being of personnel. In an isolated, multicultural and constantly pressured environment, the differences between authoritarian leadership and emotionally intelligent leadership become particularly evident and relevant. Studies have shown that leaders with strong emotional intelligence contribute to improved team cohesion, minimizing interpersonal conflicts, and promote both operational effectiveness and crew well-being on board. [12].

In the case of authoritarian leadership, interactions between officers and crew are predominantly carried out in an imperative tone, and communication is one-sided, focused on transmitting orders without further consultation or explanation. The emotions and personal needs of seafarers are often neglected, leading to the accumulation of tension, low morale, and the appearance of symptoms of stress and burnout. Without a space for emotional expression or adequate psychological support, crew members become more vulnerable to internal conflicts, demotivation, and operational errors, which can directly affect navigational safety.

The use of leadership based on emotional intelligence in this environment contributes to the creation of a work environment in which communication is open and respectful, and emotions are recognized as legitimate factors influencing performance. This approach is also supported by empirical studies, which show that emotional intelligence is positively correlated with transformational leadership, creativity, and performance [10]. Officers who actively listen, validate the emotional experiences of the crew, and provide appropriate support are able to maintain crew cohesion and reduce the perceived level of stress. Research shows that these behaviors are closely correlated with effective transformational leadership and are directly influenced by emotional intelligence skills such as relationship management and social awareness [6].

On board ships, where close cooperation is essential for daily and complex operations, emergency response, or navigation in difficult conditions, empathetic leadership strengthens mutual trust and increases collective effectiveness.

This difference between leadership styles is not purely theoretical, but has significant practical consequences for the mental health of the crew, the quality of interpersonal relationships, and the retention rate of personnel on board. This perspective is supported by empirical research showing that emotional intelligence significantly moderates the impact of leadership style on organizational performance. Specifically, emotionally intelligent leaders are better equipped to leverage transformational approaches, resulting in improved outcomes such as employee engagement, task effectiveness, and operational productivity [3].

Table 1. Comparative Analysis of Leadership Styles and Their Effects on Maritime Crews

Characteristics	Authoritarian leadership	Emotionally intelligent leadership
Communication style	Order imposed without explanation, minimal feedback	Open dialogue, active listening, constructive feedback
Management of emotions	Ignoring signs of stress, repressing emotions	Recognizing and managing individual and collective emotions
Crew motivation	Through sanctions or fear of authority	Through encouragement, support and intrinsic motivation
Conflict resolution	Through the application of hierarchical authority	Through empathy, negotiation and collaborative resolution
Impact on morale	Apathy, demotivation, increased risk of isolation	Increased sense of belonging and collective commitment
Operational performance	Increased vulnerability to errors and accidents	High response capacity in critical situations, superior operational efficiency

The autocratic leadership style, although frequently adopted by young naval officers, can become ineffective and even detrimental to crew morale outside of emergency situations [13].

5. Impact on mental health and safety

Transformational leadership grounded in emotional intelligence is essential for maintaining a stable and collaborative working environment on board ships. In maritime contexts, seafarers operate under a wide range of stress-inducing conditions. Stressors specific to the maritime environment include navigation in congested areas and heavy traffic, navigation in areas with a risk of piracy or maritime terrorism, special hydro-meteorological conditions, prolonged fatigue and the use of equipment on board ships. The transport of dangerous goods or the application of rigorous operational protocols can further accentuate the state of tension and stress. In such contexts, the role of the leader on board the ship becomes essential for maintaining both emotional and operational balance. Recent studies have shown that the leader's emotional intelligence has a mediating role between the transformational leadership style and the level of employee involvement, emphasizing that, in the absence of the development of this skill, the positive effects of leadership on the team are considerably reduced [8].

The leadership style adopted at sea directly influences the emotional balance and performance of the crew. Emotional intelligence allows leaders to identify early signs of stress, create a climate of psychological safety, prevent communication breakdowns, and even break a chain of errors with serious consequences. Leaders who are aware of their own emotions and are receptive to those of others can mitigate the effects of accumulated fatigue, cultural misunderstandings, and tensions generated by differences in responsibilities between officers, sailors, and cadets.

Authoritarian leadership, based on strict control, reduced empathy, and punitive communication, often contributes to increased psychological pressure. In rigid structures, crew members may avoid expressing their emotional discomfort or reporting safety concerns for fear of sanctions. This silence can lead to

poor decisions and increased vulnerability to accidents. Documented maritime incidents have highlighted that lack of effective communication, conflicts between departments, and uncontrolled emotional reactions are factors that frequently contribute to operational failures.

In contrast, leaders with emotional intelligence act as stabilizing factors. Through empathy, active listening, and open communication, they manage to maintain trust and cohesion within culturally diverse teams. In high-pressure situations (navigating through crowded straits, responding to emergencies, or operating in areas at risk of piracy), these leaders reduce perceived stress and strengthen the emotional resilience of the crew. Their willingness to listen and their constant support encourage collaboration, even in difficult conditions. By creating a psychologically safe environment, emotionally intelligent maritime leaders improve engagement, reduce conflict, and help crews remain focused and coordinated. This leadership style does not only enhance performance but also plays a preventive role against accidents and organizational dysfunction. In the demanding and unpredictable environment of maritime operations, emotional intelligence becomes a key resource for leadership effectiveness and team cohesion.

In contrast, emotionally intelligent leadership acts as a protective factor. Supportive behaviors, active listening, and constructive conflict resolution reduce perceived stress and enhance crew resilience. Leaders who foster open communication help create a climate of trust and collaboration, especially during crises.

Such leaders demonstrate key competencies including empathy, conflict management, and the ability to inspire others. These skills are essential for building strong, adaptive, and high-performing maritime teams [5].

In the maritime environment, where rapid decision-making and effective cooperation are vital, the impact of leadership on the emotional health and functionality of the crew cannot be underestimated. An inappropriate leadership style not only affects the working atmosphere but can have serious consequences for human lives and the operational integrity of the ship.

Developing emotional intelligence skills among maritime leaders is not just an organizational improvement initiative, but a real necessity for safety on board. Preventing internal dysfunction, supporting the mental health of the crew and reducing the risk of accidents directly depend on the quality of leadership exercised on board the ship.

Effective leadership in the maritime environment requires adaptability, and the leadership style must be adjusted according to the situation the crew is facing. While leadership based on emotional intelligence brings significant benefits in terms of team cohesion and individual resilience, there are also critical moments when an authoritarian style becomes not only justified, but essential for everyone's safety. Such situations include moments of major crisis: imminent collisions, fires on board, serious equipment failures or ship abandonment. In these cases, there is no time for deliberation or consultation. The leader must give clear, rapid instructions, and the crew must follow them without delay. Any hesitation or lack of clarity can amplify the risk and lead to human losses or loss of operational control.

In such contexts, an authoritarian leadership allows for quick decision-making, immediate synchronization of crew actions and limiting confusion or operational chaos.

On the other hand, in routine activities, during long voyages, in coordinating multicultural crews or in managing internal conflicts, leadership based on emotional intelligence provides the best results. Active listening, empathy, positive motivation and attention to the emotional needs of the crew contribute to reducing chronic stress, strengthening involvement and preventing errors generated by human factors. Such leadership fosters a climate of trust and mutual respect. This is essential for maintaining cohesion in high-pressure maritime environments. It also strengthens collective psychological resilience, allowing teams to adapt more effectively to operational demands. Furthermore, emotionally intelligent practices improve communication and collaboration on board, contributing to a more efficient and harmonious work atmosphere.

Table 2. Advantages and disadvantages of each style in the maritime context

Characteristic	Authoritarian leadership	Emotionally intelligent leadership
Advantages	Quick decisions in emergency situations Firm control in critical conditions Clearness in the distribution of tasks	-Increased morale and cohesion of the crew Effective management of stress and conflicts Improvement of safety through open communication
Disadvantages	Risk of long-term alienation and demotivation Limiting open communication Possibility of escalating psychological stress	Risk of delaying decisions in emergency situations Possibility of relativizing authority in critical moments Requires a high level of emotional maturity of the leader

In the complex reality of the maritime environment, effective leadership is not based on the rigid application of a single style, but on the ability to alternate between different approaches, depending on the context. Effective maritime leaders know how to impose firm authority in moments of crisis, but also to rebuild relationships through empathy and active listening, once the danger has passed. This ability to alternate firm leadership style with openness is the basis of balanced and sustainable leadership on board ships.

Developing a situational intelligence in maritime leadership, which allows the strategic use of authoritative and emotional elements, is essential for improving operational performance and protecting the psychological health of the crew in the long term.

These conclusions are consistent with previous research that has shown that emotional intelligence contributes significantly to the success of projects, through its mediating role between transformational leadership and organizational commitment of leaders [4].

Figure 1 illustrates the decision-adaptive flow for leadership aboard ships, highlighting how leaders need to alternate between authoritarian styles and approaches based on emotional intelligence, depending on the nature of the operational situation.

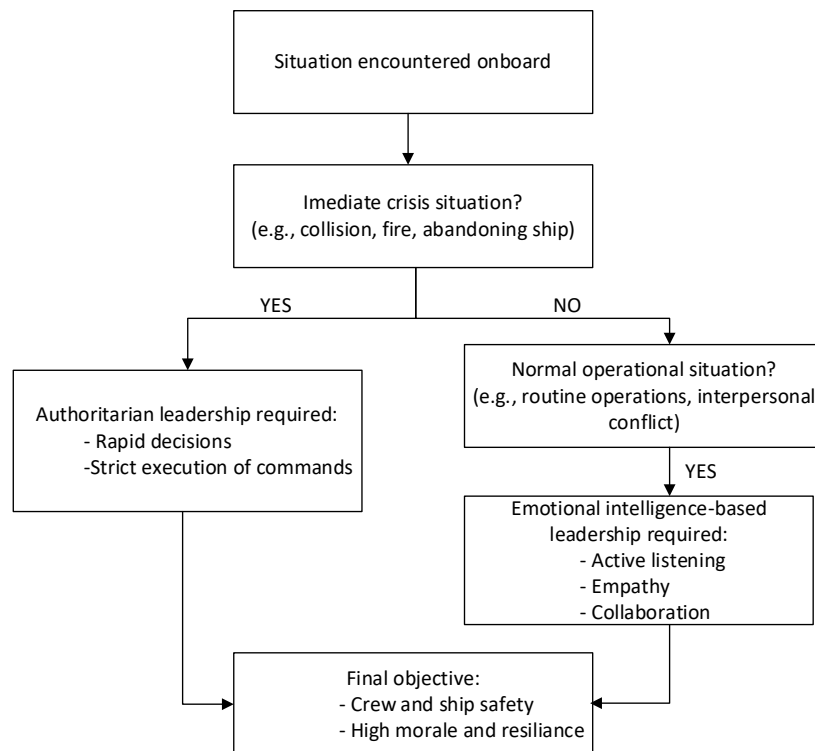


Fig. 1 Decision-making model for adaptive leadership in maritime operations.

6. Strategies for developing emotional intelligence onboard ships

Developing emotional intelligence (EI) in maritime settings is essential for promoting safety, cohesion, and effective performance onboard. Maritime work is often marked by prolonged isolation, cultural diversity, and continuous operational stress. In this context, structured efforts to enhance emotional competence can significantly improve crew dynamics and psychological well-being.

Emotional self-awareness is a fundamental aspect of EI. In high-stress environments, personal perception can be affected. Encouraging practices such as keeping a personal journal, reflecting on emotional reactions, and participating in guided reflection sessions during training can enhance self-regulation and reduce impulsive behaviours that may compromise safety.

Active listening is equally important in maintaining effective communication, particularly in multicultural crews. Avoiding interruptions, listening attentively, and responding empathetically are key skills that help reduce misunderstandings and prevent conflicts. Leadership training should include listening exercises conducted under stress to build resilience in communication.

Cultural empathy plays a vital role in diverse teams. Informal discussions about traditions, values, and experiences foster understanding and reduce prejudice. Including modules on cultural diversity in maritime training further equips leaders to handle emotional and cultural differences effectively.

Constructive feedback mechanisms also support the development of emotional competence. Organizing regular feedback sessions in a respectful environment allows both officers and ratings to reflect on behaviour and emotional responses. This strengthens interpersonal relations and promotes a culture of trust and learning.

Specific activities designed to enhance EI onboard can reduce interpersonal tensions, improve teamwork, and increase psychological resilience. These may be initiated formally by the company or informally by the crew. A combined approach, adapted to the specific needs of each team, offers the best results.

Training sessions focused on emotional intelligence and intercultural communication help strengthen social and emotional skills. Topics such as stress management, empathy, and collaboration in diverse

teams should be included. These initiatives align with recent proposals to improve MCRM training by incorporating resilience and adaptability as core components. Sessions can be held onboard or online.

Regular meetings dedicated to emotional reflection and providing guided feedback help to build trust and increase self-awareness among crew. Mentoring programs, through which experienced members support newcomers, facilitate professional and emotional integration, reducing feelings of isolation, especially on first voyages.

Emergency response exercises can include components related to the emotional reactions of the crew. This approach helps seafarers better manage stress in real crisis conditions. Access to external psychological support platforms or mindfulness resources helps to strengthen emotional autonomy, especially during long voyages.

In parallel with these formal initiatives, informal activities initiated by crew members also play a significant role. Personal journals, for example, provide a discreet way to process daily emotions. Intercultural discussions held outside of working hours encourage empathy and help prevent tensions generated by cultural differences. Support systems between colleagues, such as “buddy systems”, facilitate the monitoring of well-being and provide support in difficult times. Recreational and role-playing activities support communication and collaboration in a natural way, strengthening group cohesion.

Support for maritime companies in developing emotional intelligence on board is essential. Integrating these skills into professional training programs, promoting emotional well-being and ensuring access to specialized mental health resources can prevent the emergence of psychosocial dysfunctions. In addition, such measures contribute to reducing staff turnover and increasing operational safety. Figure 2 illustrates the main ways to develop emotional intelligence on board ships, differentiated between formally organized activities and informal initiatives, highlighting their common impact on crew psychological resilience, group cohesion and operational safety.

In a field where success depends on the balance between technical and interpersonal skills of personnel, strategic investment in the development of emotional intelligence becomes an essential element for the sustainability and competitiveness of the maritime sector.

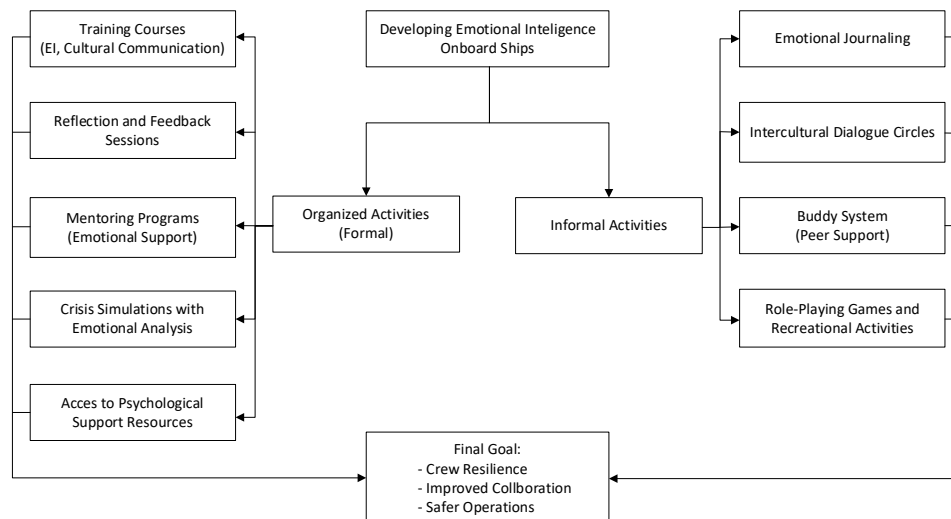


Fig. 2 Structured and Informal Strategies for Developing Emotional Intelligence Onboard Ships

To support the continuous development of emotional intelligence skills of personnel working in the maritime sector, it is essential to apply methods that allow for the systematic assessment of the level of EI among leaders and crew members. Standardized tools, such as emotional intelligence self-assessment questionnaires (e.g., EQ-i 2.0, Schutte Self-Report Emotional Intelligence Test) can be adapted and used within training programs or periodic assessment on board. Training programs should address the development of emotional intelligence skills to prepare leaders for the complex social environments

they will encounter at sea [1]. One validated instrument includes a 30-item multidimensional scale that assesses empathic response, mood regulation, interpersonal skills, internal motivation, and self-awareness — key competencies for working in isolated and multicultural teams such as those in maritime contexts [2]. These tools allow the identification of strengths and areas for individual development in areas such as self-awareness, self-regulation, empathy and social skills. In parallel, reflective self-assessment sessions can be organized, in which crew members analyse their recent emotional experiences and their ability to manage difficult situations. In addition, multi-source feedback (360° feedback), obtained from superiors, colleagues and subordinates, can provide an objective picture of the emotional skills manifested in everyday professional life. The integration of these assessment methods contributes not only to monitoring individual progress, but also to underpinning personalized development interventions, essential for building resilient and collaborative crews.

Although the strategies proposed for developing emotional intelligence on board ships are theoretically and practically sound, it is important to recognize certain limitations of the current approach, as well as the need for further research in this area.

7. Limitations and future research directions

This paper is predominantly theoretical in nature, proposing a conceptual analysis of the importance of emotional intelligence in the maritime environment, without including empirical data resulting from applied research. A relevant approach for future studies is the assessment of the level of emotional intelligence both among cadets undergoing practical training on board ships, and in the case of master's students who already hold leadership positions as officers. The use of validated instruments for measuring emotional intelligence, such as the EQ-i 2.0 questionnaires or the Schutte Self-Report Emotional Intelligence Test (SSEIT), can allow obtaining relevant quantitative data on the socio-emotional competencies of these two categories of future and current maritime leaders.

A comparative study between undergraduate students undergoing practical training and master students with operational leadership experience would provide valuable insight into how direct exposure to real responsibilities on board influences the development of emotional intelligence. Future empirical research is essential to validate the proposed theoretical models, quantify the impact of emotional intelligence development on crew performance, and inform educational and organizational programs dedicated to this area.

A valuable contribution in this regard is a recent study that analyzed the level of emotional intelligence among third-year cadets at the Jakarta Maritime Institute. The results highlighted significant correlations between emotional intelligence and academic self-assessment, professional competencies, and intrinsic motivations of cadets, suggesting that the development of EI can support both academic performance and preparation for assuming leadership roles in the maritime field. These findings reinforce the need to expand empirical research to other maritime institutions, in order to substantiate and adapt dedicated educational interventions [11].

Such data could underpin the improvement of educational curricula in naval academies and the adaptation of continuing education programs for officers, through the systematic integration of emotional skills development modules, depending on the level of experience and the specific needs of each professional category.

Conclusion

In the context of a constantly evolving maritime sector, shaped by technological innovation and increasingly complex social dynamics on board, emotional intelligence has become a fundamental skill for ensuring operational safety, crew efficiency, and organizational sustainability. It is no longer sufficient for seafarers to master technical procedures; they must also demonstrate emotional resilience, interpersonal empathy, and the ability to navigate multicultural and high-pressure environments.

Life at sea often involves isolation, stress, and intercultural challenges. In such conditions, the ability of both leaders and crew members to recognize, understand, and regulate their own emotions, and to

respond appropriately to the emotions of others, can make the difference between cohesion and conflict, or between operational success and breakdown. Leadership grounded in emotional intelligence contributes to conflict prevention, psychological well-being, and collective performance.

Incorporating emotional intelligence into maritime leadership training is now a strategic necessity. Training programs, whether initial or continuous, must address not only technical and procedural topics but also emotional competencies such as self-awareness, empathy, communication, and cultural sensitivity. At the same time, shipping companies must promote an organizational culture that values and develops emotional intelligence as an essential component of safe and effective operations.

Sustained investment in emotional competence leads to stronger crew retention, fewer operational incidents, and improved organizational reputation. These benefits are vital in a competitive and safety-sensitive industry.

Ultimately, the future of maritime navigation will depend not only on ships and systems but on the emotional capacity of those who operate them. Onboard leadership must be able to recognize situational demands and apply leadership styles flexibly and appropriately. In this sense, emotional intelligence is not an optional trait; it is an operational requirement and a cornerstone of responsible and adaptive leadership at sea.

References

1. Boyatzis RE. The behavioural level of emotional intelligence and its measurement. *Front Psychol.* 2018;9:1438. doi:10.3389/fpsyg.2018.01438.
2. Carson KD, Carson PP, Birkenmeier BJ. Measuring emotional intelligence: Development and validation of an instrument. *Int J Manag.* 2016;33(1):14–24.
3. Desai D, Srivastava M. Emotional intelligence—the moderator of leadership styles and performance. *NMIMS Manag Rev.* 2017;33:34–46.
4. Doan TTT, Nguyen TTM, Nguyen TDN. Emotional intelligence and project success: The roles of transformational leadership and organizational commitment. *J Asian Finance Econ Bus.* 2020;7(3):223–233. doi:10.13106/jafeb.2020.vol7.no3.223.
5. Goleman D, Boyatzis RE. Emotional intelligence has 12 elements. Which do you need to work on? *Harv Bus Rev.* 2017 Feb 6. Available: <https://hbr.org/2017/02/emotional-intelligence-has-12-elements-which-do-you-need-to-work-on>.
6. Görgens-Ekermans G, Roux C. Revisiting the emotional intelligence and transformational leadership debate: (How) does emotional intelligence matter to effective leadership? *SA J Hum Resour Manag.* 2021;19:a1279. doi:10.4102/sajhrm.v19i0.1279.
7. Griffioen J, van der Drift M, van den Broek H. Enhancing maritime crew resource management training by applying resilience engineering: A case study of the Bachelor Maritime Officer Training Programme in Rotterdam. *Educ Sci.* 2021;11(8):378. doi:10.3390/educsci11080378.
8. Milhem M, Muda H, Ahmed K. The effect of perceived transformational leadership style on employee engagement: The mediating effect of leader's emotional intelligence. *Found Manag.* 2019;11(1):33–46. doi:10.2478/fman-2019-0003
9. Petrides KV, Mikolajczak M, Mavroveli S, Sanchez-Ruiz MJ, Furnham A, Pérez-González JC. Developments in trait emotional intelligence research. *Emot Rev.* 2016;8(4):335–341. doi:10.1177/1754073916650493.
10. Rahman MS, Ferdausy S, Al-Amin M, Akter R. How does emotional intelligence relate to transformational leadership, creativity, and job performance? *Soc Sustain.* 2020;2(1):1–15. doi:10.38157/society_sustainability.v2i1.64.
11. Simanjuntak MB. Exploring emotional intelligence in Semester 3 cadets at Maritime Institute Jakarta: Implications for maritime management and education. *Semantik.* 2024;2(1):131–141. doi:10.61132/semantik.v2i1.259.
12. Valeriu D. The significance of emotional intelligence in transformational leadership for public universities. *EuroMentor J.* 2017;8(1):35–48.

13. Xhelilaj E, Sakaj B. A review of leadership behaviour of maritime officers in international shipping. *Sci J Marit Res.* 2018;32:76–79.