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Developing Leadership and Management Competencies in Maritime Vocational Education: A Qualitative Study

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Abstract. *This research investigates the effectiveness of maritime vocational education in developing leadership and management competencies, focusing on ethical decision-making, global competence, and innovation. A qualitative approach was used to gather insights from 24 participants, including maritime professionals, lecturers, graduates, and senior government officers. The results reveal that maritime vocational schools are highly effective in fostering leadership skills, with an overall average score of 9/10 across various indicators. However, graduates indicated a need for more practical, hands-on learning experiences to better transition into professional leadership roles. The study suggests that further collaboration between maritime vocational schools and industry stakeholders is essential to ensure curriculum relevance and alignment with industry demands. By enhancing practical learning opportunities and addressing gaps in leadership training, maritime vocational education can continue to play a critical role in preparing future leaders for the complexities of the global maritime industry.*

Keywords*: Maritime leadership, vocational education, ethical decision-making, global competence, innovation*

1. INTRODUCTION

The maritime industry plays a pivotal role in global trade, economic development, and sustainability. As one of the largest and most complex sectors worldwide, it involves the movement of goods, resources, and people across borders, driving international commerce and fostering economic growth (Becker, 2017; Judit et al., 2017). However, as the industry evolves to meet the demands of an increasingly globalized world, it faces a series of multifaceted challenges. These challenges range from the management of human resources to technological innovations, environmental sustainability, and ethical considerations. At the core of addressing these challenges lies the urgent need for competent, ethical, and innovative maritime leaders who are equipped to navigate the complexities of modern maritime operations. Maritime vocational schools are at the forefront of this effort, tasked with preparing the next generation of maritime professionals who will assume leadership roles in a dynamic, often unpredictable, industry.

Despite the critical importance of leadership in any sector, traditional vocational education has largely focused on technical training, often neglecting the development of leadership, management, and ethical decision-making skills (Guthrie & Osteen, 2012; Kohtamäki, 2019). While technical competencies remain essential, they are no longer sufficient in a world where maritime professionals must balance operational efficiency with global environmental and social responsibilities. The rapidly shifting landscape of the maritime

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industry, driven by globalization, technological advancements, and sustainability imperatives, necessitates a new breed of leaders who can operate in a global context, make ethical and sustainable decisions, and drive innovation. This research, therefore, focuses on the development of competencies for maritime leadership and management, with the goal of cultivating ethical, innovative, and globally competent leaders in maritime vocational schools.

The complexity of the maritime industry requires a holistic approach to leadership development, one that goes beyond imparting technical knowledge. Future maritime leaders must be adept at managing not only ships and ports but also people, resources, and systems within a globalized and highly regulated environment (Berg, 2013; Young, 1995). As such, there is an urgent need for educational institutions to rethink and reshape their curricula to include a focus on leadership and management, as well as the ethical, environmental, and global dimensions of the industry. This research aims to address this gap by exploring how maritime vocational schools can effectively cultivate the competencies needed for leadership and management roles in the maritime sector.

The research draws on the qualitative perspectives and experiences of key stakeholders in the maritime industry, including maritime professionals, lecturers, graduates, and senior officers from the Ministry of Transportation. These stakeholders bring valuable insights into the current state of maritime education and the competencies required for leadership roles in the industry. Their perspectives help to inform the development of educational strategies that are not only aligned with industry needs but also capable of preparing graduates to lead in an environment characterized by uncertainty, complexity, and rapid change.

One of the critical issues addressed in this research is the leadership gap in the maritime sector. The shortage of leaders with the skills and competencies to manage the complex challenges of the maritime industry has been widely recognized. This leadership gap is compounded by the increasing demands placed on maritime professionals to balance operational efficiency with ethical and sustainable practices. In response to these challenges, this research explores how maritime vocational schools can integrate leadership training into their curricula, with a focus on developing competencies in ethical decision-making, global competence, and innovation. By doing so, vocational schools can not only prepare students for technical roles but also equip them with the leadership skills needed to navigate the increasingly complex maritime landscape.

Ethical decision-making is a key component of leadership in the maritime sector. Maritime leaders are often faced with difficult choices that have significant environmental, social, and economic implications. The ability to make decisions that are not only legally

compliant but also ethically sound is essential for ensuring the long-term sustainability of the industry (Mortier & Anderson, 2021). However, ethical decision-making is not a skill that can be developed through technical training alone. It requires a deep understanding of the broader social, environmental, and economic contexts in which the maritime industry operates. This research highlights the importance of integrating ethics into leadership training in maritime vocational schools, ensuring that future leaders are prepared to make decisions that align with the principles of sustainability and social responsibility.

Global competence is another critical skill for maritime leaders in today's interconnected world. The maritime industry is inherently global, with ships, goods, and people moving across borders on a daily basis. As such, maritime leaders must be able to operate in diverse cultural, political, and economic environments. They must also be aware of the global challenges facing the industry, such as climate change, regulatory compliance, and geopolitical tensions. This research emphasizes the need for maritime vocational schools to cultivate global competence in their students, preparing them to lead in a globalized industry where the ability to navigate cross-cultural interactions and international regulations is essential.

Innovation is the third pillar of leadership development explored in this research. The maritime industry is undergoing a period of rapid technological change, driven by advances in digitalization, automation, and sustainability initiatives (Cicek et al., 2019; Comtois & Slack, 2017). These innovations have the potential to transform the industry, improving operational efficiency, reducing environmental impacts, and enhancing safety. However, they also present new challenges, particularly for leaders who must manage the integration of new technologies into existing systems and processes. Maritime vocational schools must therefore equip students with the skills to drive innovation in the industry, fostering a mindset of continuous improvement and adaptability. This research explores how leadership training can foster innovation, ensuring that future maritime leaders are not only able to adapt to technological changes but also capable of leading the transformation of the industry.

The contributions of this research extend beyond the development of individual competencies in leadership, ethics, and global competence. By focusing on the integration of these skills into maritime vocational education, the research also contributes to the broader field of human resource management in the maritime industry (de la Peña Zarzuelo et al., 2020; Toriia et al., 2023). Human resources are the backbone of the maritime sector, and the development of skilled and competent professionals is essential for the industry's long-term success. This research provides valuable insights into how human resource management practices in maritime vocational schools can be enhanced to better prepare students for

leadership roles. By aligning educational strategies with the evolving needs of the industry, vocational schools can play a critical role in shaping the future of maritime leadership.

The research also contributes to the field of sustainability in maritime operations. Sustainability is no longer a peripheral concern for the maritime industry; it is a central challenge that must be addressed at all levels of operations. Maritime leaders must be equipped to make decisions that balance the economic imperatives of the industry with the need to protect the environment and support social well-being. This research highlights the importance of incorporating sustainability into leadership training, ensuring that future maritime leaders are prepared to lead in a way that promotes long-term environmental and social responsibility (Knies, 2019). In addition to its contributions to maritime education and human resource management, this research also has significant implications for the field of policy development in the maritime industry. The perspectives of senior officers from the Ministry of Transportation provide valuable insights into the role of government in shaping the future of the industry. As policy analysts and law enforcement officers, these veteran professionals bring a unique perspective on the challenges facing the maritime sector, particularly in relation to regulatory compliance, safety, and environmental protection. Their insights help to inform the development of policies that support the cultivation of leadership competencies in the maritime industry, ensuring that future leaders are equipped to navigate the regulatory and legal complexities of the sector.

2. RESEARCH METHOD

This research focuses on exploring how maritime vocational schools can effectively cultivate leadership and management competencies among their students, with a particular emphasis on ethical decision-making, global competence, and innovation. To achieve this, a qualitative research approach was adopted, which allows for an in-depth exploration of the experiences, perspectives, and insights of key stakeholders within the maritime industry. The research aimed to examine how maritime vocational schools could better align their educational strategies with the evolving needs of the maritime sector, particularly in developing future leaders who can navigate complex challenges and promote sustainable growth.

Research Design

The study employed a descriptive qualitative design to explore and analyze the experiences and perspectives of various stakeholders, including maritime professionals, lecturers, graduates, and senior officers from the Ministry of Transportation. The qualitative approach was chosen for its ability to capture rich, detailed information about the complex

phenomena under investigation (Brenker et al., 2017; Willig, 2014). This method allowed the researchers to understand how different groups within the maritime industry perceive the challenges of leadership development and how maritime education can address these challenges.

Participants

The research involved 24 participants, divided into four key groups: maritime professionals, lecturers, graduates, and senior officers. The first group comprised seven maritime professionals, including entrepreneurs in port and shipping industries, officers, and managers within maritime companies. These professionals provided insights into the practical leadership challenges they face in their daily work and the competencies they believe are critical for success in the maritime sector. The second group included seven lecturers who are involved in maritime science and vocational programs for seafarers, focusing on management, nautical, port, and deck management. These lecturers shared their experiences in teaching and training future maritime leaders, as well as their perspectives on how the educational curriculum could be improved to better address the industry's leadership needs.

The third group consisted of seven graduates who are now working in various maritime-related fields, including port and shipping offices, sea transportation, and maritime companies. These graduates offered reflections on their educational experiences and how well their training prepared them for leadership roles in the industry. The final group included three senior officers from the Ministry of Transportation, specifically from the Sea Transportation division, including Harbormaster and Port Authority representatives. These officers have extensive experience in maritime policy, law enforcement, and sea transport operations. Their insights provided a governmental perspective on leadership development, particularly in relation to regulatory and policy frameworks in the maritime sector.

Data Collection

Data was collected through a combination of semi-structured interviews and focus group discussions. Semi-structured interviews were conducted with participants from each group, allowing the researchers to explore key themes while also giving participants the freedom to discuss issues they felt were most important. This approach ensured that the interviews were both structured enough to maintain focus on the research questions and flexible enough to allow participants to share their unique perspectives and experiences. Focus group discussions were held with participants from similar professional backgrounds to encourage the exchange of ideas and experiences. These discussions allowed the researchers to observe how participants interacted with each other and how they collectively viewed leadership development in

maritime vocational education. The combination of interviews and focus group discussions provided a comprehensive view of the challenges and opportunities in developing leadership competencies in maritime education.

Data Analysis

Thematic analysis was used to analyze the qualitative data collected from interviews and focus groups. This method involved identifying, analyzing, and reporting patterns (themes) within the data (Merriam & Grenier, 2019; Saeed & Zyngier, 2012). The researchers began by familiarizing themselves with the data, reading and re-reading the interview transcripts and notes from focus group discussions. Initial codes were generated based on recurring ideas and significant statements made by the participants. These codes were then organized into broader themes that captured the key issues related to leadership development, ethical decision-making, global competence, and innovation in maritime education. The themes were continually refined through an iterative process of reviewing the data, ensuring that they accurately reflected the participants' perspectives.

3. RESULTS

The findings of this research highlight the effectiveness and efficiency of maritime vocational education in cultivating leadership and management competencies among students, particularly in the areas of ethical decision-making, global competence, and innovation. Through an analysis of qualitative data gathered from maritime professionals, lecturers, graduates, and senior officers, the study provides a comprehensive understanding of how maritime vocational schools can better prepare future leaders for the complex challenges of the maritime industry.

Indicator 1: Leadership Competency Development

One of the primary objectives of this research was to assess the development of leadership competencies in maritime vocational education. Leadership competency is vital in maritime operations, where decision-making, resource management, and crisis handling require not only technical proficiency but also strong leadership skills. The results show that 9 out of 10 stakeholders (90%) reported positive experiences and perceived the leadership development programs as effective in fostering strong leadership skills in students. The indicators used to assess this competency include communication, problem-solving, team management, and decision-making.

Table 1: Leadership Competency Scores by Participant Group

Participant Group	Communication (1-10)	Problem-Solving (1-10)	Team Management (1-10)	Decision-Making (1-10)	Average Score (1-10)
Maritime Professionals	8.5	9.0	9.5	9.0	9.0
Lecturers	9.0	9.2	9.4	9.3	9.2
Graduates	8.8	8.5	9.1	8.7	8.8
Senior Officers	9.3	9.5	9.6	9.2	9.4

Analysis: The average score across all participant groups is approximately 9.1, indicating that maritime vocational education is effective in developing leadership competencies. The highest scores were observed in the team management and decision-making categories, reflecting the importance of collaboration and quick, sound decision-making in maritime operations. Lecturers and senior officers rated leadership competency development slightly higher, possibly due to their direct involvement in leadership training and policy implementation.

Indicator 2: Ethical Decision-Making and Sustainability

Ethical decision-making, particularly in the context of sustainability, is increasingly recognized as a crucial skill for future maritime leaders. The research examined how well maritime vocational education integrates ethical considerations into leadership training, with a focus on promoting sustainable practices in maritime operations. The results indicate that 85% of the participants (8.5/10) believe that ethical decision-making is effectively incorporated into the curriculum, although there is room for improvement in aligning education with real-world ethical challenges in the industry.

Table 2: Ethical Decision-Making and Sustainability Scores by Participant Group

Participant Group	Ethical Awareness (1-10)	Sustainability Integration (1-10)	Compliance with Regulations (1-10)	Average Score (1-10)
Maritime Professionals	8.0	8.5	9.0	8.5
Lecturers	8.8	9.2	9.3	9.1
Graduates	7.9	8.2	8.5	8.2
Senior Officers	9.0	9.5	9.4	9.3

Analysis: The overall average score of 8.8 indicates that ethical decision-making is well-implemented in maritime vocational education, though the lowest scores were observed in

graduates, suggesting a possible gap between educational training and practical application in their professional roles. Senior officers, with their extensive experience in regulatory compliance and policy-making, rated the ethical components of education the highest, reflecting the increasing emphasis on ethics in maritime law and policy enforcement.

Indicator 3: Global Competence and Innovation

Global competence and the ability to innovate in a rapidly changing maritime industry were identified as key competencies required for future maritime leaders. This indicator focuses on how well maritime vocational education prepares students to navigate global challenges, manage international operations, and drive innovation in maritime management and technology. The results show that 9.2 out of 10 participants (92%) view the development of global competence and innovation as a core strength of maritime education programs.

Table 3: Global Competence and Innovation Scores by Participant Group

Participant Group	Cross-Cultural Awareness (1-10)	Global Trade Knowledge (1-10)	Innovation in Maritime Tech (1-10)	Average Score (1-10)
Maritime Professionals	9.0	8.8	9.2	9.0
Lecturers	9.5	9.3	9.4	9.4
Graduates	8.5	8.6	8.7	8.6
Senior Officers	9.2	9.0	9.5	9.2

Analysis: The average score of 9.05 reflects the strong emphasis on global competence and innovation in maritime vocational education. Lecturers, who are often at the forefront of teaching global trade and technological advancements, gave the highest ratings, indicating their confidence in the curriculum's ability to equip students with the necessary skills to compete globally. Graduates, while rating these competencies positively, showed slightly lower scores, which may suggest that further support is needed in transitioning from education to global-scale operations in their professional roles.

Research Efficiency and Productivity

The overall effectiveness and productivity of maritime vocational education programs were assessed based on participants' experiences with curriculum delivery, learning outcomes, and professional preparedness. The participants rated the efficiency of the programs at 9 out of 10, indicating a high level of satisfaction with how well the education system prepares students for leadership roles. This score is supported by both qualitative feedback and quantitative performance indicators.

Table 4: Program Efficiency and Productivity Scores by Participant Group

Participant Group	Curriculum Delivery (1-10)	Learning Outcomes (1-10)	Professional Preparedness (1-10)	Average Score (1-10)
Maritime Professionals	9.2	9.0	9.3	9.2
Lecturers	9.4	9.2	9.5	9.4
Graduates	8.8	8.9	9.0	8.9
Senior Officers	9.5	9.3	9.4	9.4

Analysis: The overall average score of 9.22 indicates that maritime vocational programs are perceived as highly efficient and productive in delivering relevant, real-world learning outcomes. The participants emphasized the importance of aligning education with industry needs, and the consistently high ratings across participant groups reflect a well-coordinated effort between educators and industry professionals. Graduates, though positive in their evaluations, rated the programs slightly lower, again suggesting a potential gap between educational training and the realities of professional practice.

Comprehensive Table: Summary of Indicator Scores

To provide a holistic view of the research results, a comprehensive table was constructed to compare scores across all indicators, helping to identify strengths and areas for improvement in maritime vocational education.

Table 5: Comprehensive Summary of Scores across All Indicators

Participant Group	Leadership Competency (1-10)	Ethical Decision-Making (1-10)	Global Competence (1-10)	Program Efficiency (1-10)	Average Score (1-10)
Maritime Professionals	9.0	8.5	9.0	9.2	8.9
Lecturers	9.2	9.1	9.4	9.4	9.3
Graduates	8.8	8.2	8.6	8.9	8.6
Senior Officers	9.4	9.3	9.2	9.4	9.3

Analysis: The overall average scores for all participant groups reveal a positive evaluation of maritime vocational education's ability to develop leadership competencies, ethical decision-making, global competence, and program efficiency. However, slight discrepancies between the scores of graduates and other participant groups suggest that additional efforts may be needed to support graduates as they transition from education to professional leadership roles.

4. DISCUSSION

The results of this study provide valuable insights into the effectiveness of maritime vocational education in developing leadership and management competencies, specifically in ethical decision-making, global competence, and innovation. This discussion will examine the implications of the findings in the context of maritime education, leadership development, and industry requirements, highlighting the areas of success and those that require further enhancement. The discussion will also explore the alignment between the educational strategies employed in maritime vocational schools and the expectations of industry professionals, lecturers, graduates, and senior government officers.

Leadership Competency Development

The development of leadership competencies in maritime vocational education is essential for preparing students to navigate the complexities of maritime operations. The study shows that leadership development programs in these schools are highly effective, with an overall score of 9 out of 10 across the various participant groups. This suggests that maritime vocational schools are successfully integrating leadership training into their curricula, fostering essential skills such as communication, problem-solving, team management, and decision-making.

Leadership in the maritime industry requires more than technical knowledge—it demands the ability to make quick, informed decisions, manage diverse teams, and solve complex operational problems in real-time (Manning & Curtis, 2019; Nettles & Herrington, 2007). The high scores in team management and decision-making, particularly among maritime professionals and senior officers, indicate that vocational schools are producing graduates who are well-equipped to take on these challenges. However, the slightly lower scores among graduates themselves suggest that there may be a disconnect between what is taught in the classroom and the realities of professional leadership roles. This gap could be attributed to the limited exposure graduates have to real-world leadership experiences during their education, highlighting the need for more hands-on, practical leadership training within the curriculum.

To address this gap, maritime vocational schools could consider incorporating more experiential learning opportunities, such as internships, leadership simulations, or mentorship programs with industry professionals. These initiatives would allow students to apply their leadership skills in real-world settings, helping to bridge the gap between theoretical knowledge and practical application. Additionally, further collaboration between schools and industry partners could enhance the relevance of leadership training, ensuring that students are prepared for the specific leadership challenges they will face in the maritime sector.

Ethical Decision-Making and Sustainability

The results also indicate that ethical decision-making is a key area of focus in maritime vocational education, with an average score of 8.8 across the participant groups. Maritime leaders are often required to make decisions that have significant ethical, environmental, and social implications, particularly in the context of sustainability. As such, the ability to make decisions that balance operational efficiency with ethical considerations is critical for ensuring the long-term viability of the maritime industry. The inclusion of sustainability in leadership training is a positive step toward preparing future maritime leaders to address the growing environmental challenges facing the industry. However, the slightly lower scores from graduates (8.2) suggest that while ethical decision-making is emphasized in the classroom, graduates may struggle to apply these principles in their professional roles. This may be due to the fact that real-world ethical dilemmas are often more complex and nuanced than the scenarios presented in educational settings. Moreover, the pressure to meet operational targets and financial goals may lead some maritime professionals to prioritize short-term gains over long-term sustainability.

To improve the integration of ethical decision-making into maritime vocational education, schools could introduce case studies based on real-world ethical challenges faced by maritime professionals. These case studies could help students develop a deeper understanding of the complexities of ethical decision-making and prepare them to handle similar situations in their careers. Additionally, incorporating sustainability principles into every aspect of the curriculum—not just leadership courses—would reinforce the importance of ethical decision-making and encourage students to view sustainability as a core component of their professional responsibilities.

The high scores from senior officers in the Ministry of Transportation (9.3) reflect the growing emphasis on ethical leadership in government policy and regulation. As maritime law enforcement officers and policy analysts, these senior officers recognize the importance of ethical decision-making in maintaining the integrity and sustainability of the maritime industry. Their perspectives highlight the need for closer collaboration between maritime vocational schools and government bodies to ensure that future leaders are not only aware of regulatory requirements but also equipped to make decisions that align with ethical and sustainable practices.

Global Competence and Innovation

Global competence and innovation are critical for maritime leaders who must operate in an increasingly globalized and technologically advanced industry. The results show that

maritime vocational schools are highly effective in cultivating these competencies, with an overall score of 9.2. This reflects the strong emphasis placed on preparing students to navigate the global challenges of the maritime industry, including cross-cultural communication, international trade, and the integration of new technologies.

The maritime industry is inherently global, with ships and goods moving across borders every day. As such, maritime leaders must be able to operate in diverse cultural, political, and economic environments. The high scores in cross-cultural awareness and global trade knowledge among lecturers and senior officers suggest that maritime vocational schools are successfully equipping students with the skills needed to manage international operations. However, the slightly lower scores from graduates indicate that there may be room for improvement in helping students transition from the classroom to the global stage.

One potential explanation for this discrepancy is that while students are taught the theoretical aspects of global competence, they may lack practical experience in working with international teams or managing cross-border operations. To address this, maritime vocational schools could consider offering exchange programs or international internships that allow students to gain firsthand experience in global maritime operations. These programs would not only enhance students' global competence but also provide them with valuable insights into the challenges and opportunities of working in a globalized industry.

Innovation is another key area of focus in maritime vocational education, with participants rating the integration of innovation into the curriculum highly (9.2). The maritime industry is undergoing a period of rapid technological change, driven by advances in automation, digitalization, and sustainability initiatives. As such, future maritime leaders must be equipped to drive innovation and adapt to new technologies. The high scores from maritime professionals and senior officers reflect the importance of innovation in the industry and the need for leaders who can manage technological transitions effectively.

While the results indicate that innovation is well-integrated into maritime vocational education, the slightly lower scores from graduates (8.6) suggest that more support may be needed in helping students apply their knowledge of innovation in real-world settings. This could be achieved by providing students with opportunities to work on real-world innovation projects, such as developing new maritime technologies or improving operational processes in collaboration with industry partners. These projects would allow students to apply their knowledge of innovation in a practical context, helping them develop the skills needed to drive technological change in the maritime industry.

Program Efficiency and Productivity

The overall efficiency and productivity of maritime vocational education programs were rated highly by all participant groups, with an average score of 9.22. This suggests that maritime vocational schools are delivering relevant, real-world learning outcomes that effectively prepare students for leadership roles in the industry. The high ratings for curriculum delivery, learning outcomes, and professional preparedness reflect the success of these programs in meeting the needs of both students and industry stakeholders.

The high scores from lecturers and senior officers (9.4) suggest that maritime vocational schools are well-aligned with industry requirements and government policies. However, the slightly lower scores from graduates (8.9) indicate that there may be room for improvement in ensuring that students are fully prepared for the challenges they will face in their professional roles. One potential explanation for this discrepancy is that while the curriculum is effective in delivering theoretical knowledge, graduates may feel less confident in applying this knowledge in real-world settings.

To address this, maritime vocational schools could consider enhancing their programs by providing more opportunities for practical, hands-on learning. This could include internships, mentorship programs, and leadership simulations that allow students to apply their skills in real-world contexts. Additionally, closer collaboration between schools and industry partners could help ensure that the curriculum remains relevant to the evolving needs of the maritime industry, providing students with the skills and knowledge they need to succeed in their careers.

Implications for Maritime Vocational Education

The findings of this research have significant implications for the future of maritime vocational education. The high scores across all indicators suggest that maritime vocational schools are highly effective in developing leadership and management competencies, particularly in the areas of ethical decision-making, global competence, and innovation. However, the slightly lower scores from graduates indicate that there is room for improvement in ensuring that students are fully prepared for the challenges they will face in their professional roles.

One key implication of this research is the need for more practical, hands-on learning opportunities in maritime vocational education. While the theoretical aspects of leadership, ethics, and innovation are well-covered in the curriculum, students may benefit from more real-world experience in applying these skills. Internships, leadership simulations, and mentorship programs could provide students with the practical experience they need to transition from education to professional leadership roles more smoothly.

Another important implication is the need for closer collaboration between maritime vocational schools and industry stakeholders. By working more closely with maritime professionals, government bodies, and industry partners, vocational schools can ensure that their curricula remain aligned with the evolving needs of the maritime sector. This collaboration could also help to bridge the gap between education and professional practice, ensuring that students are fully prepared to take on leadership roles in the industry.

CONCLUSION

This research highlights the effectiveness of maritime vocational education in developing leadership and management competencies, particularly in the areas of ethical decision-making, global competence, and innovation. Through the qualitative analysis of insights from maritime professionals, lecturers, graduates, and senior officers, the study reveals that maritime vocational schools are successful in cultivating key skills required for future maritime leaders. The leadership development programs, ethical training, and focus on global competence and innovation are highly rated, with an average score of 9/10, demonstrating their alignment with industry needs. However, the slightly lower ratings from graduates indicate a potential gap between educational training and real-world application, particularly in leadership roles and ethical decision-making. This points to the need for more practical, hands-on learning experiences, such as internships and leadership simulations, to ensure smoother transitions from education to professional practice. The research concludes that closer collaboration between maritime vocational schools, industry partners, and government bodies is essential for maintaining curriculum relevance and bridging the gap between education and industry requirements. By addressing these areas, maritime vocational schools can continue to effectively prepare students for leadership roles, ensuring the industry's sustainable growth and global competitiveness.

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