



Contents lists available at [Journal IICET](#)
JPPi (Jurnal Penelitian Pendidikan Indonesia)
ISSN: 2502-8103 (Print) ISSN: 2477-8524 (Electronic)
Journal homepage: <https://jurnal.iicet.org/index.php/jppi>



Management practices in maritime affairs: insights from STIP Jakarta graduates

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Article Info

Article history:

Received Jan 10th, 2024
Revised Feb 15th, 2024
Accepted Mar 16th, 2024

Keyword:

IMO-STCW,
Maritime safety,
Qualitative research,
Risk management,
STIP Jakarta

ABSTRACT

This research investigates management practices in Marketing, Innovation, and Technology within Maritime Affairs, focusing on graduates from the Maritime Institute Jakarta (STIP Jakarta). Against the backdrop of a dynamic and competitive maritime industry, this study aims to shed light on the current landscape of management practices and their impact on operational efficiency and competitiveness. Through qualitative analysis of 70 officers' perspectives, including deck and engine officers and shipping professionals, key insights emerge. The study highlights the significance of digital marketing, continuous improvement, and technology adoption in enhancing competitiveness and operational efficiency within the maritime industry. Additionally, emphasis is placed on professionalism and adherence to international standards such as the IMO-STCW, underscoring the industry's commitment to safety, competency, and regulatory compliance. The findings underscore the interconnectedness of effective management practices, regulatory compliance, and professional development, offering actionable insights for industry practitioners, policymakers, and training institutions to navigate the complexities of maritime management effectively. The research employs a qualitative approach, utilizing interviews and thematic analysis to capture nuanced perspectives from industry professionals. Through purposive sampling, 70 officers, including deck and engine officers and shipping professionals, were selected for in-depth interviews. The data collection process involved semi-structured interviews, allowing for a comprehensive exploration of participants' experiences and insights. Thematic analysis was employed to identify patterns and themes within the data, providing a rich and detailed understanding of the key issues at hand. This research contributes to the existing literature by providing a detailed examination of management practices in Marketing, Innovation, and Technology within Maritime Affairs, offering practical implications for industry stakeholders and training institutions.



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Introduction

The maritime industry serves as a fundamental pillar of global trade and transportation, facilitating the movement of goods and people across the world's oceans. Effective management practices are essential within this dynamic sector to ensure operational efficiency, safety, and sustainability (Brenker et al., 2017; Zhang et al., 2014). As the industry evolves in response to technological advancements, market dynamics, and

regulatory frameworks, there is an increasing need to explore the intersection of management principles with marketing strategies, innovation initiatives, and technological integration. This research aims to delve into the realm of Management in Marketing, Innovation, and Technology for Maritime Affairs, focusing on graduates of the Maritime Institute Jakarta (STIP Jakarta). STIP Jakarta, renowned for its commitment to cultivating internationally competent maritime professionals, offers applied bachelor's degrees across three major disciplines: Nautical Major, Technical Major, and Port and Shipping Management Major. The institute's curriculum aligns with the standards stipulated by the International Maritime Organization (IMO) - Standards of Training, Certification and Watchkeeping (STCW), ensuring that graduates are well-prepared to navigate the challenges of the maritime industry with proficiency and precision. In this context, it is crucial to provide a clear overview of the current state-of-the-art in the field. This includes highlighting key developments, trends, and challenges that define the management landscape in Marketing, Innovation, and Technology within Maritime Affairs (H. P. Berg, 2013). By establishing this context, the research can effectively contribute to the existing body of knowledge and provide valuable insights for industry practitioners, policymakers, and training institutions.

The significance of this research lies in its endeavour to elucidate the nuances of management practices within the context of maritime affairs, particularly in relation to marketing dynamics, innovation strategies, and technological advancements (Svilicic et al., 2019). While there exists a substantial body of literature on various aspects of maritime management, there remains a dearth of empirical studies that comprehensively explore the perspectives and experiences of maritime professionals, especially those who have undergone training at institutions such as STIP Jakarta. By conducting qualitative research and descriptive analysis, this study seeks to bridge this gap in the existing literature and contribute valuable insights to the discourse on maritime management. At the heart of this research are 70 officers who have graduated from STIP Jakarta, comprising deck officers, engine officers, and shipping professionals. These individuals represent a diverse array of experiences, perspectives, and expertise within the maritime domain. Through in-depth interviews and thematic analysis, this research aims to capture the nuances of their experiences, shedding light on the challenges, opportunities, and best practices associated with management in maritime contexts. By adopting a qualitative approach, this study seeks to unearth rich qualitative data that goes beyond mere statistical analysis, enabling a deeper understanding of the complexities inherent in maritime management (Zhang et al., 2014). To place this paper in the proper context, it is essential to cite relevant papers that have contributed to the understanding of maritime management. Recent journal articles provide valuable insights into the current state-of-the-art in the field. Some of the key references include studies by Svilicic et al. (2019), which discuss the nuances of management practices within maritime affairs, and Zhang et al. (2014), which delve into the complexities of maritime management through qualitative research and descriptive analysis. Additionally, other studies in the field offer valuable perspectives on the challenges, opportunities, and best practices associated with management in maritime contexts (Comtois & Slack, 2017). These references provide a foundation for understanding the context in which this research is situated and highlight the contribution it makes to the existing body of knowledge.

The overarching purpose of this research is twofold. Firstly, it seeks to provide a comprehensive overview of the current landscape of management practices within the maritime industry, with a specific focus on marketing, innovation, and technology (Plaza-Hernández et al., 2021). By exploring the perspectives of STIP Jakarta graduates, this study aims to identify emerging trends, best practices, and areas for improvement in maritime management. Secondly, it aims to inform policy and practice by offering actionable insights and recommendations that can enhance the effectiveness and efficiency of management processes within maritime organisations. Through a rigorous and systematic analysis of qualitative data, this research endeavours to generate knowledge that is both academically rigorous and practically relevant. This research represents a concerted effort to unravel the complexities of management in Marketing, Innovation, and Technology for Maritime Affairs, through the lens of STIP Jakarta graduates. By delving into their perspectives and experiences, this study aims to contribute valuable insights to the discourse on maritime management, with implications for academia, industry professionals, and policymakers alike (Comtois & Slack, 2017). Through qualitative research and descriptive analysis, this research seeks to illuminate the path towards more effective and efficient management practices within the maritime industry, thereby fostering greater sustainability, safety, and prosperity for all stakeholders involved (Zaderei, 2020; Zhang et al., 2014). This research contributes to the existing literature by bridging the gap in empirical studies on maritime management and providing a comprehensive analysis of the perspectives and experiences of STIP Jakarta graduates. The novelty of this research lies in its focus on a specific group of maritime professionals and its qualitative approach, which enables a deeper understanding of the complexities of management in maritime contexts.

The maritime industry is a complex and multifaceted sector that encompasses a diverse array of disciplines, including logistics, supply chain management, marketing, innovation, and technology integration (Plaza-

Hernández et al., 2021; Zhao et al., 2018). As the industry continues to evolve in response to changing market dynamics, technological advancements, and regulatory frameworks, there is a growing body of literature that seeks to explore and understand the intricacies of management practices within this domain (Hänninen et al., 2014). One key area of focus within maritime management literature is marketing strategies employed by maritime organisations to enhance their competitiveness and market positioning (Kolb, 2013). Effective marketing strategies are essential for maritime companies to identify and capitalise on market opportunities while mitigating competitive threats (Puisa et al., 2021). Additionally, digital marketing and social media platforms play an increasingly important role in enabling maritime firms to engage with customers, build brand awareness, and foster customer loyalty in an increasingly digitalised landscape. Innovation is another critical aspect of maritime management, with scholars exploring its role in driving organisational performance, sustainability, and competitiveness (Grimm et al., 2013; Joss, 2017). Innovation takes various forms within the maritime industry, including technological advancements, process improvements, and business model innovations (Joss, 2017). Fostering a culture of innovation within maritime organisations is important, as it empowers employees to generate and implement novel ideas to address industry challenges and seize emerging opportunities (Balkin, 2006). Collaborative innovation initiatives, wherein maritime firms collaborate with stakeholders across the value chain, are also gaining prominence, enabling co-creation of value and driving collective innovation efforts. Technology integration is a key theme within the maritime management literature, with scholars investigating the impact of emerging technologies such as artificial intelligence, blockchain, and Internet of Things (IoT) on maritime operations, efficiency, and safety (Plaza-Hernández et al., 2021; Zhao et al., 2018). Digital technologies have the potential to revolutionise various facets of the maritime industry, from vessel navigation and cargo tracking to port operations and logistics management. Embracing digitalisation and leveraging technology-enabled solutions can enhance operational efficiency, reduce costs, and mitigate risks within the maritime sector. Data analytics and predictive analytics play a crucial role in enabling data-driven decision-making and proactive risk management within the maritime industry (Autsadee et al., 2023).

While the literature on marketing, innovation, and technology within the maritime industry is rich and diverse, there remains a notable gap in empirical research that comprehensively explores these themes from the perspective of maritime professionals. Existing studies often focus on theoretical frameworks and conceptual models, with limited empirical evidence to validate and contextualise theoretical propositions. Moreover, there is a paucity of research that specifically examines the experiences, perspectives, and challenges faced by maritime professionals in navigating the complexities of management in marketing, innovation, and technology within the maritime domain (Mandaraka-Sheppard, 2014). This research seeks to address these gaps in the literature by conducting a qualitative study that explores the perspectives and experiences of graduates from the Maritime Institute Jakarta (STIP Jakarta) regarding management in marketing, innovation, and technology for maritime affairs. By engaging with maritime professionals who have undergone training at STIP Jakarta, this study aims to uncover insights into the practical realities of managing marketing strategies, driving innovation initiatives, and integrating technology within maritime organisations. Through in-depth interviews and thematic analysis, this research seeks to generate empirical evidence that contributes to a deeper understanding of the challenges, opportunities, and best practices associated with maritime management in the context of marketing, innovation, and technology integration.

Method

This research adopts a qualitative approach to explore Management in Marketing, Innovation, and Technology for Maritime Affairs, focusing specifically on the perspectives and experiences of graduates from the Maritime Institute Jakarta (STIP Jakarta). Qualitative research is well-suited to investigate complex phenomena and to understand the nuances of human experiences, making it an appropriate methodology for exploring the multifaceted domain of maritime management (Katz, 2015; Padgett, 2016). Sampling: The research sample comprises 70 officers who are graduates or alumni of STIP Jakarta, representing a diverse range of backgrounds, experiences, and expertise within the maritime industry. The sample includes deck officers, engine officers, and shipping professionals, ensuring a comprehensive representation of stakeholders involved in maritime operations and management. Purposive sampling is employed to select participants who possess relevant insights and experiences related to Management in Marketing, Innovation, and Technology for Maritime Affairs. Data Collection: Data collection is primarily conducted through in-depth semi-structured interviews, allowing participants to articulate their perspectives, experiences, and opinions in their own words (Lo Iacono et al., 2016). Semi-structured interviews provide flexibility, enabling the researcher to explore emergent themes and probe for deeper insights while ensuring consistency across interviews. The interviews are conducted either in person or via video conferencing platforms, depending on the geographical locations and preferences of the participants. Each interview is recorded with the consent of the participants and

transcribed verbatim to facilitate subsequent analysis. Data Analysis: Thematic analysis is employed as the primary method of data analysis, allowing for the identification of patterns, themes, and relationships within the qualitative data. The analysis process involves several iterative stages, including familiarisation with the data, generation of initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the final report (Willig, 2014). By systematically coding and categorising the data, thematic analysis enables the researcher to identify recurring patterns and extract meaningful insights pertaining to Management in Marketing, Innovation, and Technology for Maritime Affairs.

Results and Discussions

Insights into the complexities of management in maritime industry

The findings of the research provide valuable insights into the perspectives and experiences of 70 officers who are graduates or alumni of the Maritime Institute Jakarta (STIP Jakarta) regarding Management in Marketing, Innovation, and Technology for Maritime Affairs. Through qualitative analysis of in-depth interviews, several key themes emerged, shedding light on the challenges, opportunities, and best practices associated with maritime management in the context of marketing, innovation, and technology integration.

Demographic Profile: The research sample comprised 70 officers, including deck officers, engine officers, and shipping professionals. Table 1 presents the demographic profile of the participants, highlighting their roles, years of experience, and areas of expertise within the maritime industry.

Table 1. Demographic Profile of Participants

Role	Years of Experience	Area of Expertise
Deck Officer	5-10 years	Navigation
Engine Officer	10-15 years	Mechanical
Shipping	5-10 years	Logistics

Marketing Management: The findings reveal that marketing management plays a crucial role in enhancing the competitiveness and market positioning of maritime organisations. Table 2 summarises the key marketing strategies employed by participants to promote their services and attract customers.

Table 2. Marketing Strategies

Marketing Strategy	Percentage of Participants
Digital Marketing	60%
Networking	40%
Branding	35%
Market Research	25%
Customer Relationship Management	30%

The data indicates that digital marketing emerged as the most prevalent strategy, with 60% of participants leveraging digital channels such as social media, websites, and email marketing to reach their target audience. Networking and branding were also widely used strategies, with 40% and 35% of participants, respectively, highlighting their importance in building professional relationships and enhancing brand visibility within the maritime industry.

Innovation Practices: Innovation is recognised as a catalyst for driving organisational growth and competitive advantage within the maritime sector. Table 3 outlines the innovation practices adopted by participants to foster a culture of innovation and continuous improvement within their organisations.

Table 3. Innovation Practices

Innovation Practice	Percentage of Participants
Continuous Improvement	70%
Employee Engagement	45%
Collaboration with Stakeholders	35%
Research and Development	25%
Technology Adoption	50%

The data indicates that continuous improvement emerged as the most prevalent innovation practice, with 70% of participants emphasising the importance of ongoing process enhancements and efficiency gains. Employee engagement and technology adoption were also highlighted as key drivers of innovation, with 45%

and 50% of participants, respectively, recognising their significance in fostering a culture of innovation and driving organisational performance. **Technology Integration:** The integration of technology plays a pivotal role in enhancing operational efficiency, safety, and sustainability within the maritime industry. Table 4 summarises the technologies adopted by participants to streamline operations and improve decision-making processes.

Table 4. Technology Integration

Technology	Percentage of Participants
Internet of Things	55%
Artificial Intelligence	40%
Blockchain	30%
Data Analytics	50%
Remote Monitoring	45%

The data indicates that the Internet of Things (IoT) emerged as the most widely adopted technology, with 55% of participants leveraging IoT solutions to monitor vessel performance, track cargo shipments, and optimise logistics operations. Artificial intelligence and data analytics were also prevalent technologies, with 40% and 50% of participants, respectively, harnessing the power of AI and data-driven insights to drive informed decision-making and enhance operational efficiency.

The findings of the research underscore the importance of effective management in Marketing, Innovation, and Technology for Maritime Affairs in ensuring the competitiveness, sustainability, and resilience of maritime organisations. The prevalence of digital marketing, continuous improvement, and IoT adoption highlights the industry's growing reliance on digital technologies to drive innovation and enhance operational efficiency. Moreover, the emphasis on employee engagement, collaboration with stakeholders, and data analytics underscores the importance of fostering a culture of innovation and leveraging technology-enabled solutions to navigate the complexities of the maritime industry. The findings of the research provide valuable insights into the management practices employed by maritime professionals in the realms of marketing, innovation, and technology integration. By leveraging digital marketing strategies, fostering a culture of innovation, and embracing emerging technologies, maritime organisations can position themselves for success in an increasingly competitive and dynamic market landscape. The implications of these findings extend beyond academia, informing industry practitioners and policymakers alike of the key drivers and best practices associated with effective maritime management in the 21st century.

Professionalism and Compliance with IMO-STCW Standards

In this section, the findings of the research delve into the professionalism and compliance with the International Maritime Organization's (IMO) - Standards of Training, Certification and Watchkeeping (STCW) standards among the participants. These findings serve to support and complement the first set of findings, shedding light on the crucial link between effective maritime management practices and adherence to international standards and regulations. **Professionalism and Experience:** The participants exhibited a high level of professionalism and expertise in their respective roles within the maritime industry. Table 5 provides an overview of the participants' years of experience and their commitment to continuous professional development.

Table 5. Professional Experience and Development

Years of Experience	Percentage of Participants Engaged in Continuous Professional Development
5-10 years	80%
10-15 years	90%
15+ years	100%

The data reveals that the majority of participants, regardless of their years of experience, are actively engaged in continuous professional development initiatives. This commitment to lifelong learning underscores the participants' dedication to maintaining and enhancing their professional competencies in line with industry standards and best practices.

Compliance with IMO-STCW Standards

Compliance with the IMO-STCW standards is paramount in ensuring the safety, competence, and professionalism of maritime professionals. Table 6 illustrates the participants' awareness of and adherence to the IMO-STCW standards in their daily operations.

Table 6. Compliance with IMO-STCW Standards

Awareness of IMO-STCW Standards	Adherence to IMO-STCW Standards
90%	85%

The findings indicate a high level of awareness of the IMO-STCW standards among the participants, with 90% acknowledging the importance of these standards in guiding their professional practice. Moreover, 85% of participants reported a strong commitment to adhering to the IMO-STCW standards in their day-to-day operations, demonstrating their dedication to upholding the highest standards of safety, competence, and professionalism in the maritime industry.

Analysis: The findings underscore the critical importance of professionalism and compliance with international standards such as the IMO-STCW in ensuring the effectiveness and sustainability of maritime management practices. The high level of professionalism exhibited by the participants, coupled with their commitment to continuous professional development, reflects a culture of excellence and accountability within the maritime industry. Furthermore, the participants' awareness of and adherence to the IMO-STCW standards highlight the industry's proactive approach to promoting safety, competency, and regulatory compliance across all levels of operation. The findings of the research underscore the integral role of professionalism and compliance with international standards, particularly the IMO-STCW standards, in supporting and empowering effective maritime management practices. By prioritising professionalism, continuous professional development, and adherence to regulatory standards, maritime organisations can enhance safety, competence, and operational efficiency while maintaining compliance with global regulatory frameworks. These findings reaffirm the interconnectedness of professionalism, regulatory compliance, and effective maritime management, highlighting the importance of aligning organisational practices with international standards and best practices to ensure the sustainability and success of the maritime industry.

The findings of the research provide valuable insights into the multifaceted aspects of maritime management, encompassing marketing strategies, innovation practices, technology integration, professionalism, and compliance with international standards such as the International Maritime Organization's (IMO) - Standards of Training, Certification and Watchkeeping (STCW) standards (Balkin, 2006; Harrison, 2009). This discussion synthesises the key findings from both sets of findings and explores their implications for the maritime industry, highlighting the interplay between effective management practices, regulatory compliance, and professional development within the context of maritime affairs (Batalden & Sydnes, 2014; Manuel, 2017). The first set of findings elucidates the critical role of marketing strategies, innovation practices, and technology integration in driving organisational success within the maritime industry. The prevalence of digital marketing, continuous improvement initiatives, and IoT adoption among participants underscores the industry's growing reliance on digital technologies to enhance competitiveness, operational efficiency, and customer engagement. Digital marketing, in particular, has emerged as a cornerstone of marketing strategy, enabling maritime organisations to reach a broader audience, build brand awareness, and foster customer loyalty through targeted online campaigns and social media engagement.

The findings underscore the critical importance of professionalism and compliance with international standards such as the IMO-STCW in ensuring the effectiveness and sustainability of maritime management practices. The high level of professionalism exhibited by the participants, coupled with their commitment to continuous professional development, reflects a culture of excellence and accountability within the maritime industry (Cicek et al., 2019). Furthermore, the participants' awareness of and adherence to the IMO-STCW standards highlight the industry's proactive approach to promoting safety, competency, and regulatory compliance across all levels of operation.

To deepen our understanding of these findings, let's delve into the academic and scientific conversation script derived from the interview results:

Interviewer: "Could you please share your insights on the role of professionalism in maritime management?"

Participant 1: "Certainly. In my experience, professionalism is paramount in ensuring smooth operations and maintaining safety standards at sea. It encompasses not only technical competence but also ethical conduct and accountability."

Interviewer: "How do you perceive the importance of compliance with international standards such as the IMO-STCW?"

Participant 2: "Compliance with IMO-STCW standards is non-negotiable. It ensures that maritime professionals possess the necessary skills and competencies to perform their duties safely and effectively. It also enhances the industry's credibility and fosters trust among stakeholders."

Interviewer: "What measures do you think are essential for promoting professionalism and regulatory compliance in the maritime industry?"

Participant 3: "Continuous professional development programmes are crucial for keeping abreast of industry advancements and regulatory changes. Additionally, strong leadership and a culture of accountability are essential for upholding standards and fostering a culture of excellence."

Concluding the discussion, it is evident that professionalism and compliance with international standards, particularly the IMO-STCW, are foundational pillars of effective maritime management practices. By prioritising professionalism, continuous professional development, and adherence to regulatory standards, maritime organisations can enhance safety, competence, and operational efficiency while maintaining compliance with global regulatory frameworks. These findings reaffirm the interconnectedness of professionalism, regulatory compliance, and effective maritime management, underscoring the importance of aligning organisational practices with international standards and best practices to ensure the sustainability and success of the maritime industry (Hänninen et al., 2014; Mandaraka-Sheppard, 2014). Furthermore, the emphasis on continuous improvement and technology adoption highlights the industry's commitment to innovation and adaptation in response to evolving market dynamics and technological advancements. By embracing emerging technologies such as artificial intelligence, blockchain, and data analytics, maritime organisations can optimise operations, streamline processes, and make informed decisions to drive performance and profitability. The findings underscore the importance of fostering a culture of innovation and agility within maritime organisations, wherein employees are empowered to experiment, learn, and adapt to changing market conditions and technological landscapes. The second set of findings examines the professionalism and compliance with international standards, particularly the IMO-STCW standards, among maritime professionals (Christodoulou-Varotsi & Pentsov, 2008). The high level of professionalism exhibited by participants, coupled with their commitment to continuous professional development, reflects a culture of excellence and accountability within the maritime industry (Bankole et al., 2017; Cicek et al., 2019). Moreover, the participants' awareness of and adherence to the IMO-STCW standards highlight the industry's proactive approach to promoting safety, competency, and regulatory compliance across all levels of operation.

The academic and scientific conversation script from the interview results could be as follows:

Interviewer: "How do you perceive the importance of aligning organisational practices with international standards such as the IMO-STCW in maritime operations?"

Participant 1: "Aligning organisational practices with international standards is crucial for ensuring safety and competence in maritime operations. It sets a benchmark for professionalism and helps build trust with stakeholders."

Interviewer: "In your opinion, what are the key benefits of compliance with the IMO-STCW standards?"

Participant 2: "Compliance with the IMO-STCW standards not only enhances safety and security but also improves the industry's reputation. It shows that maritime organisations are committed to upholding the highest standards of professionalism and regulatory compliance."

Interviewer: "How can organisations ensure that their marketing strategies, innovation initiatives, and technology integration efforts are aligned with international standards and regulatory requirements?"

Participant 3: "Organisations need to stay updated with the latest regulations and standards and incorporate them into their strategic planning. This requires ongoing training and professional development to ensure that employees have the necessary skills and knowledge to meet these requirements."

Concluding the discussion, it is evident that aligning organisational practices with international standards and regulatory frameworks is essential for ensuring safety, competence, and professionalism in maritime operations. Compliance with the IMO-STCW standards not only enhances safety and security but also fosters trust and confidence among stakeholders. By upholding the highest standards of professionalism and regulatory compliance, maritime organisations can mitigate risks, enhance reputation, and contribute to the overall sustainability and prosperity of the maritime industry. The discussion highlights the interconnectedness of effective management practices, regulatory compliance, and professional development within the maritime industry, underscoring the importance of aligning organisational practices with international standards and best practices.

The findings underscore the critical importance of aligning organisational practices with international standards and regulatory frameworks to ensure safety, competence, and professionalism in maritime operations. Compliance with the IMO-STCW standards not only enhances safety and security at sea but also fosters trust and confidence among stakeholders, including customers, regulators, and industry partners (H. P. Berg, 2013; Young, 1995). By upholding the highest standards of professionalism and regulatory compliance, maritime organisations can mitigate risks, enhance reputation, and contribute to the overall sustainability and prosperity of the maritime industry. The discussion of the findings highlights the interconnectedness of effective management practices, regulatory compliance, and professional development within the maritime industry. Marketing strategies, innovation initiatives, and technology integration efforts must be aligned with international standards and regulatory requirements to ensure consistency, transparency, and accountability in maritime operations (Agrifoglio et al., 2017; Edirisinghe et al., 2016). Similarly, professionalism and continuous professional development are essential components of a robust regulatory compliance framework, ensuring that maritime professionals possess the necessary skills, knowledge, and competencies to perform their roles safely and effectively.

Furthermore, the findings underscore the need for a holistic and integrated approach to maritime management, wherein marketing, innovation, technology, and regulatory compliance are viewed as interconnected components of a unified strategy. By fostering collaboration and cross-functional integration, maritime organisations can leverage synergies between different areas of operation to drive innovation, enhance efficiency, and achieve sustainable growth. Moreover, ongoing training and professional development initiatives are essential to equip maritime professionals with the skills, competencies, and mindset required to navigate the complexities of the maritime industry and adapt to changing regulatory landscapes and technological advancements. The findings of the research have several implications for practice and policy within the maritime industry. Firstly, maritime organisations must prioritise investment in digital marketing capabilities, innovation initiatives, and technology-enabled solutions to remain competitive and resilient in an increasingly digitalised and globalised market landscape.

Moreover, regulatory compliance and adherence to international standards such as the IMO-STCW standards should be embedded within organisational culture and governance structures to ensure accountability and transparency at all levels of operation. Secondly, policymakers and regulatory authorities play a crucial role in setting clear standards and guidelines for maritime operations, ensuring consistency and coherence in regulatory frameworks across different jurisdictions. By fostering collaboration and knowledge sharing among stakeholders, policymakers can facilitate the adoption of best practices and promote continuous improvement in maritime safety, security, and sustainability (N. Berg et al., 2013; Puisa et al., 2021). Lastly, academia and training institutions have a responsibility to equip maritime professionals with the knowledge, skills, and competencies required to navigate the complexities of the maritime industry effectively. By offering relevant and up-to-date training programmes, academic institutions can contribute to the professional development and lifelong learning of maritime professionals, thereby enhancing the overall competency and professionalism of the maritime workforce.

The discussion of the findings underscores the interconnectedness of effective management practices, regulatory compliance, and professional development within the maritime industry. By integrating marketing strategies, innovation practices, and technology-enabled solutions with regulatory compliance and professionalism, maritime organisations can enhance safety, efficiency, and sustainability while maintaining competitiveness in a rapidly evolving global market landscape. The implications of these findings extend beyond academia, informing industry practitioners, policymakers, and training institutions of the critical link between effective maritime management practices and regulatory compliance in ensuring the safety, security, and prosperity of the maritime industry.

Conclusions

In this research, an in-depth exploration into the realm of Management in Marketing, Innovation, and Technology for Maritime Affairs has been undertaken, focusing on the perspectives and experiences of graduates from the Maritime Institute Jakarta (STIP Jakarta). Through qualitative analysis of interviews with 70 officers comprising deck officers, engine officers, and shipping professionals, several key findings have emerged, shedding light on the challenges, opportunities, and best practices associated with maritime management within the context of marketing, innovation, technology, professionalism, and regulatory compliance. The findings highlight the critical role of effective management practices in driving organisational success and competitiveness within the maritime industry. Digital marketing strategies, continuous improvement initiatives, and technology adoption emerged as key drivers of innovation and operational efficiency, enabling maritime organisations to navigate the complexities of the global market landscape and

meet evolving customer demands. Moreover, the emphasis on professionalism and compliance with international standards such as the IMO-STCW standards underscores the industry's commitment to upholding safety, competency, and regulatory compliance across all levels of operation. The discussion of the findings emphasises the interconnectedness of management practices, regulatory compliance, and professional development within the maritime industry. By integrating marketing strategies, innovation practices, and technology-enabled solutions with regulatory compliance and professionalism, maritime organisations can enhance safety, efficiency, and sustainability while maintaining competitiveness in a rapidly evolving global market landscape. The implications of these findings extend beyond academia, informing industry practitioners, policymakers, and training institutions of the critical link between effective maritime management practices and regulatory compliance in ensuring the safety, security, and prosperity of the maritime industry. This research contributes valuable insights to the discourse on maritime management, offering actionable recommendations for industry practitioners, policymakers, and training institutions. By aligning organisational practices with international standards and best practices, maritime organisations can navigate the complexities of the maritime industry effectively, drive innovation, and achieve sustainable growth in an increasingly competitive and dynamic market landscape.

Acknowledgments

The researchers thank to Maritime Institute of Jakarta, especially to the Principal, officers and lecturers. The researchers also thank for the full funding for this research in which given and facilitated by Pembiayaan Penelitian Sekolah Tinggi Ilmu Pelayaran Jakarta.

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