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Analysis of the Captain's Role to Improve Compliance with Safety Protocols on the UV Royal King Ali

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Abstract— Shipping safety is a crucial aspect of maritime transportation operations as it directly relates to the protection of lives, assets, and the maritime environment. The high number of ship accidents in Indonesia demonstrates that compliance with safety protocols remains a challenge that requires serious attention. Data from 2021–2025 showed that more than 174 ship accidents occurred in Indonesia, most of which were caused by human factors, weak operational oversight, and poor adherence to safety procedures. This study aims to: 1) describe the condition of crew compliance of the UV. Royal King Ali to applicable safety protocols; 2) To identify and analyze the factors causing low crew compliance with safety protocols; and 3) To analyze the crew supervision and management strategies implemented by the captain in an effort to improve compliance with safety protocols. The research method used is descriptive qualitative. Data collection uses observation, interviews and documentation. The results of the study indicate that the compliance of the UV. Royal King Ali crew was initially still low with a PPE compliance level of 63.3%. The main causes are lack of communication, crew fatigue, low understanding of safety procedures, absence of an incentive system, suboptimal equipment conditions, lack of supervision, and operational pressure. Efforts to increase compliance with safety protocols were implemented and were successful, as shown by an increase in compliance with PPE use of 27.4% and an overall safety percentage of 30.9%.

Keywords— Captain's role, compliance, Safety Protocols, Royal King Ali

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I. INTRODUCTION

The shipping industry is the backbone of global trade, connecting over 90% of international trade via sea lanes (IMO, 2021). Shipping safety is a crucial aspect of the maritime industry because it directly relates to the protection of human life, company assets, and the preservation of the marine environment. Despite the implementation of various international regulations and standards, ship accidents still occur frequently, largely influenced by human factors, such as adherence to safety procedures, weak supervision, and errors in decision-making. Therefore, improving compliance with safety protocols is a top priority in efforts to minimize the risk of accidents on board ships. The International Maritime Organization (IMO) states that the human factor is a key element in shipping safety and that strengthening a safety culture must be a priority for all parties involved in ship operations [1]. Despite this sector's significant role, shipping safety remains a critical issue requiring ongoing attention. Various statistics show that human factors are the dominant cause of ship accidents, accounting for 75–96% of all maritime incidents [2][3]. Indonesia, there were more than 178 ship accidents between 2021 and 2025 based on data from the Directorate General of Sea Transportation (2021), with the main causes including human error, lack of operational oversight, and low crew compliance with applicable safety protocols. This situation places Indonesia among the countries still facing serious challenges in implementing international maritime safety standards, according to data from the Directorate General of Sea Transportation (2021). The shipping industry is the backbone of global trade, connecting over 90% of international trade via sea lanes (Meštrović et al., 2024). Despite this sector's significant role, shipping safety remains a critical issue requiring ongoing attention. Various statistics show that human factors are the dominant cause of ship accidents, accounting for 75–96% of all maritime incidents[4].

In response to these problems, international maritime organizations has issued various conventions and regulations, including the International Safety Management (ISM) Code adopted through SOLAS (Safety of Life at Sea) 1974, STCW (Standards of Training, Certification and Watchkeeping) 1978 and its amendments in 2010, and the Maritime Labour Convention (MLC) 2006. These regulations explicitly place the Master as the primary responsible holder for the safety of the ship and all personnel on board [5][6]. The implementation of the International Safety Management (ISM) Code has required shipping companies to have a safety management system (SMS) aimed at reducing accidents caused by human error. However, various studies have shown that there is still a gap between established procedures and their implementation in the field. Frequent challenges include a lack of operational oversight, weak implementation of a safety culture, and the suboptimal role of ship captains in ensuring crew compliance with applicable procedures. These conditions demonstrate that the existence of a

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system alone is insufficient without effective leadership from the ship's captain[7].

The captain acts not only as a navigational leader but also as a safety manager, team leader, and enforcer of regulations on board. According to (Rahman, 2024), the captain's leadership effectiveness has a significant positive correlation with the level of crew compliance in implementing the ISM Code. [8] added that the captain's transformative and communicative leadership style can build a strong safety culture on board.

UV. Royal King Ali is one of the ships owned by PT. Barokah Perkasa Group. Operating in the waters of Kalimantan and Sulawesi. As a utility vessel, this vessel serves various operational needs involving high risks, ranging from material transportation, offshore support operations, to personnel transportation. Several issues were discovered related to crew compliance with safety protocols, such as irregular safety drill implementation, low levels of PPE use, and minimal reporting of near misses. Based on this background, this study was designed to analyze in depth the role of the Master in carrying out crew supervision and management functions as an effort to improve compliance with safety protocols on board the UV. Royal King Ali. The findings of this study are expected to provide practical contributions to shipping companies and academics in the development of nautical science.

The Captain's in crew Supervision is one of the most critical managerial functions of a captain in the context of ship safety. [9] define captain supervision as a series of systematic activities aimed at ensuring that all crew members carry out their duties in accordance with established procedures, identifying deviations or non-compliance, and taking necessary corrective actions. In practice, the success of safety protocols depends not only on the existence of written rules but also on effective leadership on board. As the highest-ranking leader, the captain is responsible for overseeing the implementation of operational procedures, providing direction to the crew, establishing effective communication, and ensuring that all crew members comply with applicable safety standards. Through good leadership, the captain can create a disciplined work culture and raise crew awareness of the importance of safety in all operational activities. Previous research also shows that leadership, communication, and training are critical factors influencing the success of a maritime safety system.

The concept of Maritime Safety and International Regulations governing safety include; 1) International Safety Management (ISM) Code is an international standard for the safe operation of ships and pollution prevention; 2) This standard is mandatorily established through Chapter IX of SOLAS 1974, the most relevant solas regulation is chapter iii on life-saving appliances and arrangements, which details the requirements for conducting abandon ship drills and fire drills. 3) The Standards of Training, Certification and Watchkeeping (STCW) Convention 1978 and its amendments, including the Manila Amendments 2010, sets out minimum standards of competence for Master officers and crew; 4) The Maritime Labour Convention[10] is an international convention that sets minimum standards for working and living conditions for seafarers. This convention covers aspects such as working hours and rest periods, minimum wages, accommodation conditions, health facilities, and occupational safety and health protection.

1. Maritime Safety Concept and International Regulations

1.1 ISM Code as a Foundation for Safety Management.

The International Safety Management (ISM) Code is an international standard for the safe management of ship operations and the prevention of pollution. This standard is mandated by Chapter IX of SOLAS 1974. According to the IMO (2021), the ISM Code requires every shipping company to establish, implement, and maintain a comprehensive Safety Management System (SMS).

TABLE 1.
COMPARATIVE ANALYSIS OF THE LEVEL OF COMPLIANCE WITH THE USE OF PPE BEFORE AND AFTER THE INTERVENTION

No	Types of PPE	Before intervention (%)	After intervention (%)	Difference	Information
1	Hard Hat	60	93	+33	Significant increase
2	Life Jacket	70	95	+25	Highest after intervention
3	Safety Gloves	55	88	+33	Significant increase
4	Safety Shoes	72	94	+22	High consistency
5	Safety Goggles	58	87	+29	Good improvement
6	Hearing Protection (Ear Plugs)	50	82	+32	Most
7	Reflective Workwear (Hi-Vis Vest	78	96	+18	Already
Average		63,3	90,7	+27,4	Consistent improvement

One key element of the ISM Code is the definition of the master's responsibilities and authorities. Article 5 of the ISM Code explicitly states that the company must establish a policy that ensures the master has the authority and responsibility to make decisions regarding safety and pollution prevention and to request assistance from the company when necessary (IMO, 2021). This emphasizes the master's central role as the ultimate safety officer on board.

Prasetyo, [5] in their evaluation of the implementation of the ISM Code on Indonesian flagged vessels, found that the success of SMS implementation

depends heavily on the master's commitment and managerial skills. Ships with captains who are active and proactive in carrying out internal audits, training and supervision show a much higher level of compliance than ships with passive leadership.

1.2 SOLAS 1974 and Safety on Board Ships

The International Convention for the Safety Of Life at Sea (SOLAS) 1974 is the most important international convention governing minimum safety standards for the construction, equipment, and operation of merchant ships. This convention has undergone several significant amendments, including the 1988 Protocol and ongoing updated [11][12].

In the context of crew supervision and safety protocols, the most relevant SOLAS regulation is on Life-saving Appliances and Arrangements, which details the requirements for conducting abandon ship and fire drills. According to Regulation III/19, emergency drills must be conducted at least once every two months, and a familiarization drill with emergency facilities must be conducted within the first 24 hours after new crew members join [13].

1.3 STCW 1978 and Crew Competence

The Standards of Training, Certification and Watchkeeping (STCW) Convention 1978 and its amendments, including the Manila Amendment of 2010, establish minimum competency standards for masters, officers, and crew. These regulations ensure that every individual on board a ship has adequate qualifications, knowledge, and skills to safely perform their duties [14](IMO, 2020).

Under the STCW, masters and officers are required to possess competency in leadership and managerial skills, which include the ability to manage and train crew, monitor and control operations, and develop a safety culture on board. This competency is measured through certification issued by the competent maritime authority[14] [8]

1.4 MLC 2006 and seafarers' rights

The Maritime Labour Convention (MLC) 2006 is an international convention that sets minimum standards for working and living conditions for seafarers. This convention covers aspects such as working hours and rest periods, minimum wages, accommodation conditions, healthcare facilities, and occupational safety and health protection [12].

In the context of safety compliance, [15] emphasized that implementing fatigue management in accordance with the MLC 2006 has a direct impact on crew performance and safety awareness. Crew members who are fatigued due to working hours exceeding established limits tend to make more errors and have lower levels of compliance with safety protocols.

2. Role and Function of the Captain

2.1 Definition and Legal Status of Captain

The Master is the highest-ranking officer on board a ship, having full authority over all aspects of ship operations, including safety, security, and pollution prevention. The Master's legal status is recognized internationally through various IMO conventions and also in national legislation, including Law Number 17 of 2008 concerning Shipping [16] The ISM Code emphasizes that the Master’s responsibilities extend beyond navigation, including the authority to implement the company's safety and environmental policies, motivate the crew to to do so, and provide clear instructions and commands to the entire crew (IMO, 2021).

2.2 Leadership Function of the Captain

Identified that captains who employ a transformational leadership style characterized by the ability to inspire, motivate, and guide crew members have proven more effective in creating a safe work environment[17].

Transformational leadership is positively correlated with increased crew safety awareness and compliance with established procedures. [18] divided the captain's leadership function in the context of ship safety into four main dimensions: (1) planning developing safety procedures and contingency plans; (2) organizing allocating safety tasks and responsibilities to each crew member; (3) directing communicating safety standards and providing clear instructions; and (4) controlling conducting periodic compliance monitoring and evaluation.

2.3 The Captain's Role in Crew Supervision

Crew supervision is one of the most critical managerial functions of a captain in the context of ship safety. [15] define captain supervision as a series of systematic activities aimed at ensuring that all crew members carry out their duties in accordance with established procedures, identifying deviations or non-compliance, and taking necessary corrective action.

Effective oversight mechanisms include routine inspections, direct field observations, review of safety documentation, conducting drills and exercises, and open two-way communication between the captain and all crew members [9][12] added that the quality of communication between officers and crew is the strongest predictor of safety protocol compliance—far more than the availability of technology or safety equipment.

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3. The Captain's Role in Supervising the Ship's Crew

3.1 Definition of Safety Compliance

Safety compliance in the maritime context refers to the extent to which crew members follow applicable safety procedures, regulations, and instructions on board a ship. [14][19] distinguish between two dimensions of safety compliance: externally motivated compliance (compliance due to fear of sanctions) and internalized value compliance (compliance due to understanding and recognition of the importance of safety).

A more sustainable and desirable dimension of compliance is one based on internalized values, where crew members voluntarily and consistently adhere to safety protocols because they understand that safety is a fundamental value that protects their own lives and those of their colleagues [20][21]. Internalization of these values can only be achieved through consistent socialization, training, and role modeling by ship leaders.

3.2 Factors Influencing Compliance

Identified several factors that significantly influence the level of crew compliance with safety protocols, including: The level of crew understanding of applicable safety procedures, the quality and intensity of safety training provided, the leadership style and exemplary behavior of the ship's leader, the physical and mental condition of the crew (including the level of fatigue), the availability and quality of safety equipment, the organizational culture and safety climate on board, the incentive and consequence system (rewards and punishments) [22][23].

Added that low incident and near-miss reporting rates are strong indicators of an unfavorable safety climate. When crews are reluctant to report hazardous incidents for fear of retribution or feel their reports are ignored, the potential for fatal accidents increases because warning signs are not properly addressed [24][25].

3.3 Safety Culture

Safety culture is a concept that describes a set of values, attitudes, perceptions, competencies, and behavioral patterns of individuals and groups that determine an organization's commitment to, and proficiency in, safety management. [26][27] emphasize that a strong safety culture is characterized by visible management commitment, open communication, a system

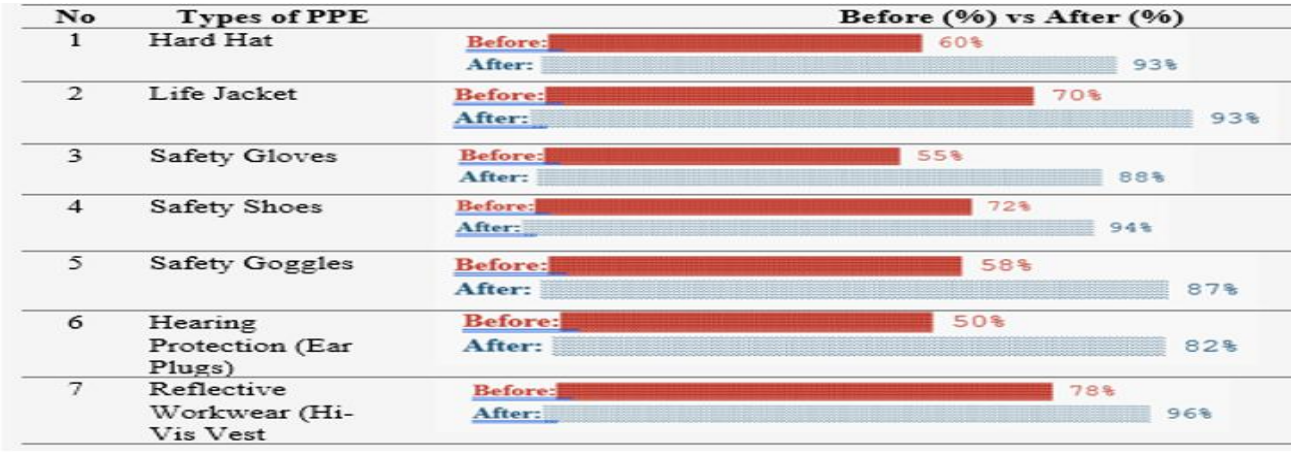

Figure. 1. Comparison of PPE Compliance Levels per Type Before and After Intervention

For learning from incidents, and the active participation of the entire crew. [28][29]in their analysis of ship accidents in Indonesian waters, found that the majority of accidents occurred on vessels with a weak safety culture, characterized by, among other things, minimal safety documentation, irregular drills, and poor communication between ship management and the deck crew. These findings emphasize the importance of developing a safety culture as a long-term investment in accident prevention.

Effective oversight mechanisms include regular inspections, Direct field observations, safety documentation reviews, drill and training exercises, and open two-way communication between the captain and all crew members [30]. [31] added that the quality of communication between officers and crew is the strongest predictor of the level of safety protocol compliance far more than any factor of technology or safety equipment available. The objectives of this study are; 1) To describe the condition of UV. Royal King Ali crew compliance with applicable safety protocols; 2) To identify and analyze the factors causing low crew compliance with safety protocols and 3) To analyze the crew supervision and management strategies implemented by the Captain in an effort to improve compliance with safety protocols.

The captain's role is a key factor in improving compliance with safety protocols. He is not solely responsible for the ship's navigation and operation. Research on maritime safety has focused more on technical aspects, the availability of safety equipment, or human error. This study examines how the captain's leadership, supervision, communication, and decision-making can influence crew behavior and discipline in implementing safety procedures in the workplace.

A case study approach integrates the analysis of vessel compliance conditions, factors causing contributing to non compliance, and corrective strategies implemented directly on the UV Royal King Ali. This research not only identifies problems but also reveals changes that occurred after the captain implemented safety supervision and management measures. Thus, the results provide empirical evidence regarding the relationship between captain leadership effectiveness and improved shipboard well-being in response to safety protocols.

Furthermore, this study makes a practical contribution by researching into leadership based supervision strategies that can be applied to building a safety culture onboard ships. The findings on the influence of communication, regular coaching, direct supervision, periodic evaluations, and disciplinary enforcement on improving crew compliance are valuable and can be used as a reference by shipping companies and other ship managers. Therefore, this research not only enriches academic studies in the field of maritime safety, but also produces applicable recommendations to

support accident prevention efforts and improve ship operational safety.

II. METHOD

This Study uses a qualitative descriptive approach, a research method that aims to describe, analyze, and interpret observed phenomena in depth and context [12]. This approach was chosen because the research aims to understand the dynamics of the captain's role in the specific context of UV. Royal King Ali, rather than to test statistical hypotheses in broad generalizations. Data Collection was carried out using three complementary methods. Participant Observation: Direct observation of ship operational activities, implementation of safety procedures, and interactions between the Captain and crew during the internship period January–April 2026. In depth Interviews: Structured and semi-structured interviews with the Captain, officers and crew of the UV. Royal King Ali gain an in-depth perspective on the implementation of safety protocols. Document Analysis is riview of official ship documents, including safety management system (SMS), log books, safety checklists, drill reports and incindent record. Data analysis was carried out throught data reduction, data presntation, and conclusion drawing, Data Validity was ensured throught triangulation techniques, namely by comparing data from three different sources (observation, interviews and documents) to ensure the consistency and accuracy of the findings.

III. RESULTS AND DISCUSSION

PT. Barokah Perkasa Group is a national shipping company engaged in marine transportation services to support the operations of the energy and mining industries in Eastern Indonesia. UV. Royal King Ali is one of the company's fleet units that functions as a utility vessel operating in the waters of Kalimantan and Sulawesi.

The use of personal protective equipment (PPE) is one of the most measurable indicators for assessing crew compliance with onboard safety protocols. Based on systematic observations conducted before and after the implementation of the Master's oversight strategy, comparative data were obtained, as presented in table.

The data shows that all types of PPE experienced a significant increase in compliance after the intervention. The average compliance rate increased from 63.3% to 90.7%, a 27.4 percentage points increase. The largest increases were recorded in the use of safety gloves and hard hats, with an increase of +33 points each. This achievement exceeded the compliance target the minimum stipulated in the company's Safety Management System (SMS) policy, which is 85%. In order to visually show the differences in compliance per type of PPE, a comparison graph is presented below.

Shows that the use of hi-vis vests showed relatively high compliance from the start (78%), indicating some internalization of safety norms among experienced crew. Conversely, earplugs had the lowest initial compliance (50%), due to the crew's perception that hearing protection was not critical under routine working conditions. Through daily safety meetings and demonstrations of the risks of long-term noise exposure delivered by the Master.

Ear plug compliance was successfully increased to 82% at the end of the study period. This finding aligns with research by[16], which confirmed that safety training accompanied by concrete evidence of risks is more effective in changing crew behavior than sanctions alone. Internalizing safety values, mediated by the captain's active leadership, is key to successfully and sustainably improving PPE compliance. The effective implementation of safety drills and structured safety activities on board requires firm and consistent leadership intervention from the captain [32]. Without visible commitment from the captain, the crew tends to view safety activities as mere formalities.

TABLE 2.
COMPARATIVE ANALYSIS OF THE LEVEL OF COMPLIANCE WITH THE USE OF PPE BEFORE AND AFTER THE INTERVENTION

Indicator	M-1	M-2	M-3	M-4	M-5	M-6	M-7	M-8	D
PPE Compliance (%)	65%	67%	71%	76%	81%	86%	89%	91%	+26%
Safety Checklist (%)	60%	63%	70%	76%	82%	88%	93%	95%	+35%
Emergency Prs. Score (%)	62%	64%	68%	72%	75%	79%	82%	83%	+21%

Based on interviews with ship crews, factors that crew, so that safety information is not conveyed optimally; 2) Crew fatigue due to high workload andoperational pressure; 3) Low understanding of safety procedures, so that the crew does not understand the importance of compliance with safety rules; 4) The condition of safety equipment that is not entirely suitable for use, thus reducing the effectiveness of the implementation of safety procedures; 5) Lack of direct supervision from the Captain, especially in the initial conditions of the study; 6) Pressure from the ship's operational schedule, which causes the crew to focus more on completing work than compliance with safety procedures. These factors are multidimensional and interrelated, thereby influencing the crew's overall overall safety behavior.

The increase in the weekly trend of safety compliance indicators can be seen in the following table 2. Visualizes the increasing trend in three key indicators: PPE compliance, safety checklist completeness, and emergency procedure knowledge scores. All three indicators exhibit a similar growth pattern: slow in the first two weeks, then accelerating in the third and fourth weeks as the monitoring strategy is fully implemented,

and finally plateauing at a higher level in the fifth to eighth weeks. The S-curve pattern seen in this graph is consistent with the theory of behavioral change adoption in organizations [8].

TABLE 3
VISUALIZATION OF NEAR MISS REPORTING FREQUENCY PER MONTH

Month	Before Intervention	After Intervention	Frequency Visualization
January 2026	2	2	 Full pre intervention
February 2026	-	6	 Post implementation of new reporting system
March 2026	-	6	 Stable on targets

The frequency of near-miss reporting is one of the most sensitive indicators in measuring the quality of safety culture on board a ship. A low number of near-miss reports does not necessarily indicate a safe working environment, but rather often reflects the presence of cultural barriers that prevent crew from reporting [33]. Near miss reports reached 12 during the study period, with all (100%) being followed up. The increase in reporting frequency from an average of 2 reports per month to 6 reports per month a 200% increase indicates the success of the Captain's strategy in building a climate of openness.

Asurge in near-miss reporting began in February 2026, along with the implementation of a simpler reporting form and reporter anonymity. These changes directly addressed a key barrier identified in crew interviews the fear that reporting a dangerous event would result in sanctions or negative stigma. The captain of the UV. Royal King Ali consistently emphasized in every safety meeting that near-miss reporting was a positive contribution by the crew to collective safety, not an admission of fault. All near-miss reports were followed up within 24–48 hours through a structured procedure.

The results of the Recapitulation of Crew Performance Evaluation Related to Safety showed that seven of the eight evaluated performance aspects successfully achieved or exceeded the set targets. The most significant improvement occurred in the aspect of safety meeting participation (from irregular to regular with an attendance rate of ≥ 95%) and the accuracy of filling out the safety checklist (from 60% to 95%). The only aspect that has not achieved the target is compliance with crew rest hours according to the 2006 MLC, which has only reached 88% of the target of 90%. This condition is caused by the operational pressure of the ship that cannot always be avoided, especially during mooring and loading-unloading activities that require more active personnel simultaneously. [34] emphasized that optimal implementation of fatigue management requires support from ground management in the form of adjusting operating schedules and adding reserve personnel.

Furthermore, all eight critical elements of the ISM Code evaluated experienced significantimprovements. The most fundamental improvement occurred in the incident reporting and analysis element (Element 9), where the transformation from a reactive to a proactive reporting system represents a critical paradigm shift in building a safety culture. [5] emphasized that the quality of ISM Code implementation on merchant shipping vessels in Indonesia is highly dependent on the commitment of the master, the person with the highest responsibility on board—and the findings of this study empirically confirm this proposition. Weighted score increased from 60.8 to 91.7 a 30.9 point jump categorized as very significant. The fatigue management dimension recorded the most moderate increase (+16 points).

Meanwhile, the Crew Supervision and Management Strategy Implemented by the Captain of UV. Royal King Ali implemented a systematic supervision strategy based on the Plan-Do-Check-Act (PDCA) approach and international regulations (ISM Code, SOLAS, STCW, and MLC 2006). The seven main strategies implemented are: PPE supervision by ensuring the use of PPE by all crew, conducting training including regular socialization or briefings and drills, implementing communication and briefings, reporting incidents, equipment maintenance (ensuring all equipment is in proper condition), and fatigue management. Multidimensional Analysis of Safety Outcomes Comparison of Weighted Scores has increased.

The analysis results show that all safety dimensions improved after the safety strategy was implemented. In the PPE Supervision dimension, the score increased from 63 to 91, again of 28 points, with a high improvement category. The Training and Drill dimension also experienced an increase of 28 points, from a score of 60 to 88. In the Communication and Briefing dimension, there was a very significant increase, namely from a score of 55 to 95, an increase of 40 points. The Incident Reporting dimension achieved the highest increase, namely from a score of 40 to 90, an increase of 50 points, with a very high category. In the Safety Equipment Maintenance dimension, the score increased from 75 to 100, an increase of 25 points. Meanwhile, the Fatigue Management dimension experienced an increase from 72 to 88, an increase of 16 points. Although the increase is categorized as moderate and is the lowest compared to other dimensions, these results still indicate

improvements in the arrangement of crew working hours and rest hours. Overall, the weighted safety score increased from 60.8 at baseline to 91.7 at the end, a 30.9-point increase, categorized as very significant. This improvement demonstrates that the captain's crew supervision and management strategies have successfully improved compliance with safety protocols and strengthened the safety culture aboard the UV Royal King Ali.

TABLE 4
MULTIDIMENSIONAL ANALYSIS OF SAFETY OUTCOMES COMPARISON OF WEIGHTED SCORES

Security Dimension	percentage (%)	Initial Score	Final score	Range	Level of Improvement
PPE Supervision	20%	63	91	+28	High
Training & Drill	20%	60	88	+28	High
Communication & Briefing	20%	55	95	+40	Very high
Incident Reporting	15%	40	90	+50	Very high
Equipment Maintenance	15%	75	100	+25	High
Fatigue Management	10%	72	88	+16	Currently
Score	Overall Weighted	100%	60,8	91,7	+30,9

Overall, this achievement is a tangible result of the implementation of active, structured, and internationally regulated safety leadership by Captain UV Royal King Ali. [13] concluded that the success of a master's supervision on a utility vessel is largely determined by his or her ability to create a conducive safety ecosystem—where regulations are socialized, procedures are practiced, violations are dealt with constructively, and successes are celebrated. This ecosystem was evidently created at UV. Royal King Ali through seven comprehensive strategies implemented by the captain.

IV. CONCLUSION

The results of the study indicate that the compliance of the UV. Royal King Ali crew was initially low with a PPE compliance rate of 63.3%. The main causes were lack of communication, crew fatigue, poor understanding of safety procedures, the absence of an incentive system, suboptimal equipment conditions, lack of supervision, and operational pressure. Efforts to improve compliance with safety protocols have been implemented and have been successful, as indicated by an increase in compliance with PPE use of 27.4% and an overall safety percentage of 30.9%. This increase indicates that the captain's crew monitoring and management strategies have successfully increased compliance with safety protocols and strengthened the safety culture on board the UV Royal King Ali.

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