
THE INFLUENCE OF HUMAN RESOURCE QUALITY ON OPERATIONAL PERFORMANCE MEDIATED BY WORK MOTIVATION AND COMMUNICATION IN THE OPERATIONAL BUNKER SERVICE OF CENTRAL SHIP MANAGEMENT PTE LTD: A CONCEPTUAL MODEL

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ABSTRACT

The Operational Performance Index of Bunker Service Central Ship Management Pte Ltd for 2021-2023 shows a declining trend from year to year. In 2021, the performance index reached 98.8, then declined to 93.8 and 88.8 in 2022 and 2023, respectively. The quality of human resources significantly affects work motivation and communication in the workplace, and a combination of both creates a synergy in the workplace. This quantitative study aims to examine the influence of human resource quality on operational performance, with motivation and communication as mediating variables.

Keywords

Human Resource Quality, Operational Performance, Work Motivation, Communication, Conceptual Model.

INTRODUCTION

Bunker service refers to the provision of ship fuel, such as bunker fuel and diesel, needed to operate ship engines. This service plays a strategic role in ensuring the continuity of vessel voyages and optimizing operational efficiency (Iswantoro, et al., 2023). In carrying out its operations, Central Ship Management also offers Bunker Service to solidify its position as a leading ship management service provider. However, the Operational Performance Index of Bunker Service Central Ship Management Pte Ltd for the years 2021-2023 shows a declining trend from year to year. In 2021, the performance index reached 98.8, then declined to 93.8 and 88.8 in 2022 and 2023, respectively.

Operational success heavily depends on the competence, motivation, and skills of the team members comprising the human resources. High-quality human resources have a positive impact on operational efficiency. The quality of human resources significantly affects work motivation and communication in the workplace. High work motivation and effective communication play an integral role in enhancing an organization's operational performance. High work motivation encourages employees to give their best in their tasks, creating a productive and enthusiastic work environment. Good communication serves as an important foundation in maintaining operational smoothness. Proper understanding of instructions, expectations, and organizational changes can avoid potentially detrimental misunderstandings.

The combination of high work motivation and effective communication creates synergy in the workplace. Motivated employees tend to actively participate in the communication process, resulting in harmonious collaboration and enhancing the

organization's ability to adapt to changes. Thus, operational performance is improved through focused, supportive teams capable of overcoming operational hurdles more efficiently. Investing in building good work motivation and communication is key to achieving operational success and sustainable growth (Rosihana, 2021; Joni and Hikmah, 2022).

Further analysis of the case of declining performance in Bunker Service Central Ship Management Pte Ltd is needed to identify the factors causing the decline and develop improvement strategies to ensure optimal operations in the future. This research is conducted to determine the influence of human resource quality on operational performance with motivation and communication as mediating variables.

LITERATURE REVIEW

A. Human Resource Quality

The study explores the definition and factors influencing Human Resource Quality (HRQ) in the context of operational bunker services of Central Ship Management Pte Ltd. According to Hullah et al. (2012), HRQ encompasses individuals and organizational systems in effectively executing functions. Anggraeni (2013) emphasizes HRQ's crucial role in organizational planning and execution, while Widodo (in Arfianti, 2011) highlights HRQ's ability to perform assigned tasks, supported by adequate education, training, and experience. Non-physical aspects like education, experience, attitudes, and values, as noted by Rahardjo (2010) and Soemardjan (2009), also contribute to HRQ.

Factors influencing HRQ, as discussed by Sugiyanto, Endarto, & Nugroho (2016), include education, nutrition, and socio-cultural environment. Quality education fosters skilled labor, productivity, and innovation, giving an edge to advanced countries. Nutrition and public health significantly impact human capabilities and productivity. Environmental and socio-cultural conditions shape HRQ, where low-quality environments and unfair work environments can lower motivation and productivity. Understanding these factors helps nations devise policies for improving HRQ, promoting societal welfare and sustainable development.

Sedarmayanti (2013) outlines three main indicators of HRQ: physical ability, intelligence, and psychological capability. In the context of bunker service operations, crew physical health and well-being are crucial indicators. Intellectual capacity is gauged through education, understanding of international bunker regulations, and maritime language proficiency. Psychological capacity is measured through ethics, behavior, attitude, and mental functions. Assessing these indicators helps maritime companies design training programs to enhance crew quality, improving operational efficiency and service sustainability. Consequently, attention to HRQ in bunker service operations is pivotal for the success and sustainable growth of international maritime companies.

Research by Mu'ah et al. (2023) indicates that the quality of human resources and work discipline significantly impact work motivation, which in turn mediates the relationship between the quality of human resources and work discipline with employee performance. Similarly, findings by Stadnicka et al. (2019) highlighting human factors in future industries provide additional perspectives regarding knowledge and motivation enhancement. Research by Ravina-Ripoll et al. (2022) shows that human resources can have a significant impact on the effectiveness of internal communication within organizations. These results are supported by research by Giménez-Espert et al. (2019), which found that the quality of human resources is important in shaping effective communication among team members. Research by Syamsul et al. (2023) indicates that the quality of human resources and the level of employee competence can positively influence operational performance. Additionally, research by Lubis et al. (2019) demonstrates that the quality of human resources significantly impacts work effectiveness, which in turn affects employee performance.

B. Work Motivation

The discussion on work motivation begins with Samsudin's (2006) definition, stating that motivation is the process that influences or drives individuals or work groups to perform assigned tasks. It involves the natural impulse to sustain life and fulfill individual needs. Managers play a crucial role in inspiring, encouraging, and motivating employees to achieve set goals. Various factors such as superiors, colleagues, physical facilities, policies, reward systems, job types, and work environments influence work motivation. Personal interests and individual needs also shape work motivation, considered an internal process driving individuals' desires to take action to achieve goals.

Siagian (2002) highlights the significance of work motivation in organizational life, emphasizing four main considerations: the "quit pro quo" principle, the complex dynamics of human needs, the absence of saturation points in meeting human needs, and the differences in individual characteristics within organizations, making no single motivation technique equally effective for everyone. Mangkunegara (2005) presents two main techniques for motivating employees: fulfilling their needs and using persuasive communication. Needs fulfillment is considered the fundamental basis of work behavior, while persuasive communication employs an extra-logical approach using the 'AIDDAS' model (Attention, Interest, Desire, Decision, Action, and Satisfaction). Leaders are expected to pay attention to employees to cultivate interest in work. This generated interest becomes a strong drive to make decisions and take actions to achieve the goals set by management. Therefore, employees work with high motivation and feel satisfied with their work outcomes.

The discussion further explores various motivation theories, including Abraham Maslow's Hierarchy of Needs, McGregor's Theory X and Theory Y, and McClelland's Need Theory. These theories offer insights into understanding and motivating individuals within organizations. For instance, Maslow's theory emphasizes fulfilling hierarchical needs, while McGregor's Theory Y advocates a

positive view of human nature, suggesting participative decision-making and challenging tasks to enhance motivation. McClelland's Need Theory highlights achievement, power, and affiliation as fundamental needs driving individuals' motivation. Understanding these theories aids managers in designing strategies to motivate and enhance employees' performance, thus contributing to organizational success. Overall, the discussion underscores the importance of recognizing and addressing various motivational factors to create a supportive work environment conducive to productivity and effective communication.

Research conducted by Rosihana (2021) provides an overview of how work motivation, perceptions, and working conditions can influence operational performance. As a complement, a study by Suprapti et al. (2021) focuses more on compensation factors, organizational commitment, and working environment that contribute to work motivation and employee performance. Both studies offer significant insights into the relationship between work motivation and operational performance.

The research by Mu'ah, Firdawati, Mas'adah, and Masram (2023) explores the role of work motivation as a mediating variable in the relationship between the quality of human resources, work discipline, and employee performance. Additionally, another study by Rosihana (2021) discusses the influence of work motivation, perceptions, and the work environment on employee performance. These studies contribute significantly to understanding the complexity of factors affecting operational performance, with an emphasis on the role of human resource quality and work motivation.

C. Communication

According to Arni (2016), the discussion on communication delves into its definition, encompassing the process of sharing information, achieving mutual understanding, and exchanging meaning among individuals or groups. This involves both etymological roots, terminological understanding, and paradigmatic concepts, emphasizing its complexity and significance. Communication involves verbal and nonverbal exchanges to alter behavior and is vital in social science research to study human activities.

Factors influencing communication, as outlined by Corrie (2017), include language and communication style, perception, context, power dynamics, emotions, cultural differences, technology, communication skills, goals, trust, and credibility. Understanding these factors aids in managing messages effectively and avoiding barriers or misunderstandings, enhancing communication abilities.

Effective communication indicators, as presented by Sutardji (2016), highlight the importance of mutual understanding, pleasant atmosphere, influence on attitudes, better relationships, and action changes. These indicators emphasize the goal of achieving clear understanding, fostering positive interactions, influencing attitudes, strengthening relationships, and promoting action changes as a result of communication. By recognizing and applying these indicators, individuals can enhance their communication skills and ensure messages have the desired impact while fostering positive interpersonal relationships.

Research conducted by Joni and Hikmah (2022) explores the impact of leadership, work environment, and communication on employee performance. Additionally, a study by Izzul Ihsan and Palapa (2022) focuses more on the influence of individual characteristics and interpersonal communication on performance. Both studies provide valuable insights into the importance of communication in influencing operational performance.

Two studies conducted by Ravina-Ripoll et al. (2022) and Joni and Hikmah (2022) provide valuable perspectives on the influence of HR quality on operational performance with communication as a mediator. The findings from both studies suggest that communication plays a crucial role in connecting HR quality with operational performance. These studies offer a deeper understanding of how effective internal communication processes can influence operational performance through the management of quality HR.

D. Operational Performance

In exploring operational performance within the bunker service industry, Sobandi and Kosasih (2014) define it as the alignment of processes and the evaluation of internal bunker service company operations in terms of cost, customer service, fuel delivery to ships, quality, flexibility, and the quality of fuel provisioning processes or bunker services. Operational performance reflects a company's achievements over a specific period with reference to established standards (Prabowo and Jaya, 2015). It can also be implemented and measured to achieve efficiency and timeliness in serving customer ships. Afandi (2018) emphasizes the need for bunker service companies to adapt and maximize their operational performance in response to increasing customer demands. Operational performance in bunker service encompasses aspects such as fuel delivery to ships, optimal customer service, service speed, and delivery accuracy according to orders.

Factors influencing operational performance in bunker service, as discussed by Mulyadi (2013), include crucial elements such as logistics, operational equipment and facilities, human resources, compliance with regulations, environmental factors, and information technology systems. Understanding these factors is essential for improving efficiency, timeliness, and customer satisfaction in the bunker service industry. Logistics aspects are critical, including procurement, storage, and fuel delivery processes, which must be optimal and efficient to enhance overall operational performance. Equipment and facilities' conditions and reliability play a vital role in determining bunker service performance. Additionally, human resources or crew members involved in the bunker service process significantly affect service quality, emphasizing the importance of skills, knowledge, and training.

Furthermore, compliance with regulations and safety standards, environmental factors, and the utilization of information technology systems are also crucial factors affecting operational performance. Monitoring key operational performance indicators such as fuel availability, turnaround time, order processing efficiency, equipment reliability, and regulatory compliance can help bunker

service companies evaluate their performance, improve efficiency, and meet customer expectations effectively. Overall, effective management of logistics, equipment, human resources, regulatory compliance, environmental factors, and information technology can assist bunker service companies in achieving optimal performance standards in a highly competitive industry.

CONCEPTUAL MODEL

Based on the literature review above, the conceptual model is formulated as follows:

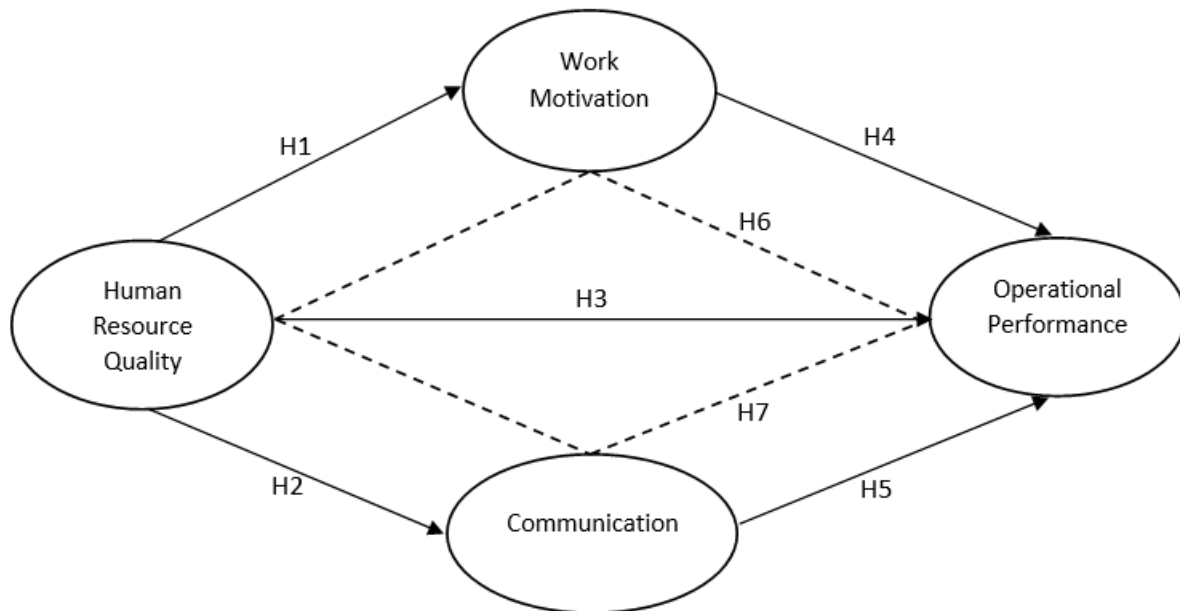


Figure 1. Conceptual Model

HYPOTHESES

Based on the conceptual model and literature review, the hypotheses can be formulated as follows:

- H₁: Human resource quality directly and significantly affects work motivation.
- H₂: Human resource quality directly and significantly affects communication.
- H₃: Human resource quality directly and significantly affects operational performance.
- H₄: Work motivation directly and significantly affects operational performance.
- H₅: Communication directly and significantly affects operational performance.
- H₆: Work motivation serves as a mediating variable in the relationship between human resource quality and operational performance.
- H₇: Communication serves as a mediating variable in the relationship between human resource quality and operational performance.

METHODOLOGY

This is a quantitative study using primary data in the form of questionnaire data. The population in this study consists of all 71 Operational employees of Bunker Service at Central Ship Management PTE LTD. The sample size for this study is 71 employees, utilizing a saturation sampling technique. Data processing is conducted using path analysis method, preceded by assumption testing. Hypothesis testing is also carried out using correlation coefficient test, simultaneous significance test (F test), T-test, and Sobel test.

CONCLUSION

This study aims to develop a conceptual model regarding the influence of human resource quality on operational performance, mediated by work motivation and communication. It includes background research, literature review, hypotheses, and research meth-

odology. The impact of human resource quality on operational performance, through the mediation of work motivation and communication, can be understood by applying the conceptual model derived from this research.

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