

Power Distance in Shipboard Organizational Environments: Its Impact on Decision-Making and Improvement Strategies

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Abstract: This paper systematically explores the impact of power distance on the decision-making process in the ship organizational environment. Through in-depth analysis of two real cases, it reveals how high power distance leads to information occlusion, communication barriers, and decision-making blind spots, thereby exerting adverse effects on ship safety and operations. The study finds that against the background of the coexistence of a high hierarchical system and cultural differences, crew members with lower positions are often reluctant to put forward opinions due to high power distance, resulting in the possibility that the decisions made by the captain and other crew members with higher positions lack the support of diverse perspectives. This paper proposes three practical strategies to reduce power distance: first, providing leadership training for captains and crew members with high position to improve their communication and listening skills; second, organizing diverse team-building activities to enhance equal interaction and trust among crew members at all levels; third, holding regular open meetings to encourage all crew members to participate in major decision-making. This study provides a theoretical basis and practical reference for optimizing ship management, improving crew collaboration, and enhancing ship safety, and also offers direction and guidance for promoting organizational cultural changes in the maritime industry in the future.

Keywords: Power distance; Decision-making; Maritime safety; Hofstede's theory; Ship management

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1. Introduction

1.1. Research background

The shipping industry plays a crucial role in global trade; more than 80% of the world's cargo is transported by sea ^[1]. The hierarchical system is one of the most typical characteristics in the organizational environment on a ship. The captain is at the top of the hierarchy, followed by officers, with the ratings at the lowest level. Orders from the captain and officers are usually not questioned, so the power distance is high and information usually

only circulates from top to bottom on the ship ^[2]. The ratings should obey orders from the captain and officers. Decisions made by leaders are based on their experience, lacking overall consideration and failing to take seafarers' opinions into account, which has a significant impact on ship safety and operations and may cause safety accidents, endanger crew members' lives, result in property losses, and damage the marine environment.

1.2. Researching significance

1.2.1. Theoretical significance

This study fills the research gap regarding the relationship between power distance and decision-making in the maritime field, and expands the application scope of Hofstede's cultural dimension theory in ship management. Through case analysis, this study reveals how power distance affects decision quality in actual navigation scenarios and proposes specific improvement strategies, thereby providing a theoretical framework and data support for future related academic research.

1.2.2. Practical significance

This study provides ship managers with practical solutions for reducing power distance and optimizing the decision-making process. Through strategies such as leadership training, team-building activities, and regular open meetings, ship leaders can effectively improve communication and collaboration among crew members, enhance the diversity and scientific rigor of decisions, thereby improving the safety and operational efficiency of the ship. The research results have a positive impact on the development of shipping companies and improve seafarers' welfare, enabling companies to gain a competitive edge, reduce accident rates, and lower economic losses.

This study can help optimize the ship decision-making mechanism and improve ship safety, providing theoretical support and practical guidance for promoting management innovation and cultural transformation in the global maritime industry.

1.3. Research objectives

The main objective is to explore the impact of power distance on decision-making within the organizational environment of ships. Through case analysis and theoretical analysis, it reveals the specific mechanisms by which power distance affects the decision-making process and its influence on ship safety and operations. Additionally, based on the research findings, this study proposes effective approaches to reduce power distance on ships. These approaches are not only theoretically grounded but also applicable to actual ship operations, helping ship leaders build a collaborative, safe, efficient, and harmonious working environment.

2. Literature review

Hofstede (1984) constructed a comprehensive framework for understanding cultural differences, which includes five main cultural dimensions: power distance, uncertainty avoidance, individualism, masculinity, and long-term orientation (Confucian dynamism) ^[3]. Among them, power distance is used to indicate the degree to which people accept the unequal distribution of power in organizations ^[4]. In high power distance cultures, the power hierarchy is clear; there is a significant status gap between superiors and subordinates, and subordinates must absolutely obey and respect their superiors ^[5]. In low power distance cultures, power distribution is more balanced, the status difference between superiors and subordinates is small, and subordinates are more willing and dare to raise questions and different opinions when facing superiors' decisions ^[6].

2.2. Application of cultural dimensions in organizational research

Hofstede's cultural dimension theory is widely used in cross-cultural management, organizational behavior, and leadership research, and has important value in terms of organizational decision-making models in different power distance environments. In high power distance organizations, leaders tend to make decisions unilaterally and rarely listen to subordinates' opinions, which may lead to a lack of innovation in decisions, potential decision blind spots, and increased safety risks. In low power distance organizations, all employees have the opportunity to express their opinions and professional insights in the decision-making process. Which can draw on multiple perspectives and professional experiences to integrate the opinions of all employees, reduce the risk of decision-making errors, and enhance the overall efficiency and adaptability of the organization ^[7].

2.3. Research status of power distance in the maritime field

The influence of power distance on the decision-making process plays a significant role in the organizational environment of ships. Currently, there are relatively few studies on the impact of high power distance in the organizational environment of ships on the decision-making process and on ship safety and operation. This research aims to explore this issue and conduct an in-depth analysis of power distance in ship decision-making.

3. Cultural dimensions in the ship organizational environment

3.1. Overview of ship cultural dimensions

Power distance and uncertainty avoidance are two of the cultural dimensions in a ship's organizational culture. The organizational structure on a ship usually has a strict hierarchical system. The captain is the ultimate decision-maker and holds absolute authority for command. This hierarchical system requires that the crew respect and obey their superiors during their initial training. Therefore, the hierarchical system on the ship also reinforces the power distance. In this kind of culture, information usually flows from top to bottom, and crew members have few questions and little feedback for their superiors' decisions. This may cause a decision blind spot for crew members and a communication gap as well, which may affect the ship's safety and operation.

Meanwhile, the environment onboard is full of uncertainties and risks, and crew members' attitude toward uncertainty will affect their decision-making method and work behavior as well. The crew members from a high uncertainty avoidance culture will follow rules and standard operating procedures strictly and avoid risks and changes. While the crew members from a low uncertainty avoidance culture will be more flexible and adaptive, and able to make quick decisions in an uncertain and changing environment.

These cultural influences not only affect the crew members' response to emergencies but also have a great impact on the ship's overall strategy and decision-making method as well.

3.2. The importance of power distance

In all cultural dimensions, power distance has the most direct and significant impact on ship safety and operation. In a ship organization, power distance will affect the information flow and the participation and quality in the decision-making process.

In a high power distance culture, the crew members will seldom question or challenge the superior's decision. Especially when the captain and high-ranking crew members participate in the decision-making process. The low-ranking crew members will not speak out to avoid conflict with their superiors or being criticized as disrespectful. This cultural characteristic may lead to information asymmetry in the decision-making process, failing to fully

consider opinions and feedback from all seafarers, thereby increasing the risk of decision-making errors, which may result in ignoring potential risks in major decisions, affecting the safety and operational efficiency of the ship, and posing a threat to ship safety. Reducing the power distance on ships can make the decision-making process of the ship organization more open, and crew members are more willing to express their opinions and suggestions, which helps to improve the comprehensiveness and quality of decisions, obtain more practical support and multiple perspectives, so as to better respond to the complex maritime environment and emergencies.

4. The impact of power distance on decision-making

The following will discuss in detail the impact of power distance on decision-making based on real cases during the author's tenure as a third officer.

4.1. Case 1: Sailing off the west coast of Mexico

While a ship was en route to the United States and passing off the west coast of Mexico, the captain decided to stop the ship for lifeboat drills and water maneuvering. At that time, although the wind force was relatively small, there were still swells on the sea. The author and other senior crew members had doubts about this decision. They were well aware that stopping the ship in the presence of swells might threaten the stability of the ship and the safety of lifeboat operations. However, due to the high power distance environment on the ship, they chose to obey the captain's decision without raising any objections. When the main engine of the ship stopped, the ship's speed dropped rapidly. During the process of lowering the boat, the ship began to shake due to the influence of the swells, causing the lifeboat to collide back and forth between the sea surface and the ship's hull. Although the crew quickly recovered the lifeboat, it eventually resulted in damage to the lifeboat's structure and cracks in the hull of the lifeboat. This case clearly shows how high power distance hinders the decision-making process. If senior crew members were in an environment where they could freely express different opinions and elaborate on the possible consequences of the captain's decision, this accident could most likely have been avoided. But in the end, it led to costly and dangerous consequences.

4.2. Case 2: Drifting outside Osaka Bay

When a ship was en route to Osaka Port and preparing to berth, it received instructions to drift outside the port boundary. However, the sea conditions at the time were extremely poor, with strong winds and large swells. The duty officer and chief officer believed that the captain should sail against the waves and maintain position to ensure better stability of the vessel. Although they put forward dissenting suggestions to the captain based on their experience and sound reasoning, the captain insisted on his decision to drift outside the port. Eventually, the ship shook violently, its tilt angle exceeded the inclinometer's maximum range, and some deck equipment fell into the sea.

This case demonstrates that even when subordinates offer alternative suggestions based on their experience and valid reasoning, high power distance can still prevent these ideas from influencing the decision-making process. Therefore, a culture where diverse opinions are valued should be fostered on ships.

5. Suggestions: How to reduce the power distance on the ship?

5.1. Leadership training

Captains, senior officers, bosun, fitter, and other crew members should receive leadership training before boarding

for duty. The leadership training content includes creating an atmosphere of open communication, active listening to the opinions and suggestions of subordinates, and how to value and absorb the ideas of subordinates in decision-making. For example, role-playing training can be carried out in training, that is, let leaders be in simulated situations of making decisions and listen to trainees (playing “subordinates”) in simulated situations. Develop the ability to seek feedback from others, integrate different views, and make more informed decisions. Granting the skills of ship leaders to endow the ability to create an atmosphere of open communication on the ship, making crew members at all levels share ideas and concerns with their superiors, thereby reducing the power distance between leaders and subordinates.

5.2. Team-building activities

Organize regular team-building activities that can cover a variety of social and recreational projects, such as dinners, board and card games, and group fitness activities. The purpose is to break down the hierarchical barriers between crew members and leaders. In a relaxed atmosphere, seafarers and leaders can communicate with each other in a more equal manner, enhancing their personal understanding. For instance, a dinner party can be organized where all seafarers sit together, share food, and freely talk. This helps to build personal relationships and trust, making seafarers more willing to express their opinions and suggestions in the workplace. Group fitness activities, such as fitness classes or team sports, are also very effective. Participating in sports together can promote teamwork and mutual support, further reducing the power gap on the ship.

5.3. Holding regular open meetings

Holds open meetings regularly at certain intervals, such as once a week or once a month. The specific time of the open meeting can be determined according to the ship’s schedule. The subject focuses on discussing matters related to ship operations, safety, and crew welfare. All seafarers are encouraged to actively participate, express their opinions, and provide suggestions. For instance, before the captain makes a decision on a new route or a major maintenance plan, introduce the new route or maintenance plan to the crew members at the open meeting. Crew members are invited to ask questions, raise concerns, and make alternative plans. This method of making decisions after an open meeting is not only more informed, but also makes crew members feel their own value, enhances their sense of participation, and thus reduces the power distance.

6. Conclusion

6.1. Summary of research results

This paper discusses in detail the influence of power distance on decision-making in the ship organization environment. The research results show that the high power distance feature of the ship organization will play a serious restrictive role in the decision-making process and will bring negative impacts to the ship’s safety and operation. In a high power distance environment, the strict hierarchical structure and obedience requirements often make the low-ranking crew members unwilling to reflect their concerns and different views, and therefore, the decision made may not take into account all relevant factors and may lead to an increase in accidents, delays, and economic loss.

6.2. Implications for maritime shipping companies

The results of this study have the following implications for the maritime industry. Ship managers must understand the negative influence of power distance to ship and should make full efforts, such as develop training for their leaders, conduct team building and regular open meeting, to build a more collaborative, harmonious and efficient

work environment, decrease the power distance on board, enhance the crew satisfaction and happiness, improve efficiency and reduce the probability of accident and loss, and then enhance their own competitive advantage.

6.3. Future research directions

Although this study has made great progress in exploring the impact of power distance on the ship decision-making process, there are still many interesting issues worthy of further exploration. Perform large-scale empirical studies to verify the effectiveness of the countermeasures to decrease the power distance. Further explore the interaction between power distance and other cultural dimensions in the maritime context and how they would jointly influence the organizational behavior and decision-making. Develop more creative and technically supported methods to decrease the power distance on board, for example, develop a digital communication platform to help the crew members communicate more openly and equally.

In summary, the problem of power distance existing in the organizational environment of the ship is worthy of our attention. Improving the safety, efficiency, and crew's happiness in the maritime industry is very important. This study provides a basis for further exploration and application in this field.

Disclosure statement

The author declares no conflict of interest.

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