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EXPLORATORY STUDY ON JUST CULTURE: INSIGHTS FROM SEAFARERS AND SHIPPING COMPANIES IN INDONESIA

By

ADE MARDANI PUTRA
Indonesia

A dissertation submitted to the World Maritime University in partial fulfilment of the requirements for the reward of the degree of

MASTER OF SCIENCE
in
MARITIME AFFAIRS
(MARITIME SAFETY AND ENVIRONMENTAL ADMINISTRATION)

2020

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Declaration

I certify that all the material in this dissertation that is not my own work has been identified, and that no material is included for which a degree has previously been conferred on me.

The contents of this dissertation reflect my own personal views, and are not necessarily endorsed by the University.

(Signature):

(Date): September 21, 2020

Supervised by:
Professor Raphael Baumler

Supervisor’s affiliation:
World Maritime University
Dedication

I dedicate this dissertation to my beloved mother, who spent a month lying in the hospital, fighting her illness, and leaving me forever. My hardest time was working on this dissertation while at the same my mother struggling to recover. Even though my mother was sick, still give me strength and encourage me to finish this dissertation and not allow me to come home. To be honest, my heart cries accepting the fact that the mother has left me forever, and until now I still can’t believe it. I haven’t had time to take care and be by mother side one last time until Allah calls her to heaven. Since childhood, we have lived in poverty, but mother always gave us the strength to be strong and believe in hard work and the mother believed that education is a weapon to fight poverty. Then I have become someone who has a strong mentality and promises to always make her happy.

Mother is my soulmate; mother is my breath. Now everything changes we living in a better life and all of these because of mother.

Mother is the reason for me to continue my studies at WMU to make her proud and be a source of inspiration for those people who live with financial limitations to dreaming big, never give up and dare to make it happen.

The mother’s struggle and sacrifice are real evidence and symbols of a mother’s love for her son. Thank you for your full love, care, extraordinary support from childhood to adulthood, and for making me who I am and always believe in my big dream, without you I am nothing.

Mother, I have completed your mandate and this Master's degree I dedicate to you and I will bring it to your final resting place. Although you may not be here to see me, I believe you saw me from heaven (Jannah).

Mother’s love of all time.

I always remember and bring your legacy to be sources of happiness and inspiring others in the right way.

You are the perfect mother, my hero, and an angel.

I learn many things about this life from you.

You are the university of life.

The source of my strength, energy, and true love.

Mother, I am missing you but I know you will always be with me in my heart.

I have my sweet and compassionate soul from watching you and your generosity and kindness to others.

I see the world full of wonder because of your imagination.

I have learned to never give up seeing your drive and perseverance.

A mother prays every good thing in this world for me.

Mother “You loving me until the end of your life and I love you until the end of my life too forever.

Mother, I am always waiting for you to come into my dream.

Mama... Maafkan anakmu, Mama aku kangen, Mama aku mencintaimu.
Mama bahagialah dan damainlah dalam syurga Allah.
Mother, you always in my heart and I am loving you forever.
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I most respectfully pay tribute to my mother, as an inspiring woman and hero in my life. Without her, I am nothing. Mother’s sacrifice will always be remembered in my life, where during difficult times I finished this dissertation. At the same time, my mother still gave tremendous love and big support to complete this dissertation. Although my mother was struggling with her illness at the hospital until she finally left me forever, without me being able to attend her last moment. My mother became a symbol of a mother’s sincere sacrifice to her son even though I had to feel the deep sorrow of losing the person I loved so much for forever to heaven (Jannah). Mother your love will be engraved beautifully in my life. You are the true university of life and I am successful because of the strength and sacrifice of your life for me. I am proud to have a mother like you who is inspiring in kindness. Brothers and sisters who always love, trust, and support me in every condition. They are big sources of energy for me and a reason not to give up to pursue my big dreams.

My high gratitude goes to the ITF Seafarers Trust Fund for giving me trust and the opportunity through a scholarship as an international platform for me to continue my education in the best maritime university in the world. Without the ITF Seafarers Trust, it would be difficult for me to achieve my dream.

With sincere and humble thanks to my supervisor and Head of MSEA Specialization, Professor Raphael Baumler, for his professional guidance and patience to support and teach me the thinking system in this dissertation. My co-supervisor, Professor Maria Carrera, for her patience, motivation, and guidance in doing quality research.

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“Goodbyes are not forever, are not the end; it simply means I will miss you until we meet again.”
Abstract

Title of Dissertation: Exploratory Study on Just Culture: Insights from Seafarers and Shipping Companies in Indonesia

Degree: Master of Science

The dissertation is an exploratory study on the concept of a just culture in Indonesia. The study analyses the perspectives from seafarers and designated person ashore (DPAs), as responsible in shipping companies for monitoring the safe operation of ships, on some of the pre-requisites linked to a just culture framework, ease of reporting, motivation to report, and trust. These three pre-requisites are important to analyze whether the concept of a just culture is present in the organization or not and to what extent. This study’s scope is limited to Indonesia, where maritime accidents still occur every year, both caused by technical and non-technical factors. This study concerns non-technical factors. A qualitative methodology was applied, and semi-structured interviews were conducted. It involved 11 participants consisting of 8 seafarers -4 senior and 4 junior officers-, and 3 DPAs. According to both seafarers and DPAs’ responses, the ease of reporting pre-requisite seems to be present in companies. However, the processes and practices related to the other two elements (motivation to report and trust) are far from being captured by shipping companies as essential to successful reporting, and then to a just culture implementation. Junior officers and lower ranks are not usually included in safety discussions during DPAs’ visits to the ships. The main barriers highlighted by seafarers as affecting negatively reporting are the hierarchical system onboard ships and the blame culture. The negative impact of reporting would include, among other aspects, termination of employment contracts and being blacklisted. This condition contrasts with the principles of a just culture that values every adverse event as a learning opportunity to enhance the performance of the safety system within the organization. Therefore, the companies should appreciate the reporters and treat them fairly to motivate them to report and build trust in the company.

KEYWORDS: A Just Culture, Ease of reporting, Motivation to report, Trust, Near miss, Incident
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           implementation ...................................................................................... 48
List of Abbreviations

ATC  Air Traffic Control
BKI  Indonesian Classification Bureau
DPA  Designated Person Ashore
FGD  Focus Group Discussion
GISIS Global Integrated Shipping Information System
IM  Instruction of Ministry
IMO  International Maritime Organization
ISM Code  International Safety Management Code
LTN  London Luton Airport
MAIB  Maritime Accident Investigation Branch
MEPC  Marine Environment Protection Committee
MSC  Maritime Safety Committee
NTSC  National Transportation Safety Committee
RO  Recognized Organization
RQ  Research Questions
SMS  Safety Management System
SOLAS International Convention for the Safety Life at Sea
WMU  World Maritime University
1. Introduction

1.1. Background

Shipping has a significant impact on the world economy, is one of the global industries as a means of world transportation. However, maritime accidents around the world that result in loss of lives, property, economic losses for shipping companies, and damage to the marine environment are still common (Hansen, Nielsen, & Frydenberg, 2002; Chen et al., 2020). Meanwhile, national and international organizations have made efforts to carry out various preventive measures in reducing the number of accidents and improving safety aspects (Kulkarni, Goerlandt, Li, Banda, & Kujala, 2020).

Maritime accidents are influenced by different factors, such as humans and organizational factors. Human error and neglect can result in incidents, for instance, collisions resulting in loss of life. It is essential to realize that human factors cause 75-96% of maritime casualties. Consequently, it can generate emergency situations such as fires, explosions, and grounding (Özdemir & Güneroğlu, 2015).

These accidents can occur due to several constraints of the sociotechnical network such as breakdowns and inappropriate equipment standards, work practices, procedures problems, seafarers’ stress due to company pressure, poor communication between crew, and organizational problems (Apostol-Mates & Barbu, 2016). In maritime safety, the human aspect cannot be separated from organizational factors, which have a significant contribution to safety. For instance, the Herald of Free Enterprise’s capsizing occurred in 1987, which resulted in many fatalities. This case shows the key role of organizational factors in determining safety (Reason, 1998). In fact, the organization has a vital role in creating a work atmosphere that impacts individual behavior, which also influences the safety aspects on board ships (Qiao,
Liu, Ma, & Liu, 2020). The poor working condition of seafarers and the low level of trust in company managers often lead to low seafarers’ participation in work management and safety arrangements (Olteadal & McArthur, 2011).

Establishing a just culture is needed to create an open reporting culture. The lack of reporting becomes a significant problem faced by the maritime industry (Olteadal & McArthur, 2011). These authors conducted a study in the Norwegian merchant fleet to identify the factors determining the reporting frequency of aspects such as incidents and accidents. They found that factors significantly related to higher reporting frequency included a trusting relationship among the crew, safety-oriented ship management, and feedback on reported events, among others. In other words, the attention of shore-based personnel on reporting determines the reporting frequency. Then, if the lack of attention is low, then the reporting rate will decrease. Bhattacharya (2012) explored the influence of social and organizational factors on the practice of incident reporting in the shipping industry and found that employees' fear of losing jobs was a primary aspect. Seafarers feel afraid to be blamed for the consequences of near misses and incidents reporting, which created a gap between policy and practice and make the incident reporting clearly ineffective. Moreover, learning from every accident as a result of safety information provided by reports and feedback established is not well developed in the maritime industry (Ek, Runefors, & Borell, 2014).

Various breakthroughs in improving safety have been carried out. Nevertheless, serious obstacles continue to occur in safety management. Thereupon, the unfortunate practice of reporting onboard ships makes a problem that often occurs. Additionally, at the maritime level, information regarding non-conformities, incidents, and hazardous information does not accumulate (Berg, 2013). Likewise, there is no possibility of exchanging information about incidents between vessels that make onboard personnel ships learn from other vessels (Berg, 2013).

Therefore, it is necessary to implement the concept of a just culture in shipping companies. A just culture involves staff at the level of both onshore and onboard ships. The pre-requisites necessary to engineer a just culture include ease of reporting,
motivation to report, trust, independence, feedback, and acknowledgment (Eurocontrol, 2006). Because these essential pre-requisites are interlinked with each other, it is difficult to separate them when implementing them within an organization. The pre-requisites of a just culture to be directly analyzed in this research are ease of reporting, motivation to report, and trust-related to near-miss/incident reporting. However, although focusing on these aspects, the other three also surface in the research. On the positive side, implementing a just culture will increase the frequency of reporting and support the company to raise its safety level. It requires a synergy between shipping companies and seafarers’ participation to enhance an organization's safety performance and finally will contribute positively to seafarers' safety.

1.2. Problem Statement

As the largest archipelagic country, Indonesia is involved in world trade (Cribb & Ford, 2009). In other words, ships are effective transportation in distributing goods that connect all the islands (Kadarisman, 2017) and participate in economic mobility (Faturachman & Mustafa, 2012).

Figure 1 shows the Indonesian map and shipping domestic routes. An estimated 90% of Indonesia’s exports are marketed by sea. However, the number of ship accidents every year continues to occur, both due to technical and non-technical factors. As a result, the number of fatalities due to maritime accidents increases (Suwestian, Saladin, & Setio, 2015).
Although several shipping companies in Indonesia have implemented international regulations, there is no guarantee that no accidents will occur. Table 1 shows the current number of accidents investigated from January to July 2020 in Indonesian waters involving the human element, according to the National Transportation Safety Committee in Indonesia (NTSC) (2020). Accidents continue to occur frequently and thus need attention.

Table 1: Maritime Accidents Report in Indonesia 2020

<table>
<thead>
<tr>
<th>DATE</th>
<th>NAME OF SHIP</th>
<th>TYPE OF INCIDENTS</th>
<th>TYPE OF SHIPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 2nd, 2020</td>
<td>Terubuk (IMO 9027427)</td>
<td>Grounding</td>
<td>Passenger ship/ RoRo</td>
</tr>
<tr>
<td>January 4th,  2020</td>
<td>Citra Nusantara (IMO 8132160)</td>
<td>Capsized</td>
<td>Passenger ship</td>
</tr>
<tr>
<td>January 29th, 2020</td>
<td>Parama Kalyani (IMO 9881811)</td>
<td>Grounding</td>
<td>RoRo</td>
</tr>
<tr>
<td>Date</td>
<td>Vessel Name</td>
<td>Event</td>
<td>Type</td>
</tr>
<tr>
<td>-------------------</td>
<td>------------------------</td>
<td>----------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>February 4th, 2020</td>
<td>Umsini (IMO 8303264)</td>
<td>Fire</td>
<td>Passenger ship</td>
</tr>
<tr>
<td>February 4th, 2020</td>
<td>Andriana XX (IMO 9087996)</td>
<td>Fire</td>
<td>Tanker</td>
</tr>
<tr>
<td>February 13th, 2020</td>
<td>Mutiara Ocean (IMO 9016404)</td>
<td>Grounding</td>
<td>Cargo</td>
</tr>
<tr>
<td>February 14th, 2020</td>
<td>Leuser (IMO 9032159)</td>
<td>Man overboard</td>
<td>Passenger ship</td>
</tr>
<tr>
<td>March 9th, 2020</td>
<td>Munic 9 (IMO 9835991)</td>
<td>Collision</td>
<td>Ro-Ro/Passenger ship</td>
</tr>
<tr>
<td>April 3rd, 2020</td>
<td>Gou Tou (IMO 9533062)</td>
<td>Man overboard</td>
<td>Bulk carrier</td>
</tr>
<tr>
<td>April 24th, 2020</td>
<td>Mutiara Sentosa (IMO 9021394)</td>
<td>Grounding</td>
<td>Ro-Ro/Passenger ship</td>
</tr>
<tr>
<td>June 12th, 2020</td>
<td>Dharma Rucitra (IMO 8904939)</td>
<td>Grounding</td>
<td>Ro-Ro/Passenger ship</td>
</tr>
<tr>
<td>June 23rd, 2020</td>
<td>Wira Berlian (IMO 9875812)</td>
<td>Collision</td>
<td>Ro-Ro/Passenger ship</td>
</tr>
<tr>
<td>July 26th, 2020</td>
<td>Voyager 6 (IMO 8677512)</td>
<td>Grounding</td>
<td>General Cargo</td>
</tr>
</tbody>
</table>

Source: NTSC, 2020

Furthermore, implementing a just culture in the company can increase near misses and incidents reporting. These reports can provide the company with relevant information regarding the safety aspects of onboard ships and will enhance the level of the safety performance of the company. Therefore, studies are needed to explore to what extent shipping companies in Indonesia are implementing the concept of a just culture in their companies to improve organizational safety, and the barriers they might encounter in doing it.
1.3. Aim and Objectives

This research is an exploratory study on the concept of a just culture in Indonesia. Seafarers need motivation and a blame-free environment to report near misses or incidents. Near misses refers to is a situation where there is a potential risk of harm even though it has not occurred, while an incident is a condition that results in casualties or fatalities (Lappalainen, Vepsäläinen, Salmi, & Tapaninen, 2011).

The aim of the study is to analyze the view of seafarers and shipping companies’ representatives (DPAs) on some of the pre-requisites linked to a just culture framework: ease of reporting, motivation to report, and trust.

To achieve the desired purpose, this dissertation has the following objectives:

- Analyze the presence of pre-requisites of a just culture: ease of reporting, motivation to report, and trust in the organization.
- Identify barriers in implementing pre-requisites of a just culture through the insights of seafarers and shipping companies in Indonesia.
- Develop interviews for seafarers and management representatives of the shipping company to determine the influence of the hierarchical system onboard ships, related to the pre-requisites of a just culture.
- Analyze the interviews' findings and make recommendations for the implementation of the pre-requisites of a just culture.

1.4. Composition of the thesis

The dissertation consists of five chapters:

- Chapter one comprises the background, the problem statement, the objectives, and the dissertation structure.
- Chapter two is a literature review focusing on the definition of safety culture, a just culture, a just culture in the aviation industry, the maritime industry, and the pre-requisites of a just culture such as ease of reporting, motivation to
report, and trust. It also explained a just culture in the shipping industry in Indonesia.

- Chapter three discusses the methodology and explains in detail the participants’ interviews.
- Chapter four describes and analyses the result of the interviews according to three pre-requisites of a just culture: ease of reporting, motivation to report, and trust.
- Finally, in chapter five, the outcome of the research is discussed. Furthermore, it provides the dissertation with answers to research questions and the concluding remarks of the research with the conclusions, recommendations, and future research.
2. Literature Review

2.1 Introduction

Many shipping companies make the safety of ships as a top priority (Kustriwi Ratnaning Hapsari et al., 2013). Accidents that occur are caused more by human error than by natural factors and technical issues. The human aspect is also related to a just culture framework, which is one of the efforts that can improve the safety performance of an organization.

A just culture has been successfully implemented in the aviation industry to improve the level of safety aspects of an organization. Figure 2 describes the most relevant pre-requisites of a just culture: ease of reporting, motivation to report, and trust (Eurocontrol, 2006).

![Figure 2: Pre-requisites of a just culture](image_url)

*Source: Researcher*
2.2 Definition of Safety Culture

After the Chernobyl disaster, the concept of safety culture began to be developed (Reason, 1998). Nevertheless, this concept is not a new issue, and the beliefs and attitudes of the organization will influence the safety aspects that are manifested through actions, policies, and procedures (Pidgeon, 1998). According to the International Maritime Organization (IMO) (2020), an organization with a ‘safety culture’ gives adequate priority to safety and understands that safety must be handled in the same way as in other industries. According to Dr. James Reason (1997), good safety culture is determined by five essentials elements. Figure 3 shows these five elements of the safety culture, including a just culture (Air Safety Support International, 2018).

![Diagram of the five elements of Safety Culture]

*Figure 3: The five-elements of Safety Culture
Source: Adopted Reason, 1997*
2.3 Definition of a Just Culture

According to Reason (1997), a just culture can be defined as a condition where trust is the atmosphere in which people convey information related to safety aspects. It most is very clear the limits between acceptable and unacceptable behavior. An essential factor of a just culture is to encourage, motivate, or provide a reward as an appreciation to the reporter.

Therefore, for a just culture to emerge, staff must trust management (Lowe, 2008). A “just culture” means a way of thinking about safety, which involves a questioning attitude, resistance to complacency, commitment to excellence, and encouragement of individual accountability and organizational self-regulation in safety matters. Developing a just culture requires starting from the top-level organization. Staff must feel safe at all levels, and that feeling of safety derives from the executive management behavior as a role model reflecting on the company culture (Lockhart, 2015).

Besides, to achieve success in implementing safety regulations, one of the most critical factors is applying a reporting culture. Thus, to achieve success, efforts are needed by the organization to motivate the personnel to report and to avoid blame culture. Staff cannot be punished for mistakes that are commensurate with their experience and training. A just culture means that individuals will not be blamed “for mistakes of honesty” but accountable for any major violations or omissions committed intentionally. Organizations must resolve any blame or punishment, but also make clear limits between acceptable and unacceptable behavior. There is still some behavior such as substance abuse, recklessness, sabotage, or criminal activities requiring sanctions (Eurocontrol, 2006).

It is important to learn from any accident that occurs through a safety investigation to prevent the same from happening again. Therefore, encouraging to report any incident or near miss becomes very important. A just culture promotes learning from adverse events to enhance safety awareness standards by improving the understanding of
security conditions and safety communication. Consequently, a just culture can be considered an enabler and a good indicator of safety culture (Skybrary, 2019).

2.4 A Just Culture in Aviation

Within aviation, especially at the airports, different organizations are involved, such as air traffic control (ATC) officers, baggage handlers, fuel services, catering officers, and cleaners. Thus, collaboration with each other is needed to be able to connect through good cooperation. If there are safety problems between them, the consequences will affect the airport’s operational system. Then, a just culture for airports, such as London Luton Airport, is essential to create a safe environment where everyone feels protected to allow open and honest reporting (Kirwan, Bettignies-Thiebaux, & Bolger, 2019).

In addition, according to regulation EC 376 (2014), all companies in airports are part of a safety chain that is legally bound by the above rules and must have a safety management system (SMS) and a just culture policy:

“A culture in which front-line operators or other persons are not punished for actions or decisions taken by them that are commensurate with their experience and training, wilful violation and destructive acts are not tolerated.”

This aviation framework recognizes the impact of human error on the operation and demonstrates its commitment to impose individual operator accountability (Eurocontrol, 2006).

2.5 A Just Culture in the Maritime Industry

Although there have been big improvements in technological developments in the maritime industry, accidents are still occurring. Human and organizational factors are involved in most of the maritime accidents, but the human element has not been evolving in the same way as technology (Turan et al., 2016). Through the Maritime Safety Committee (MSC), the IMO has expressed the need for safety culture, and the United Kingdom promoted just culture during 2011. The UK focused on bringing this
concept of a just culture through observations at sessions between the Maritime Safety Committee (MSC) and Marine Environment Protection Committee (MEPC) Human Element Working (IMO, 2011).

One of the international shipping companies that have implemented a just culture is BP Shipping, and it places the safety aspect as the company’s goal (Popa Liliana Viorica, 2015). The organization aims to create an open environment, to support zero accidents, providing training, and improving safety programs. For this reason, BP Shipping is consistent in maintaining open and transparent reporting, and each individual will be held accountable if intentionally doing something wrong. Moreover, anything can be reported, and every individual is free to talk without fear or discomfort. The crews, from senior officer level to the bottom level on board ships, are considered essential by the company. Finally, to implement a just culture in the company, monitoring and audits are carried out to verify whether operational procedures have been carried out correctly and obtain certification in maintaining a shipping license to continue operating (BP Shipping, 2018).

Therefore, a just culture requires two main principles: a reporting system and a culture of trust. However, the maritime industry must face many challenges in implementing this concept, including the culture of blaming personnel in many organizations, which still occurs (James Adamson, 2015).

2.6 Pre-requisites for a Just Culture

Creating a just culture is influenced by organizations’ actions in handling the culture of blaming and punishing, and assessing the impact of the effectiveness of the reporting system because it is the core of the safety aspect (Reason, 1997). Reporting systems are also used as indicators to measure safety systems and monitor adverse events to determine the system’s vulnerabilities and weaknesses in many organizations (Flemons & McRae, 2012).

There are 6 elements that have been identified to achieve a just culture: independence, feedback, acknowledgment, ease of reporting, motivation to report, and trust
(Eurocontrol, 2006). The study focuses on the last three, although aspects related, for example, to feedback and acknowledge also emerge during interviews, as the 6 prerequisites are interlinked. These three prerequisites significantly affect increasing the volume of reporting near-miss/incidents, and reporting is essential in improving organizational safety performance (James Adamson, 2015).

2.6.1 Ease of reporting

In the organization’s safety management, near-miss, and incident reporting play a crucial role (Kongsvik, Fenstad, & Wendelborg, 2012). In general, the definition of near misses refers to a situation where there is a potential risk of harm even though it has not occurred, while an incident results in casualties or fatalities (Lappalainen, Vepsäläinen, Salmi, & Tapaninen, 2011).

According to Davies, Hoffman, & Hebert (2003), the Canadian Patient Safety Dictionary defines reporting as:

“an activity where information is shared with appropriate responsible individual or organization for systems improvement.”

The primary purpose of reporting is to learn from adverse events to improve safety performance through sharing information, knowledge, stories (Sanne, 2008). Therefore, reporting can serve as organizational learning and prevent accidents from happening again. On the positive side, several studies have shown the positive effects of near-miss reporting and improved performance on safety (Jones, Kirchsteiger, & Bjerke, 1999).

The maritime industry is a safety-critical industry (Knausen, 2009). The reporting of near misses and incidents have been included in the International Safety Management (ISM) Code and the scope of the International Convention for the Safety of Life at sea (SOLAS), which is mandatory for all ships (Storgård, Erdogan, Lappalainen, & Tapaninen, 2012). In the safety management system (SMS), learning from adverse events must help improve safety performance proactively as a basic principle of the idea of a continuous process of improving safety (IMO, 2008). However, there are still
many work-related incidents not reported related to occupational health and safety. Several studies have analyzed the main reasons for poor reporting in the maritime industry (Anderson 2003; Ek and Akselsson, 2005; Bhattacharya 2009). The research shows that the blame culture still exists in the maritime industry, and this has a significant contribution to the problem of poor reporting. Blame, shame, and disciplinary action are social sanctions impacting the reporting rate (IMO, 2008).

The organizational management onboard ships has a hierarchical system consisting of a master-as top management representative-, chief engineer, chief officer, second officer, as middle management. This hierarchical organization is based on the needs related to emergencies, competences, and traditions. Hence, masters and officers’ actions and their interactions within organizations determine the safety (Räisänen, 2009). Weaknesses of "the vertical" model of shipping organization have a negative impact on all crew members because the organization only focuses on carrying out responsibilities rather than considering the crew’s attitude and opinions. Thus, to meet the company's interests, the emphasis is only on the senior officers, namely the master and chief engineer (Bielić, 2009). Also, the hierarchical structure on board ships provides junior officers and crews fewer opportunities to come forward with ideas or input (Xhelilaj & Sakaj, 2018).

A reason influencing reporting is its bureaucratization in the context of the ISM Code (Lappalainen, Vepsäläinen, Salmi, & Tapaninen, 2011). Thus, maritime personnel is burdened with reporting incidents that require a lot of paperwork, making them assume that safety management is encumbered with practices that are not useful to them. Another reason is the impracticality of the reporting system, which is usually difficult to use, contributing significantly to poor reporting of near-miss incidents (O’Leary & Chappell, 1996; Knudsen, 2009).

According to the IMO, through MSC-MEPC.7/Circ.7 guidance on near-miss reporting (2008), a near miss is a condition or event that can cause losses such as personal injury, environmental damage, or negative business impact. The regulation also explains that the individuals know the impacts of reporting near-miss and choosing not to report due
to fear of being blamed, ashamed, held accountable and disciplinary action. The above obstacles and problems can be overcome if the management takes the following initiatives:

- Encouraging the implementation of “a just culture,” including near-misses reporting.
- Protecting by maintaining the confidentiality of the near-misses.
- Having adequate resources to carry out investigations.
- Providing feedback on the near-misses reports, both suggestions, and recommendations. Regarding recommendations, the report must be disseminated even after the company decides to implement it or not.

It is important to realize that the aim of reporting is to prevent the incident and the accident from reoccurring and not to blame. Subsequently, the development of organizational structure, technology, and routines within the organization are needed through action or training (Bhattacharya, 2009).

2.6.2 Motivation to report

Another pre-requisite of a just culture that helps to increase the level of reporting is the motivation (O’Leary & Chappell, 1996). The promotion of reporting and encouragement to communicate safe practices are useful to impact the reporting rate positively. Moreover, the immunity for the reporter should be granted to motivate reporting (O’Leary & Chappell, 1996).

Johnson (2003) classifies the reporting system according to three characteristics: open, confidential, and anonymous. First, in an open reporting system, there is a delivery of detailed information. Second, the confidential allows only to be accessed by responsible and authorized parties. Third, the anonymous reporting system does not identify the reporter. According to O’Leary & Chappel (1996), these described features influence someone to report or not (near misses or incidents).

In the aviation industry, the culture needed to maintain a continuous motivation to report includes aspects such as trust between reporters and their managers. However,
it takes time and perseverance to change attitudes and behavior of personnel and maintain their motivation to report safety-related information (Eurocontrol, 2006).

Some of the efforts that companies can make to motivate employees to report are as follows:

- Publishing the participation of various parts of the organization in order for employees to have confidence in the system.
- Providing rewards and recognition. The reporter feels that their actions contribute to safety and security.
- Involving employees in the problem-solving process of decision making.

In the shipping industry, several factors have been found relevant to affect motivation to report: feedback, communication, reward, master’s role, and blame.

Regarding feedback, awareness campaigns about the importance of this factor should target maritime personnel. In fact, the benefits of reporting should be clearly and positively indicated (Sanne, 2008). It is important to highlight that organizations need to respect every report given by their particular reporter relating to safety information. According to James Reason (2001), increasing motivation to report is determined by the organization’s actions to handle each problem. Unfortunately, in shipping, the management does not always give feedback on submitted reports. Feedback is deemed pointless as it has no effect, which will impact the crew willing to report future events. Slow or inadequate feedback and corrective actions demotivate maritime personnel to report (Lappalainen, Vepsäläinen, Salmi, & Tapaninen, 2011).

Another essential factor that affects the motivation to report is two-way communication in the company. A work environment where there is open communication between the ship and the shore personnel will motivate the crews to report (Storgård, Erdogan, Lappalainen, & Tapaninen, 2012).

Giving rewards is another significant and effective mechanism to motivate seafarers to provide safety-related information (Thai, Balasubramanyam, Yeoh, & Norsofiana, 2013). However, the company must also establish a clear line between acceptable and unacceptable behavior. This becomes important in motivating personnel to avoid
making mistakes consciously and intentionally (Olteadar & McArthur, 2011). Some kinds or rewards are salaries, bonuses, training and development, promotion, and improving seafarers’ welfare (Pauksztat, 2017).

Moreover, the master’s role has also been identified as a key factor when comparing the number of reports between ships. Master’s attitude towards reporting encourages or not the reporting and affect motivation to report (Storgård, Erdogan, Lappalainen, & Tapaninen, 2012).

A final factor that influences the motivation to report is the presence of a blame culture in the organization (Bhattacharya, 2012). According to the UK Maritime Accident Investigation Branch (MAIB) (2011), there is a failure to report regularly because seafarers are afraid of being blamed. In the shipping industry, seafarers are aware of the impact if they report safety deficiencies, which may result in losing their jobs.

2.6.3 Trust

Trust is a multi-dimensional, dynamic, and multilevel concept that emphasizes more on interpersonal aspects. Trust enables organizations to learn and share information. On the contrary, a low level of trust can affect any form of reporting. In the healthcare industry, a culture of trust is a situation where there is an open environment facilitating continuous improvement through dialogue among doctors, staff, and patients (Frankel, Leonard, & Denham, 2006).

In the maritime industry, the main factors that have been identified as affecting trust include physical distance (lack of face to face interaction), communication (both interpersonal and with managers), and blame.

Regarding physical distance, several studies have identified that lack of face to face interaction between onshore and offshore staff causes a low level of trust between seafarers and company managers (Bhattacharya 2012; Xue 2012). In many cases, the companies assume that seafarers falsify reports and violate policy and procedures (Bhattacharya, 2012). To tackle this, interpersonal contact is needed to build cognitive and affective trust (Gausdal & Makarova, 2017). Hence, the company managers have
a responsibility for conveying the company’s vision related to safety (Flin & Yule, 2004).

Communication is another important factor for trust. A lack of interpersonal trust may cause any wrong decision in the context of work because reciprocity in sharing safety information may be ineffective. Lack of sharing information and not asking for advice is sometimes underestimated and can cause serious casualties (Gausdal & Makarova, 2017). Safety at the industrial level is significantly influenced by trust in management (Conchie & Donald, 2006). Trust in management promotes a climate of safety (Reason, 1998). Thus, the relationship between safety climate and outcomes is mediated by trust (Fleming & Lardner, 2001). Likewise, if there is unclear communication between management and employees, it may cause problems (Conchie & Burns, 2008). In other words, seafarers’ trust in management organization or among seafarers will impact safety (Gausdal & Makarova, 2017). Finally, to create a just culture, open communication and discussion are needed, including problems faced by management and staff to contribute to creating a just culture (Georgoulis & Nikitakos, 2019). If employees trust the management, safety will be improved in their organization, as employees will likely share more safety-related information or opinions with managers (Luria, 2010). Studies demonstrate that management’s efforts to improve crew safety positively impacted building their trust in the company (Lu & Tsai, 2008).

The biggest challenge to enhance trust is to change the culture of blame, where mistakes are seen as failures but not as learning opportunities to prevent future incidents. A culture of distrust will create conditions where people will feel afraid and blame each other to avoid the risk of being blamed for the lack of personal initiative or ideas (Pattison & Kline, 2015). When companies fire employees who talk about what they think is “right,” the consequences include not just losing a good worker but also generating a lack of trust in other employees. This condition is often faced by seafarers who think that having disagreements with their managers would result in future sanctions such as losing their jobs (Sampson, Turgo, Acejo, Ellis, & Tang, 2019).
It can be said that one of the most critical foundations of reporting activities is trust. However, this does not come automatically without a reporting system showing sensitive changes to the reporters’ concerns (O’Leary & Chappell, 1996). Indeed, to build trust, efforts are needed, such as involving and empowering employees and promoting their responsibility (Skybrary, 2020).

2.7 A Just Culture in Indonesia

Focus group discussion (FGD) are often held by the government, academics, and the community regarding accidents on Indonesian waters. Ships meeting the ISM Code standards are given a document of compliance (DOC) by the Indonesian Classification Bureau (BKI) as the recognized organization (RO) in Indonesia (Andry & Yuliani, 2014). These authors also mentioned that safety management reporting (SMS) systems are often manipulated. It seems that shipping companies often ignore to implement the ISM Code and fail to comply with all applicable rules and regulations, including reporting near misses and incidents. In other words, in practice, there is no substantial prevention and safety improvement (Nurhasanah, Joni, & Shabrina, 2015).

To enhance safety, the Ministry of Transportation Instruction number (IM) 7 since 2015 requires each harbor master in Indonesia to report ship accidents to the Directorate of General of Sea Transportation. This initiative taken by the Indonesian government intends to comply with the IMO regulation related to reporting ship accidents through the Global Integrated Shipping Information system (GISIS) (Minister of Transportation of the Republic of Indonesia, 2015). Similarly, the Indonesia’s government also has Law No. 17 of 2008 concerning Shipping Regulations for all aspects of the requirements that must be met and implemented. However, these regulations do not cover the shipping company’s obligation to report near misses and incidents as an effort to improve onboard ship safety included the framework a just culture.

In summary, although the legal framework on a just culture in Indonesia does not exist, near-misses and incident/accident reports have been introduced by the ISM Code.
Government regulations governing accident reporting also exist. Therefore, the shipping companies should comply with the ISM Code and national regulations to enhance reporting. However, to ensure the efficiency of the reporting system, easy reporting, motivation to report, and trust among seafarers and shipping companies' management should be promoted.
3. Methodology

3.1. Introduction

This research is an exploratory study on the concept of a just culture in Indonesia’s maritime industry. The study analyses the perceptions of seafarers and DPAs - as onshore personnel responsible in shipping companies for monitoring safe operation to ships-, on some of the pre-requisites linked to a just culture framework. These three elements explored are ease of reporting, motivation to report, and trust. The role of both senior/DPAs and seafarers’ onboard ships is essential to create a just culture as a means of safety improvement. Therefore, interviews to determine seafarers’ views, both from senior and junior officers and onshore management representatives in several shipping companies in Indonesia, have been conducted to validate the research questions derived from the literature review. In order to gain new insights from a social research perspective, this study uses narrative analysis to dissect the content of the interview questions (Boréus & Bergström, 2017).

3.2. Research Strategy

According to Quinlan (2011), qualitative methods are non-numerical data used to express and characterize exploratory trends, perspectives, findings, and stories that cannot be analyzed using statistics. Semi-structured interviews allow the development of questions leading to open discussions and have the flexibility that allows researchers to obtain detailed information related to the topic (Walsh & Wigens, 2003; Bryman & Bell, 2018).

The current study used a qualitative methodology. The study uses both primary and secondary sources; primary sources included semi-structured interviews and their narrative analysis. Secondary sources included international publications, books, and international journals.
Semi-structured interviews were conducted to get in-depth information about complex information like the concept investigated. The design of these interviews was based on developing open questions to address three pre-requisites of a just culture: ease of reporting, motivation to report, and trust. Figure 4 shows the research interview process.

Figure 4: Research interview process  
Source: Adopted by Caesar, 2016
Before the interviews were carried out, the questions were validated by one of the professors with seagoing experience and wide knowledge of the maritime industry to ensure that the questions were valid and reliable. The research interview process began with contacting the potential interviewees via email and/or phone call to explain to them the research purpose and ask for their participation in the study. Then, those who agreed to collaborate were explained further aspects of the research, including data confidentiality. Agreement on a date for a video call to conduct the interview was followed, and permission for recording the interviews was asked. Informed consent was signed by all participants. The interviews were conducted in the Indonesian language to capture the right information by using the interviewees’ mother tongue. Then, the information provided was translated into English by the researcher. The interviews were conducted in a polite manner and following some strategies for conducting elite interviews, including the appropriate length of the interviews, how to ask difficult questions or how to manage respondents who do not answer the questions, among others (Harvey, 2011).

3.3. Ethical Issues

This research involved people, then conducting interviews required approval by the ethics committee of World Maritime University (WMU) to ensure that the requirements and standards of the highest ethical compliance were met. Similarly, the interview questions were examined in detail and approved by the ethics committee. All participants were asked to sign the informed consent of the study. Moreover, participants’ confidentiality was protected by anonymizing their participation. All interviewees voluntarily accepted to participate in the study, and no costs were incurred. Finally, all data extracted from the research was analyzed, documented, and will be finally deleted immediately after the deadline for the submission of this dissertation (See appendix A related to the protocol of the research ethics committee of WMU).
3.4. Data Collection

The process of collecting data started on July 7th, 2020, and finalized by the end of August 2020.

3.4.1. Personal Interviews

Research interviews involved 11 participants, including 8 seafarers, both senior and junior officers, and 3 DPAs. The interviews with seafarers consisted of 24 questions addressing both sociodemographic data and pertinent information related to the just culture topic. The interviews with DPAs included 25 questions. Interviews’ questions for both seafarers and DPAs are available in Appendix B. Interviews were conducted via video conference (zoom technology) because interviewees were located in a different location from the researcher, either in shipping companies or onboard ships in Indonesia.

3.5. Data Analysis

The core content of interviews questions intended to capture relevant data related to the following research questions:

1. Is the concept of a just culture present in the organization?
2. What are the barriers to implement a just culture in the Indonesian maritime industry as identified by seafarers and shipping companies' representatives?
3. What is the influence of the hierarchical system onboard ships on implementing a just culture?

The researcher analyzed the data obtained in the interviews by using content analysis and then to determine certain words, themes, and concepts to organize and make sense of the interviews text. A manual method was chosen over an electronic method to code data as the most appropriate due to the size of the sample (Basit, 2003).
3.6. Reliability and Validity

The qualitative approach used in the research led to gain deep insights into a just culture concept from both the management level and frontline staff. Semi-structured interviews were prepared carefully and systematically, both in content and structure. Interviews’ questions were validated by a professor with extensive knowledge and experience in the maritime industry. Data analysis made use of a systematic application of content analysis to gain in-depth appreciation from targeted interviewees.

3.7. Limitations

Although six pre-requisites for a just culture implementation have been identified in the aviation sector (Eurocontrol, 2006), the current research explores three of them: ease of reporting, motivation to report, and trust. Hence, other pre-requisites would need to be explored to increase the external validity of the outcomes. Moreover, due to the nature of the topic, it may result in bias from respondents with a positive attitude to the company’s practices, mainly from DPAs. This study involved seafarers and shipping companies from Indonesia. The sample size is small, and participants (8 seafarers and 3 DPAs) do not represent all seafarers and shipping companies in Indonesia, so generalization of results must be made cautiously.
4. Data Description and Analysis

4.1. Introduction

Firstly, sociodemographic information will be described. Then, the interview results will be presented in detail in a structured manner related to three pre-requisites of a just culture explored: ease of reporting, motivation to report, and trust.

4.2. Sociodemographic Data

In total, 11 interviews were conducted: 8 with seafarers and 3 with DPAs. The seafarers’ sample included senior officers (masters and chief engineers) and junior officers (third officers and third engineers). Three 3 DPAs were also interviewed as representatives of shipping companies in Indonesia. Table 2 and Table 3 provide information about the participants of this study. In order to keep the anonymity of participants, their original names were not used. Two participants were females and nine males. The ages of the participants were between 22-55 years. They worked on various types of ships, including passenger ships, offshore supply vessels, tankers, cargo ships, containers, and bulk carriers. Moreover, participants have varied experience in the maritime industry from 2-33 years.
<table>
<thead>
<tr>
<th>No</th>
<th>Name</th>
<th>Age/Gender</th>
<th>Nationality</th>
<th>Maritime Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Abi</td>
<td>55 Years/Male</td>
<td>Indonesian</td>
<td>Master Mariner Certificate of Competency (COC) Class 1 with 33 years of experience on board ships and currently works as a Master on passengers ships in the largest shipping company in Indonesia</td>
</tr>
<tr>
<td>2</td>
<td>Budi</td>
<td>38 Years/Male</td>
<td>Indonesian</td>
<td>Master Mariner (COC) Class 1 with 10 years of experience and currently works as a Master on offshore supply vessel in Indonesian shipping companies</td>
</tr>
<tr>
<td>3</td>
<td>Coni</td>
<td>52 Years/Male</td>
<td>Indonesian</td>
<td>Chief Engineer (COC) Class I with 29 years of experience and currently working in an Indonesian shipping company operating in a domestic route that focuses on the tanker and gas</td>
</tr>
<tr>
<td>4</td>
<td>Doni</td>
<td>33 Years/Male</td>
<td>Indonesian</td>
<td>Chief Engineer (COC) Class I with 9 years of experience and currently working in an Indonesian shipping company operating in a domestic route which focuses on cargo</td>
</tr>
<tr>
<td>5</td>
<td>Eko</td>
<td>29 Years/Male</td>
<td>Indonesian</td>
<td>Third Engineer (COC) Class II with 6 years of experience and is currently working in an Indonesian shipping company which focuses on tankers</td>
</tr>
<tr>
<td>6</td>
<td>Farid</td>
<td>27 Years/Male</td>
<td>Indonesian</td>
<td>Third Engineer (COC) Class III with 5 years of experience and is currently working in an Indonesian shipping company, which focuses on the type of container ships</td>
</tr>
<tr>
<td>7</td>
<td>Galih</td>
<td>25 Years/Male</td>
<td>Indonesian</td>
<td>Third Officer (COC) Class III with 2 years of experience and is currently working in an Indonesian shipping company, which focuses on container ships</td>
</tr>
<tr>
<td>No</td>
<td>Name</td>
<td>Age/ Gender</td>
<td>Nationality</td>
<td>Maritime Experience</td>
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</tr>
<tr>
<td>1</td>
<td>Agus</td>
<td>40 Years/Male</td>
<td>Indonesian</td>
<td>DPA in an Indonesian shipping company that focuses on supply offshore vessels (oil and gas). He has 10 years of experience and is a former Master Mariner (COC) Class I</td>
</tr>
<tr>
<td>2</td>
<td>Bagas</td>
<td>38 Years/Male</td>
<td>Indonesian</td>
<td>DPA in an Indonesian shipping company that focuses on oil and gas. He has 10 years of experience in the current position</td>
</tr>
<tr>
<td>3</td>
<td>Cinta</td>
<td>31 Years/Female</td>
<td>Indonesian</td>
<td>DPA in an Indonesian shipping company focusing on passenger ships, tankers, and tugboats operating on a domestic route. She has 5 years of experience in the current position</td>
</tr>
</tbody>
</table>

Source: Interviews
4.3. Themes

4.3.1 Ease of Reporting

Ease of reporting is an essential pre-requisite of a just culture to enhance the level of safety of companies. This part will explore issues related to the reporting system onboard ships, as described by senior and junior officers and DPAs. Table 4 contains the questions that have been used to ask about this pre-requisite.

Table 4: Interviews questions: Ease of reporting

<table>
<thead>
<tr>
<th>No</th>
<th>Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Seafarers: No. 5, 6, 7, 8, and 24</td>
</tr>
<tr>
<td>2</td>
<td>Shipping Company (DPAs): No. 5, 6, 7, 8, 9, 22, and 25</td>
</tr>
</tbody>
</table>

1. Interviews (Seafarers)

Question no.5 asked about the near-miss reporting system in place, if mandatory or voluntary.

Six out of eight senior and junior officers responded, “Yes,” “there is a near-miss reporting,” and “it is mandatory.” However, there are two participants, junior and senior officer, who responded, “No.”

Question no.6 asked about the incident reporting system.

All participants responded, “Yes,” “there is an incident reporting onboard ships.”

Question no.7 concerns the level of difficulty of the reporting systems, described on a scale: 1 = Very difficult; 2 = Difficult; 3 = Neutral; 4 = Easy; 5 = Very easy.

Five senior and junior officers responded “easy”; one participant mentioned: “because it uses a computerized system and lack paper, simple and saves time to submit reports.” In addition, one senior officer said “difficult,” and one junior officer said “neutral.”
Question no. 8 asked about the frequency of near-miss/incident reports to companies every month on a scale: 1 = none; 2 = between 1 to 2; 3 = between 3 to 5; 4 = between 5 to 15; 5 = more than 10 reports.

Four seafarers answered, “between 1 to 2,” three participants said “none,” and one participant mentioned, “between 3 to 5” for near-miss reports. However, for incident reports, all respondents answered “none.” They said the incidents are unpredictable.

Question no. 24 is related to suggestions for improvement of the present reporting system onboard ship.

Four junior officers highlighted the “hierarchical system” onboard ships, which made “reporting difficult,” sometimes “complicated.” They said it is necessary to develop “anonymous reporting” in order for the crew “not to feel afraid to report.” It was also suggested that the reporting system, if possible, “does not involve many parties in the company.” Meanwhile, four senior officers gave suggestions for the reporting system of “useless paperwork and developed an integrated reporting application based on computerized.” Besides, one of them suggested that companies should consider “the importance of near-miss reporting,” not just incidents as an evaluation to improve the level of safety. Thus, adverse events would not happen again. Although “the organization onboard ships are hierarchical,” “The reporting system is quite good.”

2. Interviews (shipping companies - DPAs)

Question no. 5 asked about a near-miss reporting system in place, if mandatory or voluntary.

All DPAs responded, “Yes,” they all said there is a near-miss reporting system, and it is mandatory.

Question no. 6 asked about if there is a reporting system for incidents.

The three DPAs responded, “Yes,” there are incident reporting systems.
Question no.7 relates to the level of difficulty of the reporting systems, described on a scale: 1 = Very difficult; 2 = Difficult; 3 = Neutral; 4 = Easy; 5 = Very easy. The three DPAs gave different answers; one explained “difficult,” following by the statement “because not all crews understand the procedure and are afraid to report.” Meanwhile, another DPA said “neutral” “because the reporting is not difficult, and the hierarchical reporting process is existing in this company.” In contrast, one DPA revealed “very easy,” because “the company had provided Wi-Fi, which could support a very small aperture terminal (VSAT) satellite phone facilities onboard ships to report.”

Question no.8 assesses the company’s confidence that the crew will report near-misses/incidents by using a scale of 1 = Very uncomfortable; 2 = Uncomfortable; 3 = Neutral; 4 = Comfortable; 5 = Very comfortable. The three DPAs responded in a different way. One DPA said, “uncomfortable;” another “comfortable,” and the third one said “very comfortable.”

Question no.9 is about the frequency of reporting near-misses/incidents to the company every month on a scale 1 = none; 2 = between 1 to 2; 3 = between 3 to 5; 4 = between 5 to 15; 5 = more than 10 report. Two of the DPAs responded similarly “between one to two,” and one DPA mentioned, “between 3 to 5.” However, for incident reports, the three participants had the same response “none.”

Question no.22 asked about the challenges faced by the shipping company relating to the reporting system. All DPAs conveyed similar issues such as “frequent changes in crew members,” “familiarization,” “lack of awareness.” Also, it was mentioned, “fear of crews to report due to the hierarchical system.”
Question no.25 is related to the suggestions for improvement of the present reporting system onboard ships.

All DPAs respondents highlighted similar issues, such as “an anonymous reporting system that can build motivation and trust for the crew to report.” One DPA said that there is a need “to develop a reporting system based on application technology with a computer-integrated system in order to reduce the use or less paperwork.” One DPA added that “reporting system carried out regularly to avoid extra work”; and “the importance of maintaining communication between ships and companies.”

4.3.2 Motivation to report

Motivation to report is an important factor in increasing the number of reports, both near-misses and incidents. Therefore, it involves the commitment of both the shipping company’s management and seafarers. Table 5 contains all questions related to the theme of motivation to report.

<table>
<thead>
<tr>
<th>No</th>
<th>Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Seafarers: No. 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, and 22</td>
</tr>
<tr>
<td>2</td>
<td>Shipping Company (DPAs): No. 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, and 21</td>
</tr>
</tbody>
</table>

1. Interviews (Seafarers)

Question no.9 asked if the company encourage crews for near-miss/incident reporting, how, and the procedures adopted.

Seven senior and junior officers answered “Yes”: five participants added “familiarization,” and two participants “management visit to ships,” and “meetings.” One participant said, “Neutral” with the statement, “the company is not very supportive; it depends entirely on the situation.” Moreover, regarding the procedures adopted by the company, seven participants said with similar reasoning, “I do not know what procedure was adopted by the company in reporting because never
explained.” Nevertheless, one participant said the procedure is an ISM-related one adopted by the company.

**Question no.10 highlighted the presence of rewards given by the company to the crew regarding near-miss/incident reporting.**

Seven senior and junior officers responded, “No,” they said the company does not give rewards because “reports are an obligation.” If any reward increases motivation to report, “we are tired of working but still have to make a report.” However, one participant said, “Yes,” the company provides rewards such as money.

**Question no.11 asked about the senior officer’s effort and support for reporting near-misses/incidents.**

Six seniors and one junior officer responded, “Yes,” They mentioned efforts were made by safety meetings every month, briefings, or toolbox meetings every day. However, two of the participants responded, “Neutral.”

**Question no.12 asked if the crew are coming forward with reports.**

The response from four senior officers and junior officers was, “Yes.” They said having the motivation to report near misses or incidents. Even though one of them was “uncomfortable” because “there is no choice, but it is mandatory.” Besides, three participants said they were less motivated to report due to a “negative impact,”; “the company is less active in reporting,” and “no solution from the feedback.”

**Question no.13 is related to the involvement in reporting near-misses/incidents and the reporting process itself.**

All participants, both senior and junior officers, had similar statements. They say that “The ship organizational system is hierarchical”; thus, junior officers and other crew members could not directly report to the company without the senior officers and the master’s intervention. Subsequently, the master submits the reports to DPA. One of
the senior officers explained it like, “I always report it through DPA; I got a report from both senior officers, so the flow is hierarchical.”

**Question no.14 asked about the level of comfortability in making near-miss/incidence reports through a scale of 1 to 5, 1 = Very uncomfortable; 2 = Uncomfortable; 3 = Neutral; 4 = Comfortable; 5 = Very comfortable.**

Four participants said “comfortable”; one of them described “to make a report is not difficult” because, in the form, everything is available and become routine to make a reporting. Meanwhile, the other three participants responded, “neutral.”; they mentioned the influence of workload and reporting and an appropriate solution. In contrast, one participant said, “uncomfortable.”

**Question no.15 is related to near-miss records onboard ships.**

Six participants, both senior and junior officers, responded “Yes,” with similar answers that the report was “documented onboard ships in soft copy or hard copy.” However, two participants said, “No.” They said there was “no record or reporting for near misses.”

**Question no.16 asked about the incident records onboard ships.**

All the participants responded “Yes” with a similar statement that the incident report was “documented on computer systems (soft copy) and hard copy.” However, they informed that there were no incident report onboard ships.

**Question no.17 asked about the existence or not of feedback from the company after reporting.**

Six seniors and junior officers responded, “Yes,” one of them said, “the company provided feedback on reporting, such as recommendations and solutions for each reporting.” At the same time, one participant said, “No,” and one said, “Neutral.” They mentioned the same issues; there was either no feedback or slow response from the company.
Question no.18 is related to the actions that the company takes towards reporting near-miss/incidents.
All participants responded, “Yes,” the company is taking action, such as providing feedback, solutions, sanctions, monitoring, and warnings. One of them further explained, “the company will ask the chronology of fatal incident and made new procedure.”

Question no.19 explored an example of a near-miss/incident and reporting process.
All participants explained that the near-miss/incident reporting process was carried out through senior officers and masters onboard ships “due to the hierarchical system.” One participant described a near-miss and stated, “caused bad weather it difficult for a ship to berth at the port. Thus, efforts are needed to prevent an incident. Then, I contacted DPA directly via mobile phone in a case in an emergency. The DPA provided feedback on the report.”

Question no.20 asked about the company’s appreciation for near-miss/incident reporting.
The six participants responded, “Yes.” They said the company appreciates reporting by giving feedback. However, there were dissatisfied statements, especially from junior officers, regarding the kind of feedback “however, if there are reports of dangerous near-miss and as consequences, the companies will blame us.” “On the other hand, we feel a dilemma for fear of being blamed by the company too.” Meanwhile, one participant said, “Neutral,” and one participant said, “No.”

Question no.21 highlighted whether the company would blame the crew for reporting or not.
The six participants responded, “Yes.” They all make a similar statement that the company will blame the crew in case of a fatal incident that results in a negative impact or losses for the company. The companies took actions by terminating their employment contracts and blacklisting them. One of them expressed his dissatisfaction.
through the sentences. “There is a feeling of disappointment; however, we still have to report it as it is mandatory. The company will take action, such as terminate the employment contract. “On the other hand, one participant said “No,” and one said, “Neutral.”

**Question no.22 asked about the management of workload, taking into consideration the reporting onboard ships.**

Five participants responded, “No,” they said, “the workload onboard ships was not affected by reporting because it is a part of responsibility and job description.” In contrast, three participants said, “Yes,” one of them added, “workload is affected by reporting for me; however, the company still does not want to know of any reason and no effort from the company in managing workloads.”

2. Interviews (shipping company)

**Question no.10 asked about whether the companies encourage crews to report near-miss/incidents or not.**

The three DPAs responded, “Yes.” They stated that the company initially carried out “familiarization,” “briefing,” “training,” and management visits.”

**Question no.11 highlighted the presence of a reward given by the company to the crew regarding near-miss/incident reporting.**

Two DPAs responded, “No,” and one “Neutral.” They said there is no reward given by the company regarding reporting of near-miss.

**Question no.12 asked if crews are coming forward with reports.**

Two participants responded “Neutral” as conveyed by Agus, “even though there are no rewards, especially regarding reporting, the motivation of the crew to report is still going well because every year, the best performance vessel will be announced, and this can be stimulated them.” However, a different perspective was expressed by
Bagas in the following sentence, "Yes, the crew members are motivated to report near-miss/incident so far; they try to comply with company procedures."

**Question no.13 is related to the possibility of having anonymous reporting within the company.**

All DPAs participants responded, "No," with a similar statement that in their company, the reporting system was "hierarchical," and "the identity of the reporter must be known and reported through the senior officers."

**Question no.14 asked about near-miss records onboard ships.**

All DPAs responded "Yes." with a similar statement that records from near-miss are documented onboard ships and in the company with a soft copy or hard copy.

**Question no.15 asked about the incident records onboard ships.**

All DPAs responded "Yes" with similar argumentation. They said that the records of incident reports were no different from near-miss reports, and they were all documented onboard ships, both on soft copy and hard copy available in the company.

**Question no.16 asked about the presence of feedback from the company after reporting.**

All the DPAs responded, "Yes." They said that the company provided "feedback" following reports submitted to the company. One of the DPAs participants named Cinta stated, "the feedback for near-miss reports is usually a company giving a warning to the ship in order to prevent a similar situation from happening again."

**Question no.17 is related to the actions that the company takes towards reporting near-misses/incidents.**

All DPAs responded "Yes," that the company took action with various views such as Agus stated, "The company action provides preventive action to ship in reporting near
miss,” and other DPA named Bagas said, “the company would find out the root cause in order to make further efforts with corrective action.”

Question no.18 explored an example of a near-miss/incident or reporting process. One of the DPAs named Bagas explained a near-miss in the following sentences “near-miss of a slip surface on the main deck cause one of the crew slipped and fall. Then, I got a report from master. Then, the company provides corrective action to carry out maintenance and painting, which are given sand. Therefore, if a crew crosses, it will be safe and not cause harm and injury.” All participants explained that the near-miss /incident reporting process is done through the master, and once the report is received, the company, through the DPA, would take action on the report.

Question no.19 asked about the existence or not of a clear line between acceptable and unacceptable behaviour conveyed by the company to the crew. All the DPAs participants responded, “Yes,” with a similar statement that “familiarization was carried out at the beginning of joining the company.” It is then when the crew is explained about the procedures, vision, and mission of the company and actions that were acceptable and not tolerated by the company.

Question no.20 asked about whether the company challenges the seafarer’s face based on these reports. All DPAs responded, “Yes.” They stated that the company did not tolerate procedural violations due to negligence that could harm the company and did not comply with the company’s vision and mission: “Punishment, termination of employment contracts, and the blacklist” will be given in the event of the above. However, only one of the DPA named Cinta, stated that “there was no impact on the crews if only relate with near miss reporting, however for incident reporting would have an impact on the entire crew.”
Question no. 21 asked about the efforts of the company in managing workload, considering the reporting onboard ships.

All participants responded, “No,” their statement was similar in all cases. There was no special effort made by the company regarding the adaptation of workload on ships related to reporting because “it is a company procedure and a part of the job description also responsibilities of officers and crews.” One DPAs named Abi stated, “usually when the first time crew was joining, the companies will provide familiarization related to their duties and the ISM Code system in our company while reporting is a part of job responsibilities.”

4.3.3 Trust

This section explores the essential role of trust to implement a just culture. Table 6 includes all questions related to trust pre-requisites.

Table 6: Interviews questions: Trust

<table>
<thead>
<tr>
<th>No</th>
<th>Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Seafarers: No. 23</td>
</tr>
<tr>
<td>2</td>
<td>Shipping Company (DPA) No. 23 and 24</td>
</tr>
</tbody>
</table>

1. Interview (Seafarers)

Question no. 23 asked about how the company representatives communicate with the crews regarding reporting.

All senior and junior officers responded, “Yes.” The company, through the DPAs or superintendent, carries out a management visit to the ship within a specific time and conducts “briefings” and “discussions.” However, one of the participants, a senior officer named Doni, stated that “the blame culture in his company is still high, and there is no solution from the company after reporting.”

In contrast, from junior officers’ perceptions, it was conveyed that when DPAs conducted the management visit, none of them were involved in meetings and having direct discussions due to “the hierarchical system,” and they also said, “they would
be “blamed” if they submitted reports directly to DPAs, and sometimes “senior officers blamed them.”

Meanwhile, training related to reporting does not exist; only when all the crew first join the company they will be given “familiarization” regarding the company’s systems and procedures, including reporting. Nevertheless, if there is training from the company, it only involves senior officers. Then, senior officers have to train the rest of the crew members onboard ships.

2. Interview (Shipping company)

**Question no.23** asked how the company representatives communicate with the crews by means of meetings and/or discussions regarding the reporting system and safety aspects.

The three DPAs responded, “Yes.” They carry out management visits to the ship to hold “meetings” and “discussions” related to safety aspects included reporting involving all ships, and they also provide question and answer sessions. However, unfortunately, because the ship’s organization onboard ships are “hierarchical,” ship crews are not brave and afraid to convey information and speak to DPAs onboard ships.

**Question no.24** is about the existence of any training related to the reporting system and its importance.

The three participants responded, “Yes,” with the same statements that the company provides “familiarization” to senior officers and crew at the beginning of joining the company. Senior officers, including masters, have the responsibility of the crew’s familiarization reporting system because they have received the previous training.

4.4. A brief analysis of three main pre-requisites

Based on the results obtained and previously described, the exploration of a just culture pre-requisites, namely ease of reporting, motivation to report, and trust, indicates no
presence of a just culture concept in the Indonesian shipping companies and a minimal implementation of some essential qualities linked to it. The ease of reporting pre-requisite seems to be present. However, the processes and practices related to the other two pre-requisites (motivation to report and trust) are far from being captured by companies as essential to successful reporting systems and then to a just culture implementation.
5. **Discussion and Conclusions**

This chapter intends to provide answers to the dissertation’s research questions. It includes the discussion of the findings, which will be followed by the research conclusions. Finally, some recommendations and suggestions for future research in the field will be made.

5.1 **Discussion**

The research sample includes both seafarers and DPAs to obtain a clear understanding of insights about a just culture approach coming from both front line operators and shipping management representatives. Exploring a just culture concept requires insights from both to determine whether the concept is present or not in an organization, and if present, to what extent. In Indonesia, the number of maritime incidents is high, and a just culture concept has not been explored yet (NTSC, 2020).

To achieve reliable data and a more concrete understanding of the core themes, interviewees represent different types of ships covering passenger ships, offshore supply vessels, tankers, cargo ships, containers, and bulk carriers. Seafarers include both senior and junior officers. Two participants are female, and this is representing the reality where women are only two percent of the workforce in the maritime industry (MacNeil & Ghosh, 2017). All participants are Indonesian, which does not represent the broad spectrum of nationalities of the maritime industry. The majority of respondents are in the age range of 25-55 years, which represents the active working-age onboard ships. Therefore, the sample of the present study provides a good representation of the maritime industry in Indonesia. Both top-level management, represented by DPA, and operational level represented by onboard ships officers have been interviewed to provide their views related to three essential pre-requisites of a just culture concept explored.
RQ 1: Is the concept a just culture present in the organization?

First, regarding the ease of reporting pre-requisite, the majority of respondents, both seafarers and the DPAs stated that there was a near-misses and incidents reporting system in place. These findings are in line with those described by Knudsen (2009), who stated that in achieving a reporting system that has accountability, it requires that reporting activities are mandatory. Regarding the reporting system's level of difficulty, the majority of participants stated that the reporting system was easy to use, and the frequency of near-miss reports was between 1 and 2 in a month. The positive effect of ease of reporting on increasing reporting has been described by O'Leary and Chappell (1996). Reporting occurrences must be made as easy as possible, and the crew must not perceive reporting as an extra task that would complicate their duty on board ships.

However, for incident reports, all participants stated that none were reported. There were no incident reports submitted from the ship to the companies, even though the reporting system was in place because no incidents occurred or were unpredictable. The reporting system process must go through senior officers and masters who submit the reports to the company. As identified by the majority of the participants, this situation indicates that the reporting system onboard is "hierarchical" (Rääsänen, 2009).

Meanwhile, the three DPAs had a different view and regarding the level of confidence of the ship's crew to report responded differently: One of them said "uncomfortable," one said "comfortable," and one mentioned "very comfortable." However, they had the same perception regarding the challenges faced by the company. They argued that regular crew changes made it difficult to conduct the reporting, adding the familiarization, lack of awareness, and fear of reporting because "hierarchical" systems are serious problems influence reporting.

A hierarchical system onboard ships has advantages and disadvantages. It cannot be said it has not had a positive impact on conducting safety-critical tasks, for example, but it can also have negative impacts, especially for reporting. Therefore, the
possibility of anonymous reporting could be taken into account by the company in overcoming problems related to the reporter's comfort level.

Second, regarding the motivation to report pre-requisite for implementing a just culture, the majority of respondents, both seafarers, and DPAs agreed that the company supports and appreciates crews in reporting near-miss/incidents. The company responds to these efforts through initiatives such as recommendations for action, feedback accompanied by solutions, and investigations to find root causes related to incidents reporting. Senior officers take the same steps in supporting the crew regarding near-miss/incident reporting, for example, through safety meetings and communications. This situation is in line with what was described by Vinoy Vincent and Kumar (2019), who stressed that motivation results from an interaction process and brings change to a more advanced direction. Thus, the DPAs and senior officers' support to junior officers and crew members will increase the crew's motivation to report near-miss/incidents.

However, all junior officers who were interviewed conveyed that the company’s feedback and actions were not always positive and tended to be negative on ships' reports. These actions are in contrast to what has been stated above, where they got positive support. On the negative side, they have to accept the risk as well for the reporting. They said if there were near-miss/incidents that lead to fatalities, the company would blame the crews. These actions would include punishment, sanctions, and threats related to the termination of employment contracts, or even blacklisting them, and deducting their income if it resulted in losses for the company.

At the same time, all DPAs also conveyed that what the company was doing was clear because the company had set acceptable and unacceptable limits. It has been explained by Oltedal and Mc Arthur (2011), who described that companies need to establish clear regulations.

The blame culture must be avoided to implement a just culture because it will create fear and the loss of the crew's motivation to report. If this happens, the volume of reporting will decrease, and as a consequence, the company would not get safety-
related information. Thus, the company would not be able to enhance performance and evaluate the system and the level of safety. Organizations should use each report or adverse events as part of their learning systems for changes and improvement of safety without blaming crews.

Third, regarding the trust pre-requisite, seafarers and the DPAs agreed that company representatives, especially DPAs or superintendents, communicate with ships through management visits. These visits involve discussions, meetings related to the safety, operations, and reporting, including procedures and behavioral limits that the company could not tolerate and accept. As described in the literature review by Gudal and Makarova (2017), communication in the shipping industry plays an important role in building and influencing trust. Furthermore, a lack of communication can lead to a lack of trust and teamwork, which in turn will affect the frequency of reporting.

On the contrary, the majority of junior officers said that the management visits did not involve them and low ranks but only involved senior officers. Also, junior officers and ship crews cannot directly communicate and report to the DPAs due to the hierarchical structure onboard ships. Usually, they will get information from the company through the senior officers or master during the safety meeting. Cases like this illustrate that there is a gap between DPAs, senior officers, and junior officers. The management visits should be used as a means for the company to build trust between the crew and the company and to consider all crew members equally important. Therefore, it would be positive for a just culture implementation to involve junior officers and the rest of the crew to foster a sense of trust and convey that safety is a shared responsibility. Besides, this would provide an opportunity for ship crews to submit suggestions related to reporting. As explained above, building trust requires communication and teamwork on board, and this would be formed if there is two-way communication.

From the results above, it can be concluded that a just culture is not present in the organizations, even though several aspects of reporting have been achieved. Moreover, in practice, the implementation is contrary to the principles of a just culture, including
the high culture of blame, negative feedback from the companies, and a communication gap between DPAs and junior officers/crew.

**RQ 2: What are the barriers to implement a just culture in the Indonesian maritime industry as identified by seafarers and shipping companies’ representatives?**

Based on the results, some barriers in implementing a just culture are related to several factors, mainly to the existence of a hierarchical system. As described in RQ, answer no.1 above, the negative impact that a very hierarchical system could have in reporting is related to the limited communication between senior officers, junior officers, and ship crews with DPAs. The interviews’ results indicated that DPAs only involve senior officers in discussions or meetings during management visits to the ships. Consequently, a lack of communication with the entire crew could affect junior officers or crews’ motivation to report near-miss/incidents. Then, the crew’s trust onboard ships could be negatively affected due to limited two-way communication, in line with the opinion by Gusdal and Makarova (2017).

Similarly, based on the results of data analysis, the majority of respondents indicated that blame culture could be another barrier for the near-miss/incidents reporting. The result of negative feedback could include punishment, sanctions, a threat, even termination of employment contracts. Not only that, but they can also be blacklisted and receive deducted salary if the company loses money. Therefore, the way companies handle each problem will impact crew motivation, as described by James Reason (2001). Companies should respect every report submitted by ships and consider the report as important information to improve safety learning in their organization.

In addition, the majority of respondents stated that there is no reward related to the reporting of near-miss/incidents on board ships, as reporting is considered mandatory. Even though some of them complained, they had no other choice. As described in the literature, the reward would help motivate the crew to report any near-miss/incident (Thai, Balasubramanyam, Yeoh, & Norsofiana, 2013). Hence, the company should
consider providing rewards to increase the volume of reporting and motivate crews to report.

All respondents also said that the company had not made any efforts to manage crew workloads associated with reporting, and there was no specific training for reporting. The training was only given at the beginning of joining the company through familiarization related to procedures (including reporting). Companies should consider conducting training periodically to make it easier for crews to clearly understand the procedures and company policies. Research has found that enhanced safety-related training significantly improves the frequency of reporting (Oltedal and McArthur, 2011).

Figure 5 shows the influence of the main barriers to implementing a just culture identified by seafarers.

![Diagram showing the main barriers and their relationship]

*Figure 5: Main barriers faced by seafarers and the relationship among them*

*Source: Researcher*
Meanwhile, all DPAs said that the frequent change of crew on board made it difficult for the company to provide familiarization regarding company procedures, and the ship's crew sometimes did not understand clearly. Subsequently, lack of awareness, procedures, and the crew's fear of reporting due to the hierarchical system contributed to the barriers.

The majority of DPAs also stated that anonymous reporting could not easily be implemented because a hierarchical system exists onboard ships. As described by Johson (2003), anonymous reporting can make reporters not afraid and worried about the negative impact of reporting and make them feel comfortable and confident because of unpublished identity. Anonymous reporting would help build the level of crew trust in reporting, increasing the number of near-miss/ incident reports.

Figure 6 shows the main barriers to implementing a just culture from DPAs' view.

Figure 6: Main barriers faced by shipping companies related to a just culture implementation
Source: Researcher
RQ 3: What is the influence of the hierarchical system onboard ships on implementing a just culture?

Data analysis results indicate the influence of the hierarchical system on the implementation of a just culture. All respondents said that a hierarchical ship organization complicates reporting even though the reporting is mandatory. However, the crews had no other choice but acceptance.

The hierarchical system in the company will also affect the organizational structure onboard ships because every decision, policy, and procedure, including daily activities, has been determined by the company. Thus, this system ultimately affects the crew's attitude related to safety. The above situation shows that the organization with a hierarchical system indicates restrictions and many bureaucracies. The three pre-requisites for a just culture encourage an open culture to speak without any pressure and fear of being blamed. The hierarchical culture is not completely negative. However, it does represent many barriers to implementing a just culture.

In addition, the fact that DPAs (as representatives of companies during management visits to ships) only involve senior officers in discussions and meetings illustrates the lack of two-way communication in this case, not involving the entire crew. Furthermore, there is no opportunity for junior officers and crews to express opinions and suggestions related to safety and reporting.

Another critical point is that communication (described in the literature review and answers to RQ 1 and RQ 2) affects junior officers and crews’ confidence. Consequently, the crew’s lack of trust in company management will impact crew motivation to report due to the existence of a hierarchical system that limits the crew’s involvement in decision-making. This aspect has been explained by Bielić (2009), with a hierarchical system influencing an organization where the company’s focus is only on carrying out responsibility rather than the attitude and input of the crew, and the company only focuses on senior officers to achieved company goals. Therefore, companies need to take a different approach and involve the entire crew. The
companies can generate motivation to report and trust by considering the entire crew as equally important and involving them in safety activities.

5.2 Conclusion

This research is an exploratory study on the concept of a just culture in Indonesia. The topic has been studied by analyzing seafarers and shipping companies’ views on some of the prerequisites of a just culture previously identified in the aviation sector (ease of reporting, motivation to report, and trust). Interviews with seafarers and shipping companies related to a just culture have been carried out, and interviews’ analysis content through narrative analysis is applied. Besides, a thorough literature review has been conducted.

The main result of the research indicates that in all companies explored, there is a near-miss reporting system, and between 1-2 reports are submitted from the ship to the companies every month. However, for incident reports, all participants stated that there were no incident reports submitted from the ship to the companies even though the reporting system is in place because no incidents occurred as it is unpredictable. Both types of reports are mandatory, and the reporting system is, in general, easy because reporting is part of the job description. Nevertheless, the system is influenced by a hierarchical system onboard ships. The crews are required to enforce company rules without exception.

These circumstances indicate that reporting is complicated and done under pressure. In addition, the blame culture is why crews are mainly afraid to report near-miss/incidents, as a result of negative feedback from companies such as penalties, salary deductions, termination of employment contracts, and blacklisting. The company does not use adverse events as part of the learning system and the evaluation to improve the organization’s level of safety performance, as it was indicated by McLeod Ronald (2020). Rewards are not considered to encourage and motivate any near-miss/incident reports. Meanwhile, DPAs stated that anonymous reporting could
not be implemented because of the hierarchical system and required each report to include the reporter’s identity.

On the other hand, lack of communication also becomes a barrier identified by junior officers and crews. When DPA/Superintendent conducts a management visit, it does not involve all crew members. Only senior officers can participate in discussions or meetings. Thus, there is no opportunity for junior officers and crews to convey suggestions related to safety and reporting due to hierarchical system limitations and fear of being blamed by senior officials if they talk. The lack of communication onboard ships will affect the crews’ level of trust in the company. These conditions will have an impact on the volume of reporting. Consequently, motivation to report is negatively affected by a lack of trust.

In conclusion, the three pre-requisites of a just culture explored in this research are interlinked because the outcome influenced the other pre-requisites. The data analysis indicated that a just culture has not been present in Indonesia’s shipping companies, despite the existence of ease of reporting through the near-miss/incident reporting system. However, regarding the shipping company’s process and practices, there are still many barriers to implementing all the important principles of a just culture fully. These barriers include a hierarchical system and blaming culture in the company rather than learning systems from adverse events.

5.3 Recommendations

The implementation of a just culture within shipping companies needs to consider the following recommendations:

- Implementing anonymous reporting for near-misses can motivate crews and provide continuous learning and improvement opportunities.
- Developing a computerized integrated reporting application system to make ease of reporting.
- Looking for learning opportunities through adverse events, actual loss, and understanding that learning is a process enhancing continuous improvement.
Also, it can be used for evaluation and assessment of training through case studies.

- Documenting and sharing of reporting can make people more aware of potential risks so that preventive action can be taken, both for shipping companies and the whole industry.

- Avoiding blame culture and searching for blame. These conditions can create fear, which will impact on the motivation to report and not only that but encourage people to hide a mistake rather than report it.

- The hierarchical system may not be changed instantly within shipping companies and onboard ships. However, there is a need to adopt a systems approach in creating an open culture to speak and convey suggestions, and the master has a role in creating this situation onboard ships. Senior management has the responsibility to favor the creation of that “open culture.”

- Building two-way communication is an essential factor in fostering a level of trust; DPAs should involve all crews through discussions and meetings and provide opportunities for them to convey suggestions related to safety and reporting aspects and treat all crews equally important and fair because they are company assets in safety.

### 5.4 Future research

Further research on a just culture would require insights from more seafarers and DPAs, other relevant maritime stakeholders, such as maritime administrations, maritime organizations, and others at both national and international levels. The methods for future research can include not only qualitative but also quantitative approaches to obtain additional and objective information. Future research on the topic needs to be developed to contribute to the world maritime industry, especially to enhance the performance of safety in the organization. However, this research is relatively new in the maritime industry, and the number of international scientific publications and research works discussing this study is still limited and scarce.
Therefore, the present research results are expected to contribute to the national and international maritime industry in implementing a just culture within the organization.
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Traffic&Transportation, 27(2), 113-123. doi:https://doi.org/10.7307/pttt.2712.1461


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Appendix A: WMU Research Ethnic Committee Protocol

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<tr>
<th>Name of principal researcher:</th>
<th>Ade Mardani Putra</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name(s) of any co-researcher(s):</td>
<td></td>
</tr>
<tr>
<td>If applicable, for which degree is each researcher registered?</td>
<td>Maritime Safety and Environmental Administration</td>
</tr>
<tr>
<td>Name of supervisor, if any:</td>
<td>Professor Dr. Raphael Baumler</td>
</tr>
<tr>
<td>Title of project:</td>
<td>Exploratory study on Just Culture: insights from seafarers and shipping companies in Indonesia</td>
</tr>
<tr>
<td>Is the research funded externally?</td>
<td>No</td>
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<td>If so, by which agency?</td>
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<td>Where will the research be carried out?</td>
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</tr>
<tr>
<td>How will the participants be recruited?</td>
<td>Seafarers and Shipping Companies</td>
</tr>
<tr>
<td>The person will be recruited by phone, email and social media such as facebook</td>
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<tr>
<td>How many participants will take part?</td>
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<tr>
<td>Will they be paid?</td>
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<td>If so, please supply details:</td>
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<td>How will the research data be collected (by interview, by questionnaires, etc.?)</td>
<td>The research data will be collected by interview form seafarers and shipping companies</td>
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<td>The research data will be stored on my personal computer and external drives with protected passwords</td>
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<td>How and when will the research data be disposed of?</td>
<td>On completion of MSc programme (9 Nov 2020)</td>
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Signature(s) of Researcher(s): [Signature]

Signature of Supervisor: [Signature]

Date: 08/07/2020

Please attach:
- A copy of the Research proposal
- A copy of any risk assessment
- A copy of the consent form to be given to participants
- A copy of the information sheet to be given to participants
- A copy of any item used to recruit participants
Appendix B: Personal Interviews

Interview Consent Form

Research topic: Exploratory study on Just Culture: insights from seafarers and shipping companies in Indonesia.

Date of interview/group work:
Expected duration:
Name of participant:
Name of researcher:

Thank you for agreeing to participate in this interview, which is carried out in connection with a research project which will be conducted by the interviewer, in partial fulfilment of the requirements for the degree of Master of Science in Maritime affairs at the World Maritime University in Malmo, Sweden.

This consent form intends to ensure that you understand the purpose of your involvement and that you agree to the conditions of your participation.

- Your interview will be recorded (if you agree) and notes will be taken during the meeting.
- From the interview, there will be a transcript of main points retained by the researcher.
- The transcript will be sent to you to provide you with the opportunity to correct any factual errors.
- The transcript will be analyzed by the researcher to support the investigation.
- The access to the transcript will be limited to researchers and academics involved in the research.
- The information provided will be used for research purposes and will form part of a research report or academic papers as well as eventually in presentations.
- Any extract or quotation of the interview used for publicly available publication will be anonymized.

Moreover, you have the right to stop the interview or withdraw from the research at any time, and your personal data will be immediately deleted on your request.
Anonymized research data will be archived on a secure drive linked to a World Maritime University email address. All the data will be deleted after completion of the research.

Your participation in the interview is highly appreciated.

Student’s name       Ade Mardani Putra
Specialization       Maritime Safety & Environmental Administration
Email address        w1903810@wmu.se

***

**Agreement**

I consent to my interview, as outlined above, being used for this study. I understand that all personal data relating to participants is held and processed in the strictest confidence.

I also understand that my words may be quoted directly. With regards to being quoted, please initial next to any of the statements that you agree with:

| I wish to review the notes, transcripts, or other data collected during the research pertaining to my participation. |
| I agree to be quoted directly. |
| I agree to be quoted directly if my name is not published and a made-up name (pseudonym) is used. |
| I agree that the researchers may publish documents that contain quotations by me. |

By signing this agreement, I agree that:

1. I am voluntarily participating in this research project and I can stop the interview at any time;
2. The transcribed interview or extracts from it may be used as described above;
3. I have read the Information sheet;
4. I can request a copy of the transcript of my interview and may make edits;
5. I am free to ask any questions I wish to researchers and to contact them in the future.

Name:  ..............................................................................................................
Signature: .................................................................

Date: .................................................................

Contact Information

This research has been approved under WMU Ethics. For additional questions or concerns, please contact:

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You can also contact research supervisor

Supervisor’s name        Dr. Raphael Baumler
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INTERVIEW QUESTIONS (Seafarers)

Semi-structured interview

Personal information

1. Name (optional)
2. Nationality/age/gender/COC/experience in years?
3. Current Rank and number of years at current rank
4. Type of ship, company description

5. Is there a near miss reporting system in place? If so, is the reporting system voluntary or mandatory?
6. Is there incident reporting system in place?
7. Is the reporting system easy to use? What is the level of difficulty of the reporting system? (In a scale of 1 to 5, 1 = Very difficult; 2 = Difficult; 3 =
Neutral; 4 = Easy; 5 = Very easy). What makes it easy or difficult? (a
description of the system, and for examples)

8. How many near miss and/or incident do you report to the company every
month? (In a scale of 1 to 5, 1 = none; 2 = between 1 to 2; 3 = between 3 to 5;
4 = between 5 to 10; 5 = more than 10 reports in a month.)

9. Does the company encourage crew to report any near miss/incident? How?
What are the measures in place? What procedure is adopted by the company to
encourage these reports?

10. Is there an incentive offered by company to crews to encourage the reporting?
What is it?

11. Do senior officers encourage crew in the reporting process? How? Do senior
officers discourage crew in the reporting process? How?

12. Are crew coming forward with such reports?

13. Do you report to the company (DPA) in case of a near miss/incident? which
have occurred onboard your vessel? If not you, who reports? Could you please
explain to me the process of reporting? (for example, real cases)

14. How much comfortable to you feel making those reports? (In a scale of 1 to
5, 1 = Very uncomfortable; 2 = Uncomfortable; 3 = Neutral; 4 = Comfortable;
5 = Very comfortable). Explain your choice.

15. Are records of near misses reports available onboard? How are the records
maintained?

16. Are records of incident reports available onboard? How are the records
maintained?

17. Does the company give any feedback after the reporting? What kind of
feedback? Any recommendation after the reporting?

18. Does the company take any action in relation to those reports? If yes, what kind
of action? (real cases, examples)

19. Can you give an example of a near miss or incident which occurred on your
ship? Were you involved? How was the reporting? Who did you talk to? What
happened next?
20. Do you think that company appreciates such reports?
21. Do you think that the company will blame you if you report? (explore effects on contract, job, promotion, get yourself or your colleagues into trouble, etc…). Can you give me any example you have witnessed or been involved where there were reprisals?
22. Does the workload onboard ship influence the reporting? If so, how? How does the company manage crew’s workload with any extra work that reporting would imply?
23. Does your company representative communicate with crew for meeting or discussion regarding the reporting system and safety critical aspects? Are there any training/courses on the use of the system/the importance of reporting etc…?
24. Do you have any suggestion for improvement of the present reporting system onboard?

THANK YOU FOR YOUR COOPERATION

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INTERVIEW QUESTIONS (Shipping company)

Semi-structured interview

Personal information

1. Name/Nationality/Age/gender?
2. Designation, description of Company?
3. Years of experience?
4. Number of years working in current position in the company?

5. Is there a near miss reporting system in place? If so, is the reporting system voluntary or mandatory?
6. Is the incident reporting system in place?

7. Is the reporting system easy to use? What is the level of difficulty of the reporting system? (In a scale of 1 to 5, 1 = Very difficult; 2 = Difficult; 3 = Neutral; 4 = Easy; 5 = Very easy). What makes it easy or difficult? (a description of the system, and for examples)

8. How confident is the company that that crew will report if an incident or near miss occur? (In a scale of 1 to 5, 1 = Very uncomfortable; 2 = Uncomfortable; 3 = Neutral; 4 = Comfortable; 5 = Very comfortable).

9. How many near miss and/or incident does a ship report to the company every month? (In a scale of 1 to 5, 1 = none; 2 = between 1 to 2; 3 = between 3 to 5; 4 = between 5 to 10; 5 = more than 10 reports in a month.)

10. Does the company encourage crew to report any near miss/incident? How? What are the measures in place?

11. Is there an incentive/rewarding offered by company to crews to encourage the reporting?

12. Are crew coming forward with such reports?

13. Is anonymous reporting possible in your company?

14. Are records of near misses reports available in company and on ships? How are the records maintained?

15. Are records of incident reports available in company and on ships? How are the records maintained?

16. Does the company give any feedback after the reporting? What kind of feedback? Any recommendation after the reporting?

17. Does the company take any action in relation to those reports? If yes, what kind of action? (Please give me examples for incidents and near misses)

18. Can you give an example of a near miss and incident which occurred on the ship and the process followed since you received the report?

19. Does the company establish a clear line between acceptable and unacceptable behaviors? How is this conveyed to crew?

20. Does the company challenge the seafarer based on these reports?
21. How does the company manage crew’s workload with regards to any extra work that the reporting would imply?

22. What are the issues or challenges faced by shipping company relating to current reporting system?

23. Do you or other company representatives communicate with seafarers in meetings or discussions onboard regarding the importance of reporting system?

24. Are there any training/courses on the use of the system/the importance of reporting/reports submitted, etc....?

25. Do you have any suggestion for improvement on the present reporting system onboard your company vessels?

THANK YOU FOR YOUR COOPERATION

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