

**ANALYSIS OF MARITIME PIRACY IN EASTERN
AFRICA BETWEEN 2000 AND 2010 AND ITS IMPACT
ON SEAFARER OCCUPATIONAL RISK
PERCEPTION**

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Abstract

In this study, seafarers were the research target group and Seafarer Occupational Risk Perception was the research topic.

This study was conducted in response to four concerns arising from the increase in frequency of pirate attacks on ships along the coast of East African between the year 2000 and 2010. First and foremost being the lack of empirical research on maritime piracy in East Africa. Secondly, that seafarers featured in maritime piracy incident reports as mere statistics of those attacked, captured and released by pirates. Thirdly, that the views of ship crew were not included in piracy reports; Fourthly, that studies on seafarer perception of pirate attacks as an occupational risk remained an uncharted research territory despite the fact that the maritime work environment has long been regarded as risky, and the crew were the targeted victims of the kidnap-for-ransom mode of piracy in East Africa. This study was initiated in order to provide empirical evidence to try to explain the variations in the views of seafarers about maritime piracy as a risk factor, in relation to other occupational risks.

By adopting a phenomenological approach, this study had as its focus, my interviewees' perspectives about risk in general, and their varied perception about the threat posed by pirate attacks in East Africa. During the fieldwork stage of the project in the year 2011, interviews of a diverse sample of forty-four seafarers were carried out over a period of six months at a busy port in the United Kingdom. The interviewees included forty-three males and one female. An interview guide containing semi-structured questions and two vignettes was used as an *aide de memoire* to facilitate focused data collection interaction with the interviewees. Data collected was subjected to both quantitative and qualitative analysis. From the research findings, a number of conclusions emerged with both empirical, methodological, policy implications.

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List of Abbreviations

ASIL	-	International Convention on Maritime Search and Rescue
BIMCO	-	Baltic International Maritime Council
BMP	-	Best Management Practice
EU NAVFOR	-	European Union Naval Force
FOC	-	Flags Of Convenience
FoC	-	Fear of Crime
GLMS	-	Global Labour Market Survey
HRAs	-	High Risk Areas
ICFTU	-	International Confederation of Free Trade Unions
ICRC	-	International Committee of the Red Cross
ICS	-	International Chamber of Shipping
ILO	-	International Labour Organisation
IMB	-	International Maritime Bureau
IMB-PRC	-	International Maritime Bureau Piracy Reporting Centre
IMO	-	International Maritime Organisation
ISF	-	International Shipping Federation International Transport Federation
MARISEC	-	Maritime International Secrétariat Services Ltd
Marpol	-	International Convention for the (Marine) Prevention of Pollution from Ships
MLC.2006	-	Maritime Labour Convention, 2006
MLC (2003a)	-	2013 Amendment to Maritime Labour Convention (2006)
MSC-HOA	-	Maritime Security Centre for the Horn of Africa
MTSN	-	Maritime Transportation Security News & Views
NATO	-	North Atlantic Trade Organisation
OECD	-	Organisation for Economic Co-operation and Development
OHS	-	Occupational Health and Safety
P & I Clubs	-	Protection and Indemnity Clubs
PRC	-	Piracy Reporting Centre
PTSD	-	Post Traumatic Stress Disorder
ReCAAP	-	Regional Cooperation Agreement on Combating Piracy and Armed Robbery against Ships in Asia
RPGs	-	Rocket Propelled Grenades
SIRC	-	Seafarers International Research Centre
SOLAS	-	International Convention for the Safety of Life at Sea
STCW	-	International Convention on Standards of Training Certification and Watch keeping for Seafarers
SWOT	-	Strengths, Weaknesses, Opportunities and Threats
UK	-	United Kingdom
US	-	United States
UKMTO	-	United Kingdom Maritime Trade Operations
UNCLOS	-	United Nations Convention on the Law of the Sea
UNCTAD	-	United Nations Conference on Trade and Development
UNODCCP	-	United Nations Office for Drug Control and Crime Prevention
USA	-	United States of America
US OSHA	-	United States Occupational Safety and Health Administration
VHF	-	Very High Frequency (radio)

CHAPTER ONE: INTRODUCTION

This study focuses on the potential risks that confront seafarers in their maritime work environment, and the variations in seafarer risk perception. This study focuses on the potential risks confronting seafarers research report traces the emergence of maritime piracy as a seafarer occupational risk in East Africa in the 2000 to 2010 period during which time frequent pirate attacks on ships were an issue of major concern to maritime safety and shipping industry stakeholders. As an academic piece of work, this study focuses on the occupational risk landscape of the maritime environment in order to highlight the hazardous nature of working at sea. Structural upheavals within the shipping industry in the decade preceding this study, and the impact of these changes is explained to provide an insight into some major factors that had resulted in the exacerbation of the vulnerability of seafarers. , Noteworthy features of the maritime work environment are discussed in order to provide readers from outside the shipping industry with an insight into the global socio-economic context in which the variations in seafarers' views about the risk of pirate attacks are socially constructed. The details included the following aspects: the variety of natural and man - made hazards inherent in the maritime environment, precarious labour in the global shipping industry and the disembedding processes that seafarers have to contend with as migrant labourers. The study also discusses some of the factors emanating from the hazardous natural environment and structural changes in the shipping industry, to show their potential influence on the range of views and concerns among the study sample, about the risk posed by pirate attacks along the coast of East Africa during the research period.

The overarching aim of this study was to explore how seafarers made sense of maritime piracy as a form of occupational risk amongst the range of risks experienced by seafarers. This study focuses on the views of seafarers about piracy as an occupational hazard that they had to contend with, and particularly during voyages along the coast of East Africa where frequent pirate attacks targeting ship's crew was reported. The study does not dwell on maritime piracy as a phenomenon. This study provided an avenue for articulating seafarers' views about maritime piracy through empirical research. Interview data collected from a sample of forty-four ship's crew facilitated an exploratory study about seafarer occupational risk perception in general, and more specifically, how they regarded the impact of concerns about maritime piracy activities on their work environment. A detailed discussion of the broader evidence maritime piracy in East Africa has been included in the review of literature in order to provide clarity to

readers who may not be aware of the social context in which the respondents in this study constructed their views on occupational risk.

This study had four objectives:

- To identify, describe and analyse the levels of occupational risk perception among seafarers. This involved exploring how the demographic characteristics of a sample of seafarers correlated with their levels of concern about the three seafarer- risk factors that they were most worried. The quantitative data analysis section in chapter five addressed this aspect.
- To explain the factors that influenced variations observed in seafarer risk perception.
- To examine issues within the seafarer work experience that underpinned the variations observed in the research interviewees' concern about the risk of pirate attack.
- To explore the suitability of vignettes when used as a research tool in a phenomenological research approach involving ship's crew as a hard-to-reach research target group in a maritime and mobile workspace.

Addressing the latter three research objectives involved exploring the broader organisational contextual issues that could have a bearing on seafarer risk perception through a thematic qualitative data analysis as discussed in the latter section of chapter five of this thesis.

To operationalise these research objectives this study sought to answer four research questions:

1. How do seafarers rank perceived workplace risks?
2. How do seafarer characteristics correlate with their ranking of occupational risk?
3. How do seafarers understand piracy in the context of the workplace and occupational risk?
4. How useful are vignettes as an empirical research instrument in a phenomenological research on ship's crew, as a hard-to-reach target group in a mobile workspace?

To address these questions, a study based on forty-four interviews that collected quantifiable and qualitative data was undertaken. Both qualitative and quantitative data analysis methods were employed in this study to interrogate the interview data. The quantitative data analysis examined the interviewees' biographical data for any relationships that might not have been readily apparent. The qualitative data analysis explored some salient elements of the seafarers lived experience that could have a bearing in shaping the interviewees' views about the risk of pirate attack.

This thesis contains six chapters in total. The chapter titles are: Introduction; Literature Review (1); Literature Review (2); Research Design and Methods; Data Analysis; Research Findings and Conclusions. Each chapter reports on a different aspect of the study. Chapter One lays out the structure of this thesis by providing a broad outline of the purpose and content of each of the seven chapters contained in the thesis. As a summary of this thesis, this chapter highlights the aims, content and conclusion of each chapter. The intention of this chapter is to give the reader an explanation early in the thesis, of the motivation for this study, the stages of the research process, the research tools used, the research setting and the research outcomes.

Two literature review chapters have been included in this thesis as Chapter Two and Chapter Three. Both these chapters provide an outline of two important sociological contexts of relevance to this study which form the broader social context and the conceptual framework for this study. The two are: The maritime piracy crisis East Africa between the years 2005 and 2011; The global shipping industry. Focusing the literature review on these two key sociological contexts explains the rationale for the selection of particular literature and empirical studies that helped in generating specific theoretical propositions that were explored empirically through this study.

Chapter Two presents a review of the research and data on maritime piracy that existed in the year 2010 when this study began. The purpose of the first phase of the literature review process was to provide the broader sociological context of this study. This chapter provides an explanation of a number of factors of significance to the social context of this study. These include the major concerns arising from the emergence of a maritime piracy phenomenon in East Africa, definitions of maritime piracy, a critical review of evidence about trends maritime piracy incidents, the impact of piracy and responses to it at different levels. The emergence of piracy along the busy East Africa coast was at that point in time as an issue of concern to various stakeholders in the global shipping industry. The role of the shipping in global trade is discussed to outline the main structural changes in the shipping industry in the decades preceding this study, as well as a description of the hazardous nature of the seafarer work environment. Subsequently, key occupational health and safety concerns were framed within the background information about the seafarer's world of work that is relevant to this study. Since seafarer occupational risk perception is the central issue of this study, this chapter provides bird's eye view of the maritime world within which seafarers' lived-experiences shape their social construction about workplace 'risks'.

The third chapter provides a broad review of the risk literature and some research studies that provided a conceptual framework for understanding the issues of risk, occupational risk perception and variations in risk perception. The chapter starts with a condensed display of the wider literature of risk and risk perception as a prelude and context to the particular literature addressed in detail. This chapter outlines the process through which the four thematic propositions for this study emerged from concepts derived from five studies. These four concepts included Cultural Theory of Risk, Occupational Risk Perception, the concept of 'Subjective Immunity', Social Amplification of Risk as 'an Image Perspective'. For each concept, I identified the specific idea(s) relevant to the research, and then critically appraised the claims by the authors, the evidence that each study provided to support their suggestions, and the context in which those ideas were developed. The reflexive approach adopted enabled an assessment of how each of these concepts related to the study, enabled the constructing of thematic propositions that would shape the two-stage data analysis documented in chapter.

Chapter Four describes the research methodology. It provides details about the research process and indicates the rationale for decisions made at each stage of the study. Detailed discussions provide information about research sampling, the fieldwork setting, data collection, data sorting and analysis processes from which the research findings emerged. The fieldwork was carried out over a six-month period in the year 2011, from interviewing a diverse sample of forty-four seafarers at a busy port in the United Kingdom. During the interviews, a semi-structured interview guide served as an *aide memoir*. The data were analysed in two stages: a quantitative data analysis and a qualitative data analysis.

The fifth chapter reports the results of the two-stage research data analysis. The first data analysis phase was a quantitative data analysis during which Cross-tabulation and Pearson's Chi-square were employed to establish whether there were any links between the 'Top 3' risk factors identified and prioritised by the interviewees, and their ages, nationalities, ranks and the length of their work experience., then a qualitative data analysis. Test results showed that maritime piracy was an issue of concern to interviewees of all ranks and age groups. There were variations in the interviewees' views about the risk level posed by piracy that among interviewees of the same age group, of the same rank and with the same length of seafaring career. These variations could not be adequately explained by a quantitative analysis alone. Therefore, a further qualitative data analysis undertaken further explored and examined the data for additional explanations for the variations in risk perception among the sample. This variance in views was analysed through a qualitative methodology. The interrogation of

qualitative data involved a thematic data analysis of the interviewee responses that pointed to some additional work experience-related factors that further clarified the variations in piracy risk perception among the research sample. Combined test results showed that the variation observed in the interviewees' occupational risk perception was influenced by four main factors. These were the sources, content and overload of piracy information that they received and the cumulative effect of receiving several streams of piracy risk information over time. These factors had influenced both the views about the risk posed by piracy to them as individuals, as well as the interviewees' levels of concern about the potential threat of harm that piracy posed to their relatives and to all seafaring professionals as well.

The final chapter enumerates the various research findings and conclusions that emerged from this study of forty-four seafarers. This study found that quantitative data analysis considered on its own, without an additional qualitative data analysis of the interviewee responses, was not sufficient for making inferences from this study. Instead, a mixed methods approach to data analysis was more effective in providing a fuller explanation for the variations in occupational risk perception within the sample. A combination of quantitative and qualitative methods was best suited for the identification of inter-related factors within the evolving global shipping industry. Such a methodological approach provided a means to come up with a more comprehensive explanation of how the dynamics through which these issues influenced seafarers' different views about risk. This study also established that variations in perception of a pirate attack, as a seafarer occupational risk factor was a complex matter. There was a geo-specific pattern to the variations observed in the views among the individuals in the sample about the risk level associated with pirate attack and sea-robbers both ashore and at sea.

CHAPTER TWO

LITERATURE REVIEW (1)

MARITIME PIRACY: TRENDS, CAUSES AND RESPONSES

2.1 Introduction: Literature Review Process

This chapter is first of two literature review chapters conducted for this study. While this chapter dwells on literature regarding social aspects of relevance to this study, next chapter focuses on literature/studies that informed conceptual framework of this study. Seafarers' perception of risk was main topic of this study and seafarers research target group. Literature review process reported in this chapter happened at beginning of research project in order to identify sociological context for framing the variations in seafarer risk perception. Maritime piracy phenomenon in East Africa between years 2000 and 2010, and global shipping industry provided broader social contexts of relevance to this study. The literature review covered a variety of academic databases, regular journals from shipping/maritime industry, books, research reports, documentation from industry-specific conference/seminar and workshop proceedings and open-source data repositories of organisations focused on seafarer welfare as a core-business.

A critical appraisal of a variety of articles on piracy in East Africa provided a better understanding of phenomenon. An initial literature appraisal showed that most of initial literature on piracy in East Africa, focused on behaviour of pirates, efforts to make it harder for pirates to board ships, increase in ransom figures, *Operation Atalanta*, risk allowances, piracy insurance, number of ships held hostage, different views about armed guards, and rise in piracy in West Africa. Most of this initial literature available at start of this project was of little relevance to the study, as it did not focus on welfare of crew. While this study was underway, reports began to trickle into public domain about predicament facing families of crew held hostage or 'missing'. Meanwhile, most of the hostages gained their freedom through by ransom payments, rather than by force. In addition, a section of seafarers called for a boycott of voyages along 'piracy hotspots' in Gulf of Aden and Indian Ocean until pirate attacks on seafarers stopped. In latter stage of this study, additional literature providing more information, including empirical research on hardships faced by ships' crews who had had encounters with pirates,

began emerging. This latter set of articles was complimented by information obtained from abundant shipping industry-related publications, events and professional networks that I had access to by virtue of being based at a research-intensive university and research centre i.e. the Seafarers' International Research Centre (SIRC), for entire research period.

Reviewing articles relevant to this study was both useful and informative. It provided deeper insight into hazardous nature of seafaring profession, and in identifying key issues and trends within maritime industry with the potential to influence the opinions ship crew formed about level of threat posed by different factors within their workplace. These occupational hazards included but were not limited to piracy crisis in East Africa. One of compelling trends described is structural changes within global shipping industry. In this regard, historical transformations in watercraft design and increasingly longer distances travelled to link global supply chains combine with structural changes in globalised shipping industry to shape the maritime work environment. The conditions of this mobile workspace had the inherent ability to influence seafarers' perception of occupational risk. The literature also pointed to changes in the terms and conditions of modern seafarers as a global, mobile professional group whose personal and professional characteristics, working conditions and needs were very different from those who manned watercraft in past. This brief historical background was necessary to enable the reader to grasp magnitude of effect of convergence of these different social and workplace structural changes, and the force they exert in shaping characteristics of the research sample's work environment and views about risk. Outlining this social context of the study served to provide readers from outside the shipping industry with an initial picture of the inter-relatedness between ripple effects emanating in these changes, and their potential effect on seafarers' occupational risk perception.

2.2 Chapter Overview

This chapter begins with a brief overview of merchant shipping and key changes brought about with processes of economic globalisation. Within this sociological context, maritime piracy stood out as a problematic global phenomenon affecting shipping. Piracy in East Africa emerged as a problem at a time in history when structural transformations were already well entrenched in global shipping industry in a way that bred some seafarer occupational risks and standards of occupational health and safety on board ships. This frames the context within which maritime piracy features in lives of seafarers.

This chapter sought to problematize piracy along coast of East Africa as the specific geographical research area of interest. To this end, a discussion of the observations made after an assessment of texts illustrate the growing global maritime safety concern about piracy, and the main responses at different levels. An elaboration of the main occupational health and safety issues arising from structural changes in shipping industry highlighted their potential to influence seafarers’ occupational risk perception.

2.3 A brief history of Water Transport and Global Maritime Trade

Maritime transport has been instrumental in movement of passengers and cargo through ages in different maritime environments (IMO, 1998). In 21st century, with emerging global markets, sea transport became cheapest means of ferrying a variety of bulky goods over long distances (Cafruny, 1987, 114). This led shipping industry to play its current central role as ‘lifeblood of global trade’ (UNCTAD, 2002). In the three decades preceding this study, the volume of international trade hauled by sea had risen to about 90% (Hoffmann & Kumar, 2002). *Figure 1* below illustrates details of main goods comprising this global sea-freight tonnage:

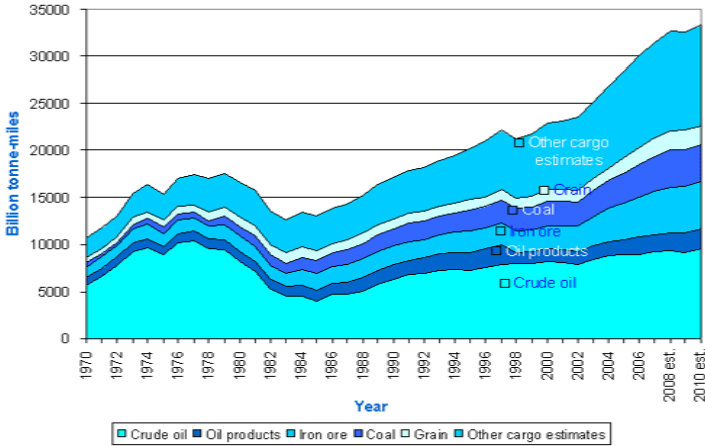


Figure 1: World Seaborne Trade between 1969 and 2010
 Source: Fearnley's Review
<http://www.marisec.org/shippingfacts/worldtrade/volume-world-trade-sea.php>

Emphasizing this new and pivotal role assumed by shipping industry in world trade, Maritime International Secretariat Services Ltd (MARISEC) stated that: “it would be impossible to conduct intercontinental trade, import and export food and manufactured good, half world would starve and other half would freeze!” (MARISEC, 2006).

2.4 Maritime Piracy: Definition, Scale, Trend and Measurement

Defining maritime piracy can be problematic due to existence of different definitions of maritime piracy under both national and *international law* (Birnie, 1987). The Internationally recognized official definition of *piracy* is that which is laid down in *Article 101* of the 1982 *United Nations Convention on the Law of the Sea* (UNCLOS), and Armed Robbery. The wording was laid down in Resolution A. 1025 (26) that was adopted on 2 December 2009 at the 26th Assembly Session of the International Maritime Organisation (IMO) and hereafter referred to as *UNCLOS*. This legal framework defined maritime piracy as follows:

“Any illegal acts of violence or detention, or any act of depredation, committed by individuals, for private ends against a private ship or aircraft” (Van Dyke, 1982)

In its counter-piracy activities, the International Maritime Bureau (IMB) applies the UNCLOS definition of maritime piracy in its interpretation of maritime piracy activities to include follows:

“(The) Act of boarding any vessel with intent to commit theft or any other crime, and with an intent or capacity to use force in furtherance of that act.” (IMB Piracy Reporting Centre, 30/09/2010)

Although it excludes petty thefts, latter definition is more comprehensive, as it covers both failed and successful attacks occurring when a vessel is berthed, anchored or at sea. In order to distinguish maritime piracy from simple hijacking, a piracy crime requires that two vessels should be involved in incident. Second requirement was that crime would have to be undertaken for private, and not political, purposes. These can be important considerations when determining coverage under a policy of marine cargo insurance.

Hostage taking is not a modern phenomenon, Clark (2009). It is one of the oldest forms of international organized crimes (Andersen et. al., 2009), and can be traced back to the Roman Empire when it was used as an acceptable strategy to ensure future good behaviour of a conquered population (Allen, 2006). Historical records documented the abduction in 75 B.C. of the young Julius Caesar by pirates until a demand of a 50 talents ransom was paid to secure his release (Plutarch, n.d; Valler, 2005). However, in modern times, under United Nations Geneva Conventions of 1949 hostage taking and kidnapping were regarded as criminal acts

(ICRC, 2009). *Article 3* common to all four Conventions specifies requirement for the humane treatment for all who fall in the enemy's hands, without any adverse distinction between combatants and civilians. Murder, mutilation, torture, cruel, humiliating and degrading treatment, taking of hostages and unfair trial are prohibited, while the rescue and care for the wounded, sick and shipwrecked is urged (1949 *Geneva Convention Article 3*).

Acts of piracy in Gulf of Aden resulted in both kidnappings and hostage taking for ransom on numerous occasions between the years 2000 and 2010. During such incidents, either when the ship was boarded and taken over by pirates, the vessel became the stronghold where captured crew was confined, or the crew were taken ashore to an unknown location often including multiple sites to separate them from each other (O'Leary, 2010). The crew were isolated in order to limit communication amongst hostages to prevent their planning of an escape before ransom was paid. While in captivity, seafarers were treated like tradable commodities by pirates. Unlike piracy in historical times, modern pirates operating off coast of Somalia were characteristically more sophisticated. They armed themselves with dangerous weapons and used modern and faster vessels to pursue ships. This facilitated frequent surprise attacks on huge and slow moving targets. During an attack, pirates pursued the targeted vessel using high-speed boats that often easily overtook huge and slow ships (Elliot, 2007) while firing automatic weapons and Rocket Propelled Grenades (RPGs) at retreating vessel (BBC source a.). Once pirates catch up with ship, they board it using ladders; they often gained control of vessel after a brief confrontation. Thereafter, the abductors commandeered the vessel it off its charted course to their hideout.

After pirates take control of hijacked vessel, as part of initial *modus operandi* of pirates in East Africa, ship and crew were to an unknown destination, somewhere along coast of Somalia (Spurrier, 2009). In initial pirate mode of operation, after taking control of hijacked ship, pirates establish contact with ship-owner to make known amount of ransom demanded in exchange for release of hostages. Seafarers who survived piracy hostage ordeals often complained about the poor feeding and lack of adequate ventilation and about lack of updates on the progress of the ransom negotiations. These conditions made the hostages susceptible to re-traumatization (UNODCCP, 1999, iii). Over time, however, pirates changed their mode of operation and instead of steering hijacked ships ashore, after boarding ship the vessel was used as a mother ship from which further attacks were launched further afield against other unsuspecting ships. During his study, reports of mother ships originating in East Africa showed that some hijacked vessels were commandeered off their original course. Reports indicated that some mother ships

hijacked vessels straying further eastwards away from Indian Ocean into international waters. During such long and unplanned voyages, captured male crewmembers were emasculated by being forced to carry out domestic chores for pirates on board. Such tasks were not within the remit of seafarers' professional work and included cooking and searching for additional food stock through fishing activities when food supplies on board ran out (Ecoterra International, 2011).

2.4.1 Piracy Overview: Global and East Africa

In spite of a reported rise in piracy in 30 years preceding this study, incident record keeping has remained sketchy with little known regular documentation of phenomenon. While empirical basis of some of early pirate reports remains unclear, they provide some early evidence of piracy reporting and have been included here to show growing worldwide concern among different maritime stakeholders about re-emergence of piracy phenomenon. For instance, Royal British Navy Captain Roger Villar, observed worldwide piracy trends between 1980 and 1984 and noted an increase in number of ships attacked along African coasts with “twelve merchant ships were being attacked daily” (Villar, 1985). He later drew attention to piracy attacks particularly on Vietnamese boat people (Villar, 2005). However, state of maritime piracy incidents remained hazy due to a lack of official record keeping and retention by maritime industry stakeholders. Summarizing impact of maritime piracy, Kraska and Wilson (2008) highlighted macro-economic trigger effect of piracy today, by pointing out how the attacks on ships had affected global supply chains that were already struggling to recover from the fall in shipping rates occasioned by the worldwide recession.

Drawing attention of international maritime industry stakeholders to then fast deteriorating global piracy trend, Michael S. McDaniel, Esq in November 2000 highlighted to Propeller Club of United States an emerging precipitating intensity and frequency of piracy incidences as evidenced by following 1998 maritime piracy incident figures: -

- ◇ 15 merchant vessels hijacked by pirates;
- ◇ 138 merchant vessels boarded by pirates;
- ◇ 11 merchant vessels fired upon by pirates
- ◇ 35 merchant crew members badly injured;
- ◇ Over 400 merchant crew members taken hostage by pirates;
- ◇ Over 75 merchant crewmembers murdered (McDaniel, 2000).

It was unclear how this data had been obtained as an average crew numbers about 20 per ship, and yet report states that 400 crewmembers were held hostage without indicating how many ships they were taken from. McDaniel's report illustrated the kind of piracy data presented and discussed by seafaring stakeholders, which painted a gloomy picture about the piracy trend, without providing the empirical grounding for such claims i.e. the data/evidence.

As piracy crisis evolved, some individuals began compiling data and documenting trend. In 2005, Independent Researcher Mark Bruyneel compiled 149 attacks that occurred during first six months of year 51% of which occurred in Southeast Asian waters and 20% in African coastal waters. In a weekly pirate report published online in July 2005, IMB Piracy Reporting Centre provided information indicating a global spread in areas of world where pirates preyed in first half of that year. Out of all incidents reported in six-month period, 7% were in America, 1% in Asia, 4% in Far East and 17% in India. Noteworthy attacks also occurred around Bangladesh, India, Indonesia, Malacca Straits, Singapore Straits, Gulf of Aden, Red Sea, Somalia, West Africa, Brazil, Haiti, Dominican Republic, Jamaica, and Peru (Bruyneel, 2001). Shashtman (2008) noted a steep rise in piracy globally between 2000 and 2006 alone, when 2,463 actual or attempted acts of piracy were reported around world representing an annual average incident rate of 352. This marked a substantial increase over mean of 209 recorded for period of 1994–1999. With specific reference to situation gradually unravelling in Gulf of Aden, Vaknin (2005) and Krane (2006) noted that piracy incidents had rose steadily in Eastern Africa between 2000 and 2005.

Meanwhile, International Maritime Bureau (IMB) began regularly keeping track of growing number of pirate attacks through Weekly Piracy Reports generated by its Malaysia-based Piracy Reporting Centre (PRC). These reports continued to regularly document attacks on ships worldwide. Resurgence of maritime piracy globally in last decade is of great concern both to stakeholders in shipping industry and global security (Osvaldo Peçanha, 2009). In last few years, ship owners and their representatives have been particularly concerned about menace of maritime piracy along Eastern Africa coast (Lloyds, 2008,15; ICC, 2005) making its waters most dangerous in world (Burnett, 2002). IMB Piracy and Armed Robbery Against Ships Annual reports between 2000 and 2009 reveal that many categories of ships fell into hands of pirates during that period including oil tankers, general cargo, bulk carriers, RO RO, fishing vessels, sailing yachts, tug boats, chemical carriers, among others (International Maritime Board website). Maritime piracy situation in East Africa at time this study commenced was

characterised by an increase in frequency and number of bandit attacks on ships transiting Gulf of Aden along East Africa coastline. This situation caused a maritime security crisis in busy North West Indian Ocean shipping lane, a situation that compelled IMB to advise vessels to remain at least 200 nautical miles offshore when transiting past coastal regions of Somalia. However, as this study ended, pirate attacks in East Africa had reduced significantly. This reduction is reflected in IMB reports that stated that just 15 incidents occurred off Somalia in 2013, down from 75 in 2012 (Lloyds List, 16/1/14), and EU NAVFOR reported that there are currently zero vessels held by pirates and only 30 seafarer hostages in same region.

2.4.2 Piracy along East Coast of Africa

An assessment of piracy literature revealed that there were different views about main factors that gave rise to piracy crisis along coast of East Africa. One school of thought pointed to presence of weak and failed states, chronic poverty, growth of piracy as an opportunity for quick financial gain, and a lack of institutional mechanisms to police piracy created a conducive environment for piracy to thrive. Credible sources added another perspective about triggers to initial spate of piracy in Eastern Africa, by associating surge in attacks on ships, with disquiet among Somali fishermen (Couper, et al., 2015). A related view was elaborated stating that increase in pirate attacks on ships in East Africa, was preceded by formal complaints by Somalia government officials to United Nations on encroachment into their international waters by large, more technologically-advanced fishing trawlers, and offshore fish laundering most notably from Korea, Japan, Norway, and other developed maritime nations (Clarke, 2009).

Additional literature corroborated view that fishing had been an indigenous socio-economic activity in Somalia for centuries. At turn of century, Somali fishermen still used traditional fishing nets to catch their only reliable indigenous source of protein. It was a reliable source of food that had sustained them amidst recurrent famines, chronic internal strife and food insecurity over last two decades. However, it appeared that local fishermen regarded themselves as no match for foreign, technologically advanced fishing vessels that conducted regular forays in Somali international water, and took law into their hands after receiving no assistance from international community to stop overfishing in Somali waters by foreign trawlers. *Appendix 2* provides a sample of literature identified during literature searches that provided different views about trigger factors that gave rise to the piracy crisis in East Africa. In summary, maritime piracy in East Africa was portrayed as a retaliation against foreign

fishing vessels in sporadic attacks, aimed at deterring foreign fishing vessels from (over) fishing in Somali waters, and depleting local fish stocks (Couper et al, 2015). Efforts by foreign vessels to repress Somali fishermen only served to provoke more-frequent attacks by local fishermen and the 'pirate diaspora'. With time, the fishermen introduced ransom payments to release captured ship and its crew. This practice degenerated into current maritime mayhem off coast of East Africa referred to as 'Somali Piracy'. Early media reports and policy literature have been a major source of information (Dragonette, 2005; Langewiesche, 2004; Luft & Korin, 2004) on different views on possible causes of piracy in Eastern Africa waterway.

Prior to resurgence of piracy as a problem in period under investigation, piracy had been a major security challenge along Somali coast for nearly 20 years, since fall of country's last functioning government in 1991 and its descent into anarchy (Baldauf, 2009). causes of state failure in Somalia have been well documented (Bates et al., 2003; Esty et al., 1998; Fund for Peace, 2008; King & Zang, 2001; Rice & Patrick, 2008). In panning region, lens re-focused on chronic civil strife in Somalia as main culprit sustaining piracy in region. UN Political Office for Somalia has identified Eastern Africa maritime environment as an offshore victim of inland distortions in security management and enforcement agencies in Somalia including police, army and navy. Years of conflict and very collapse of Somali state affected the effectiveness of these agencies. For last decade, control of this security sector is fragmented with AU Peace Keepers (Uganda and Burundi), Ethiopian forces and militias loyal to Transitional Federal Government (TFG) struggling to create some semblance of law and order in the midst of chronic civil strife and insurgencies (UNPOS source). Hastings (2009) further analyses failure of Somali state as providing a conducive environment for development and sustenance of more sophisticated piracy attacks (for ransom). Additionally, Murphy (2008] and Ong-Webb (2007) pinpoint physical geography, cultural acceptance and weak or corrupt state institutions as factors that promote piracy attacks and provide pirate havens.

In analysis of influence of political and economic landscapes of failed and weak states on maritime piracy, Hastings (2009) associates piracy with state failure and weak states. He elaborates on difference between two common forms of piracy by linking state failure with less logistically sophisticated hijackings (kidnappings for ransom) on one hand, while identifying state weakness as a major factor that encourages more sophisticated attacks, such as seizure and sale of both ship and its cargo, on other. Rotberg (2002) defines state failure as "being inherently violent, a condition where rulers do not have desire or wherewithal to provide and maintain security, infrastructure or a minimal standard of living for their people". Gros (1996)

on other hand, argues that “failed states do not necessarily have to be violent places, as sometimes central state exists primarily for security of its leaders, with citizens and even regional government officials largely left to fend for themselves”. Hastings (2009) therefore argues that weak states in Eastern Africa region coupled with busy shipping lane in Gulf of Aden provide market, transportation infrastructure and a sufficiently secure political environment that combine to sustain piracy in Gulf of Aden. Nevertheless, as ransoms became more profitable, pirates became more sophisticated, using mother ships and global positioning devices to venture as far as Seychelles Islands to carry out their attacks. Additionally, convergence of massive increase in commercial maritime traffic combined with large number of ports around world has been suggested by Shaschtmann (2008) as a probable catalyst for increase in piracy as “this growth has provided pirates with an almost limitless range of tempting, high-payoff targets.”

2.5 Piracy Reporting and Data Collection: European Union Naval Force (EU NAVFOR)

As intensity of illegal boarding of ships in East Africa evolved, initial reports of maritime piracy incidents in Eastern Africa were publicised through media reports, news coverage, feature films, television dramas and crime fiction (Graber 1980). These captured attention of public in a way that few other means can (cf. Skogan and Maxfield 1981). Electronic and print media reports have potential to communicate warning signals (Innes & Fielding, 2002) to their audience about seafarers’ encounters with pirates, in a manner likely to cause widespread fear to a wider audience who do not work on ships, and who are therefore highly unlikely to come face to face with pirates. Wider audience who are likely to consume such media reports and to fear piracy (Lasthuizen, et al., 2005, 15). This could affect the regard for piracy among maritime industry stakeholders, seafarers themselves, their families, seafarer sending communities and public. The capacity of the media to cause widespread public anxiety about crime by misrepresenting phenomenon has been a matter of general concern (Marsh and Melville, 2011). This is because through powerful discourse, both the print and electronic media are capable of painting a distorted picture of criminal situations, either by exaggerating a trivial crime, or minimizing a major criminal activity/event.

Other sources of information on pirate activities that were identified, included formal reporting mechanisms that emerged during period covered by this study, in response to widespread

concerns about increase in piracy along East Africa coast. European Union Naval Force (EU NAVFOR) is one such information system that arose as main coordination authority mandated by European Union to monitor piracy along East Africa coast, and which carries out this assignment through *Operation Atalanta*. This task included the deployment of an EU naval force and monitoring piracy trend through data collection, analysis and reporting. EU NAVFOR's reports were compiled from piracy data obtained through its Maritime Security Centre for Horn of Africa (MSC-HOA). Key to EU NAVFOR's access to timely and accurate information on pirate activities is MSC-HOA and Dubai-based United Kingdom Maritime Trade Operations (UKMTO) piracy reporting mechanism. UKMTO was first point of contact for military forces and merchant vessels transiting Suez Canal. It operates a Voluntary Reporting Scheme, under which merchant vessels passing through canal are encouraged to send regular reports, providing their position/course/ speed and ETA at their next port while transiting busy maritime corridor. UKMTO then uses this information to monitor vessels' movements and contact ships directly if there is any urgent piracy information that they need to know. This information-sharing protocol saved time and was expected to improve pace of responsiveness of ships to pirate alerts, rather than use of shipping companies as conduits for such urgent and important information.

Following a piracy attack or suspicious activity, a detailed incident report was sent to UKMTO and MSC-HOA and to IMB as well. Report contained 42 items that had to be completed in a standardized format. Form is accessible by shipping companies to provide uniformity in maritime piracy data provided by all ships who encountered pirates. This standardized form is thus a useful maritime piracy reporting and data-collection instrument. Guidelines on how to plan for pirate attacks, suggested responses by different actors involved and post-incident reporting was provided in widely - circulated *Best Management Practices for Protection against Somali-Based Piracy* (BMP4).

2.6 Problematizing Maritime Piracy Measurement

An assessment of crime trends requires accurate records and measurements of criminal activities. Crime statistics are useful in facilitating allocation of resources, in order to gauge moral health of a populace, for likes of criminal justice agencies. While there has been an increase in avenues for accessing information about different crimes, methods of crime data collection and analysis with regard to comprehensibility, integrity, relevance and coverage of

crime statistics present some methodological challenges to government statisticians (Maguire, 2012). Problematic areas include crime classification, increasing influence of political agendas in tailoring crime reports, and underreporting of crimes that raises possibility for sampling errors in large surveys (Maguire, 2012). As a result, public are becoming more sceptical about published crime reports, as many now sense a disparity between crime figures reported, and actual state of crime and (in) security in general. For instance, a reduction in a specific offence recorded by police or as presented in a crime report may not necessarily reflect the general opinion about criminal behaviour at a given time.

In past crime, reports were published on an annual basis following calendar year, but today release of crime reports may follow financial year. It has been extremely difficult to detect, measure, and analyse maritime piracy data through use of available data. As is case with other crimes, it is possible that not all pirate attacks were reported and recorded. Therefore, the number of piracy victims, vessels attacked and hostage duration could have been underestimated in official crime databases and reports. Task of measuring piracy required objectively recorded piracy incident statistics. This could have provided accurate data in a format subjected to rigorous statistical and/or thematic and theoretical analysis as an acceptable reflective empirical research practice. Data collection and analysis methods should be indicated in report narrative. Transparency in maritime piracy research methodology could make them more credible among researchers. Additionally, reports could be useful in assessing effectiveness of interventions (Addington, 2010).

At time this study was launched, there was no single maritime piracy data repository. Although piracy incident reports were published online along with forms used as data collection instruments, much of research and analysis that went into producing reports remained unclear. Nonetheless, regular piracy reports available from IMB, EU NAVFOR'S, media, individuals and special interest groups including stakeholders in criminology and shipping fraternity provided a useful source of information on piracy trend emerging in East Africa. For instance, an evaluation by EU NAVFOR of pirate activity in East Africa from December 2007 to July 2010 illustrated in *Figure 2* below indicated that number of successful hijackings was steady at about two ships per month during the 2007-2010 pirate attack-reporting periods.

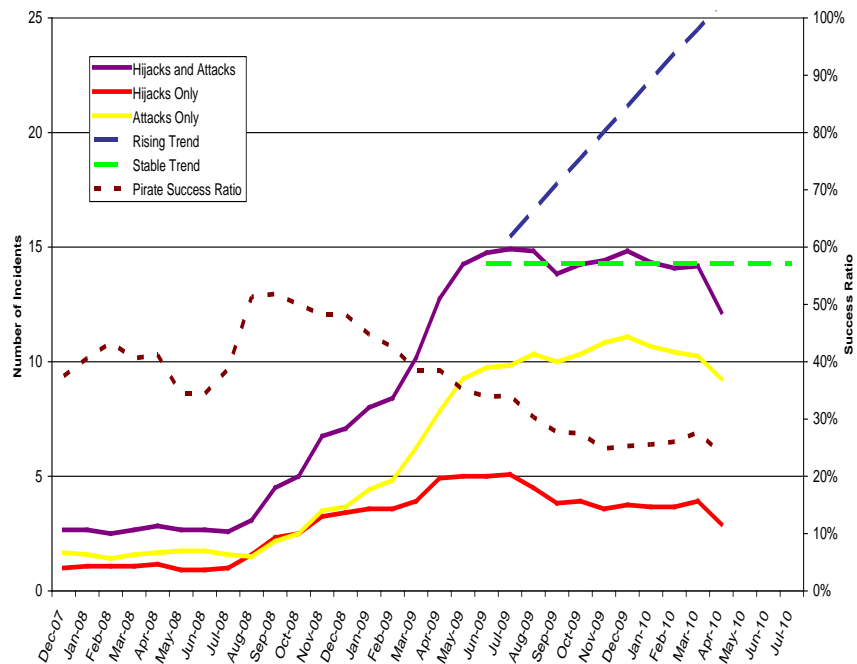


Figure 2: Overall Situation of Piracy Activity from Dec 2007 to July 2010
Source: European Union Naval Force EU Naval force (EU NAVFOR) source

From piracy trend illustrated in *Figure 2* above, overall piracy situation as of July 2010 indicated that number of successful hijackings was steady at about two ships per month, during 2007 to 2010 reporting period. Based upon general crew numbers on general cargo ships during research period, assuming an average crew of 20 seafarers per vessel, trend portrayed in *Figure 2* above which suggested that around 24 ships, and therefore an average of 480 seafarers were taken hostage per year during period illustrated in diagram. This observation of trend in maritime piracy situation in Gulf of Aden in 2007 and 2010 EU NAVFOR reporting period, established fact that piracy grew rapidly through late 2008. As pirate activity increased, so at first did the probability of their success. An overall global assessment of piracy incidents in Eastern Africa region between 2000 and 2009, year in which this study commenced, pointed to a quickly degenerating piracy trend. The situation quickly deteriorated, reaching alarming proportions and causing great concern among seafarers, shipping companies, crewing agencies, maritime security stakeholders and families of seafarers. With time, piracy in Eastern Africa matured into an organised kidnap-for-ransom criminal enterprise, from which pirates obtained millions of dollars in ransom money from attacking ships in North West Indian Ocean. However, as counter-piracy, military intervention began operating in area, and as merchant ships increased their level of awareness and means of defending themselves against pirates, success rate of pirate attacks reduced.

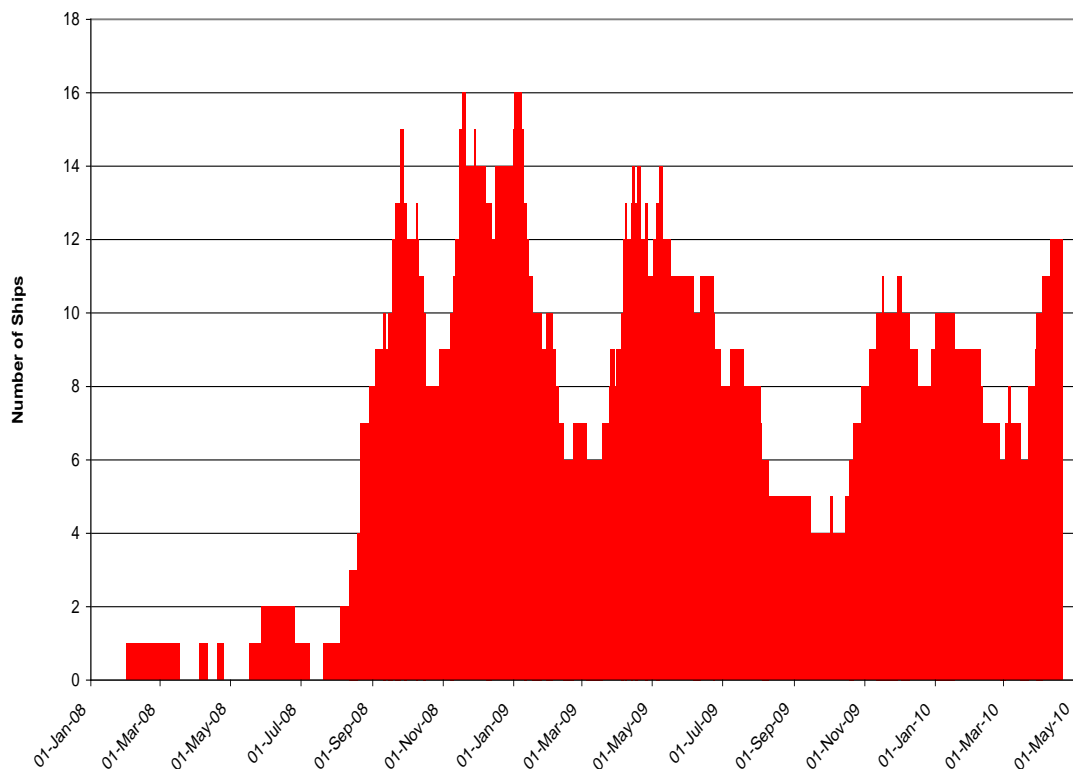


Figure 3: Number of ships held in captivity between January 2008 and May 20
Source: European Union Naval Force (EU NAVFOR)

In July 2013, however, International Maritime Board (IMB) reported a reduction in incidents of piracy in East Africa to a level described as ‘its lowest since 2006’. The opposite case happening in West Africa and particularly in Gulf of Guinea where an increase in number of pirate attacks was a growing occupational hazard for seafarers (IMB, 2013). This trend gradually changed. By 2014, some success in international counter-piracy interventions along coast of East Africa began to be realised through significant reduction in pirate (*Sea*, March/April 2014, 2). However, although 2014 piracy data suggested an improved piracy situation, a survey by shipping news service *Lloyds List* that assessed future threats to maritime security, portrayed a sceptical view. Survey established that in 2014, major stakeholders in shipping industry still regarded piracy as a significant threat, with 70% of survey sample, including ship owners, managers and private security companies, believing that Somalia still represented a risk to shipping (*Sea*, March/April 2014, 2).

Formulation of strategies to mitigate seriousness of disruptive effects of maritime piracy to shipping industry required regular reporting of piracy incidents. This was important in enhancing possibility of informed decision- making by various stakeholders who were

responsible for formulating counter-piracy interventions national, regional and international levels. Section 5 below, contains a discussion of this aspect. Currently two organizations that regularly collect and disseminate statistics on maritime piracy include International Maritime Bureau (IMB) through its Piracy Reporting Centre (PRC) in Kuala Lumpur and the International Maritime Organization (IMO) in London

While IMB and ReCAAP relied on self-reporting by ships that suffer attacks or observe suspicious activities, IMO on other hand receives reports from member states and “international organizations in consultative status” (MTSN, 29/7/10). Each of these data repositories focuses its piracy reports according to its specific information needs, priorities and available resources. Thus, an organisation may choose to focus on collecting and recording only piracy data relevant to their prioritised need to exclusion of other data. IMB as focal point for combating all types of maritime crime and malpractice gathers information from various investigative sources and reports and provides its members with timely advice through a variety of communication avenues (ICC IMB source).

As piracy is a major area of expertise for IMB, in 1992 bureau established Kuala Lumpur-based Piracy Reporting Centre (PRC) to provide a 24-hour point of contact for ships to report when hijacked, attacked or robbed (IMB-PRC Source). Since then, PRC serves as an in-house piracy self-reporting mechanism for IMB, as well as a centralised global repository for ships to report suspicious incidents and pirate attacks. PRC provides an awareness-raising function to all ships and to International Maritime Organisation on emerging piracy threats, specific incidents and attacks, emerging trends posing a threat to maritime security and locations of high-risk areas. Supply of this information assisted various governmental and inter-governmental organisations and maritime law enforcement agencies in order for them to better- understand criminal activities at sea, so they can make more informed decisions to reduce vulnerability of crew, cargo and vessels to threatening situations including piracy (IMB-PRC Source).

As a free service for seafarers, PRC provides a variety of channels of communication for its members to enable them to communicate piracy information in all circumstances. These include a 24-hour helpline, email, telex, fax and a website with an online Piracy/Armed Robbery Reporting form. A sample of Piracy Incident Report form is attached as *Appendix 3*. When a pirate attack was imminent and the Shipmaster would relay this information to PRC immediately he became aware of suspicious movements directed towards his ship. IMB on its part carries out its own investigations, and thereafter compiles a detailed piracy incident report. However, there is a degree of ambiguity about identification of failed pirate attacks. For

example, initially along the Malacca Straits, fast-RIB boats (Inflatable boats) seen passing close to oil tankers were suspected to be pirates. Instead, they found to be smugglers of contraband into Iran that sailed close to larger vessels to avoid detection on radar of Iranian authorities. In East Africa, fishermen have also been mistaken for pirates, occasionally with fatal consequences (Couper et al, 2015).

PRC acted as a conduit to disseminate information to all vessels in region where a threat was identified. IMB on its part carries out its own investigations(s), and thereafter compiles a detailed piracy incident report. Information contained in piracy incident report regularly published online by IMB, and was circulated as a Piracy/Armed Robbery Report to shipping companies. Based on information gathered on incident(s), IMB compiles regular global pirate reports that also highlight flashpoints where there may be an increased risk of pirate attacks.

A typical piracy report includes the following details:

- Ports and anchorages with more than three reported incidents (emerging piracy hotspots)
- Actual attacks, and attempts
- location of piracy incident (or attempt) in nautical miles
- Types of violence against crews by location (measured in number of crew members) including taken hostage, kidnapped, threatened, assaulted, injured, killed, and missing
- Types of weapons (guns, knives, other, or not stated) employed – incidents broken down by location and number of victim ships – by country where managed or controlled
- Types of violence towards crews – by number of crew
- Types of ships (33 types plus “not stated”) involved – by number of incidents
- Flag state of ship involved – by number of incidents

(IMB source)

Outcome of IMB statistical analysis of piracy incidents is publicised on IMB website [_](#) and is freely accessible. Reports presented in a user-friendly and graphic format often included pie charts and bar graphs accompanied by a narrative report. This documentation of piracy accounts that are easy to follow for a layperson not trained in data or crime trend analysis. Such reports provide input for IMB’s real-time alerts, monthly reports, and database of piracy attacks worldwide published online on a quarterly basis that also contain narrative trend analyses highlighting new areas of concern. While both ReCAAP and IMB reports are self-generated, Fetter, Stowe, & Owings (1984) rightly observed that an examination of quality of data collected is a good gauge of good research practice. Piracy data like all other crime data are

sensitive information as piracy investigations often entail victim and witness identity protection and screening of information sources. If this is reason for non-disclosure of raw piracy data by IMB, while on one hand it may be justifiable, data (source) protection may introduce data discrimination in self-reporting, on other.

2.7 Critiquing Self-Reporting and Under - Reporting of Maritime Piracy

During twentieth century, self-reporting developed as an innovative crime research method using specialised techniques to enhance reliability and validity of self-report data. Cook and Campbell (1979) cautioned against wholesome consumption of conclusions based on self-report data collection and analysis as respondents often provide answers that they think investigator wants to hear. After the release of seafarers from pirate captivity, they were interviewed to document their recollections of attack, along with their hostage experiences and release. The details recorded constituted raw data used to populate piracy databases. Studies by Forensic Psychologists revealed that, victims with acute post-traumatic stress disorder “have general memory impairment and memory bias, perform worse in recognition memory due to impaired concentration, and may allocate their limited attention resources to detection of hostility in others in order to avoid being victimized again. This produces a memory bias for perceived hostility even in relatively innocuous everyday interactions with others” (Paunovic, et al, 2002). Thus self-generated piracy reports based on seafarers’ recollections of series of events during (attempted) piracy attacks should be treated with caution as their reliability can be tenuous (Schacter, 1999). Furthermore, this is more so since human memory is fallible (Schacter, 1999) and that piracy/armed robbery reports were based on piracy victims’ recollections.

As is normal practice with witness testimony, when Captains report piracy incident details to PRC, possibility of memory bias raises possibility of inherent bias and variance in piracy data. Subsequently piracy data may unintentionally produce a skewed view of piracy and cripple statistical analyses of piracy data (Blalock, 1974). In absence of other piracy data to compare with IMO data, it is not possible to assess probability of variance error in current piracy reports (Salvucci, Walter, Conley, Fink, & Saba, 1997; Hart & Tomazic, 1999). Additionally, piracy victims may have undergone a series of traumatic experiences during and/or after incident with which they then provide information to complete Piracy/Armed Robbery Reporting forms. From these forms, piracy reports are thereafter drawn. However, human memory is fallible

(Schacter, 1999) and studies by forensic psychologists have revealed that traumatic events can affect retrieval of information concerning distressful events and has capacity to cause localised or dissociative amnesia (PsychNET-UK, 17/7/03). Therefore, since self-generated piracy reports are based on recollection by seafarers of series of events during (attempted) piracy attacks, reliability of such reports may sometimes be called into question (Chan, 2000). In addition, there have been reports that some seafarers have been actively discouraged from talking about piracy. Therefore, seafarers' fear of retribution for talking about piracy ('the P word') could have hindered seafarers from reporting (attempted) pirate attacks.

2.7.1 Emergence of Maritime Piracy Literature

As maritime piracy rose to become a major nuisance to global shipping industry, a number of historical studies began to emerge in open sources focusing on piracy and its suppression from a tactical and legal perspective. For instance, results of a literature search carried out by Mueller and Adler (1985) pointed to the need for criminological research on maritime crimes. To this end, the report stated that:

“We searched every conceivable library for an assessment of problem of crime on seas and for proposed solutions. Our search yielded many interesting books and articles, concerned with individual cases, incidents, epochs, and episodes. But world literature is devoid of any book that examines criminality on oceans in its entirety...For reasons beyond our comprehension; explanation of crime has remained landlocked... Criminologists have neglected criminality of that far greater portion of world called oceans....” (Mueller and Adler 1985, pp. 18-19).

Criminology remains rather non-comparative in its approach and very much centred on sovereign nation states (through its connection with criminal law). This study seeks to use some criminological concepts and approaches to explore an area of criminality in transnational sphere.

2.8 Impact of Maritime Piracy at Different Levels

2.8.1 Industry/Economic Impact

In last decade, seaborne piracy against merchant ships became a major issue of concern to both global shipping industry and global security agencies with significant worldwide losses estimated at US \$13 to \$16 billion per year (Luft & Korin, 2004; Dillon, 2000). While assessing effect of piracy on seamless integration of US Marine Corps in global waterborne transportation system, US Maritime Administration notes with concern three-fold ripple effect of piracy on maritime industry; in that when ships are in hands of pirates this affects the shipping industry in different ways, including the disruption of the maritime transport system, interrupting the global supply chain, delaying the cargo delivery schedules and endangering the lives of merchant mariners (MA, 23/09/10). Furthermore, due to continued heavy reliance on sea transport for bulky cargo, the magnitude of loss due to piracy attacks compounded with unpredictable nature of attacks threatens global commercial interests. This makes maritime piracy a trend worth investigating, as a matter of urgency, in order to provide empirical evidence to facilitate informed decision making on maritime safety worldwide (*STRATFOR, 2006*).

Evidence of economic impact of piracy on shipping industry was reflected in the sharp increase in shipping insurance in last few years. Different companies provided typical three-fold insurance of cargo, ship (hull) and against liability of hazards like collisions with other ships. Current confusion over whether to categorize piracy as an act of terrorism or a war-like activity is causing problems in determining insurance premiums for ships passing through Gulf of Aden. As such, owners are now paying a US \$3 million Kidnap and Ransom (K&R) fee, sold to ship owners for a single trip through Gulf of Aden. Other potential costs to ship owner include claims by crew of a lack of sufficient security on board during piracy attacks (Amies, 2009). high chance of falling prey to pirates while transiting Gulf of Aden, high costs entailed in continuing to use same shipping lane and other added costs have prompted or even compelled some ships with non-time-critical cargo to take longer southward route, around Cape of Good Hope. This decision entails a financial burden of an additional two to three- week trip (Amies, 2009).

Figure 4 below, analyses the trend in ransom premiums paid out in the 2000 to 2010 period. This shows a steady but accelerated increase in ransom figures demanded by pirates since start of 2009. Given number of ships hijacked, this showed that average ransom fee was increasing.

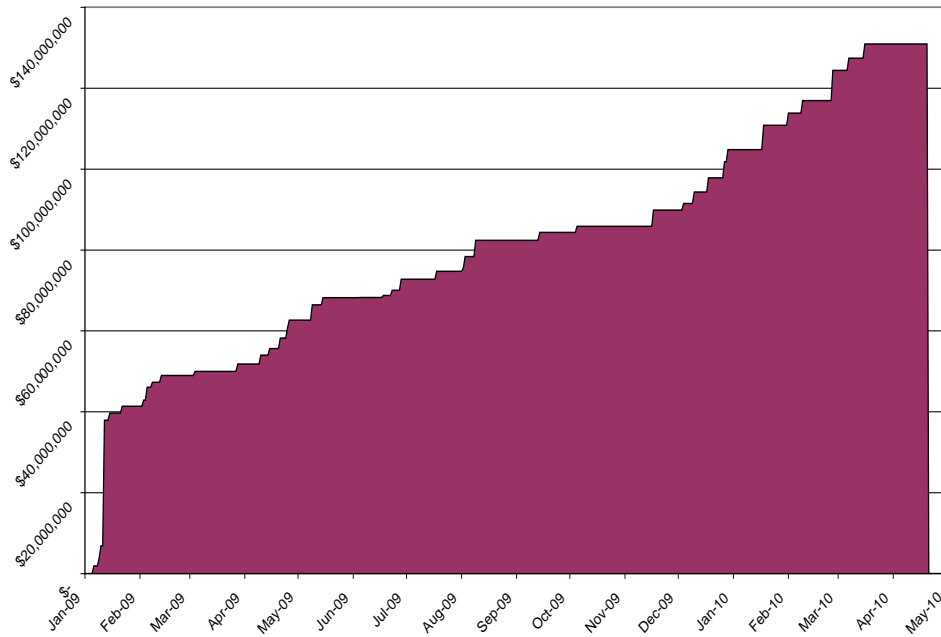


Figure 4: Cumulative ransom payments in 2009 and 2010 in US\$
Source: EU Naval Force source (EU NAVFOR)

Modern piracy experienced in Eastern Africa is of a different kind from its historical equivalent. The ransom paid out to pirates to secure the release of captured crewmembers turned the phenomenon into a very lucrative business in which ship's crew were regarded, and treated by pirates as commodities (Beynon and Nichols, 2006). This element of piracy was previously unheard of. While current literature abounds on current scourge of piracy in Eastern Africa, very little of it has focused on victims, a gap this study intends to fill. On other hand, hostage taking disrupts smooth operation of shipping industry. importance of this is that current globalised political economy demands 'on time' delivery of goods to supermarket shelves around world in a seamless conveyance from manufacturer to consumer in a borderless marketplace (Peck and Tikell, 2002; unpredictability in the cargo delivery coupled with possibility of falling prey to pirates have created a dilemma for shipping industry.

However, most of current literature focuses on dramatic activities surrounding piracy attacks, astronomical ransom amounts, and anti-piracy mass concentration of highly specialized naval patrol ships in East Africa waters and their aerial support. Despite this show-of-force, piracy continued for a number of years with more ships taken hostage and few incidents successfully averted. Reports on actual pirate attacks in the last decade indicated that seafarers were subjected to physical, verbal and emotional violence through actual beatings, threats, insults, threats with guns, knives, and other weapons, hostage taking, (solitary) confinement,

excommunication from each other and from communicating with family members for prolonged periods. Deaths of seafarers have also been recorded either during piracy attack, rescue and/or escape attempts and while being held hostage (International Maritime Board source).

2.4 Impact of Maritime Piracy on Individuals

As piracy has evolved from isolated incidents to more frequent and successful illegal boarding of ships in East Africa, crewmembers working on ships as they pass along coast of East Africa are faced with real prospect of a possible pirate attack. In East Africa, seafarers have often been targets of piracy and held hostage as victims of piracy.

The United Nations *Handbook on Justice for Victims* defines ‘victims’ broadly as

“Persons who individually, collectively, have suffered harm, including physical or mental injury, emotional suffering, economic loss or substantial, impairment of their fundamental rights through acts or omissions that are violations or omissions that are violations of national criminal laws or of internationally recognized norms relating to human rights” (UNODCCP:1999, iii).

Additionally, United Nations Declaration of Basic Principles of Justice for Victims of Crime and Abuse of Power through General Assembly resolution 40/34, annex urges the treatment of crime victims:

“..... with compassion and respect for their dignity and redress for harm they have suffered, through access to criminal Justice System, reparation and services to assist their recovery” (UNODCCP, 1999, iii).

Piracy like any other crime has an impact on its victims, and modern piracy is a particularly ruthless and violent practice. As a result, ex-hostages are often too traumatised to talk about their ordeal while in hands of pirates. However, testimony of ex-hostages that trickle into print media can give one an inkling of difficult conditions that seafarers endure while being held hostage. Speaking at a piracy seminar in Singapore in 1999, Captain Jayant Abhyankar, and Deputy Director of IMB noted dilemma of seafarers, in that:

“Truth is that modern piracy...is a violent, ruthless, practice...made more fearsome by knowledge on part of victims that they are on their own and absolutely defenceless and that no help is waiting just round corner”.

(Vallar, 2005)

Seafarers suffer both primary victimization during piracy attacks as well as secondary victimization thereafter. Available piracy victim testimony points to physical and emotional trauma they experience individually and as a group due to harm that they were subjected to during piracy attacks and while held hostage. Official piracy reports provided some details on encounters between crew and pirates, and indicated that pirates had often fired shots at retreating ships in order to compel them to stop or to slow them down to enable their illegal boarding. Act of shooting at ships in itself carried a threat of injury or death to seafarers. In this scenario, crew were, trapped by very nature of maritime environment of their mobile workspace, with nowhere to run or to escape from pirates.

Some reports with more detailed accounts indicated that crew suffered physical pain and humiliation while trying to thwart pirates’ attempted illegal boarding of their ship. Reports indicated that when the crew encountered pirates, whether or not they complied with the wishes of the attackers, they were beaten, verbally and emotionally abused, threatened, assaulted with blows, punches and shoving as pirates asserted their authority when taking command of ship. Further information indicated that that psychological abuse included the brandishing of weapons like knives, guns, and clubs to enforce the total domination of the crew. Captured crew were kept under guard round clock. While this research was underway, empirical evidence continued to trickle out providing further information detailing humiliation and emotional abuse of seafarers held hostage by pirates in East Africa. These included having nails pulled out with pliers, being locked in freezers, punched, pushed, slapped, burned with cigarette butts, and being tied up in sun for hours (*Oceans Beyond Piracy*, 2013).

Meanwhile, assistance to seafarers’ families from home governments and shipping companies was also reported to be erratic and unreliable. Captured crew were held captive on board their ships. In some instances, pirates to attack unsuspecting ships further afield used mother ships with its crew still detained aboard. During on board captivity the crew experienced further psychological distress as they were forced to perform non-seafaring tasks for their captors for whom they were ill prepared. These included domestic chores like cooking and fishing to provide meals for both their captors and themselves when food supplies ran out (Ecoterra, 2011). In addition, confidential documents and information made available to me by official

law enforcement officials involved in the on-going piracy investigations indicated that material forensic evidence collected from hostages on release and on ships on which they were, held hostage revealed that pirates had subjected some seafarers to sexual assault during captivity. This study considered the possibility that seafarers whose voyages passed along East African coast, faced the risk of criminal victimization by pirates. This required redress within criminal justice system for their recovery (Beloof et al, 2010; Beloof, 1999 and Jerin, et al. 2007).

2.9 Responses to Maritime Piracy

2.9.1 Multiple Discourses on Maritime Piracy Regulation

(a) International Maritime Organization (IMO) and Maritime Safety

As the United Nation's specialised agency charged with responsibility for maritime safety and pollution from ships, the International Maritime Organization (IMO) develops and maintains the regulatory framework for shipping. The scope covers maritime safety, environmental concerns, and legal-technical cooperation primarily through promotion of international treaties by its 167 member states including United Nations Convention on Law of Sea (UNCLOS), International Convention for Safety of Life at Sea, and International Convention on Maritime Search and Rescue (ASIL: 2010: 7-Sep-10)

Strategic counter-piracy measures to address rising threat of piracy in East Africa have included international and regional multi-national collaborative agreements, UN resolutions and national commitments to respond to phenomenon. While this study was underway, IMO spearheaded amendment of relevant international legislative and regulatory instruments to provide a suitable framework for international anti-piracy collaborative efforts, especially those in East Africa. These efforts included filling legal vacuum in Eastern Africa maritime security through adoption of Djibouti Code of Conduct. This multi-national collaborative agreement that came into force on the 29th of January 2009, aimed at improving information-sharing and situational awareness of maritime piracy among twenty-one countries located adjacent to Indian Ocean. Under agreement, signatory countries agreed to engage in collaborative efforts aimed at enhancing region's capabilities to combat piracy and to help small navies and coast guards in region for improved maritime safety through a number of mechanisms. These measures suggested included combining maritime security personnel to patrol area, establish three maritime information sharing centers in region, and link Maritime Situational Awareness (MSA), among others (*Djibouti Code of Conduct* website).

Other measures undertaken by international community to counter rising threat of piracy included UN Security Council resolutions: 1816, 1838, 1846 and 1851, passed in 2008, which also provided an international legal umbrella authorising cooperating states and other Eastern Africa anti-piracy patrols and interdictions “to pursue and capture pirates in Somali waters with stipulation that consent must first be received from Transitional Federal Government of Somalia and that UN Secretary General must be notified” (Middleton, 2009, p. 3).

IMO also initiated adoption of a policy proposing a strategy by states and maritime industry to prevent pirate attacks and other criminal acts of violence against U.S. vessels, persons and interests. On 5 October 2008, United Nations Security Council adopted resolution 1838[50] that sanctioned use of counter-piracy military force to protect ships from pirates in East Africa. This UN resolution, in effect, authorized operations inside Somalia’s territorial waters to deny area from operating as a safe haven for pirates. In 2007, U.S. President signed a comprehensive and sweeping policy governing diplomatic and legal action to fight piracy, and emphasized collaborative strategies by states and other maritime sector stakeholders.

(b) International Labour Organization (ILO)

Using a tripartite consensus system involving governments, ship owners and seafarers, ILO has adopted a different regulatory framework from IMO. ILO Maritime Labour Convention (2006), (hereafter referred to as MLC.2006) also referred to as ‘*Bill of Rights*’ for seafarers was enacted to protect working conditions of seafarers regardless of their nationality or flag of their vessel (ILO: 2009, 2007). This bill came into force in August 2013, and was fourth in a series of maritime legislation addressing welfare of seafarers. SOLAS, Marpol and STCW had preceded it. MLC.2006 consolidated 68 existing ILO maritime instruments, which had been implemented since 1920 at national level. On enactment of this convention, it was expected that it would provide minimum standards for health, safety and welfare of over 1.2 million seafarers serving on 69,000 ships worldwide. MLC.2006 elaborates on recommended guidelines for shipping companies to provide healthcare protection for seafarers, in terms of their health protection, medical care, welfare and social security protection. Convention suggests guidelines to ensure that risk assessments and safety meetings make an effort to address ‘people issues’. This study suggests that Occupational Health and Safety (OHS) concern issues that affect welfare of seafarers could include addressing psycho-socio support for seafarers Sections 4.1 and 4.5 of convention were relevant to my discussion of policy

implications of this study, in concluding chapter. *Appendix 4* summarises sections of MLC.2006 that are of relevance to this stud

(c) Other International Perspectives and Legislation Provisions

United Nations General Assembly resolution 52/86 of 12 December 1997, in *Section V: Victim Support and Assistance* recommended measures for implementation at national, regional and international levels to improve access to justice and fair treatment, restitution, compensation, protection and assistance for victims of crime and abuse of power (UNODC, 2006:1). In recognising enormous physical, financial and emotional toll that crime has on its victims, *United Nations Declaration of Basic Principles of Justice for Victims of Crime and Abuse of Power* (resolution 40/34, annex) further recommended specific assistance that “member states should provide for victims of crime including material, medical, psychological and social support through governmental, voluntary and local community based means” (UNODC, 2006:17).

Unfortunately, as Andersen et al. (2009) noted that the crime of maritime piracy was not tried at the International Criminal Court despite steady rise in piracy globally. In addition, until the late 1980s, no law enforcement agency existed to prevent or counter piracy, until the public outcry by international shipping fraternity prompted IMO to act (Clark, 2009; Paritt, 1986; Beckman, 1999). In response to increase in piracy attacks off coast of Somalia, in 2006 IMO established a Regional Maritime Rescue Co-ordination Centre at coastal town of Mombasa in neighbouring Kenya to provide a rapid response to acts of piracy and accidents at sea (IMO Source). Additional international collaborative counter-piracy efforts initiated include both proactive anti-piracy measures and reactive counter piracy measures to deter and combat piracy in Gulf of Aden. Hanson (2010) recorded that by January 2009 over 30 ships from over a dozen countries were already deployed as a global naval task force patrolling 2.5 million square miles with aerial cover too. This support was drawn from NATO, United Kingdom, United States, France, Russia, China, India and European Union Naval Force Somalia (EU NAVFOR) through its Operation Atalanta (EU NAVFOR, 2010).

In analysing cases of modern piracy and piracy suppression in terms of varying strategic, policy, and operational decisions, Elleman et. al. (2010) suggested adoption of coordinated efforts by states and ship owners. It was further suggested that such an initiative by international

community could use a combination of counter-piracy measures to increase their cooperation in managing piracy. Following are some specific practical counter-piracy actions suggested:

- creation of a global surveillance system for international shipping;
- Establishment of a mechanism through which ships can alert authorities if attacked;
- Prompt reporting of piracy alerts to appropriate flag-state and port-state authorities;
- Enforcement by maritime forces of their legal authority;
- Enactment of domestic counter-piracy legislation to under which pirates could be tried by countries affected by piracy;
- Regard for naval forces to call upon as weapon of last resort if all aforementioned measures failed to bring piracy under control off coast of Somalia.

(d) Regional and National Responses to Piracy in East Africa

Regional anti-piracy efforts include January 2009 signing of a memorandum of understanding between United States and United Kingdom with Kenya permitting handing over to Kenyan authorities captured pirates for prosecution using international legislation since Kenya does not have in place anti-piracy legislation. In same month, nine East Africa countries signed an agreement to cooperate in preventing ship hijackings and apprehending pirates for arrest and prosecution. On 10 March 2010 Saudi Arabia signed 'Djibouti Code of Conduct'. As a policing and regulatory framework, accord allows one signatory country to send armed forces into another signatory country's territorial waters to pursue pirates. Accord also authorizes conduct of joint multi-country anti-piracy operations across national jurisdictions. It outlines a regional anti-piracy work plan that, among other things, places upon signatory countries obligation to criminalize maritime piracy by enacting appropriate legislation to enable arrest and appropriate prosecution of piracy suspects within their jurisdiction. (IMO source, 10/3/2010).

However, most of signatory countries including Djibouti, Ethiopia, Kenya, Madagascar, Maldives, Seychelles, Somalia, Tanzania, and Yemen have extremely limited capacity to deal with pirates and code is largely meaningless. However, since Somalia is not party to most of relevant international treaties, it does not have any counter-piracy legislation, and lacks a central political administrative authority. Somali Transitional Federal Government did concur with 16 December 2008 UN Security Council "Hot Pursuit" Resolution that allows foreign forces to engage in hot pursuit of pirates onto Somali territory - both on land and sea (UNCLOS, 2008; UFS, 2009). Punitive measures against pirates in East Africa so far include arrests of

(suspected) pirates by forces attached to global naval task force and their trials, which are initially mainly in Kenyan courts, but can also be in Netherlands, Germany and United States. However, while a minority of arrested pirates have gone on trial, others have been released amidst confusion on right of forces to make arrests in Somali waters. In addition, some who have stood trial have claimed that they are trying to stop illegal fishing. While this study was in its infancy, some ship owners suggested that region's governments negotiate right for navies to chase pirates across national boundaries in so-called 'right of hot pursuit'. Initially, Singapore and Indonesia were among first countries to negotiate limited rights.

Although Transitional Federal Government (TFG) of Somalia recognised piracy problem, it was unable to police its territorial waters to contain piracy. This inadequacy arose from decades of political strife and anarchy that resulted in a political administration that did not have complete territorial control. Thus as piracy spiralled out of control, Transitional Federal Government of Somalia lacked political and military legitimacy and was constantly challenged by insurgencies. Legislature (transitional parliament) in Somalia, and its committees shared similar jurisdictional challenges with executive. For a number of years, attempts to restore law and order in different parts of Somalia, included customary (clan) leadership and authority overlapped with political and military rule, as well as religious radicalisation (UNPOS source). Such political polarization over decades of social anarchy resulted in a fragmented and weakened security sector that was unable to prevent or combat piracy within its offshore and inland jurisdiction.

Recognising challenge that piracy posed to transitional government of Somalia and regional partners, both of whom lacked capacity to counter maritime piracy, United States National Security Council (NSC) developed interagency *Countering Piracy off Horn of Africa: Partnership and Action Plan* (Action Plan) in December 2008 to prevent, disrupt, and prosecute piracy off Horn of Africa. This strategy designed in collaboration with international and industry partners, encompassed actions needed to assess and update plans and to enhance collaboration among partners involved in countering piracy off Horn of Africa. Action Plan included following capacity-building activities: -

- ◊ Providing assistance to several regional countries to develop regional judicial capacity through initially creating an assessment tool to identify gaps in regional states' maritime capabilities including judicial capacity;
- ◊ Identifying nature and scope of international assistance needed

- ◊ Enhancing capacities of regional states in connection with arrest, detention, prosecution, and fair trial of persons accused of involvement in piracy;
- ◊ Pursuing bilateral programs to provide judicial capacity-building efforts;
- ◊ Providing support to regional partners for development of forensic skills in developing piracy cases, evidence collection and transferring piracy cases to Kenya.
- ◊ Hosting piracy awareness events specifically targeting law enforcement and judges from countries in Horn of Africa region.

(GOA, 2010)

As international community increased its efforts to fill law enforcement vacuum, different ‘target-hardening’ strategies were adopted by shipping countries to thwart pirates' attempts to board ships and safeguard the crew. Such initiatives included early warning systems, placing of armed guards on ships as they passed along East African coast, and creation of safety corridors for ships along which they were escorted in convoy by naval ships, whose efforts at sea were enhanced by air surveillance. International efforts to deal with piracy included deployment along coast of East Africa of a multi-national European Naval force (EU NAVFOR), with support from NATO countries (EU NAVFOR source). As this study ended, concerted efforts by this multi-national collaborative initiative code-named *Operation Atalanta*, combined with other strategic and tactical efforts by a number of international, regional and national agencies, led to a reduction in number of pirate attacks in East Africa. However, all these counter-piracy efforts focused on keeping ship safe as a target. Such an approach placed less emphasis on the emotional and physical welfare of crew. This was despite fact that seafarers were primary target of ‘kidnap for ransom’ mode of piracy witnessed in East Africa during research period.

2.11 ‘Missing link’ in Seafarers' Occupational Health and Safety (OHS)

Although initial literature searches did not find studies or publications that reflected on emergence of piracy as a seafarer occupational risk, as the study progressed studies by reputable researchers began trickling into the public domain in which the authors engaged with the threat of piracy as a hazard facing crews at sea (Walters and Bailey, 2013, 64). Some studies have identified piracy as a threat to fishermen, citing instances when armed guards on merchant ships who confused them for pirates (Couper, et al., 2015, 193) killed innocent fishermen. Whereas OHS of people working on board ships was given insufficient emphasis by industry, research

into issues that influence occupational health and safety practices in shipping industry have been subject of research interest.

An earlier study, conducted among top management of shipping companies to assess safety culture and attitudes of maritime personnel towards safety, established that managers regarded safety as “a value of shipping business” (Lappalainen & Salmi, 2009). The variation in values that different stakeholders attached to OHS was reflected in the attention that ship management paid to various safety-related aspects. For instance, while charterers in tanker sector go to great lengths to influence health and safety outcomes on board vessels that they charter, cargo shippers are often more concerned about attention to safety of their cargo than they are with health and safety of crew. This concern was reflected in the relatively greater prioritisation of the cleanliness of the cargo hold and cargo-handling equipment, in order to ensure that cargo arrives undamaged. Thus, charterers in container sector make less direct, but positive, efforts to influence management of safety regime on board container ships that transport their goods (Sampson & Walters, 2013, 99). Nonetheless, top management of shipping companies that participated in study on *Safety Culture and Maritime Personnel’s Safety Attitudes* stated that “safety is a value of shipping business” (Lappalainen & Salmi, 2009).

This study has sought to establish factors that influence variations in seafarers’ risk perception. While recognising efforts by both ILO and IMO in encouraging efforts aimed at providing decent working conditions and employment opportunities, this thesis argues that informed decision-making to safeguard seafarers’ OHS in their perilous and borderless mobile work place requires an accurate and timely articulation of seafarers’ views, together with that of unions and employers. In this regard, this study will attempt to establish whether coping strategies that seafarers could rely on to counter their workplace risks do in any way affect how they regard ‘riskiness’ or ‘non-riskiness’ of their work environment.

2.12 Chapter Summary

This chapter dwelt on the pivotal role of shipping industry in global political economy. This is to show that any issue hampering smooth movement of ships, in turn, affects global supply chains. The emergence of maritime piracy as a seafarer occupational hazard was outlined from literature reviewed, it was apparent that maritime piracy in East Africa has received considerable publicity as a threat to seafarer safety. Estimates of annual incidences of

experiences of Somali piracy were rather frail and varied, because of a probable but indeterminate degree of under-reporting of crime incidents by crew. However, it was unlikely that more than 44 of one million plus active seafarers in international fleet would have experienced piracy in any given year. Due to moral panic and media's amplification of risks posed by piracy, public perceptions of risk of falling victim to piracy could affect views about different seafaring risks. This, in turn, could result in a variation in risk perception among individuals of same profession. This study represents an attempt to explore variations in risk perception among a diverse group of seafarers through mixed methods.

Four conclusions were deduced from the literature review process reported in this chapter: Firstly, that in spite of the growing concern about piracy activities along the busy East Africa shipping corridor, maritime piracy was still not included in the list of seafaring occupational risks at the time this study was carried out; Secondly, that empirical research that explains variations in seafarers' views about occupational risk was lacking; thirdly, that most of piracy reports were for purpose of self-reporting for tactical and strategic decision-making by maritime security organisations (therefore data collection instruments could not be validated); and fourthly, that seafarers opinions were not included in few self-reports available on pirate attacks. This study therefore focused on providing some empirical findings that could contribute to understanding of seafarers' occupational risk perception including their views on piracy, which is central issue of this study.

CHAPTER THREE

LITERATURE REVIEW (2): THEORETICAL PROPOSITIONS

3.1 Introduction: Generation of the Theoretical Propositions

The literature presented in this review serves two main purposes: Namely, to provide a broad understanding of how the concept of risk was deployed, and developed in different contexts; and to emphasize particular literature and the approach used to inform this study. In addition to detailing the current state of debate on risk and in particular risk perception, the chapter provides a critical analysis of the work reviewed in a manner that leads to the generation of a number of theoretical propositions. These propositions, in turn, provide a framework to analyse the interviewees' diverse views about seafaring occupational risks as presented in Chapter Five. It was not feasible to provide a comprehensive and detailed review of the huge body of academic work on risk. Rather, the strategy here was to provide a more focused review of a sample relevant studies that could help shape the theoretical propositions that would provide a framework for the later empirical analysis.

While laying out the range of research literature that helped to establish the thematic framework that was applied in this empirical study, the chapter reports on key works and studies reviewed. These included literature on risk, risk perception, Cultural Theory of Risk and Subjective Immunity. The ideas presented on seafarer occupational risk perception were shaped largely by empirical research findings by researchers from the Seafarers International Research Centre (SIRC). These studies have helped to develop a number of theoretical propositions that then guided the analysis and interpretation of the empirical data relating to seafarers' perceptions of a range of occupational risks, including that posed by maritime piracy. The decision to come up with clear theoretical propositions prior to the data analysis phase of this study was helpful in three main ways: Firstly, it enabled the identification of the main concepts that this study was anchored, and that were relevant to this study. Secondly, the theoretical propositions guided the selection of appropriate data analysis methods that were used in subsequent chapters as safeguards against arriving at incorrect conclusions. Thirdly, focusing on a few main ideas was helpful at this point in the study in guiding the thinking of areas in which this study could generate meaningful findings that could bring a new understanding to seafarer occupational risk perception (Smyth, 2004).

There is a wide body of literature on the topic of risk, which adopts different approaches and is utilised in different disciplines. In this chapter, attention was first drawn to the contested nature

of the concept of risk. Thereafter, the epistemological bases that underpin much of these differences in approach are discussed. The broad substantive debates within the risk literature are also presented. These include risk management, risk society, cultural theory of risk, before introducing the literature on risk perception that provides the conceptual framework for this study.

3.2 The contested nature of risk

Risk is a contested issue and theoretical concept (Kemshall, 2010, 218). It has been associated with different meanings in different contexts and has evolved over time (Adams, 2014). The terms risk and 'hazard' are used interchangeably. Use of the term risk in maritime contexts has a longer history than in land-based contexts. Sociological theorists associate the beginnings of the use of the term risk with the practice of maritime insurance, to denote natural disasters that could befall vessels during the voyage. At that point in time, these 'risks' during sea voyages were construed as "possibilities of objective danger, an act of God, a *force majeure*, a tempest or peril at sea that could not be attributed to wrongful human conduct" (Luhmann, 1993, in Lupton, 1999, 5). In the middle Ages before national, regional and international governance structures were put into place, individuals and communities faced a plethora of both natural and man - made hazards (Muchembled, 1985, 22). Local communities faced violence and reminders of adversity as part of the daily life from witnessing public punishment of lawbreakers, epidemics, banditry, violence, wars and natural disasters. Although society was buffered against adversity by a sense of community and religion, in the absence of formal mechanisms for mitigating against these prevailing dangers, life, in general, was precarious with many uncertainties (Gerard and Petley, 2013, p. 1051). In that historical context, the prevailing sense of insecurity was attributed to the inability to deal with, contain and prevent danger. This general sense of insecurity made it a risky society (Gerard and Petley, 2013, 1065) with many threats to safety and wellbeing.

A more recent, and widely accepted, account of risk is that provided by anthropologist Mary Douglas who stated that risk could be regarded as the perceived probability of an event occurring that could lead to great losses or gains (Douglas 1970; 1990, 2). Such an event or occurrence was linked to a resulting effect. A 'hazard', is a situation brought about by an event that carries a negative connotation as it was understood to have the potential of bringing about

a harmful effect on people and things of value. The consequences are often unknown but thought to be adverse, including, physical or emotional injury, loss of life, and damage to property etc. (Kates & Kaperson, 1983). This is the understanding of risk adopted in this study.

3.3 Epistemological bases underpinning approaches to Risk

Broadly, speaking three broad epistemological positions were adopted in conceptualizing risk. These include the Realist Position, the Weak Constructionist Position and the Strong Constructionist Position (Lupton, 1999, 17). One of these epistemological positions underpins contemporary debates on risk. The Realist position views risk as an objective threat, hazard or danger that exists, and that could be quantified, measured and managed through appropriate risk management strategies/policies (El-Karim, et al., 2017, 202). Such mechanisms aim at identifying problem areas associated with a relatively higher probability of risk exposure, occurrence and transfer, and control of the risk factors by incorporating risk, danger, hazard as a factor within the project planning algorithm (Smith, 1999, 7). The formula excludes social processes. “It is also commonly applied in technical scientific perspectives applied in various contexts including to analyse the notion of danger, and in the engineering, statistics, epidemiology, economics and statistics disciplines” (Lupton, 1999, 17). In addition, cognitive scientific theories such as the science of judgement and decisionmaking based on this epistemological position have emerged as a multidisciplinary approach to analysing risk and uncertainty from the perspectives of law, medicine, economics, and business. This latter approach heralded with high esteem as evidenced by the award of Nobel peace prizes to the work of some of its major proponents including Maurice Allais, Herbert Simon, and Daniel Kahneman (Reyna and Rivers, 2008, 3).

Foucault (1988) uses the term risk to denote a strategy, a plan and a way of reasoning used to regulate power in neo-liberal Anglophone countries, and expounded a Strong Constructionist position associated with his notion of Governmentality. Proponents of this concept argue that nothing is a risk in itself, but rather what is referred to as risk, is actually “a way of seeing, analysing and governing the perceived danger of some unfortunate events” by problematizing and calculating it (Ewald, 1991, 199). These two tasks are facilitated by a diverse and interconnected network of (expert) actors and institutions with specialised knowledge and practice this network monitored, regulated and managed individuals within a population who functioned as sources of information used to understand risk factors. The population was linked

through their cultural milieu, physical geography and significant life events (Foucault, 1991, 93). Foucauldian perspective regarded risk as a ‘moral technology’ (Lupton, 1999, 87) through which demographic assessments were made through the lens of Governmentality. This in turn yields a classification of social groups and populations into either those who are ‘at risk’, or ‘high risk’ and thus warranting empowerment through knowledge and interventions to mitigate risk, and discipline future (Ewald, 1991, 215). A Strong Constructionist epistemological position underpins how risk is rationalised in the fields of insurance, public health and other government policy and practice.

By contrast, a Weak Constructionist position regards risk as an objective threat; a hazard was best interpreted within the context of its social and cultural processes. This perspective explains risk from two points of view: (1) Firstly, in relation to the structural processes of late modernity (2) Secondly, within cultural/symbolic perspectives or functional structuralism. The former point of view analyses risk as an evolving social construct with a symbiotic relationship to social processes. A well-known approach based on this position includes the work of ‘Risk Society’ exponents Ulrich Beck (1992; 1999) and Anthony Giddens (1990; 1991). Their views focused on “how risk is generated from socio-cultural changes, how this change is dealt with at a macro-structural level of society, the political implications for this, and the social conflicts that arise” (Lupton, 1999, 73 -81). Mary Douglas, on the other hand, concentrated her work on a cultural/symbolic approach emphasizing the socio-cultural nature of risk. She argued that prevailing socio-cultural processes wherein, risk functions as a measure of symbolic boundary and a lens through which some dangers were regarded with greater concern than others influence the meaning attached to the notion of risk. Section 3.4 of this chapter contains a detailed explanation of Douglas' (1970) concept of Cultural Theory of Risk. Psychodynamics and some psychological theories and schools of thought were also based on the Weak Constructionist epistemological position.

In contemporary society, threats to security are understood to have changed as the impetus to control life's challenges has led to advances in the medical, science and technology fields. The establishment of formal law and order, national security, hazard management and public health agencies have complimented this progress. These efforts have led to a better understanding of the threats faced by previous generations, and an overall improvement in the quality of life. While this has facilitated the devising of equipment and strategies to mitigate modern threats, it has not eliminated the dangers faced by current generations. Current threats include factors

emanating from more globalised security threats, increases in the frequency and array of hazardous events, migration, rapid scientific and technological advances, public health challenges, law and order, information explosion through the emergence of the World Wide Web, among others. Thus, as human societies evolve, the meaning and use of the term risk has been synchronized to suit the context.

The last two centuries saw a change in the nature of societal threats and this was reflected in the changing meaning attached to the term risk. In order to deal with social changes and the ripple effects of mass urbanization, industrialization and the industrial revolution, risk became quantified. This was made possible by the application of the science of probability and statistics, to calculate the norm and identify deviations from the norm as a means towards rationalizing, counting and controlling disorder” (Hacking, 1990, 16). Thus, the term risk was used to explain probability estimates of a known or knowable event. When the estimation of such probabilities was not feasible then the phrase ‘uncertainties’ was used as a substitute. The insurance industry applied the understanding of the risk using new mathematical ideas gave risk a scientific twist to provide a modern understanding of risk. This new meaning entailed a new way of viewing the world in which nothing was a risk in itself, and risks did not only originate in physical nature but also in human beings as well. This new understanding of risk gave way to it becoming the central juridical definition of insurance. While to date, risk remains the fundamental element of insurance, and insurance is a technology of risk through which certain elements of reality are rationalised, broken down, rearranged to give rise to both good and bad ‘risks’ (Ewald 1993; 199).

3.4 Substantive debates within Risk Literature

In recent decades, risk has become a topic that is hard to ignore as it has become an increasingly - important to politicians and policymakers who have sought a better understanding of risk, its application and its implications in different contexts. This interest, in turn generated multiple meanings of risk as it was applied in different contexts and disciplines. Other factors that have given a new impetus to the study of the concept of risk includes a politicization of the term arising from the globalization of security threats, new and life-threatening medical conditions, migration, genetic modification of crops, risky sports, pollution, economic speculation, among others. Unfortunately, cost-benefit analyses led to the application of the concept of risk being mainly to negative, undesirable outcomes while potentially positive and profitable outcomes are

often ignored. Instead, negative outcomes are usually emphasized on most occasions, and subsequently, when the term risk was used in lay peoples' language, it tended to have a negative connotation associated with a negative outcome such as a threat, a hazard or other harmful effects. With time, the use of the terms risk, uncertainty and hazard were used interchangeably indicate a possibility of “deviations from the norm, misfortune and frightening events” (Lupton, 1999, 3).

Major social changes including globalization, migration, modernization and post-modernization have transformed communities and the context in which meanings were ascribed to the notion of risk. These social changes have given rise to new identities, a breakdown of (traditional) norms, traditions, the social fabric, and the formation of new social relationships. It has been suggested that this fast-evolving social milieu has brought with it greater uncertainty, complexity, ambivalence, disorder, distrust of social institutions and traditional authorities in ways that have led to a growing sense of insecurity. Social theorists Mary Douglas, Ulrich Beck and Anthony Giddens expounded on risk in modern sociological views about risk by illumining the link between social change, and risk. Section 3.4 of this chapter covers Douglas' Cultural Theory of Risk in the discussion of perception of risk.

Beck's (1992) work was important in pointing out the main difference between modern 'risks' faced in modern society and the dangers that society faced in the past. He portrayed modern risks are as a continuation of the industrial (capitalist) society by showing three main characteristics of risk in modern times. Firstly, modern risks were invisible and was located industrial/class modernity operating in the spheres of physics and chemistry industrial production processes. Secondly, the distribution of 'risks' is orchestrated by big corporations who use the media to structure knowledge (research and power) to perpetuate a risk modernity. Thirdly, that science and technology are out of control and threatens alienation, death and destruction as 'risks' with the capacity to jeopardise all forms of life on earth (Caplan, 2000, 3). Beck also highlighted the advent of a new global order in the distribution of bad 'risks' is deliberately planned to affect some people more than it does other people. He illustrated this point by singling out the practice of transferring risks associated with hazardous industrial waste away from developed countries to the Third World. He, however, pointed out that the global nature of the world environment put the whole world at risk because environmental harms have the capacity to spread worldwide indiscriminately. Beck suggested the formation of the 'World Risk Society' as a global, transnational, interconnected and interdependent Cosmopolitan

Society as a global strategic collaborative network and mutually beneficial mechanism and discussion platform where representatives from both industrialised and developing countries could engage in discussions to avert a global ecological crisis. According to Beck, this impending environmental disaster was characterised by five inter-linked processes including underemployment, gender revolution, individualisation, globalization and global 'risks' such as ecological crises and the crash of the global markets (Beck, 1992 [1986], 3). He proposed a reorganisation of power and authority as a means of addressing and mitigating risk in the World Risk Society'. He also advocated the expansion of the scope for debates on 'risks' beyond the field of natural sciences to include social scientist as well. Wildavsky reacted to Beck's views with optimism pointing out positive contributions that science and technology had made to humanity. Evidence presented to back this claim included economic growth, technological advances spurred on by economic growth, dramatic improvements in health, increases in longevity and a decrease in sickness" (Wildavsky, 1991).

Giddens (1991) shared Beck's view that the world had entered a new phase of 'late' or 'high modernity' in which risk was a central scenario. Giddens saw modernity as a risk culture in which the concept of risk is fundamental to the way lay actors and specialists organise the social world. Like Beck, Giddens argued on the role of the media in increasing people's awareness of risks. He explained that an understanding of the pivotal role of risk could illuminate the following core elements of modernity: its apocalyptic nature through which it introduces new risks that previous generations had not faced; globalised impact of local events; the paradox of a reduction in life-threatening events erstwhile, high consequence risks resulting from globalization. Giddens explained that in a shift in how risk scenarios were viewed has occurred in late modernity. Whereby, instead of contemporary life being determined by the past, the future was predicted in risk scenarios. This perception that risk is a part of normal life influences the choices people make at present, and this, in turn, influences how people make life's choices. In viewing and accepting risks as an integral feature of late modernity and choose possible future actions by anticipating outcomes (Giddens, 1991, 108).

Having discussed the evolution of risk, the different epistemological positions and the main approaches to understanding risk, the discussion will now focus on risk perception which is the approach adopted in this study. Risk perception has been regarded in multiple ways by sociologists, psychologists and anthropologists. The following section describes some of the approaches to risk perception applicable this current study.

3.5 Risk Perception

The focus of this research is Risk Perception. How people understand risk and the responses to hazards that they encounter is informed by socially and culturally structured conceptions and evaluations about the world, of what the world looks like and what (in their view) it should, or should not be (Boholm, 1998, 135). Risk Perception denotes an individual's response(s) to the uncertainty of the impact of an activity and an anticipation of negative consequences (Eiser, 2004, 32). In seeking to establish what people mean when they say that a situation is risky consideration was given of how people think about and respond to perceived hazards in their environment. The process through which an individual decides that a situation is 'risky' showed that individuals assess the information that they perceive from prevailing circumstances using their five senses, before concluding whether there was a chance that an action(s) or decision(s) could result in adverse consequences (Slovik, 1987, 281).

Further studies have shown that in this sensory perception, there was a tendency of people arriving at conclusions that overestimated the number of deaths from infrequent causes/fatal events such as tornadoes, aeroplane crashes, and infectious disease epidemics, and underestimate the deaths from frequent and unspectacular causes such as cancer and diabetes (The Royal Society, 1992, 99). Additional studies focusing on the psychological aspects of risk perception indicated that fatalities from dramatic types of activities accompanied by vivid images often judged probable or more frequent because they are encoded in the memory and are easily recalled (Johnson and Tversky, 1983, 7).

Earlier gender-focused cross-national comparative risk perception studies involving both male and female subjects in Japan, America, Bulgaria and Romania, indicated that there were differences in sensitivity to environmental and technology-related risks between men and women (Sjöberg et al. 1996; Kleinhesselink and Rosa, 1994) This view suggested that women tended to express higher concern over risks from technology and threats to the environment; this was attributed to women's physical vulnerability child-bearing and child-raising responsibilities that make women more concerned about health and safety and a relatively- more sensitive disposition to hazards in general than men. Flynn et al. (1994) refuted this view and substantiated their response with findings from a gender and ethnicity-focused risk perception study, in which she established that both gender and ethnicity as factors for consideration for

their potential to influence one's regard for environmental risks to one's health (Flynn, et al, 1994). However, gender differential in risk perception remained a contentious issue. Flynn also noted that socio-cultural characteristics influenced how individuals of different genders perceived of risk. Her study also singled out better education, higher income, holding more politically conservative views, having a greater trust in government, authority and industry as specific factors that reduced the level of apprehension towards risks.

Additional enquiries on risk perception from non-psychological perspectives have generated multiple perspectives on risk and various proactive approaches to risk assessment. As a result, both qualitative and quantitative inter-disciplinary approaches towards the scrutiny of risk had emerged seeking to unravel the factors underlying risk perception in different contexts. This proliferation of cross-disciplinary risk initiatives has given rise to the emergence of specialist risk disciplines that cross-pollinate by drawing from multiple disciplines and different bodies of knowledge. Notable examples of this new impetus are evident in the field of public health, engineering, toxicology, biostatistics, actuarial science and the social sciences, among others. These efforts continue to contribute to a more comprehensive understanding of risk. The evolving multi-disciplinary trend towards the conceptualisation risk was reflected the following observation by Pidgeon (1992), who notes that:

“The field of risk perception research today involves a far more diverse group of research specialities together with theoretical and empirical foundations, not all of which take the individual as a basic unit of analysis”(The Royal Society Study Group, 1992, 98).

While appreciating this healthy and multi-disciplinary discourse on risk, in my current study has focused on 'risks' within the general maritime geographical environment, and occupational risk-perception within the work environment context of seafarers. In developing the risk thematic lens for my research, my perspective was informed by a critical appraisal of the claims, context, methodology and evidence provided by a selection of pioneering works that theorise the concept of risk and 'occupational risk perception' in different settings. These include: Cultural Theory of Risk pioneered by Mary Douglas; Occupational Risk Perception developed by Rayner in expounding on Douglas' initial thoughts; the concept of 'Subjective Immunity' elaborated on by The Royal Society Study Group (1992); the Social Amplification of Risk ideas developed by Alaszewski and Horlick-Jones; and two Seafarer 'risk perception' studies carried

out by Bailey et. al. (2006; 2007). The decision to focus on these studies was motivated by two main reasons. Firstly, because of the ideas propounded in these studies on risk, the dynamics of occupational risk culture, the variations in occupational risk behaviour, and its implications for a socially bonded professional group were relevant to the epistemological, ontological and sociological context of my study. Secondly, although these studies made claims and provided evidence obtained through rigorous research methodology, the context in which the studies were conducted, and the methods used differ from mine. While Douglas, Rayner, Risk Society and SIRC studies were conducted in the 20th century, in western (European and North American) geographical regions, and, largely on land-based populations, (apart from the SIRC studies), my study was carried out in the 21st century on a multi-national professional group, working in a mobile maritime work environment. Based on these different research contexts, a thematic proposition developed for this study borrowed from their initial ideas that were then applied in a different historical, geographical and methodological context.

3.6 Cultural Theory of Risk

The Cultural Theory of Risk provided a framework for analysing how groups in society interpret danger, and the process through which they subsequently either build trust or mistrust in the social institutions created to regulate risk. This theory stated that how risk was viewed and the level of concern about its potential effects, could influence in three ways: (1) Risk-mitigating precautions taken in anticipation of the event (2) Steps taken in the event of the occurrence happening, and (3) Potential impact of its perceived consequences on the individual or group of people. Mary Douglas developed the Cultural Theory of Risk in the 1960s by focusing on the notions of 'group' and 'grid' as the cornerstones for the theory through an anthropological perspective. Whereas the 'group' referred to the degree to which an individual is integrated into a bonded group, and group affiliation is maintained through adherence to its regulations, the 'grid' indicated the degree to which the whole group demanded adherence to a set of rules of conduct to signal loyalty. Douglas maintained that societal organisations could maintain "high grid" cultural way of life, characterised by demanding and durable forms of stratification in roles and authority and "low grid" ordering. Thus, whereas the group regulates its members' roles through imposing of rules and regulations, individuals accept varying amounts of control exerted by the group. This was reflected in the individuals negotiating for their roles within the group. Douglas explained that competing structures of social organisation, cultural ways of life and affiliated outlooks could be characterized within and across all

societies at all times, through roles defined along a collectively controlled “group” and socially stratified “grid” (Douglas, 1970).

Douglas conceptualised cultural risk theory as British colonial rule ended, and social anthropologists attempted to prove that the colonised people were intelligent (Douglas, n.d). A literature search seeking to obtain evidence of an empirical undertaking by Douglas that could have informed her observations that gave birth to the Cultural Theory of Risk bore no fruit. Therefore, this study concluded that Cultural Theory of Risk was primarily a conceptual piece of innovative work by Douglas. She concretised her initial ideas developed in response to her observations of the emerging enclave culture that limited external social interactions and influences beyond the boundaries of the group, but left individual freedoms within the group unregulated. While recognising the pivotal role of Douglas' pioneering work on the generating a novel idea in the twentieth-century theory of cultural risk, this study acknowledges the contribution of Douglas' theory to other fields. For instance, other theorists have already adopted the basic ‘group’ and ‘grid’ components of the Cultural Theory of Risk of risk, to matters related to risk perception in other disciplines. These include the fields of political science, public policy (Thompson, et. al. 1999), public management (Swedlow, 2002), organizational studies, law (Kahan et al, 2006), and sustainability (Thompson, 2011). However, this theory was yet to be applied to the context of the twenty-first century in general, and specifically, to investigating the socio-cultural realities of a modern stratified seafarer sample.

3.7 The Royal Society Study Group on Risk and ‘Subjective Immunity’

The construction of the conceptual framework for this study, was partly informed by a critically assessment of the claims, evidence, context and methods used in a 1992 report published about risk perception, by The Royal Society Study Group, hereafter referred to as ‘The Royal Society’. The report discussed reasons underlying the variations in risk perception by people drawn from a range of occupations and different geographic regions. Since risk is a socially constructed phenomenon, people perceive of risks differently, and subsequently, responses to hazards may vary, depending on a number of factors. These may include a combination of emotion, how well (or not) one comprehends their situation/circumstances, how much discretion one is allowed in negotiating the risks that one is exposed to, how much information one has about the potential effects of exposure to the risk(s) in question, and previous

experiences (The Royal Society, 1992). Additionally, what is regarded as a 'high-risk' by one person or group, may be considered of a relatively-lower risk by another person or group of people. The latter may opt either to adopt risk-avoidance or risk-taking. While comparing human perceptions to risk with that of non-humans to elaborate on her initial ideas on the notion of 'Subjective Immunity', Douglas (1985) observed that people may downplay the risk of bad outcomes from very familiar activities, and therefore, may underestimate the risks that they are supposed to keep under control.

The Royal Society (1992) further developed Douglas' notion of 'Subjective Immunity' to explain the inherent variations in risk perception among groups of people, across different geographical regions. While acknowledging that risks are conditional and are implied by the context to which they pertain, The Royal Society also stated that occupational hazards are perceived of in various ways depending on the specific workplace circumstances. Furthermore, each profession has inherent risks that are specific to the working conditions and activities entailed by employees' engagement in work activities. The report claims that the perception of occupational risk among different professional groups also differs across different industries, geographic regions, countries, professions and industries.

The report further shows that due to variations in risk perception among individuals, within groups, across occupations, and across geographic regions, the views held by employees about the dangers that they face in their workplace, could be regarded as being subjective observations. This is because, each person's age, nationality, cultural background and work experience influence the lens through which their opinions are formed. In addition, the social environment, values, and attitudes, all provide a social milieu in which the one's worldview is socially constructed. Therefore, the variation in occupational risk perception both at the individual and group level could be because of several factors at play. This, in turn, raises the issue about the criteria applied to gauge what is 'risky' or not and the level of 'riskiness'.

The possibility that different yardsticks were used to assess levels of risk both among individuals from the same occupation, and across professional groups makes it difficult to ascertain whether the same criteria were being applied as the basis for risk estimation, even within the same occupational sub-groups (The Royal Society Study Group, 1992, 77). For instance, concerning the factors by which the riskiness of an activity is assessed in sporting activities, medical procedures and modes of transport, the report states that the yardstick may be the athlete's age, employment history and profession, respectively.

The Royal Society report, therefore, suggested, that some measures for harmonising the 'heterogeneity of risk' in different types of activities could be used as criteria for assessing reasonable claims about specific occupational risks. While stating that the risk of death from medical procedures varies according to conventional procedures, the report clarifies that such estimates should be analysed over a period, by different patient groups and by groups of different sizes, for an objective assessment of the risk in medical procedures to be observed. The report also found that although motorcyclists faced a risk that was more than ten times higher than that faced by car drivers, "motorcyclists behave in ways that project more relaxed definitions of what is safe and what is unsafe" (The Royal Society, 1992, 77).

In examining the claims made by The Royal Society, this study looked for the evidence to back the claims, the context of the study, and how these could combine to influence their conclusions about the challenges in ascertaining the basis for variations in risk perception within groups, across occupations and across geographic regions. Although the study provides a comprehensive coverage of risk assessment and perception informed by individuals from different disciplines, the evidence base for this study is unclear. The report was not implicit about the basis for the contributors' views; whether their view about risk perception documented in the report was based on a professional opinion or previous empirical research or from desk-based literature searches, or a combination of any of these sources of information. The lack of clarity on the evidence base for the report's claims illuminates a gap in the information provided by the method of inquiry employed in the report. Lack of information about the methodology could have a direct bearing on the data collection and analysis method used to arrive at the stated conclusions. Therefore, it was not possible to verify the claims made in this report.

3.8 The Seafaring Work Environment

Ships are a mobile-built environment that constitutes a workplace for the crew designed to enhance their efficiency as functional spaces for the storage of the commodities being transported, as living quarters and recreation areas for the crew, and as workspaces where seafarers carry out their respective duties on the ship. Empirical studies have identified the design of the ship as a major factor that can greatly affect the quality of the working life of the crew in a number of ways. The ship layout had the capacity to influence the amount and quality of sleep, the space available for recreation and the level of noise that the crew were exposed to, while on duty as well as off-duty (Ellis, et al, 2012, 9).

In general, seafarers are exposed to a number of work-related risks that have potentially harmful physical and psychological effects. This section describes the challenges inherent within the work environment in which the seafarer professional group earn a living. This is the backdrop against which my interviewees' views about their occupation that will be analysed in subsequent chapters. The mobile seafarer workplace has a number of man-made risk factors as well as those attributed to nature. These factors are explained in order to inform the reader about the spectrum of seafarer occupational risks, and to illustrate how the increase in incidents of maritime piracy in East Africa between 2000 and 2010 adds to an already-long list of potentially harmful factors in the seafarers' work environment.

As mentioned in the literature review, the OHS of the ship's crew has been a neglected area (Bailey and Walters, 2013). While working on board ships is risky and highly-demanding (Sampson 2013), in the absence of the appropriate safeguards to mitigate these dangers, these issues further precipitate the vulnerability of crew to a number of potentially harmful circumstances in their mobile workspace. Some noteworthy occupational hazards that create risk factors to which seafarers are exposed include inadequate provision of occupational health and safety measures (Sadler, 1983) and the psycho-socio ripple effects in the seafarer's private life, arising from working in an offshore mobile workplace, separated from their socio-cultural support systems, and disconnected from family relationships (Couper, 1999; Osnin, et al., 2004). Dangers arising from natural calamities include storms, hurricanes and resultant shipwrecks, technical problems and accidents (Listewnik, et al., 2007, Loginovsky, 2002; Lloyds, 2008).

Additional common seafarer workplace hazards include negligent employers (Whittaker, 1996, 3), crew abandonment overseas (Rankin, 1996, 1), and sub-standard working conditions (Parlak and Engin, 2003) and the resultant industrial accidents, including injuries on board (Couper, 1996, 35). This study noted that a number of other common predicaments facing seafarers and that could be linked to poor OHS regimes had been identified. Seafarer occupational risks already identified by other studies include the following: fatigue (Folkard & Lombardi, 2005; Folkard, Lombardi & Tucker, 2005; Gatfield, et al, 2005; Majid, 2008; Smith et al, 2002; 2003; 2006; 2007), diseases contracted ashore and/or transmitted on board (Kowalski, 1991; Saarni, 2002; Santos, 2009; Scerbaviciene & Pilipavicius, 1999; Schlaich et al, 2009; Shoda et al, 2001), pirate attacks, mechanical failures (Cheek, 1986; Chapman, 1992), prolonged separation from family members (Foster & Cacioppe 1986; Tang 2007a; 2007b; 2009), psychological hazards (Leka, 2004), work-related stress (Leszczyńska, et al., 2008), and drug abuse (SPL,

2008), and casualties (Barnett, 2005; Shapovalov, 1991) that often result in fatalities (Larsson, et al. 1992).

In addition to these challenges, Belcher et al. (2003) reported that women seafarers have to make additional adjustments to fit into a male-dominated seafarer working environment (Kitada, 2009), a challenge that has been attributed to the generally gender-skewed seafarer occupational profile (Shiptalk, 2008). While a convergence of multiple conditions on individual seafarers is common, these have been found to affect their workplace productivity (Folkard & Tucker 2003; Lamvik, 2001) occasionally making them accident-prone in the workplace (Loginovsky, 2002; Shapovalov, 1992; Salyga, J. & R. Malakauskiene, 2007).

While conducting this study, the criminalisation of seafarers began to surface yet another issue of growing concern to the seafarers themselves, as well as for human rights organisations (Puri, n.d.; Seafarers Rights International, 2011). Workplace conditions, forces of nature, piracy and the criminalisation of seafarers combine together to impinge on the rights of seafarers to be safe in a diverse and global workspace. For instance, when seafarers are prosecuted abroad for offences such as marine pollution in lieu of absent owner/operators, the crew remain a vulnerable group in need of legal support and protection when dealing with public authorities in seeking ways of improving their working conditions (Kirby, 2011), as well as when the occasion arises that they participate in criminal justice proceedings either as a victim or as a witness.

In addition, seafarers could be regarded as an isolated workforce. In this respect, Lane and Smith (2011) provide some empirical evidence from the study of merchant mariners and fishermen in which they referred “ships as jails”. Their study confirmed that the following structural changes and work conditions were contributing factors towards creating a challenging mobile maritime work environment, which included the:

“Ship design, short port-turnaround time, decreased ship manning levels, shift patterns, poor health and safety conditions and the nature of work on ships culminate in increasing fatigue among seafarers” (Lane and Smith, 2011).

In this study attempted to provide an understanding of the social interactions and work life on ships as adjustments seafarers make to adapt to their work environment. The crew are susceptible to multiple risk factors including two types of isolation - geographical and social.

Seafarers spend much of their contractual period offshore due to the nature of their work, remain geospatially, and physically far-removed from land-based activities and social interactions for extended periods. They also experience emotional detachment while on board; for due to unstructured leave periods, seafarers are often unable to form lasting social bonds and long-term friendships with colleagues (Chapman, 1992). The bonds formed while on a voyage may well remain limited to on-board acquaintances" (Thomas, 2003).

Further studies have identified an association between these negative work environmental factors and symptoms of fatigue and perceptions of risk to personal safety, by deck and engineer officers working on ferries, offshore support, supply or standby vessels, as well as tankers (Smith et al., 2006). These aspects of the seafarer work environment could have an impact on how the crew view their occupational risks. In this section, the seafaring risks inherent in the maritime work environment have been described in detail, to portray the variety of inherent dangers that characterise the realities of the seafaring work environment from which the sample was drawn.

This discussion dwells on the potential influence on seafarers' safety outlook, of the ship as a continuous work and living space occupied by the crew for much of their contractual period. Being confined to such a limited space for a long time at a go, could conjure fear in any normal person due to the availability of multiple hazards, and the combined effect of their convergence on the lives of seafarers. This overview of the seafarer workspace was also intended to provide a glimpse into the reality of the ship as a workspace, where seafarers interact with the same group of individuals who provide a limited social circle for prolonged periods while at sea until crew changes are affected. The physical and social isolation of seafarers, their restricted movement to the perimeter of the ship and the behavioural adaptations that crew make as career adjustments have been discussed here, as some of the characteristics of a hazardous mobile work environment.

3.9 Brief Overview of Structural Changes in the Global Shipping Industry

The few decades preceding this study, the shipping industry underwent major structural, organisational, labour market and regulatory "upheavals" (Alderton et al, 2004), including the growth of Flags of Convenience (FOC), casualization of labour, outsourcing of crew through crewing agencies, and the multi-national composition of crew, sourced mainly from Asia and

the Far East. Ships fly the flag of the country in which they are registered. FOC is a business law practice in the shipping industry that allows the registration of a merchant ship in a different country from that of the ship-owner. Some ship owners opted to register their vessels in countries that had less-stringent crewing and safety requirements, and as a result, they imposed fewer financial and administrative burdens on the ship-owner, than those imposed by other ship owners.

Seafarers working as contract migrant labourers (Chan, 2006) within a globalised political economy (Gilpin, 2001) are vulnerable to the practice of FOC, due to the inadequate enforcement of occupational health and safety regulations (Walters and Bailey, 2013). Some authors have regarded the FOC development as a ‘social-mediation’ for ship owners to commit ‘organisational/corporate crimes’ by abetting the provision of sub-standard working conditions that enhance risk of harm at the workplace (Hills, 1987). Furthermore, while seafaring as a profession by its very nature possesses inherent occupational hazards the FOC lack the moral will to abide by health and safety regulations. Laxity in the enforcement of workplace health and safety regulations could lead to work-related fatalities and/or injuries (Tombs and Whyte, 2008).

At the time this study was conducted, the responsibility for the enforcement of seafarers’ health and safety on board ships was shifting from Flag State Control to Port State Control (PSC) authorities. Port State Control Officers (PCSOs) are responsible for inspecting foreign ships that dock in their ports, to ensure compliance with the requirements of international conventions, such as International Convention for the Safety of Life at Sea 1974 (SOLAS), International Convention for the Prevention of Pollution from Ships (MARPOL), International Convention on Standards of Training, Certification and Watchkeeping for Seafarers 1978 (STCW), and the Maritime Labour Convention 2006 (MLC.2006). In a study to assess the effectiveness of health and safety governance in a global industry, Bloor et al. (2006) established that there were inconsistencies in the PSC Inspection practices. They also found that there were differences in the level of meticulousness with which PCSOs conducted inspections impacted on the level of compliance with seafarers’ health, welfare and labour standards globally (Bloor et al., 2006). In this study, it was observed that PCSOs in some countries did not conduct thorough inspections, while others were relatively-more diligent in identifying deficiencies in the safety equipment on board ships. Thus, the inconsistencies in the thoroughness with which PSC inspections are conducted varied from one country to another, as well as from one port to another. This study highlighted how the variations in the “regulatory character” pose a

challenge to the application of health and safety standards by international governing organisations.

In drawing attention to the impact on seafarers' rights and Occupational Health and Safety (OHS) and labour relations, critics, including the International Transport Workers' Federation, have been critical of the laxity in Port State Control, accusing it of creating an enabling environment for the reduction in ship operation costs through the payment of low wages, and enforcing long working hours in unsafe working conditions (Working, 1999; ITF, 2010; MTD, 2010). However, it is worth noting that some FOC provide good legal oversight. However, the practice of registering ships under FOC has been abused by ship owners to maximise their economic benefit and to circumvent internationally-stipulated occupational health and safety regulations (International Commission on Shipping, 2000, 15), which in effect can result in sub-standard working conditions that compromise the wellbeing of crew working on their ships, while remaining legally anonymous protected by the flag state's civil ensign (De Kleer, 2007, 37; ICFTU et al., 2002, 7; Bernaert, 2006, 104; Hamzah, 2004, 4).

While cognizant of the inherent weaknesses of FOC in meeting their international obligations to prioritising the protection of seafarers' welfare in the wake of the maritime piracy crisis, various stakeholders continue to mobilise support and resources towards enhancing maritime security worldwide. It is inappropriate that ship owners in FOC, as business entities would put seafarers at risk by not having in place adequate facilities and services to reduce risks to their health and safety (Tombs & Whyte, 2007). Informed decision-making to enhance the protection of seafarers' welfare worldwide in their perilous and borderless mobile workplace requires the accurate and timely articulation of seafarers' views, together with those of the unions and employers. In view of the apparently elusive evidence on maritime piracy from seafarers on its impact on their welfare, the recent establishment of the Seafarers' Rights International provides an appropriate research and analysis mechanism for collecting information on seafarers' legal concerns and the subsequent formulation of strategies to help seafarers prepare for, and overcome, the effects of maritime piracy, among other occupational health and safety issues that have the potential to affect their welfare and that of their families (ITF, 2010b). In view of the danger posed by the upsurge in piracy in East Africa and the potential of harm to seafarers, suggestions have been made for 'danger pay' for sailors working in Somali waters (Linnington, 2005). It is therefore important to consider some perceptions of risk.

3.10 Seafarer Occupational Risk Perception

In order to link the discussion on occupational risk perception with the social context of the study, the findings from a sample of empirical studies on risk were critically-examined. The studies included those conducted by researchers based at the Seafarers International Research Centre (SIRC) hereafter referred to as SIRC ‘risk studies’, as well as more recent studies on seafarer risk perception related seafarer behaviour and health. These empirical studies were found to be of relevance to this study in as far as they documented key findings that explained variations in seafarer risk perception at different times and in different settings. These studies established that there were variations in how seafarers perceived of the hazards in their mobile work environment, and this was reflected in the choices that they make.

The nature of seafaring work invariably entails long periods of separation from their families. An empirical study to gauge the HIV risk perception and its influence on the sexual behaviour of 197 seafarers working on nine ships and twenty-six land-based office employees of an Italian shipping company, found that a high number of seafarers exposed themselves to risky sexual behaviour even though they knew that such behaviour pre-disposed them to HIV infection and despite their awareness of the risk of HIV transmission (Grappasonni, et al. 2011, 131).

A different study on risk perception and safety among Norwegian offshore personnel who had already experienced an accident, a correlation was observed between the experience of danger and the involvement in accidents and near misses. The study showed that seafarers, who felt least safe, also experienced the highest level of job-stress (Bye and Lamvik, 2007, 1756). This study suggested that both accidents and risk perception might be internally independent effect variables. This relationship explained was being due to both accident and risk perception, and to being an effect of organizational, social, and physical factors such as for example job stress and workload. Due to the significant correlation between risk perception and risk behaviour, the author asserted that: “*when people feel at risk are at risk*”. The study concluded that the measure of subjective risk perception in an organization was, in fact, a good measure of the formal estimated level of safety as well.

A more recent quantitative study by Oltedal and Wadsworth (2010) examined whether risk perception was an indicator of shipboard safety. Data were derived from a survey carried out in 2006, where 1262 questionnaires were collected from 76 vessels. Explorative factor analyses

were used to extract factors of safety culture and an Analysis of variance was used to assess the associations between the safety cultural factors and demographic and organizational variables. Finally, linear regression analysis was carried out to assess the association between risk perception and safety culture, controlling for the influence of demographic and organizational variables such as age, department, vessel type and nature of work. The study identified safety-oriented shipboard management style, performance of proactive working practices, teamwork and good reporting practices as major factors that contribute to a better perception of shipboard safety. Whereas, a high demand for efficiency contributed to a more negative perception of the safety level. The study recommended a further examination of characteristics and influences on teamwork on perception of safety, to provide a better understanding of risk perception and safety at sea.

Another study in First in the series of SIRC Occupational Risk Perception studies ('risk studies') comprised of a two-part report published by Bailey et al. in 2006 and 2007 to document the findings of an empirical study conducted in the year 2006. The study set out to investigate the perception of the risk of two categories of threats within the maritime work environment, namely, ship casualty and personal injury. These two studies were selected from a consideration of three key factors: First, the rigour with which the studies were conducted. Second, how transparently the researchers' claims were supported by evidence. Thirdly, the similarity between the target group in both studies and the maritime context of these two studies and this current study. Both these studies were quantitative in nature and investigated the views of a sample of 2,372 seafarers and ship managers hailing from 50 countries. The 2006 study presented the findings of the risk of ship casualty. It set out to determine whether seafarers' perception of risk is in any way influenced by their rank, work department, experience in the industry, experience in the company, type of ship on which they had most recently been employed and their nationality. The study was based on a questionnaire survey. The questionnaires contained closed questions, and the responses were quantified and analysed using SPSS. From the study, three main claims were made that are relevant to the study: (1) the majority of seafarers and managers regarded the likelihood of a ship-level accident occurring in their company as low. (2) A significant minority saw the likely occurrence of such an incident as medium or high. (3) Certain ships were regarded as susceptible to readily identifiable risks, for instance, collision. Table 4 below summarises the factors identified as possible influences on the perception of the likely occurrence of specific hazards:

Incident type	Factors
Fire	Nationality, most recent ship type worked on
Explosion	Nationality, rank
Collision with another ship	Nationality, most recent ship type worked on
Sinking	Nationality, rank and most recent ship type worked on
Grounding	Nationality, rank
Contact with a fixed structure	Nationality, rank and most recent ship type worked on

Table 4: Factors influencing perceptions of the likely occurrence of each incident type
Source: Bailey et al. (2006, 41)

The study on which the 2007 report was based was carried out to find out the opinions of those who work on board ships about risk and safety. Data was collected using a questionnaire. The responses gathered concerned the views of those working on ships, about the risk of personal injury when carrying out specific tasks and how risky it was at certain moments and within particular contexts. In this study, the researchers wanted to ascertain whether there were any similarities or differences in the perceptions of the danger posed by injury, from a culturally diverse research sample of 2,372 seafarers from 50 countries. The diverse outlooks generated were in turn assessed to establish whether the variability was associated with rank, department, nationality, experience or age. This study provided the following three main research observations of relevance to this study. Firstly, that there were some significant differences in the perception of the risk of personal injury, with regard to the levels of risk associated with different work activities, at different times of the day and involving a range of factors including experiences in the last ship type worked on. Secondly, that seafarers' views about the possibility of injury while working at their own company, varied by nationality and rank. Thirdly, the variation in occupational risk perception could have a significant impact on behaviour (Bailey et al., 2007, 14).

The study identified nationality, rank, department, age and type of ship, as the principal factors that influenced risk perception among the seafarers interviewed, with nationality being the one most significant factor in relation to the perception of the risk of injury at different times and in different contexts. The findings of this study were corroborated in later study (Bailey, 2009, 20). The latter study also identified the work department as a factor of influence. The variation observed in the respondents' views about the risks associated with different work activities,

showed a link between the respondents' nationalities, and the hazards that they were most worried about. This level of concern is reflected in the assigning of a higher rank to certain factors by respondents with similar nationalities on ships with both multi-national and single-nationality crew composition (Sampson, et al. 2007). For instance, the respondents from India appeared to rank higher than other nationalities, working under the influence of alcohol or drugs while carrying out mooring operations and tasks are undertaken over-side. Chinese respondents rated the risk of injury highest, while respondents from the Philippines rated it their least concern (Bailey et al., 2007, 9). Respondents from The Netherlands, Philippines and China, ranked working in a hot environment as the one factor with the greatest potential to cause of injury, while respondents from the United Kingdom and India regarded slips, trips and falls as the most likely potential cause of injury.

The last ship type worked on was also found to influence the trend observed in the respondents' views about the level of risk posed by specific hazards. For instance, the seafarers who had recent experiences on dry cargo vessels associated moving vehicles with a higher risk than other vessels. Similarly, those who had recent experience of bulk carriers were more likely to regard rough weather, mechanical breakdown, piracy and moving vehicles as risk-prone. While those who had recently worked on tankers were more likely to view mooring operations as being more-risky than others (Bailey et al, 2007, 66). Regarding the association between the respondents' position within the on-board hierarchy, the department in which they worked and their ranking of different risk factors, the study found that senior officers identified rough weather, as posing the highest risk, while junior officers, deck department staff and engineers, regarded mooring operations as the one risk about which they were most concerned. Ratings, on the other hand, were of the opinion that times of mechanical breakdown posed the greatest threat to their safety.

The study was unable to explain the association between age and low-risk perception in both younger seafarers as well as the more senior respondents. Instead, this SIRC study contemplated the possibility that the relatively low concern by the younger respondents could be attributed to their relatively-less training and exposure to seafaring risks than their senior colleagues. The researchers further speculated that perhaps the relatively longer work experience and exposure to a wider array of seafaring risks over time could have resulted in their familiarity with their work environment hazards and a blurring of their risk perception. The study suggested that the variation in occupational risk perception could have a significant impact on behaviour (Bailey

et al., 2007, 14). It also acknowledged the complexity of explaining variations in seafarer risk perception and recommended it as a topic warranting further examination. This SIRC study provided useful ideas relevant to the current research.

Further SIRC 'risk studies' conducted to explain the variations in seafarer risk perception further, identified an array of factors stemming from seafarer employment policies and conditions and on board relationships. Studies carried out by Bhattacharya (2007; 2009), and that undertaken by Sampson and Wu (2007), established the existence of links between seafarers' risk perception and the precarious nature of seafarers' jobs. This association was attributed to two reasons: (1) Seafarers' fear of losing their jobs due to their vulnerable position in a labour market that offered them only temporary and short-term employment contracts, and (2) Gloomy local labour market conditions in their home countries. Although the employees had a low trust in the work environment, they focus was on retaining their jobs. On board seafarer social relationships including the leadership style, the occasionally-intimidating and distinctly hierarchical superior-subordinate relationship between crew members on was also identified as a matter of concern that affected both communication among seafarers, as well as how they regarded the 'riskiness' of their job (Sampson & Wu, 2007, 148; Bhattacharya, 2007, 172). Employer policies and practices were considered important influence on seafarer perception of risk in the absence of organisational support.

A comparison of the risk perception levels across the maritime industry indicated that differences in seafarer views about the 'riskiness' of the seafarer work environment varied from one individual to another, and also between different groups of seafarers. In this regard, a quantitative SIRC 'risk study' conducted by Bailey (2007), observed that there was a significant difference in the seafarer risk perception between three groups of people working in the maritime industry - ship managers, ships officers and ratings. Bailey used available ship-level incident data for the 2000 to 2005 period from seven different maritime administrations in an attempt to validate the reliability of seafarers' risk perceptions. A comparison of the risk perception levels of seafarers across the maritime industry, to actual incident data, showed that more seafarers and managers did not perceive it likely that someone in their company would experience a ship-level event.

An analysis of the managers' perceived likelihood of an on board incident, coincided with actual incident data. The study concluded that the perceived likelihood of a ship-level event was influenced by the level of awareness about incident data, the sense of control and fear of

consequences of events, the organizational setting and social values emanating from the cultural background and nationality of the sample of ship managers and shipboard staff included in this study sample. This study further suggested that the differences in perception of risk between the managers and shipboard staff, resulted from a greater awareness of actual incident statistics by managers and that this information provided them with a global perspective on the risk levels of the company fleet. These key findings are of relevance to this research.

A closer look at the evidence base for the conclusions arrived at in the SIRC 'risk studies', found the findings to be credible because salient indicators of the maritime industry sub-culture were used to interrogate the quantitative data collected. The earlier study regarded the respondents' outlook on a range of issues related to the maritime industry as significant. This was significant to this study as the research target group worked in a global industry that continued to experience a convergence of major structural changes. These upheavals could potentially affect the views of the respondents in this current study. Aspects directly relevant to the current study include the attitudes of managerial staff towards safety, information and communication about their workplace risks, equipment maintenance, training, International Safety Management rules and the psycho-socio support systems established by the management in the maritime industry.

CHAPTER FOUR

RESEARCH DESIGN AND METHODOLOGY

4.1 Introduction

The previous chapter outlined the process followed to generate the four thematic propositions used in this study. The formulation of each of the four propositions was influenced by ideas gleaned from some earlier researches that attempted to explain variations in occupational risk perception in other social contexts and professions, including within the maritime industry. These studies were picked for they clearly highlighted the existence of specific links between occupational risk perception and key employee characteristics. These included age, nationality, position in the workplace hierarchy, the length of work experience and the occupational subculture. In the course of the discussion of test results, the rationale for the tests carried out and the grouping of the interviewees' ranks within the seafaring on-board work environment is explained in detail. This briefly illuminated specific aspects of relevance to this study that might not be obvious to readers from outside of the shipping industry. Such details are only included where a wider audience of the facts considered them necessary for enhancing the consumption established in the data analysis Chapter (5).

This current chapter outlines the various data collection stages and provides the rationale behind the decisions made before, during and after the data collection and preliminary data analysis processes. These different procedures combined to inform the choice of a fieldwork site, the research sample, the preparation of the data collection instrument and the interview process as well. Each data collection stage discussed in detail provided the reader with a flavour of the research setting and communication process that yielded the data discussed in subsequent chapters. This chapter sets out the key research aims and objectives of the study and provides a discussion and justification of the research design that was developed to address them. In particular, it discusses issues of research design, the particular research methods used within this, the approach to sampling, data analysis, and also the ethical challenges raised by the research.

4.2 The Research: Goal, Objectives and Research Questions

This study sought to analyse the trend of maritime piracy off the coast of East African between 2000 and 2010, and its impact on the welfare of seafarers. The project was undertaken with a view to making an original empirical and conceptual contribution to understanding the

variations in occupational risk perception among a sample of seafarers. With that goal in mind, this study set out to harness the views of the crew working on ships in the international fleet about seafarer risk perception. The study was conducted towards the following Research Objectives:

1. To identify, describe and analyse the variations levels of occupational risk perception among a diverse sample of forty-four seafarers;
2. To explain the factors that influence variations in the levels of seafarer risk perception
3. To examine issues within the seafarer work experience underpinning variations in the interviewees' concern about the risk of pirate attack;
4. To explore the suitability of vignettes as a research tool in a phenomenological research on ship crew, as a hard-to-reach target group in their mobile workspace.

These research questions arose from issues that emerged in the literature review and that were designed to make the research experience interesting, relevant, feasible, ethical, concise and answerable, as recommended by Green (2000). While contemplating the scope of the research questions, it was decided to let the questions guide the formulation of research methods, by focusing attention on the specific research concerns raised in the literature review (De Vos & van Zyl, 1998, 267; Nghonyama, 2005, 17). These included the fear of maritime piracy and the perception of piracy as a seafarer occupational risk. In addition, the methods chosen were to facilitate a collection of responses that would attempt to answer the research questions, including expanding the research focus if the need arose during the study. This study sought to find out what the seafarers thought about maritime piracy, their levels of experience with piracy and how they rate piracy relative to other occupational risks.

4.3 Research Design

The literature review highlighted a gap in academic literature on seafarers' perceptions of the threat of pirate attack as an occupational hazard. By adopting a phenomenological research approach, this study based the understanding of variations in seafarer risk perception on the interviewees' subjective perceptions derived from their lived experiences in a maritime work environment. The central focus of this study was the detailed responses that I gathered from interviewing forty-four seafarers to try to answer the following research questions: -

- (a) What are the variations in levels of seafarer occupational risk perception within the sample?
- (b) What are the issues that influence variations in the levels of seafarer risk perception?
- (c) How can the dynamics of the seafarer work experience explain variations in concern about the risk of pirate attack?
- (d) To what extent are vignettes a suitable empirical research instrument in a phenomenological research on seafarers as a hard-to-reach target group in their mobile workspace?

The data were analysed using both quantitative and qualitative methods. This study presented an attempt to explain the variations in seafarer risk perception in general, and specifically, the risk of pirate attack. In attempting to do so, the researcher hoped to gain more experience and confidence in building a multi-level and persuasive argument, while reflecting on the complexity of the mobile seafaring research setting (Devine & Heath, 2009). This study adopted a phenomenological research approach to unravel and explain seafarers' occupational risk perceptions from their own perspective without being blinkered by theory busy port any preconceptions.

Based on the epistemological paradigm of personal knowledge and subjectivity, phenomenology focuses on studying the individual's experiences from their standpoint, and not through any theoretical lens or pre-conceived ideas (Lester, 1999, 1). This study was prompted by the absence of seafarers' views in earlier studies. This study had sought to amplify the elusive seafarer 'voices'. Thus, the personal perspectives and interpretations of the interviewees were the central focus throughout this study. The idea to adopt an emergent research design was borrowed from the work of Holstein and Gubrium (1995) from a Constructionist point of view, provided access to the diverse worldviews of a sample of seafarers about their occupational risks. These subjective perceptions of 'risk' were social - constructed within a maritime and mobile workspace reputed for its hazardous nature.

Due to the constraints of time, financial resources and access, the data collection and methods of analysis were tailored to accommodate what was considered feasible. Therefore, in the research design, the study took the pragmatic approach advocated by Hoshmand (2003) and decided to use the semi-structured interview method for it gives a fuller picture of the maritime piracy impact phenomenon under study, which would be the case if closed questions were asked

(Bryman, 1998, 2004; Fielding and Schreier, 2001; Kelle, 2001; Mason, 2002a). As I had no prior seafaring experience, the inclusion of two vignettes within the semi-structured interview guide provided an opportunity for me to get a broad picture of the piracy-related challenges. The answers to the vignettes, therefore, represented each interviewee's story, depicting piracy-related experiences of seafarers.

4.4 Potential Research Fieldwork Sites

During this empirical study, the primary data collection involved administering face-to-face semi-structured interviews with ship crewmembers at a seafarer mission centre, located at a busy port in the United Kingdom. Before the fieldwork site of choice was picked, a desk-based preliminary assessment was carried to consider alternative viable avenues for collecting views of seafarers. The research target group was seafarers in active service, i.e. as a professional group. Therefore, consideration of the fieldwork site's suitability was a key step in the research methodology planning, because seafarers spend most of their working lives at sea in a mobile workspace. A reliable site on land was needed to provide regular access to ship crew from a variety of cultural backgrounds, ranks, trades and who worked on a variety of ships.

This study was carried out as part of an academic programme in which time limitation was another serious obstacle. Prior knowledge of the limited time available to carry out the whole research process, combined with information regarding the mobile seafarer work environment, determined a relatively accurate prediction of the availability of a large number of seafarers as interviewees during the six-month data collection phase. Possible avenues for recruiting potential interviewees were also considered. For instance, initially the possibility of using a newly established online seafarer social networking site was considered as one possible way of facilitating contact with off-duty seafarers while they were online either offshore and/or on board offshore accessing the Internet, or ashore while on leave, or off-duty ashore. I then monitored traffic to this seafarer chat room for four weeks to assess its suitability as a research interview forum. After the site was considered unsuitable for the study, the possibility of collecting data through face-to-face interactions at the mission sites was regarded as a more feasible alternative. This would locate the interviews in a social space ashore where ship crew spend some off-duty time pursuing leisure activities, as their ships are loaded and unloaded.

The decision to settle on the seafarer mission centres as the preferred fieldwork site for contacting seafarers, four inherent common values guiding both this study and the core business

of the fieldwork site: guarantee of the researcher's safety seafarer welfare service targeted activities; an environment that was suitable for conducting interviews; the availability of many potential interviewees. For over a century, a global network of seafarer mission stations has provided officially recognised recreational facilities for ship crews. These missions are managed collaboratively by a number of organisations whose core focus is to provide seafarer welfare services. Consideration of alternative fieldwork sites was guided by the goal of this research and the core business of the seafarer missions as serving our mutual interest.

Seafarer mission centres are located in ports along official shipping routes and most shipping companies and port officials know the services that they provide. Therefore, when ships dock in ports, ship crew have the opportunity to briefly step out of their mobile workplace as they come ashore to access port-based facilities and other land-based services. In such locations conducting face-to-face interviews with seafarers was possible without the need to board ships, or having to request the permission of their employers. It was important that potential interviewees be given the freedom to express their views about maritime piracy freely out of earshot of their employers and thus free of any perceived or potential intimidation from their employers.

In the year preceding the data collection, I evaluated the potential risk to my safety at four potential fieldwork sites by means of a preliminary desk-based SWOT analysis. The result of the SWOT Analysis is displayed in *Appendix 5*. The site selected was discussed with the research supervisors focusing on the suitability of each site for finding a number of potential seafarers, while considering any potential risks to researcher safety at each site both in the short and long-term, was an important factor in informing the fieldwork site selection. Finally, a seafarer mission centre was selected as the most suitable fieldwork site. It was located at a busy port in the United Kingdom as a suitable fieldwork site and data collection access was subsequently authorised.

4.5 Research Target Group

The research interviewees were seafarers, who, at the time of this study, were working on ships in the international shipping fleet, and who spent a significant proportion of their contractual period offshore. Therefore, meeting them ashore for a face-to-face research interview would be potentially problematical. Typically, the professional activities of the crew are conducted on board ships (Gilpin, 2001). Most seafarers in this context are contracted migrant labourers (Chan, 2006) whose tenure of service may begin and end anywhere in the world. By regarding

the seafarers as the primary source of information, the research was undertaken from a professional seafarer occupational context within a globalised maritime industry undergoing major structural, organisational, labour market and regulatory developments (Alderton et al, 2004).

In focusing on ship crew, I viewed piracy as one of a number of occupational hazards with the potential to affect the welfare of seafarers. Piracy could pose a significant threat to their safety, specifically in relation to being harmed and/or being taken hostage in the event of a pirate attack (Burnett, 2002). By focusing research data collection on eliciting from individual seafarers their perspectives of the impact of piracy, and fear thereof, this research intends to provide a sample of ship crew with an opportunity to share their direct perceptions on piracy as a potential occupational hazard (Olsson, 2007). Through the dissemination of the final thesis, I hope that seafarers would be able to contribute their views towards improvements in occupational health and safety policies so that piracy could be included in the list of possible modern-day seafarer occupational hazards (Walters et al., 2002).

4.6 Data Collection

4.6.1 Sampling Technique

A heterogeneous sample of seafarers was used in this study to ensure that the range of sample characteristics was broadly generalizable. The sample contained interviewees representing different cadres, ranks, and cultural backgrounds all with varying durations of work experience on a variety of ships in the international fleet. The decision to use a culturally and professionally balanced sample was made to ensure that the data collected during the interviews reflected a wide range of seafarers' perspectives on their perceptions of maritime piracy in East Africa. Using a cold-contacting method, I met potential interviewees at the fieldwork site. The sample comprised of one female and forty-three male seafarers. A disaggregation of the sample characteristics is presented later in this chapter as a preliminary account to be followed by a more detailed data analysis in next chapter.

Since no up-to-date global seafarer labour force database was available at the time this study was undertaken, and because the shipping industry was undergoing a number of major structural changes described in the previous chapter, no sampling frame was available that could be used as a reference point in ensuring the representativeness of the sample selected. Instead, the

sample was constituted on a quota basis using the SIRC 2008 Global Labour Market for Seafarers (GLMS) study and the 2010 BIMCO/ISF Manpower Update, as reference points (Ellis & Sampson, 2008; ITF, 2010).

The seafarer workforce profile generated by both these earlier studies provided a comprehensive description of the characteristics of the global seafarer workforce. This included the ranks, ship types, ages and nationalities of seafarers working on the global cargo fleet in 2008. The ranks included Officers and Ratings, working in four departments on 3969 ships consisting of tankers and dry cargo ships in the international fleet. The four departments were Deck, Engine, Catering and Combined Deck and Engine. The study further established that 70% of the seafarers were nationals of ten countries, namely the Philippines, Russia, India, Ukraine, China, Turkey, Indonesia, Poland, Greece and Myanmar. Other nationalities represented in the workforce included those from Germany, South Korea, Romania, Taiwan, Norway, Denmark, Latvia, Ukraine, Bulgaria, Romania and Croatia (Ellis & Sampson, 2003; Winchester et al. 2006). Since both BIMCO and SIRC have a reputation for rigorous research pertaining to the welfare of seafarers, and with relevance to the shipping industry, the databases were regarded as being a reliable reference in aligning the sample to the then known characteristics of the global seafarer workforce.

Using data from the SIRC study, a sample was sought that would consist of seafarers with diverse ranks and nationalities, similar to the general seafarer population. The ranks within the sample encompassed 'Officers' and 'Ratings' working in the international shipping fleet but excluded crew working in national fleets, so as to maintain uniformity in the global spatial seafaring working environment of the whole sample. To ensure the cultural diversity of the sample and ease of sample selection, seafarer nationalities were grouped together into the following three geographical regions:

- a) South East Asian: India, Pakistan, Sri Lanka, Bangladesh, etc.
- b) Europe & Others: Africa, Arabia, Caribbean, Greece, Poland, Russia, Ukraine and Western Europe
- c) Far East: The Philippines, Indonesia, Myanmar, Taiwan, South Korea, etc.

The sampling parameters that were observed in this study made it possible to contact a sample of seafarers that closely resembled the estimated global seafarer work force, who worked on an estimated 53,000 ships at the time this study was undertaken.

4.6.2 The Fieldwork Process

After obtaining access to the fieldwork site at a seafarer mission centre in the United Kingdom, I embarked on data collection. On a typical fieldwork day, I would approach potential seafarer interviewees at the mission centre during their leisure time, while they were ashore during stopover periods. Changes in the shipping industry in recent decades have included the mechanisation of port operations, shorter port turn-around times and intensification of labour. Thus, the crew have shorter rest periods while in port, when their ships are being loaded and/or off-loaded. Therefore, the location of the mission within the ports provided an invaluable service to seafarers. Crewmembers visit the mission centres while off-duty, in order to buy presents, change money, send money to their families, check email, Skype and/or visit nearby urban centres to socialise for a few hours. This temporary social interaction ashore enables the crew to widen their social circle briefly, by mingling with a variety of people, thus breaking the monotony of their limited on-board circle comprising fellow crewmembers.

Before the commencement of the practical field visits to interview seafarers, the ship movement schedule posted on the port website was examined to facilitate an understanding of the ship arrival and departure schedules ahead of time. This step made it possible to estimate the number of potential interviewees who might be available on a given day, based upon the ships' size, cargo and duration in port calculated on the basis of the arrival time, and whether cargo would be loaded and/or offloaded in port, the type of cargo, the weather forecast, and the time when a pilot had been booked to guide the ship out of port on departure.

Typically, cargo handling is carried out in dry weather conditions, in order to preserve the quality of produce. The latter three factors had to be taken into account given the unpredictability of ships' departure schedules, as wet weather could slow down the offloading of agricultural produce, which could lead to an increase in the duration of the stopover. Since there are no crew changes at this port, these factors proved to be an important indicator of how long the ship would remain in port and of the availability of potential research interviewees among those who would visit the Seafarer Mission during their leisure time.

During the data collection exercise, it was observed that a considerable proportion of the ships that called at the port were car-carriers. Thus mid-way into the fieldwork period, when the number and frequency of ships decrease for a few weeks, I considered the possibility that the port may have been experiencing a delayed ripple-effect of the Japanese Tsunami that had occurred a few months earlier and which could have explained a reduction in the export of cars

made in Japan. This reduction in ship numbers to the port, in turn, slowed down the data collection process significantly for about a month, as there were fewer potential interviewees. Nonetheless, on average, I had two to three successful data collection days in any given week. On any given day between five and ten potential seafarers would visit the mission centre for varying lengths of time, while I was on hand to contact them. Activities included shopping, exchanging foreign currency, using Internet facilities, and playing pool or musical instruments. Thus, the mission provided a highly conducive atmosphere for conducting interviews.

Sampling and the recruitment of interviewees is an essential part of the empirical research process as was the responsibility of identifying suitable interviewees in the seafarer mission research setting. Adopting a pragmatic sample recruitment procedure included initiating conversations with all eligible and potential interviewees, whom I was meeting for the first time. While prioritising the seafarers' rights to recreation space within the centre, I sought clues to assess each seafarer's suitability as a potential interviewee. Personal demeanour, such as idleness after completion of financial transactions at the centre and/or having a relatively relaxed appearance after using the Internet facilities, were found to be positive indicators of the likelihood of the seafarer's willingness to participate in the study.

Although the majority of crew who were approached agreed to be interviewed, a small minority of potential interviewees made very brief stops at the mission, leaving little opportunity for me to approach them to request an interview. In addition, three out of the 50 seafarers approached for an interview request politely declined to cite either an urgency to return to their ship to relieve colleagues at the end of work shifts or a lack of confidence in their level of English. Their reasons for declining interviews were understandable and did not reflect a lack of interest in the study. Furthermore, the 6% refusal rate was considered very satisfactory for a cold-contacted sample (Thomas, Bloor & Frankland, 2007).

4.6.3 Data Collection Instrument

For this study, semi-structured interviews were used. These included two vignettes, as the preferred data collection tool. An interview guide was developed in close consultation with my PhD supervisors with the intention that the interview would take the form of a mixture of open-ended questions and vignettes and administered in a conversation-like manner, in order to provide the interviewees with the flexibility to answer the questions in as much detail as they considered appropriate.

The interview guide was designed to include the following three sections corresponding to three categories of information of direct relevance to the research questions:

Section 1: Personal and Professional Information

Section 2: Perceptions of piracy, occupational risks, fears and anxieties

Section 3: Projected responses to threats/risks of piracy attacks

A copy of the interview guide used as the data collection instrument in this study is the attached as *Appendix 6*.

(a) Semi-Structured Interviews

For this study, semi-structured interviews were conducted with 44 seafarers. The interview guide included two vignettes. The researcher decided to use semi-structured interviews for their inherent practical advantages as an instrument for data collection, one of which is that the semi-structured form of questions provided the flexibility to include open-ended questions that allowed interviewees to elaborate on their responses. This was important in order to provide the interviewees with the opportunity to respond in the English language at a level with which they were comfortable. This freedom of language expression was crucial in my dialogue with most of the participants, for whom English was not their first language. Therefore, the words were adjusted to suit the interviewees' level of understanding. In addition, semi-structured interviews had the potential to glean responses with high levels of validity, as the interviewees were able to provide detailed responses from which the researcher as a keen interviewer, was picked up underlying/hidden meanings behind the interviewees' words.

Furthermore, semi-structured interviews created room for further probing into the interviewees' answers. This fact was particularly important when the responses contained surprising information in painting a clearer picture of the seafarers' experiences with maritime piracy. As

such the semi-structured interview technique, including two vignettes, enabled me to explore issues such as the seafarers' 'lived reality' of insecurity, perceived sources of insecurity and the ways in which these issues play themselves out in the lives of seafarers.

While administering semi-structured interviews it was possible to develop positive rapport with the interviewees and obtain data on aspects such as feelings and emotions that were not easily observable from written responses and structured interviews. Unlike telephone interviews, semi-structured interviews allow the interviewer to pick up non-verbal cues from the interviewee to complement verbal communication (Sampson, 2003). Being in the physical presence of the interviewee, administering semi-structured interviews enabled me to first set the interviewee at ease, before commencing the interview. The relaxed atmosphere created an environment made it possible to interject comments during the session in order to clarify unclear points. Thus entering into a dialogue with the interviewee enhanced the possibility of obtaining a clearer understanding of the interviewee's point of view on the issues discussed (May 2001, p.123). Semi-structured interviews also allow for a certain level of standardisation of the themes/topics covered and the comparison of different interview cases. For the research where time was limited, semi-structured interview guides offered the practical advantage of ensuring that all the core themes were covered during each interview during the time available.

On the other hand, semi-structured interviews are not flawless data collection tools and have attracted criticism accordingly. Firstly, conducting an in-depth analysis of interviewee responses may be difficult if the responses are not carefully steered to remain focused on the research questions. The semi-structured and open-ended nature of the questions could also make the interviews more time consuming, which required me to be time-conscious. There is also an ever-present tendency towards generating subjective responses that, if unchecked, would result in probing questions, in a semi-structured interview, that could lead the interviewee into providing the responses I expected, thereby increasing the subjectivity of the research output. Like all data collection instruments, for semi-structured interviews, the relevance of responses depends largely on the interviewer's skilfulness in guiding the 'conversation' and the interviewee's articulation of the relevant facts throughout the duration of the interview. Therefore, I harnessed the potential of the semi-structured interview as the study's data collection instrument of choice, with a balanced view of both its inherent strengths and weaknesses.

(b) Employing Vignettes in Qualitative Interviews

A vignette is a brief description of a hypothetical situation relevant to the interviewee's experience that is narrated to them in order to capture their interest sufficiently enough to make them identify with the protagonist of the plot. The story describes a practical situation requiring a response from the main character. The aim of the inclusion of a vignette in the interview is to enable the interviewee to empathise with the central character of the vignette and provide a detailed explanation when asked to describe what they would do if they found themselves in a similar situation to that described in the story. When included in semi-structured interviews, the use of vignettes found to be very helpful in encouraging interviewees to speak at greater length. Such elaborative responses provided plenty of data.

When meeting the seafarers for the first time, the vignettes offered the interviewees an additional opportunity to provide detailed explanations when responding to questions by a stranger on a sensitive topic. The vignettes were crafted in such a way that the interviewee could relate to the piracy-related situations described. In addition, a Likert-scale type of variation in responses was anticipated (King, 2004, 194). Vignettes were included for to provide further opportunities for the interviewees to talk about maritime piracy in their own words. Vignettes thus enhanced the data collection process by preventing monotony, encouraging the interviewee to talk at greater length, while eliciting seamless probing through the description of a hypothetical situation with which the interviewees could relate. As the seafarer puts himself in the position of the vignette subject, an empathetic response was drawn out as if they were the subject of the vignette (Simons, 2014).

Vignettes are also useful in establishing rapport, especially when meeting prospective interviewees for the first time. In this regard, vignettes were hailed by Alexander and Baker (1978) as a powerful data collection tool for their potential "to produce more valid and more reliable measures of respondent opinions than the "simpler" abstract questions more typical of opinion surveys" (Alexander and Baker, 1978, 1). They harnessed the robustness of vignettes in a study on police and nurse reactions to crime victims. The use of vignettes has also been hailed for its potential as a qualitative research tool, with the ability to tease-out responses to sensitive issues from a culturally heterogeneous sample (Barter & Renold, 1999; Harvard 2012, 1).

Therefore, in seeking out a sample that was representative of the typically multinational ship crew for whom English may not be their first language, I included the vignettes in anticipation

of the possibility that questions could be understood differently by some of the seafarer interviewees, with their perceptions coloured by their linguistic backgrounds and English language comprehension (King, et al, 2004; Seguin & Ambrosio, 2002). Thus, when asking a question during an interview, I may have meant one thing, while the interviewees may have interpreted it to mean something different altogether. The vignettes used in this study were carefully crafted scenarios in which depicted normal seafarer work environments where piracy attacks are a possibility. The idea was to enable the interviewee to empathise with the subject of the vignette sufficiently to verbalise what a typical response would be if they were in the workplace situation depicted (Liebermann, 2). As a result, the vignettes made it possible to probe further and overcome linguistic barriers.

4.6.4 Research Access and Ethical Dilemmas

During this study, the administration at Seafarers International Research Centre (SIRC) was helpful in liaising with the seafarers' mission to facilitate approval of access to the fieldwork site for the sole purpose of interviewing seafarers during the centre's opening hours. An application for permission to embark on data collection was submitted to Cardiff University School of Social Sciences Ethics Committee to ensure that due consideration had been given to data protection and to safeguard the identity and rights of the respondents while making informed decisions about my safety. The application included a full project proposal, Participant Information Form and Consent Form. Considerations of applications by the Committee are conditional upon presentation of these forms duly completed by the researcher. A copy of the completed Ethical Approval Form is hereby attached in *Appendix 7*. The application was considered and approved by the Ethics Committee. I thus embarked on fieldwork supported by Cardiff University and governed by the university ethical guidelines.

In relation to the interviewees, I neither viewed them as a 'subject' nor as a 'repository of information' to be gleaned by me as the researcher in order to meet the objectives of the study and answer the research questions. Elsewhere, where researchers have adopted such a research approach, the fieldwork experience can be regarded impersonally and thus 'parachute' in and out of the data collection environment without due regard for the respondent as a human being (Coffey, 1999). As I embarked on this research with no prior seafaring experience, I decided to approach the research field experience with no preconceived ideas about seafarers. Instead, I visited the site, initially accompanied by my main supervisors, then subsequently on my own.

I went with an open mind, hoping to learn from the interviewees about views on the hazards that they face in the workplace, including maritime piracy. In using semi-structured questions, I wished to empower my interviewees to provide information that would highlight their better-informed personal stories detailing their experiences with piracy.

In order to protect the identity of the interviewees, each was given a pseudonym so that their responses could not be traced. I also informed each interviewee that their responses during the interview would be handled confidentially; no one else would read their written responses or listen to the audio recording of the interviews. In addition, I assured them that Cardiff University Data Management guidelines would govern the research information management encompassing the responses captured during semi-structured interviews that would be stored as academic research data and would not be used for any other purpose.

To initiate contact with the seafarer missions, access request letters were sent to the mission stations, requesting their assistance to recruit research participants and to interview respondents on their premises. This was done with ample time for discussion prior to the data collection commencement, to accord the missions' respect to exercise their discretion in permitting the publication of the research on their website and conducting the interviews on their premises.

4.7 Overview of Data Collection and Data Analysis

The research data was collected through face-to-face interviews of forty-four interviewees who included one female and forty-three male seafarers. The interviews were held over a six-month period in the year 2011 at a busy port in the United Kingdom. The interviews that lasted between forty-five and fifty minutes each were conducted during in a recreation area during the crew's leisure time. An interview guide containing semi-structured questions and two vignettes were employed as an aide-de-memoir to facilitate a focused discourse. A digital recorder was used to capture the interview verbatim was done using.

The research data analysis was carried out in three individual stages. These included a preliminary data analysis documented in Section 4.8 of this chapter, a quantitative data analysis reported in Section A of Chapter Five and a qualitative data analysis that has been documented in Section B of Chapter 5. The preliminary data analysis comprised of sorting out of the interview verbatim and into meaningful categories based on recurring responses, and of the

sample's bio-data. This process helped in generating sample descriptive characteristics and of themes that guided the more detailed thematic qualitative data analysis in Chapter Five. The quantitative data analysis entailed the use of Cross-tabulation and Chi-Square statistical tests to explore possible associations between the interviewees' bio-data and the three seafaring risk factors that they were most concerned about. The qualitative data analysis, on the other hand, used a phenomenological qualitative analytical approach to obtain more information from the interviewees' responses that could help to explain the variations in piracy risk perception within my research sample. This approach was useful in helping for a further examination of the research data in order to get a fuller explanation of the variations in risk perception by my interviewees.

4.7.1 The Data Collection Process

The flexible research design approach adopted in this study aimed at projecting an acknowledgement of the seafarers' autonomy in their workspaces. Practically, this was projected in the respect shown towards the interviewees' rights to 'own' their views on maritime piracy. Thus, during the researcher's interactions with the interviewees, their time and views were respected for each interviewee was regarded as an active participant and stakeholder in the research process. This approach was reflected throughout the data collection process, beginning with meeting the seafarers at the fieldwork site to ensure that as many seafarers as possible coming into the centre had the opportunity to be contacted to participate in this study.

A random convenience sample was interviewed during the data collection process. Once I identified a potential interviewee, I politely requested a few minutes to introduce the study to them individually. Once this courtesy was accorded, I introduced myself, the purpose of the research and the voluntary nature of the respondents' participation. I then requested a few minutes of their time to ask a few questions. Once this approval was given verbally, the seafarer was requested to indicate their verbal consent by completing and signing a pre-prepared consent form before the interview commenced. The form included a clause that indicated clearly to the respondents, the option for them to withdraw from the research at any time during the research should they wish to do so.

The respondents were informed that their responses would be anonymised and that they would be assigned them pseudonyms during the interview in order to protect their identity. This would ensure that their real names would be omitted from the data files, and the responses could not

be traceable to any individual interviewee. This would be achieved practically by assigning a number to each interviewee, thus preventing the responses from being traced back to individual seafarers. In this way, their responses would be treated confidentially. English remained as the international language of the sea and all seafarers are expected to have some degree of English language proficiency. As each respondent spoke English comfortably, the interviews were conducted in English and the consent forms and questionnaires were all written and administered in the English language.

4.7.2 The Pilot Study

Once I had prepared a sample interview guide, I proceeded to conduct a three-week pilot study at the seafarer mission already identified. The intention of piloting the interview guide was to try out the questions on a small sample of interviewees, with a view to refining it as a data collection instrument prior to administering it to a larger sample. Feedback elicited during the piloting experience enabled me to improve on some key areas, including establishing a suitable sequence of questions and determining a realistic interview duration. On average, I found that I spent about an hour talking to each interviewee. The first ten to fifteen minutes of this was devoted to introducing myself, explaining the purpose of the study, allowing the interviewee to ask any question about his/her participation in interview, and generally just establishing a rapport with the interviewee to enable the individual to be at ease before they signed the research participant consent form indicating their willingness to be interviewed for my study of their own volition.

During the pilot stage, it was decided to scale down the number of vignettes from three to two, in order to avoid rushing the interviewees and to allow more time to elaborate on answers. Piloting the interview guide also enabled me to identify some additional seafaring risks that I had excluded in the initial version of the interview guide. A more comprehensive list of seafarers' occupational risks was another useful outcome obtained from my preliminary assessment of the interview transcripts at the piloting stage. One other addition to the data collection instrument was the inclusion of an open-ended question after the vignettes whose aim was to provide an additional opportunity for interviewees to voice any other concerns that may affect their welfare with regards to piracy, but which were omitted from the interview guide. This later addition could be regarded as a seafarer's 'wish-list', that enriched the feedback received from interviewees at the pilot stage. Thus, the process of amending the interview guide

was a positive one for me as a researcher, for it increasingly refined my data collection instrument, making it fitter for purpose.

The short piloting experience was very helpful in practical terms as well. In addition to the improvements it helped make to the interview guide, the pilot provided me with initial interactions with seafarers that served to enhance my confidence in approaching ship crew of different nationalities. Furthermore, the piloting experience enabled me to make realistic plans with regard to fieldwork logistics as the researcher became more familiar with port access protocol. During the research pilot phase, some potential challenges were identified that presented bottlenecks or unavoidable circumstances, which by their very nature would be inevitable during the fieldwork period; but which nonetheless, when combined, could prolong the main data collection period by reducing the availability of potential interviewees. While I became aware that these were issues over which the researcher had no control over, being aware of them before embarking on the main fieldwork mission illuminated previously grey areas in the research field. Knowing them ahead of time provided me with invaluable information that helped me to develop a realistic work-plan for the main fieldwork phase of the research process.

The anticipated challenges included the shipping schedule and turn-around-time as obtained from the port website '*In Dock Schedule*' from where I observed that some ships arrived late at night or early in the morning to offload only, and left after only a few hours. This category of ships arrived when the mission centre was closed and departed by the time the mission opened. Research access was permitted on condition that I contacted the seafarers in the centre during working hours. Thus, the crew of such ships arriving outside of the mission's working hours would be inaccessible to me. On a number of occasions, a group of seafarers would arrive as I was preparing to return home and thus it would be regarded as being too late to conduct an interview. A further challenge presented itself when some crewmembers chose to remain on board and not visit the seafarer's centre, or hurriedly visited to get transport into downtown without coming into the centre because they had brief off-duty periods and/or had to return to attend to other pressing duties on board.

4.7.3 The Main Fieldwork

(a) Data Collection

After refining the interview guide, the main fieldwork phase commenced. Forty-four seafarers were interviewed over a five-month period in 2011, at a seafarers' mission centre located in a

busy port in the United Kingdom. Forty-four interviews were conducted. Each interview lasted between forty-five and fifty minutes. The total interview time was between 1,980 and 2,200 minutes. Although the interview questions and vignettes were prepared beforehand, in the course of each interview, there was room to adjust the language spontaneously to the level of each interviewee, or to repeat questions to allow me to understand a respondent's point of view clarify meanings to respondents and avoid generalisations about the matter under discussion. Semi-structured interviews provided me with an opportunity to ask probing questions when the need arose, to steer the respondent's focus on to the specific issue for further interrogation. Furthermore, the interview sequence was guided using the refined interview guide to ensure that the key issues of interest to me were covered in all of the interviews, while allowing enough flexibility for interviewees to develop their own answers. A copy of the interview guide has been attached as *Appendix 6*.

(b) Data Recording Process and Challenges

During the interview sessions, all interviewees were asked the same questions in the same order as detailed in the interview guide, and the interviews were digitally recorded verbatim with the permission of the interviewees. Occasionally these recordings were supplemented with handwritten notes taken in shorthand in blank interview guides, to capture all the details when, for instance, background noise was thought to influence the quality of the recording. In addition to the audio recording of interviews, after each interview was concluded and the interviewee had departed, I replayed each interview and filled out printed copies of the interview guide, which are available to the interviewee online on Cardiff University Portal in line with the university's policy governing research data protection. This provided a safe data storage facility to ensure that both the audio recordings and transcripts were not lost and the identity of the interviewees was protected throughout this study.

(c) Benefits of Audio Recording Interviews

The data generated were therefore available in both written and digital form. Being able to record the interviews both in digital and written form provided me with the flexibility to adjust the recording method according to the interview situation as it evolved. While appreciating this approach, Coffey and Atkinson (1996) add that there are different variations to qualitative data.

In planning the fieldwork, normal challenges associated with audio recording the interviews in a social setting due to the nature of the interview setting in the seafarer missions. This is a recreation space for off-duty ship crew, where they engaged in leisure activities, purchased toiletries and souvenirs while they were off-duty ashore, as their ships were loaded and offloaded. In this informal interview setting, background noise and poor sound quality presented inevitable challenges expected when audio recording interviews. The interview recordings captured some aspects of the atmosphere in the interview setting. These included the faint sound of the television in the background, the low tones of off-duty crew engaged in shopping transactions at the café cashier, or while seafarers sat by chatting while selecting articles, skype callers, indoor games, the shuffling footsteps of shoppers in the other part of the leisure centre and the occasional upbeat café/restaurant conversations and motorised traffic. These blended to provide a warm background buzz in the social area adjacent to the relatively quieter corner where the interviews were conducted. Thus, the background noise adequately captured the atmosphere in the interview setting, as a realistic reflection of seafarers' social life ashore. Despite these inevitable research-setting peculiarities, the audio recording of the interviews was still carried out, respecting the seafarers' social space and with the recognition that the researcher was an outsider and thus could not have full control of the surrounding research setting in the seafarer mission centre.

During the interviews, the details provided in the responses were influenced by the amount of time each interviewee could spare for the interview, as well as the interviewees' level of English language fluency. The time factor in turn largely depended on the interviewee's availability. When embarking on every interview with an open mind, realising the possibility that the interview might be interrupted. In view, if this unpredictability, audio recordings of the interviews offered the option of temporarily halting the recording case of an interruption, and later replaying the recording to enable the interviewee to pick up the discussion from where it had stopped. Audio recording enabled me to produce a digital recording of the interviews that could be stored electronically and backed up as a precaution against data loss. The audio tape is also a faster way of recording interview responses, as it frees the interviewer from having to write down the answers to the interview questions. Instead, I was able to concentrate on actively listening to the interviewee, while guiding the discussion to elicit the information required.

4.8 Preliminary Data Analysis

4.8.1 Transcription, Data Sorting and Indexing

Lapadat and Lindsay (1999) encourage the use of audio transcription of the question-answer audio recording into text documents, as it provides invaluable reference material. Poland (1995) also recommends research audio transcripts to serve as quick reference material. After completion of the data, the 44 audio recordings were transcribed and crosschecked for accuracy with notes written in the interview guides where available. While acknowledging the variety of data analysis strategies adopted by researchers (Denzin & Lincoln, 1994), first the large amounts of qualitative data obtained were organised into meaningful categories based on the similarity of responses. This data management strategy enabled me to make sense of the qualitative data generated from the rich harvest of diverse perspectives obtained from the sample of seafarers interviewed. Organising the data facilitated the development of ideas for thematic analysis, prior to embarking on a more in-depth data analysis. This section outlines the initial preliminary analysis undertaken after completion of the fieldwork phase and transcription of the interview recordings. The systematic thematic analysis is the subject of the next two chapters.

The preliminary data analysis was carried out using a stepwise approach, involving three simple but time-consuming steps, including sorting-out, categorisation, and indexing the data so as to identify any patterns or associated ideas and/or completely different themes emerging from the data. To begin with, I used a printed blank interview guide to number all of the questions for ease of reference. While referring to the field notes used in developing the interview guide, the questions were marked and linked with the aim of achieving the following two main objectives: (a) to identify key issues related to the research questions, (b) to corroborate concerns on issues raised, and reiterate opinions on issues already identified within the seafarers' work environment that the interviewees had discussed in relation to their regard for maritime piracy.

The procedure for identifying associations within the data involved assembling all the transcripts in order of their assigned serial number, ranging from interviewee number one (#1) to interviewee number forty-four (#44). Followed by a perusal of each transcript to pick out recurring words among the different responses. This preliminary data analysis exercise generated the Coding Schematic Index contained in *Appendix Preliminary Data Analysis*

The coding of my data included the following categories of information obtained from the interview transcripts: -

- a) Category 1: interviewees' bio data, including their seafaring work experience;
- b) Category 2: their knowledge of and experiences with maritime piracy;
- c) Category 3: the range of seafarer occupational hazards or risks. Each category contained a number of questions from different sections in the interview guide.

From this initial categorisation of the data, it was established that the responses generated sufficient detail and diverse responses for a thematic analysis on three key issues: (a) seafarers' fear of maritime piracy experiences; (b) variations in seafarers' concern about the risk posed by maritime piracy to their welfare and their self-perception as victims of piracy; and (c) their reactions to this fear of, and the risk posed by, piracy at an individual level, as members of a seafaring professional group and being potential victims targeted by pirates for kidnap-for-ransom piracy in East Africa, and to their families as tertiary/indirect victims of piracy. A closer look at the variations in interviewees' responses to the questions posed, showed some patterns, links and associated meanings regarding their occupational risks, fearful situations, how they rated piracy in relation to other occupational risks and how they would respond to an imminent pirate attack. The patterns were then categorised according to similarities and dissimilarities in responses. These patterns, similarities and dissimilarities formed the basis for data analysis in the next two chapters

4.8.2 Sample Descriptive Characteristics

Descriptive statistics have been found to be helpful in addressing specific sampling questions (Pallant, 2007), while depicting the range of sample characteristics, and highlighting the diverse individualities and unique worldviews that each interviewee brings to the sample and study. As indicated in the literature review chapter, prior to the commencement of this study in 2009, the available piracy incident data in the public domain and studies on seafarer occupational risk perception were mainly quantitative. The piracy data comprised mainly of numbers of ships attacked, then the number of seafarers held hostage or those still missing, the hostage duration and ransom figures paid out to pirates to secure the freedom of the crew. No qualitative studies seeking out seafarers' views on their occupational risk perception were available. This study, the sample characteristics show the bio-data of those interviewed. Each one of the forty-four interviewees represent and the individual who brings to this study their 'story', being a unique perspective of seafarer occupational risks. This uniqueness of this socially constructed view is

a crucial component in lending ‘a human face’ to the variation in research data on seafarer occupational risk perception.

The interview data provided a glimpse into the diverse characteristics of my sample. This included: their ages (groups), nationalities (by region of the world interviewees hailed from), ranks or positions that each individual held on the ship that they were working on at the time of the interview, the duration of their work experience, the researchers that they had worked on previously, as well as the ship that they were working on at the time of the interview.

(a) Age Distribution

Of the 44 interviewees, 17 (39%) were under the age of 30 years, 14 (32%) were between 31 and 40 years of age, 11 (25%) were aged between 41 and 50 years, while only two (4%) were over 50 years of age. The youngest respondent was 25 years old, while the eldest seafarer interviewed was 55-years-old. *Figure 5* below illustrates the distribution of interviewees by age.

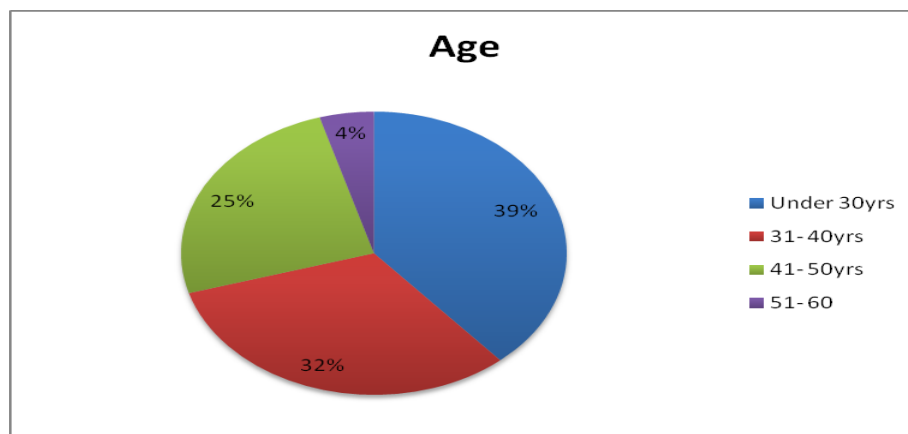


Figure 5: Sample Distribution by Age

(b) Nationality

At the time this study was conducted, most ships in the international fleet had a multi-national crew working on board. However, for the purpose of this study, each individual seafarer interviewed, presented an important personal and professional experience perspective, which was considered key in enhancing the objectivity and rich diversity of the data. Of the 44 seafarers interviewed, 24 interviewees (55%) were from the Philippines, while 8 (18%) were Eastern Europeans, 6 (14%) were from South East Asia, 5 (11%) were from Western Europe,

and only 1 (2%) interviewee was from North America. *Figure 6* below illustrates the distribution of nationalities within the research sample.

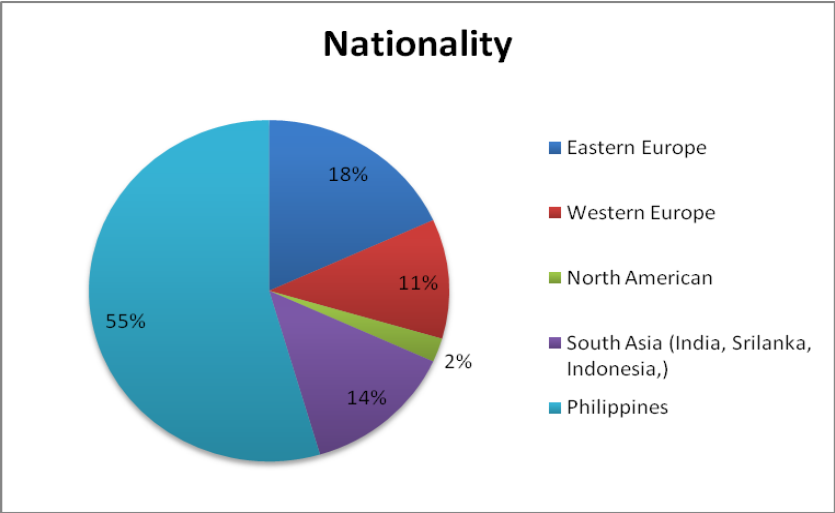


Figure 6: Sample Distribution by Nationality (Geographical Region)

Table 1 below summarises a comparison of the interviewee sample proportions with those established in SIRC’s 2008 study entitled, *The Global Labour Market for Seafarers Working on board Merchant Cargo Ships (GLMS)*.

Interviewees by Geographic Regional and Percentages					
	Far East Asia	South Asia	Eastern Europe	North America	Western Europe
Current Research Sample	The Philippines	India Sri Lanka Indonesia Myanmar	Ukraine Croatia	The USA	Italy
	24 (55%)	6 (14%)	8 (18%)	1 (2%)	5 (11%)
				6 (13%)	
GLMS	(28%)	(48%)	(6.4%)	(30%)	

Table 1: Interviewees by Geographical Region & Percentages

Source: *The Global Labour Market for Seafarers Working Aboard Merchant Cargo Ships (GLMS) 2008*

A disaggregation of the research sample by geographical region of origin showed that 87% of the interviewees were from six countries across the Far East, South Asia and Eastern Europe,

while the remaining 13% came from North America and Western Europe. The 2003 SIRC Global Seafarer Labour Market Survey (GLMS) indicated that 70% of seafarers were drawn from ten countries in South Asia and Eastern Europe, while 30% were from elsewhere. Although the proportions in both studies are not exactly the same, the sample proportions resonated with the GLMS to the extent that both studies highlighted the multi-national nature of the global seafarer labour force. The two studies also established that a significant proportion of seafarers currently working in the international fleet hail from only a few countries, mainly in the Far East, South Asia and Eastern Europe. Sustainability of maritime transport hinges on the quality of the work force supply. Therefore, regular updates on the human resource trends in the industry are closely monitored and forecasts published. The current study reiterated the findings of a major global seafarer work force update by BIMCO and ISF 2013 that identified the following trends in labour supply in the shipping industry.

This observation corroborates findings published in, indicating the following two observations that were found to be true for this study as well.

- a) Firstly, that the Philippines and India are major seafarer supply countries, with many seafarers from these countries working on foreign flagships. The BIMCO study established that 29.5% of seafarers worldwide were from the Far East, while 12.8% were from the Indian subcontinent. On the other hand, 55% of the sample in this study is from the Philippines. This indicates that the Philippines were slightly over-represented in the sample, compared to the reality in the global workforce.
- b) Secondly, the BIMCO study established that 20.8% of the global seafarer's supply was nationals of Eastern European countries. On the other hand, 8% of the interviewees in this sample were from Eastern Europe. This proportion of seafarers drawn from a single Eastern European country resonates with findings reported in the BIMCO/ISF publication, which pointed to an increase in the number of Eastern European seafarers in the international fleet, and particularly from Ukraine, Latvia and Croatia (BIMCO/ISF, 2010). *Table 2* below summarises the findings of the BIMCO/ISF report that was based on data obtained by a global seafarer labor survey, having been carried out through questionnaires sent to governments, shipping companies, crewing experts and maritime administrators.

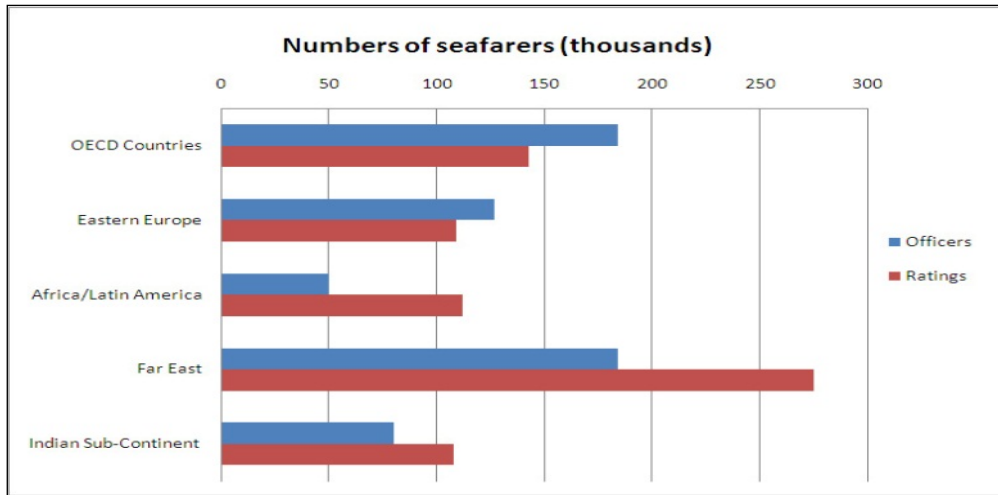


Table 2: BIMCO/ISF 2010 Seafarer Manpower Update

Source: BIMCO/ISF estimates

Based on a comparison of the distribution of geographical regions represented in the sample, and the findings of other studies on global seafarer nationality distribution characteristics led to the conclusion that the sample from the current study compared favourably with the nationality characteristics of the global seafarer workforce. This observation enhanced to some extent the possibility of relating the findings of the current research to the views of other seafarers about maritime piracy. For instance, although Filipinos were over-represented in this study's sample, the proportion of Filipinos and Indians when combined (69%) was similar to that in the GLMS. In addition, the sample in this study includes a wide range of different nationalities, including seafarers from Italy, Russia, Ukraine, Greece, Myanmar, India, the Philippines, Croatia, the USA and the Netherlands. Thus, although this is not a quantitative study where more attention is paid to representativeness than to validity, this study is broadly similar in quota terms to what we know of the composition of crews in the international fleet.

(c) Marital Status

Concerning the marital status of the sample, 26 (59%) of the interviewees were married, 16 (36%) were single, while the remaining two (5%) were separated from their partners at the time of the interview. *Figure 7* below depicts the distribution of the marital status of the individuals covered in this study.

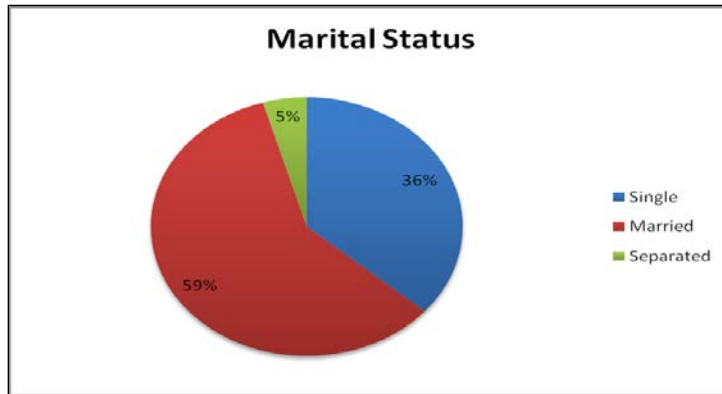


Figure 7: Sample Distribution by Marital Status

(d) Work Experience vs ships worked on

From the sample of 44 seafarers, 14 had worked as seafarers for between 0 and 5 years, 12 had worked as seafarers for between 6 and 10 years, 10 had worked as seafarers between 11 and 20 years, while the remaining four had each worked as seafarers for over 20 years. The distribution of seafarer work experience is illustrated in *Figure 8* below.

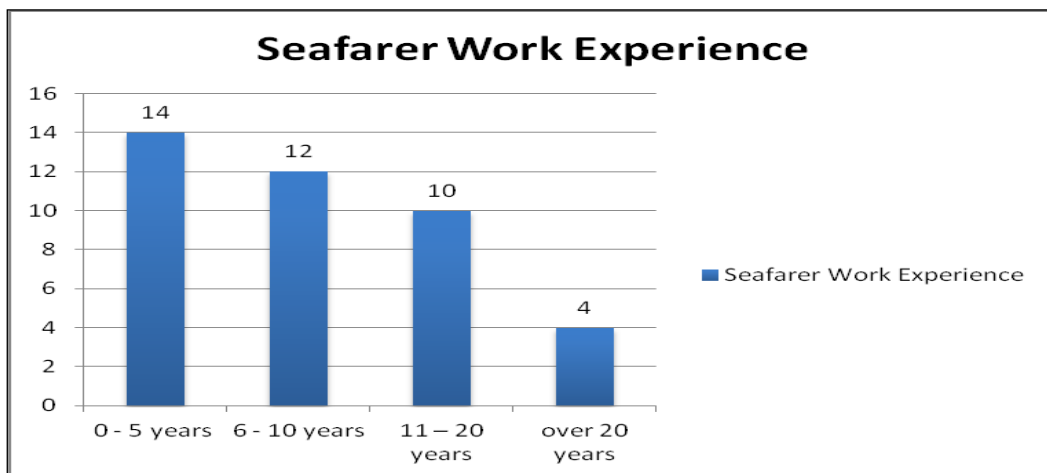


Figure 8: Sample Distribution by Seafarer Work Experience

(e) Current Position/Rank on Ship

Out of the sample of 44 seafarers, 14 (32%) were Senior Officers, 13 (29%) were Junior Officers, while 17 (39%) were Ratings as illustrated in *Figure 9* below. A further disaggregation of Senior Officers, flagships in *Figure 10*, established that 43% of the Senior Officers were Chief Engineers, 36% of the Senior Officers were Chief Mates/Officers, and 14% worked in security-related roles, while 7% were Navigation Officers. This latter

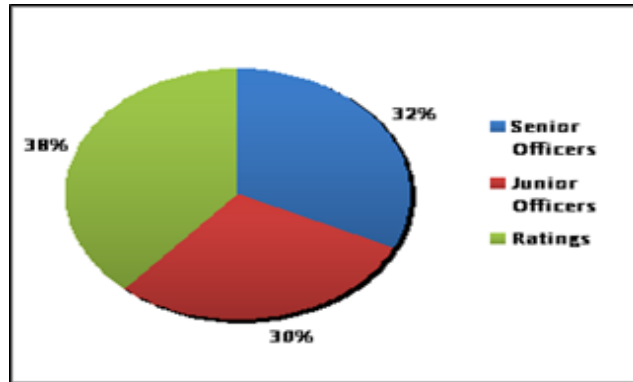
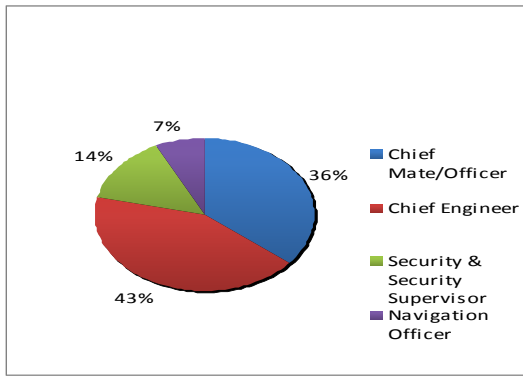


Figure 10: Seafarer Ranks within Sample Figure 9: Senior & Junior Officers in sample

Of the Junior Officers in the sample, 15% of them were Third Officers, Cadets (20%), 8.1% were Second Officers, 8.1% were 4th Engineers and 8% were Communication Officers. This disaggregation of the sample who was Junior Officers has illustrated in *Figure 10* above.

The proportion of Ratings in the sample included Able Bodied Seamen (20%), Engine Oilers (10%) Chief Cooks (15%), Ordinary Seamen (15%), Wipers (15%), Sailors (10%) and Motormen (5%). This disaggregation of Ratings in the sample is illustrated in *Figure 11* below.

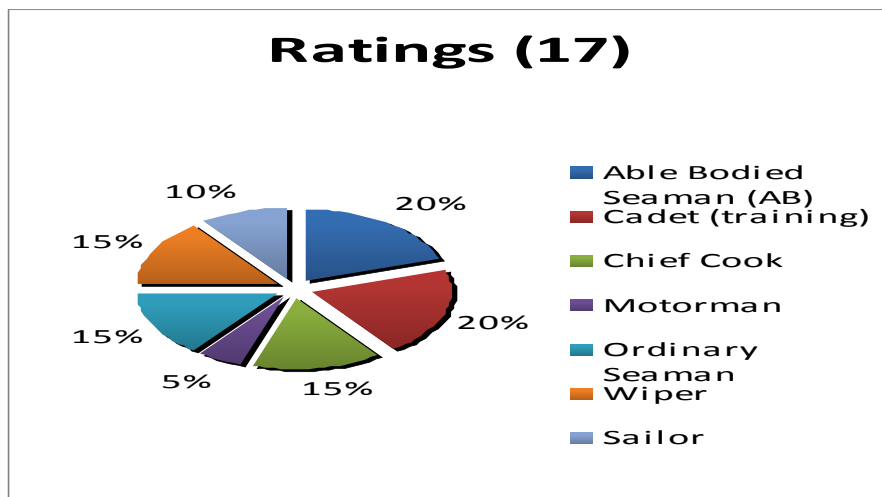


Figure 1: Disaggregation of Ratings in the Sample

Table 4 below provides a summary of the Seafarer Rank distribution in my study compared to two other international studies on the seafarer labour force. The studies are listed in chronological order, to reflect the trend in the seafarer workforce in the period preceding my study. The two other studies include: (a) the SIRC 2008 Global Labour Market for Seafarers (GLMS) study; (b) the 2010 BIMCO/ISF Manpower Update that reported that the 2010 global

seafarer workforce supply comprised 1,371,000 seafarers, including 624,000 officers and 747,000 Ratings; and (c) my fieldwork, conducted in 2011.

	Senior Officers	Junior Officers	Ratings	Total
GLMS Study 2008	21.5%	22.1%	56.4%	100%
BIMCO/ISF 2010	45.51%		54.49%	
Current research fieldwork (2011)	32%	30%	38%	

Table 4: A comparison of Global Seafarer Rank Distribution in three studies

The above comparison in the seafarer rank distribution highlights that although my sample embraces a range of ranks including Chief Engineers, Cadets and Ordinary/Able-bodied (AB) Seamen; there was an over-representation of Officers.

(f) Type of ships worked on

At the time this study was undertaken, the interviewees had worked on a variety of ships. Of the 44 interviewees in the sample, slightly over 50% (21) had worked on a ship as it passed the East African coast. Notably, one interviewee had transited East Africa six times as a seafarer. One other interviewee said his ship had passed the East African coast countless times and undertook such voyages at least twice a year. Figure 12 below illustrates the variety of ships that the interviewees worked on at the time this study was undertaken. These vessels included Roll-On-Roll-Off (Ro-Ro), bulk carriers, car carriers, chemical/gas carriers, container carriers, passenger and cruise ships, and general cargo ships. In the ten years preceding this study, the interviewees had also worked on a wide range of ships in the international fleet.

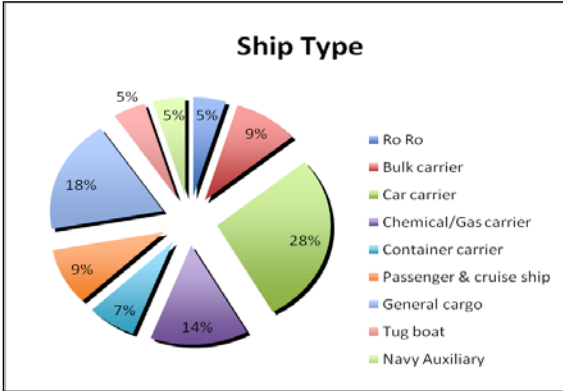


Figure 12: Distribution of sample by current type of ship

The range of ships that my sample had worked on in the last ten years is shown in *Figure 13* below. These included bulk carriers, car carriers, chemical/gas carriers, container carriers, Passenger and Cargo/Ro-Ro, multi-purpose heavy-lifts, tugboats, repair ships, fish trawlers, navy auxiliary ships, refrigerated ships and general cargo carriers.

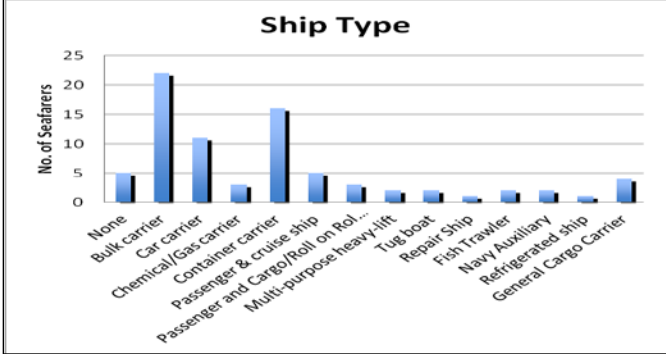


Figure 13: Distribution of sample by ships previously worked on

4.9 Chapter Summary

This study was undertaken as an empirical inquiry, to establish the views of a sample of seafarers about maritime piracy, their levels of experience with piracy and how they rated piracy as compared to the other risks that they faced at work. The research included face-to-face interviews of forty-four interviewees during a six-month period. Each interviewee was considered as having the potential to incorporate some unique cultural and seafaring work experience that informed the lens through their views on their occupational risks was constructed. Therefore, the responses could provide the (so far) elusive ‘voice’ of seafarers in the worldwide anti-piracy narrative. The diverse qualities of my research sample include their ages, nationalities, length of work experience, their ranks, the ships that they had worked on, their seafaring occupational risk(s) and the interviewees' ranking of maritime piracy relative to the other situations in their maritime work environment, which in their opinion, pose a threat of harm to them. In this chapter, the robustness of quantitative data analysis was harnessed in order to condense detailed information on the descriptive characteristics of the sample, while also attempting to organise the data into meaningful categories. This enabled a display of the diverse sample characteristics in a simplified and summarised form accessible to a wider audience (Bryman, 2008).

By targeting a diverse group of ship crewmembers, this study sought to bring a new dimension to the understanding of risk perception in general, and seafarer occupational risk in particular. The newness envisioned, was in the involvement of seafarers as the primary research target

group of a qualitative study on seafarer risk perception. Each interview was recorded, transcribed and coded in preparation for data analysis. This chapter provided a quantitative description of the disaggregated sample data, by focusing on the personal and professional characteristics and views of the sample. In so doing, this chapter served as a precursor to the more detailed quantitative and quantitative data analyses undertaken, details of which are discussed in the next chapter.

CHAPTER FIVE: RESEARCH FINDINGS

5.1 Introduction

The discussion in the previous chapter focused on the data collection process. It laid out the research goal, objectives, research questions, sampling procedures, the data collection process and a description of the research sample. The current chapter comprises of two sections, Section A and Section B. The former section reports on the Quantitative Data Analysis while the latter section documents the key themes that emerged from the Qualitative Data Analysis. Together, these two sections set out the findings from the empirical data analysis in such a way as to address the four research questions set out in Chapter One.

The quantitative data analysis explored links between the interviewees' ages, nationalities, ranks and the length of interviewees' work experience, against the three seafarer risk factors that they were most concerned about. This statistical analysis established the four facts: that, there were conflicting views about piracy among the interviewees with less than five years' seafaring experience, among those aged below 30 years and among two sections of Officers; that the risk of piracy was a major concern among the interviewees of all ages, across all ranks, and also among interviewees with different seafaring careers. The latter finding presented a dilemma, because none of the interviewees had a personal hostage experience, except for a few of them who had direct experienced failed pirate attacks, and/or personally witnessed armed robbery with violence against their colleagues in West African ports.

Therefore, the concern about piracy required more explanation. This elaboration was sought through a qualitative data analysis that probed the interview data further to find facts that could help in explaining the paradox identified by the quantitative analysis. The qualitative data analysis examined the narrative parts of the interview data in order to provide a further explanation about the variations in the interviewees' risk perception. The three findings that emerged from the qualitative analysis highlighted the role of maritime piracy narratives and images, geographic settings and family concerns, in influencing seafarers' piracy risk perception. Each of these findings is discussed in detail in Section 5.14 of this chapter, and Section 6.2 in Chapter Six. The data analyses found that risk perception was indeed a complex phenomenon that would be best analysed using multiple methodologies to help identify aspects that could not be explained adequately through statistical tests (Slovic, 2002). A summary of

these research findings is provided in Section 5.14 of this chapter. These research outcomes are also discussed in relation to the research questions in Section 6.2 of the next chapter.

Section A: Quantitative Data Analysis

Bivariate Analysis of Seafarer Occupational Risk Perception

5.2 Data Preparation

During the fieldwork phase of this study, an interview guide containing semi-structured questions was used to collect interviewee responses. The data collected comprised of a small amount of quantitative data and a relatively larger amount of qualitative information. This section reports on the quantitative data analysis that was carried out in order to establish whether there were any links between my interviewees' views on risk perception and their ages, nationalities, ranks and work experience. The quantitative data analysis process included an initial preparation of data into a form suitable for quantitative tests, followed by Cross-tabulation and Chi-Square statistical tests using SPSS. The results of both tests were interpreted to come up with research findings.

The interviews provided information on the interviewees' demographic profile, their professional background and their views about the risks that they face at work, and their projected risk behaviour when faced with an imminent pirate attack. Data collected during the interviews described the personal characteristics of the sample. These included their names, ages, marital status, nationality, their rank and the position on the ship they were working on at the time of the interview, the duration of their seafaring work experience, the ship types that they worked on at the time of the interview, and their ranking of different seafaring occupational risks, and their experiences with and views about the threat posed by maritime piracy. In the previous chapter, it had been pointed out that SIRC 'risk studies' claimed that there was a link between the views of seafarers about occupational risk, and their age, nationality, rank, and work experience. The analysis in this chapter focused on interrogating only the specific data that was considered relevant in exploring this theoretical position. That data included interviewees' ages, nationalities, ranks, work experience and their views about the different seafarer occupational risks perception. The risk perception of how they ranked different occupational risks. The task of this chapter, therefore, is to try to establish whether any meaningful association(s) could be identified between the age, nationality, work experience and

seafaring risk perception as denoted by the interviewees' ranking of each risk during the interviews.

Three groups of (scalable) risk levels were created through a data re-coding process. To achieve this, the 'Top 3' seafaring occupational risk factors of relatively greater concern to the research interviewees were ranked. The process of identifying the occupational risk factors that were of concern to the interviewees was carried out in stages, beginning with each interviewee giving their input to generate a list of risk factors during the interview stage. Each individual was given a list of seafaring risks gleaned from a review of the literature on maritime health and safety (reported in Chapter 2), and refined during the fieldwork piloting stage. Interviewees were allowed to add to the list any factors in their workplace, which were omitted, and yet, in their opinion, posed a danger to them at work. A list of 23 risk factors emerged from this risk-identification process. These included: being hijacked/attacked by pirates, explosion, falling overboard and into the dock, fatigue, feeling homesick, fire, injury, on board isolation from colleagues, serious illness, ship collision/foundering/grounding, abandoned abroad, accidents, bad/stormy weather, death, discrimination, capsizing, big waves, machinery malfunction, Officers attitude, stowaways, stealing goods (especially in Asia and Africa), bombing and terrorism.

The second stage of the risk-ranking strategy during the interviews involved asking each interviewee to assign to each risk-factor a number ranging from '1' and '6', whereby '6' denoted the threat that they were 'most worried' about, while '1' the risk that they were least concerned about. A closer look at the responses revealed that a few individuals mentioned almost all the interviewees, 14 risks; while some hazards were only identified by a single interviewee identified six specific risk factors. The six hazards that garnered the most attention among my interviewees, included ship collision/foundering/grounding, fire, injury, falling overboard and into the dock, hijacked/attacked by pirates and explosion. The factors that were only mentioned by one or two interviewees, included: being abandoned abroad, accidents, bad/stormy weather, death, discrimination, capsizing, big waves, machinery malfunction, Officer's attitude, stowaways, stealing goods (especially in Asia and Africa), bombing and terrorism.

In order to conduct a meaningful quantitative analysis of the sample's risk ranking and their personal characteristics, the three factors that each interviewee ranked as their "Top 3" concerns were focused on. This risk-prioritization was inferred from the number that each individual

assigned to the six risk factors identified by the majority of the interviewees. This interpretation was based on three assumptions: Firstly, that each interviewee had some information about each risk that they ticked and ranked; secondly, that this information could be based on their seafaring and other lived experiences; and thirdly, that their risk ranking was an informed decision. Therefore ‘6’ was the risk they were ‘most worried’ about, while ‘5’ was the factor they were ‘a little worried’ about, and ‘4’ was the hazard the interviewees were ‘least worried’ about. In order to carry forward the testing of my interviewee's seafarer occupational risk views to the next stage, ‘Top 3’ risks assigned the numbers ‘1’, ‘2’ and ‘3’. In this way, the risk-ranking and risk-prioritization processes culminated in the compilation of a list of the three main seafaring risk factors of relatively greater concern to each of my interviewees.

These risks and the particular levels of concern/worry expressed by each interviewee is summarized in *Table 5.2* below:

- A: Ship collision/foundering/grounding B: Fire C: Injury
- D: Falling overboard and into the dock E: Attacked by pirates F: Explosion

Interviewees (44)	Interviewees’ ‘Top 3’ risks/concerns/worries		
	‘1 ‘most worried’ about	‘2’ ‘a little worried’ about	‘3’ ‘least worried’ about
#1	F	C	E
#2	F	D	E
#3	E	D	F
#4	E	A	A
#5	C	A	E
#6	E	C	A
#7	C	A	D
#8	E	A	B
#9	E	A	B
#10	E	B	A
#11	F	E	B
#12	E	B	A
#13	E	B	A
#14	E	B	A
#15	A	B	E
#16	A	E	D
#17	E	C	E
#18	F	B	E
#19	E	B	F
#20	E	A	B

#21	E	A	B
#22	F	A	E
#23	E	A	D
#24	D	B	E
#25	A	E	B
#26	C	A	E
#27	E	C	B
#28	A only	-	-
#29	A	E	F
#30	E	A	B
#31	D	E	B
#32	C	B	E
#33	E	C	-
#34	E	F	B
#35	B	C	-
#36	A	C	E
#37	A	B	E
#38	C	B	A
#39	E	A	C
#40	E	C	-
#41	A	C	E
#42	A	B	E
#43	A	E	B
#44	A	E	A

Table 4: Interviewees’ ‘Top 3’ Seafaring Occupational Risks

Note: Some interviewees mentioned only one or two risk factors

Through the data re-coding process described above, a scalable ‘risk’ ranking dummy variable was created. This was used to assess the three risk-levels levels (groups) of perceived occupational risk. The three levels that I created are on a scale 1 - 2 units apart i.e. the number ‘1’ (three) denoted the risk factor that the interviewee is ‘most worried’ about, while the number ‘2’ (two) represented the factor that interviewees are ‘a little worried’ about, and the number ‘3’ (one) symbolised the hazard that my sample was ‘least worried’ about. The variables created were used to populate the sample database on SPSS with the ‘Top 3’ risks factors stated by each interviewee.

Based on the thematic proposition stated above in Section 5.1, the tests that I carried out on the ages, ranks and work experience, against the three risk-levels ‘1’, ‘2’ and ‘3’, were guided by the following assumptions:

The null hypotheses, which stated that,

The risk factor(s) ‘most worried’ about, ‘a little worried’ about, or ‘least worried’ about by the individuals in the sample, is independent of their ages, ranks and work experience.

The hypothesis, which stated that,

The risk factor(s) ‘most worried’ about, ‘a little worried’ about, or ‘least worried’ about by the individuals in the sample, is dependent on their ages, ranks and work experience.

5.4 Analysis: Age, Nationality, Rank, Work Experience vs ‘Top 3’ risks

In order to examine the relationships within my data that might not be readily apparent from the descriptive characteristics provided at the end of the previous chapter, I used the Statistical Package for the Social Sciences (SPSS) version 23 to carry out Cross-tabulation and Pearson Chi-Square tests on the ‘Top 3’ risks factors indicated by each of my interviewees. Three risk levels used for these tests included responses about the risk that each interviewee indicated as the factor(s) that they were either ‘most worried’ about, ‘a little worried’ about, and the ‘least worried’ about. Cross-tabulation and Chi-Square tests were administered to ascertain the probability that the two variables were related. For the purpose of this study, the first set of variables used included age, nationality, work experience, rank and position on the ship, and my second variable, against which each of the first set was tested, was the ‘Top 3’ risks. Therefore, in each case, a Null hypothesis was tested to ascertain whether the two variables were independent of each other.

The tests carried out depending on the type of data to be tested. For instance, whereas both Cross-tabulation and Chi-Square tests were carried out on categorical data that depicted the interviewees’ ages, ranks and work experience, because these interviewee aspects could be counted and assigned into categories. However, the data on nationality was not suitable for Chi-Square testing because although the interviewees of a particular nationality could be counted to ascertain the total number of citizens who hailed from a particular country, the nationalities could not be arranged into meaningful categories appropriate for Chi-Square testing. Therefore, only Cross-tabulation tests were possible with the data on nationalities. After a consideration of the type of data available, suitable statistical tests were carried out to ascertain whether there was any association(s) between the age, nationality, work experience, rank and positions that my sample held on the type of ship which they were working on when I interviewed them, and the values assigned to the occupational risk factors selected by each one.

5.4.1 Interviewees' Age vs 'Top 3' risk factors

In this section, I have discussed the relationship that I identified between the ages of my sample and the risks that they regarded as their 'Top 3' worries. For ease of data manipulation, I categorized the interviewees' ages into the following age groups: Under 30 years, 31 to 40 years, 41 to 50 years and 51 to 60 years. The age groups were Cross-tabulated against the risk that each age group was 'most worried' about, 'a little worried' about, and 'least worried' about. See *Appendix 5.3.2* for detailed Cross-tabulation test results for age versus each risk perception level.

(a) Age vs risk 'most worried' about

This section describes the relationship between the different age groups represented in the sample and the risk that they were 'most worried' about. From the results displayed in *Figure 14* below, it was established that the interviewees, in the under 30 years of age group, were most concerned about ship collision, while those in the 31 to 40 and 41 to 50 years' age groups were 'most worried' about being attacked by pirates. However, the sample members in the highest age bracket 41 to 50 years indicated that they were most concerned about both injury and attack by pirates. Based on this observation, it was concluded that fear of being attacked by pirates was a consistent concern among all the age groups in the sample.

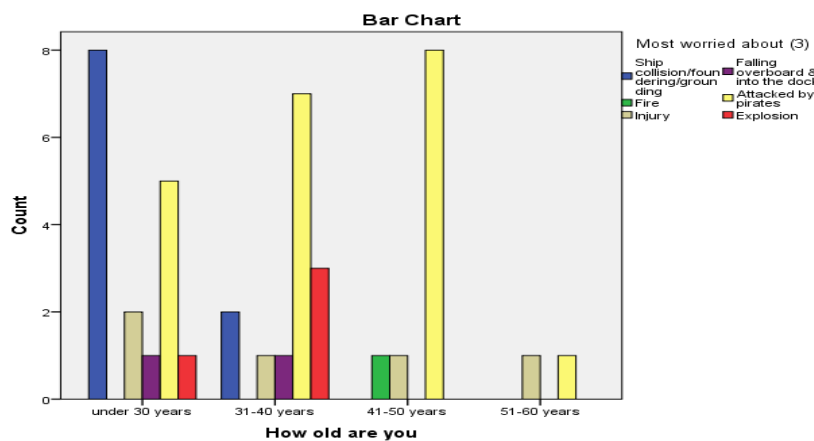


Figure 14: Cross-tabulation results of interviewee ages vs risk 'most worried' about

The Chi-Square test results of the age against the risk that the interviewees were 'most worried' about, providing a p-value of 0.132 which is greater than the 0.05 significant value. This confirms that the null hypothesis is accepted. I, therefore, concluded that there was no sufficient

evidence from the data of the influence of age on the risk 'most worried' about. See *Appendix 5.3.1* for the detailed Cross-tabulation and Chi-Square test results.

(b) Age vs risk 'a little worried' about

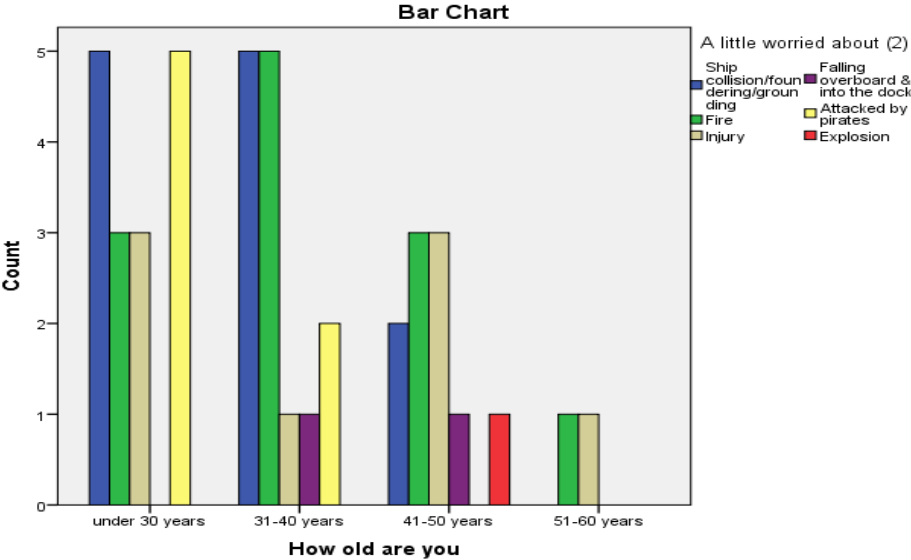


Figure 15: Cross-tabulation results of interviewee ages vs risk 'a little worried' about

From the results displayed in *Figure 15* above, I established that the interviewees under 40 years of age were both 'a little worried' about the risk of collision/founding/ grounding, being attacked by pirates and fire. The rest of the sample who were above 41 years old, were little afraid of both fire and injury. Those under 30 years of age had ranked fire as the second factor of which they were a little afraid. Based on these observations, the study concluded that the interviewees from all the three age groups were a little afraid of fire.

Chi-Square test results of the age against the risk that the interviewees were 'a little worried' about provided a p-value of 0.540 which is greater than the 0.05 significant value. This confirms that the Null hypothesis is accepted. Based on this observation, I concluded that the risk that my interviewees were 'a little worried' about is not associated with the interviewees' age. See *Appendix 5.3.1* for details of the Cross-tabulation and Chi-Square test results.

(c) Age vs risk ‘least worried’ about

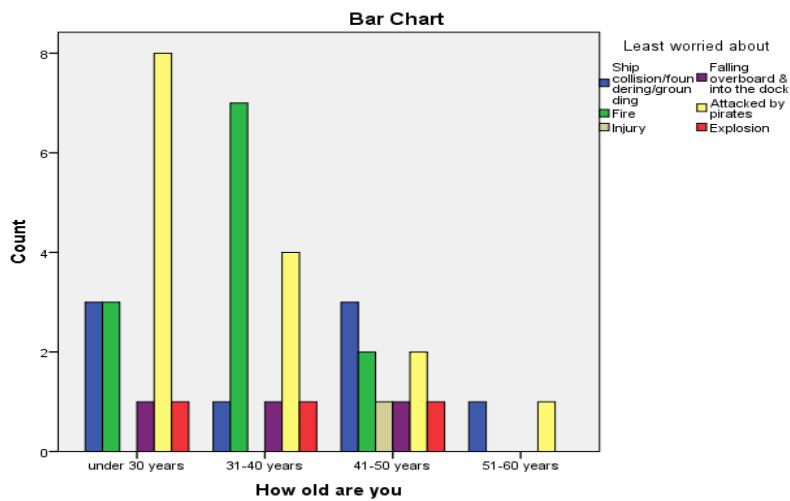


Figure 16: Cross-tabulation results of interviewee ages vs risk ‘least worried’ about

The results of the Cross-tabulation test provided the following indications: That, interviewees under 30 years of age were ‘least worried’ about being attacked by pirates; That, those aged between 31 and 40 years of age identified the risk of fire, while interviewees in the 41 to 50-year age-category indicated ship-collision; while those in the 51 to 60 age bracket stated that they were ‘least worried’ about the risks of both fire and pirate attacks. *Figure 16* above, illustrates these test results.

The Chi-Square test results of the interviewees’ age against the risk that the interviewees were ‘least worried’ about, providing a p-value of 0.682 which is greater than the 0.05 significant value. This confirms that the Null hypothesis was accepted. See *Appendix 5.3.1* for details of the Cross-tabulation and Chi-Square test results.

Based upon the test results for the age against the ‘Top 3’ risks, I established that there was no difference between the age groups in the perception of the risks that they were ‘most worried’ about, ‘a little worried about’ and ‘least worried’ about. Since the results are based on a sample size of 44 seafarers, there is not sufficient evidence from the data of the influence of age on the ‘Top 3’ risks.

5.4.2 Nationality vs ‘Top 3’ risks

(a) Nationality vs risks ‘most worried’ about

In this section, a description is provided of the results of the Cross-tabulation tests carried out on the relationship between the nationality of the seafarers and the risks that they are ‘most worried’ about. The test results produced three main patterns. The results, illustrated in *Figure 17* below, showed that the interviewees who hailed from South Asia, Western Europe and Eastern Europe were ‘most worried’ about ship collision/foundering/grounding, while those who were Philippines nationals rated pirate attack as the risk they were most concerned about. North Americans in my sample were ‘most worried’ about the risk of injury, while South Asian nationals were ‘most worried’ of a ship collision. See *Appendix 5.3.1* for the detailed results.

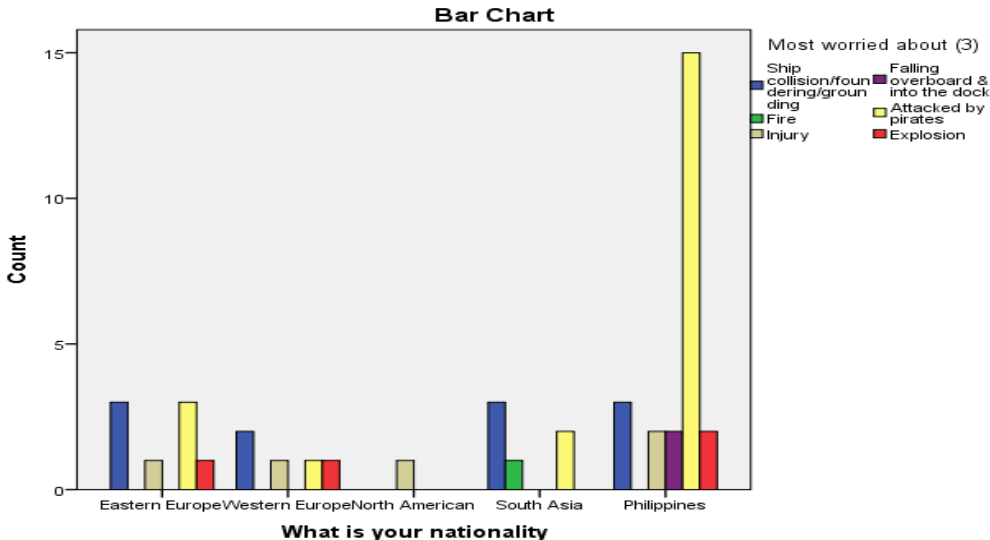


Figure 17: Cross-tabulation results: Nationality vs risks ‘most worried’ about

(b) Nationality vs risks ‘a little worried’ about

A Cross-tabulation test to explore the relationship between the nationality of the seafarers and the risk the interviewees were only ‘a little worried’ about established that the Eastern European nationals were a little concerned about injury, the Western Europeans, the North Americans, and South Asian nationals were ‘a little worried’ about the risk of a fire incident on the ship, while those from the Philippines stated that they were ‘a little worried’ about ship collision/foundering/grounding. These results are illustrated in *Figure 18* below. See *Appendix 5.3.2* for detailed test results.

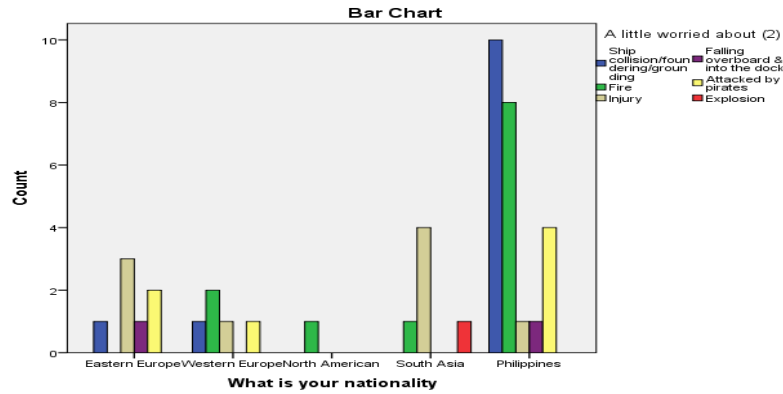


Figure 18: Cross-tabulation results: Nationality vs risks ‘a little worried’ about

(c) Nationality vs risks ‘least worried’ about

The tests on the relationship between the nationality of the seafarers and the risk they were ‘least worried’ about found that Philippines nationals are ‘least worried’ about pirate attacks, while the American, Western European, South Asian and Western European nationals in my sample were ‘least worried’ about pirate attacks. These results are illustrated in Figure 19 below. See Appendix 5.3.2 for detailed test results of the Cross-tabulation analysis.

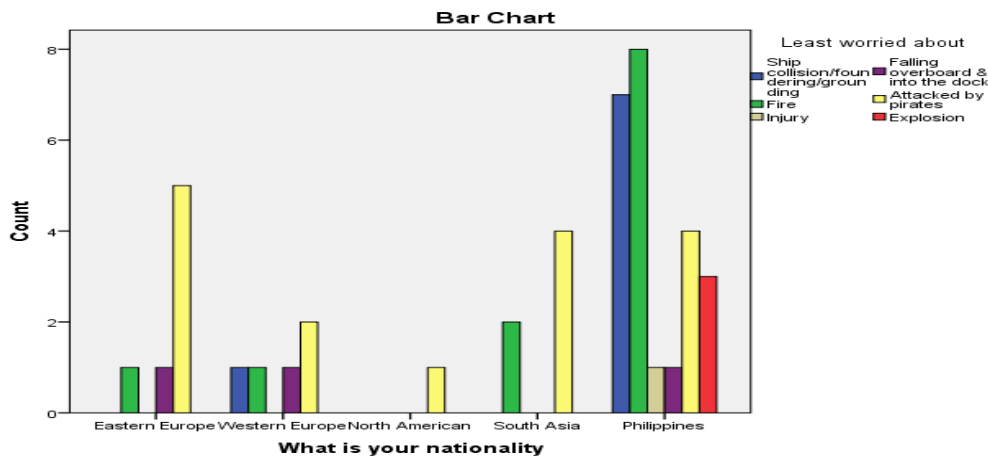


Figure 19: Cross-tabulation results: Nationality vs risks ‘least worried’ about

Based on the test results conducted to find out if there were any associations between the nationalities of my interviewees, and the risks that they were ‘most worried’ about, ‘a little worried’ about and ‘least worried’ about gave rise to two conclusions. Firstly, that there was no discernible pattern between the nationalities and risk levels stated by the interviewees. Secondly, that, because this finding was based on a sample of 22 seafarers only, there was

insufficient evidence from the data, of the influence of nationality on occupational risk perception.

5.4.3 Seafarer Work Experience vs ‘Top 3’ risks

This section documents the results of the Cross-tabulation test carried out to explore possible relationship(s) between the interviewees ‘work experience and the occupational risk that worried them most. For ease of data manipulation, the duration of the interviewees’ work experience was categorized into the following four 10-year periods: 0 to 10 years, 11 to 20 years, 21 to 30 years and 31 to 40 years.

(a) Seafarer Work Experience vs risks ‘most worried’ about

A Cross-tabulation test to ascertain whether any link existed between the sample’s seafarer work experience and the risks that they were ‘most worried’ about established that the interviewees of all four work-experience categories indicated that pirate attack was the occupational risk that they were ‘most worried’ about. This result is illustrated in *Figure 20* below. See *Appendix 5.3.3* for the test details.

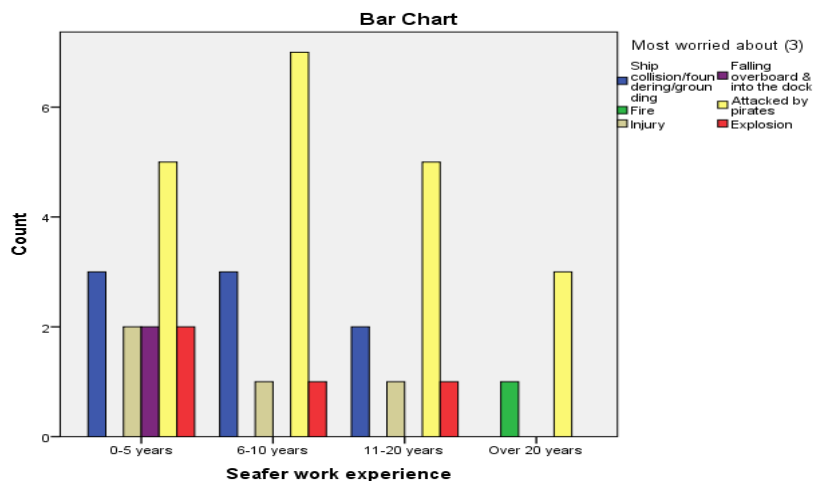


Figure 20: Cross-tabulation results: Seafaring work experience vs risk ‘most worried’ about

(b) Seafarer Work Experience vs risk ‘a little worried’ about

Tests to ascertain whether any link existed between the sample seafarers’ work experience and the risk that they were ‘a little worried’ about, established that the interviewees with less than ten years’ seafaring experience were ‘a little worried’ about fire, while those with 11-20 years at sea were ‘a little worried’ about collision/foundering/grounding, and those with over 20 years’ work experience were ‘a little worried’ about injury. This result is illustrated in *Figure 21* below. See *Appendix 5.3.3* for the full test output.

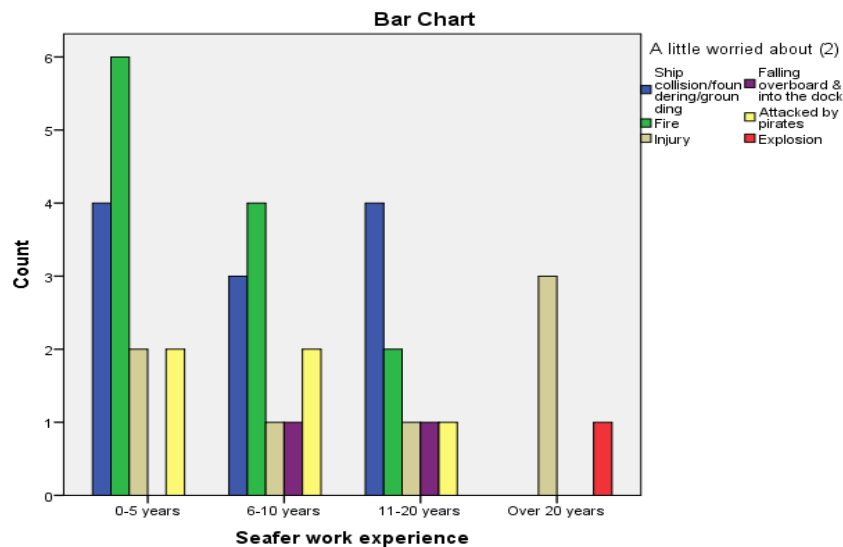


Figure 21: Cross-tabulation results: Seafaring work experience vs risks ‘a little worried’ about

(c) Seafarers’ Work Experience vs Risks ‘least worried’ about

The relationship between the interviewees’ work experience and the risk that they were ‘least worried’ about is displayed in *Figure 5.3.3 (b)* below. From the results, I identified the pirate attack as the risk of the least concern to my interviewees with seafaring experience of fewer than five years, and over 10 years. Those with between 11 and 20 years’ experience also indicated fire as being of the least concern to them. The section of interviewees with between 6 and 10 years’ work experience identified fire as the concern that they were ‘least worried’ about. These results are illustrated in *Figure 22* below. The relatively-low regard for pirate attacks shown by those in my sample with less than five years' work experience contradicts my earlier observation in Section 5.3.3 (a) that identified the pirate attack as the one risk which interviewees with varying lengths of seafaring experiences were ‘most worried' about. I will address this contradiction in the concluding section of this chapter. Based on the observations that I have mentioned in this sub-section, about the possible influence of my interviewees' work

experience on their views about their occupational risks, and due to the fact that the results were obtained from a research sample of forty-four interviewees, I concluded that there was no sufficient evidence from the data, of the influence of work experience on risk perception. See *Appendix 5.3.3* for detailed test results.

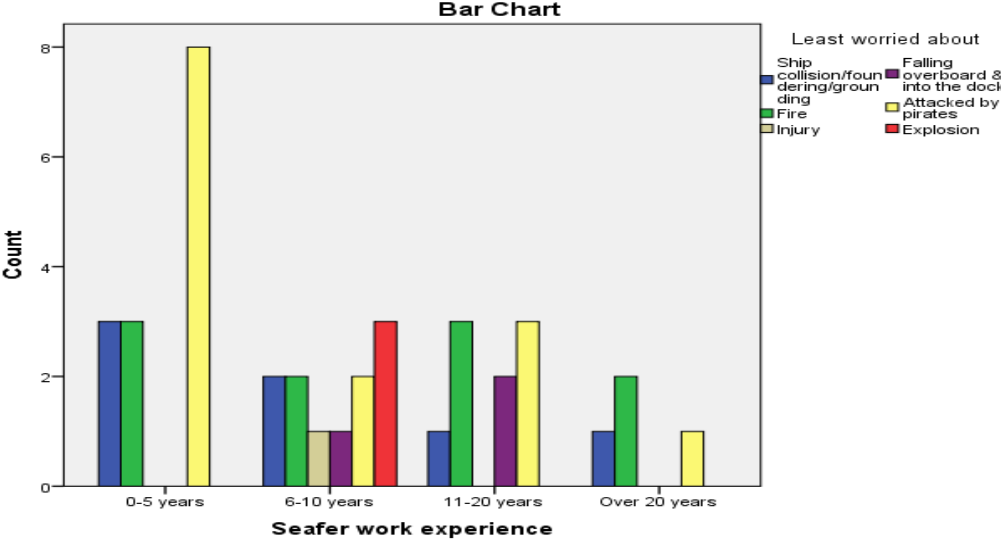


Figure 22: Cross-tabulation results: Seafaring work experience vs risks ‘least worried’ about

5.5 Current Position Ship vs ‘Top 3’

The positions held by my research comprised of fourteen designations spread among forty-four individuals. These seafaring positions included Chief Mate/Chief Officer, Chief Engineer, Security Officer, Navigation Officer, 2nd Officer, 4th Engineer, 3rd Engineer, Engine Oiler, Able-bodied Seaman, Cadet (trainee), Chief Cook, Ordinary Seaman, Wiper and Sailor. A Cross-tabulation across the entire sample’s current positions to find out the risks that my sample was ‘most worried’ about, ‘a little worried’ about and ‘least worried’ about provided the following observations: firstly, that pirate attack was the occupational risk factor that twenty interviewees were ‘most worried’ about. This concern was expressed by interviewees in a number of roles, except for those who held positions of Security, Navigation, Chief Cook, Motorman and Sailor. Secondly, fire and ship collision/founding/grounding were the workplace hazards that were only ‘a little worried’ about. Thirdly, some interviewees stated that they were ‘least worried’ about pirate attack. An analysis of the current position against the ‘Top 3’ risk factors produced mixed results, in which pirate attack was indicated both as the occupational risk factor that all interviewees across all fourteen positions were ‘most worried’ about, and also the one that they were ‘least worried’ about. The respondents for both sets of

responses held different positions on the ships they worked on. Therefore, in order to make it easier to carry out tests that could help to identify any pattern(s) between the positions held and their stated level of risk perception, it was decided to re-code the data in order to group the current positions of the research sample into three meaningful categories. These groups were, in turn, collapsed to form grouped ranks. The collapsing of the ranks into three meaningful groups helped to appropriately categorise the interviewees' positions into formal and broader seafaring ranks and was more suitable for the statistical analysis task.

5.6 Collapsed/Grouped Ranks vs 'Top 3' Seafaring Risk Factors

(a) Contextualising the Rank Collapsing/ Grouping

The process of grouping the interviewees' current positions into scalable ranks for this study took into account the on-board hierarchical structure, which in turn delineates the broad categories into which crew positions are divided in the maritime industry. At the helm of the structure is the Captain (Chief Mate) who heads the Senior Officer category as the on-board think-tank with the overall responsibility for the whole ship. This ship managerial role including the whole ship's safety is also the on-board 'risk communication' focal point between the on-board personnel, and external actors off the ship, i.e. the shipping company, and maritime safety agencies, etc. Thus, the Captain would normally have a relatively greater awareness about the imminent threats to the ship and is responsible for making decisions on risk communication and coordination of the activities geared towards the ship's safety while at the same time managing the routine normal day-to-day activities.

Therefore the Captain and Senior Officers could be privy to more detailed information on security threats to the company than the rest of the crew. This could give them both 'the big picture' (at a macro level) of piracy trends worldwide, as well as at the 'macro' level related to the activities on the ship and in the areas voyage route(s). Junior Officers and Ratings, on the other hand, are often considered to be the 'hands' on-board the ship, a role that made their concerns more task-oriented, and more about their personal safety. The analysis of ranks versus risks was extrapolated with this background in mind. The grouping of the interviewees by their current positions entailed dividing the fourteen positions into the following two meaningful categories. The first included a combination of Senior Officers and Junior Officers and the second comprised of Junior Officers and Ratings. The decision to divide the interviewees into these two groups was informed by the empirical findings found in Bailey (2009) that identified an association between the variations in risk perception among the different groups of workers

in the maritime industry. In this study, Bailey linked the dissimilar views to the diverse levels of awareness about ship incident statistics (Bailey, 2009). Ship managers’ views about threat levels were found to coincide with actual incident statistics, unlike their peers of lower cadres. In assuming that the interviewees had some level of awareness about the seafaring work environment, in grouping the interviewees’ positions into ranks, a Rational Actor Paradigm was adopted. Thus, it was assumed that the interviewees' views about risk perception differed according to their ranks and that different cadres of seafarers had different levels of awareness about the prevalent risk level on their ship and in different regions (The Royal Society, 1992).

(b) Category 1: Senior Officers, Grouped (Junior Officers - Ratings) vs ‘Top 3’ risks

In this section, the sample’s ranks have been examined against the risks that they identified as being of concern to them. While the concerns have been assessed at the three risk-levels, the ranks have been categorized into the following three groups for a comparative analysis of the results: (a) Senior Officers only (b) Junior Officers and Ratings (c) Senior and Junior Officers. The results of a Cross-tabulation test of the Senior Officers and the combined group of Junior Officers and Ratings against the risks that both groups were ‘most worried’ about identified the threat of a pirate attack as their top concern. The Chi-Square tests provided a probability value (p-value) of 0.296, which is greater than the significant value (0.05). Therefore, the null hypothesis (H₀) is accepted. This has led to the conclusion that there was no difference between the rank and the risk that the interviewees were ‘most worried’ about, i.e. pirate attack. These results are illustrated in *Figure 23* below and detailed test results are available in *Appendix 5.3.5*.

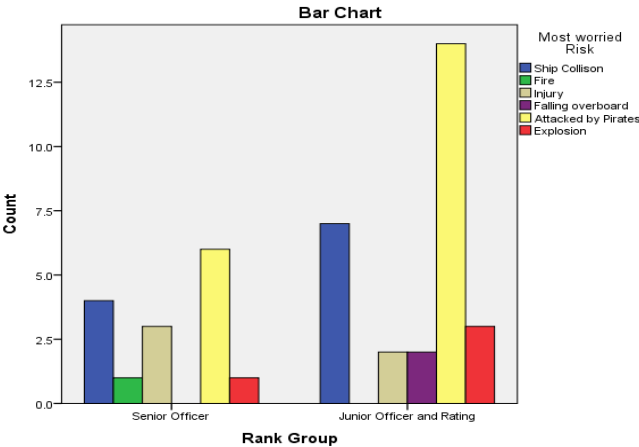


Figure 23: Cross-tabulation results: Senior Officers (Junior Officers-Ratings) vs risks ‘most

worried' about.

(b) Senior Officers, (Junior Officers - Ratings) vs risks 'most worried' about

A Cross-tabulation test of the Senior Officers and the combined group of Junior Officers and Ratings, against the risks that they stated as the occupational hazard that they were 'a little worried' about found that, the risk factor the Senior Officers were 'a little worried' about was being attacked by pirates, while for the Junior Officers and Ratings, it was the possibility of a fire incident. These results are illustrated in *Figure 24* below. A Chi-Square test of data on Senior Officers and the combined group of Junior Officers and Ratings data yielded a probability value (p-value) of 0.451. This value is greater than the significant value (0.05). Therefore, the null hypothesis (H_0) is accepted. This has led to the conclusion that the risk that the Officers are 'a little worried' about is independent of the rank of the interviewee. Detailed test results are available in *Appendix 5.3.5*.

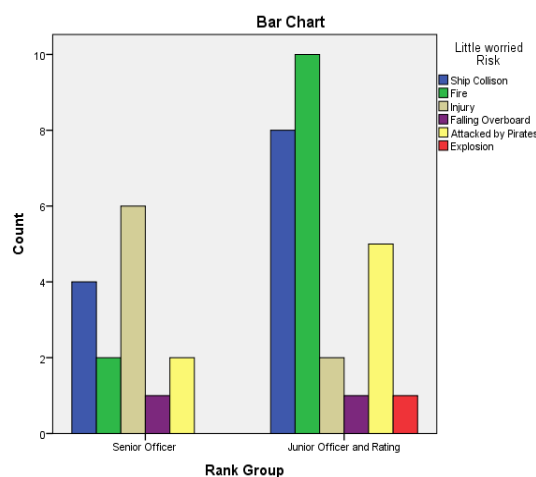


Figure 24: Cross-tabulation results: Senior Officers, Junior Officers-Ratings vs risks 'a little worried' about

c) Senior Officers, (Junior Officers - Ratings) vs risks 'least worried' about

Results of a Cross-tabulation test of the Senior Officers and the combined group of Junior Officers and Ratings, against the risk factor that they were 'least worried' about, showed that while Senior Officers were 'least worried' about pirate attacks, the risk of fire was identified by most of the Junior Officers and Ratings.

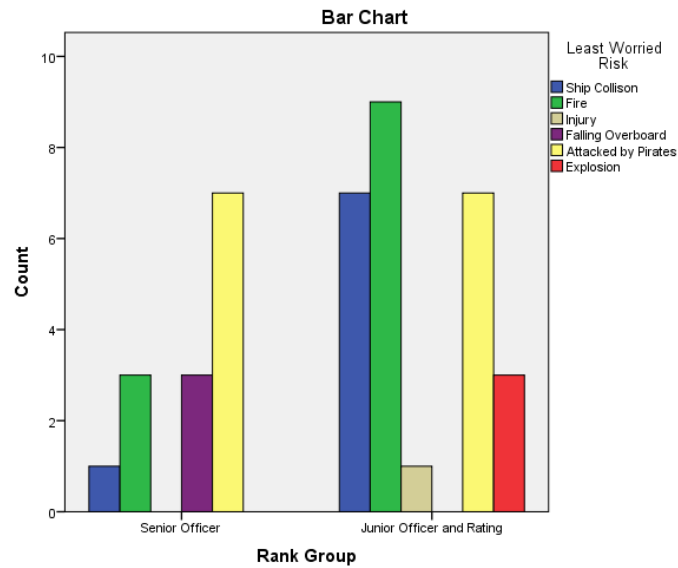


Figure 25: Cross-tabulation results: Senior Officers, Junior Officers-Ratings vs risks ‘a little worried’ about

A Chi-Square test provided a probability value (p-value) of 0.042, which is less than the significant value (0.05). Therefore, I rejected the null hypothesis (H_0) that rank is not related to the ‘least feared risk’. From these two observations about the relationship between rank and the risks that Senior Officers and the Junior Office-Ratings grouped rank was ‘least worried about’, I made the following two inferences: Firstly, that, based on a research sample size of 44 individuals, there was no sufficient evidence from the data of the influence of rank on my interviewees’ occupational risk perception. Secondly, that, based on the Chi-Square results obtained, the Senior Officers rank was related to the pirate attack, while the risk of fire was related to the Junior Officer and Rating group. These results are illustrated in Figure 25 above. See Appendix 5.3.5 for detailed test results.

Category 2: (Senior & Junior Officers), Ratings vs ‘Top 3’

In this section, the combined/grouped rank that included both Junior and Senior Officers has been referred to as ‘All Officers’.

(a) All Officers, Ratings Vs risks ‘most worried’ about

Cross-tabulation test of All Officers and Ratings against the risk factor that they were ‘least worried’ about found that pirate attack was the risk that both rank categories were most worried about. Ratings had also indicated that they were most worried about ship collision, foundering

and grounding as well. These results are illustrated in *Figure 26* below. Chi-Square test results provided a probability value (p-value) of 0.064, which is less than the significant value (0.05). Therefore, I accepted the hypothesis that the fear of pirate attack is dependent on rank. See *Appendix 5.3.5* for detailed test results.

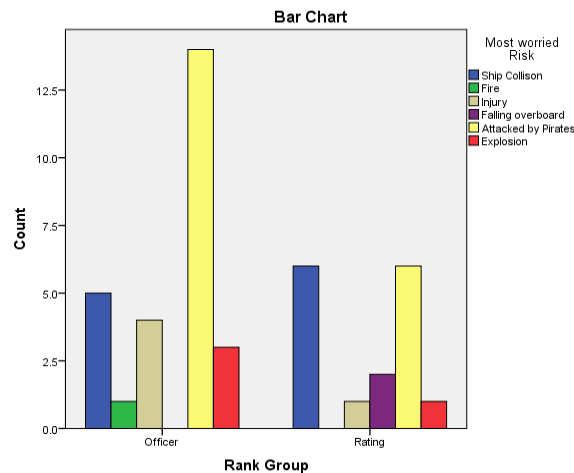


Figure 26: All Officers, Ratings vs risks ‘most worried’ about

(b) All Officers, Ratings vs risks ‘most worried’ about

The test results from a Cross-tabulation of All Officers and Ratings against the risk factor that they were ‘a little worried’ about showed that while those falling within the Officers rank were a little worried about the risk of ship collision/foundering/grounding, the ratings indicated fire as their first choice. These results are illustrated in *Figure 27* below. The Chi-Square test results provided a probability value (p-value) of 0.651, which is greater than the significant value (0.05). Therefore, I accepted the null hypothesis that the fear of ship collision/foundering/grounding and fire are not dependent on my interviewees’ ranks. See *Appendix 5.3.5* for detailed test results.

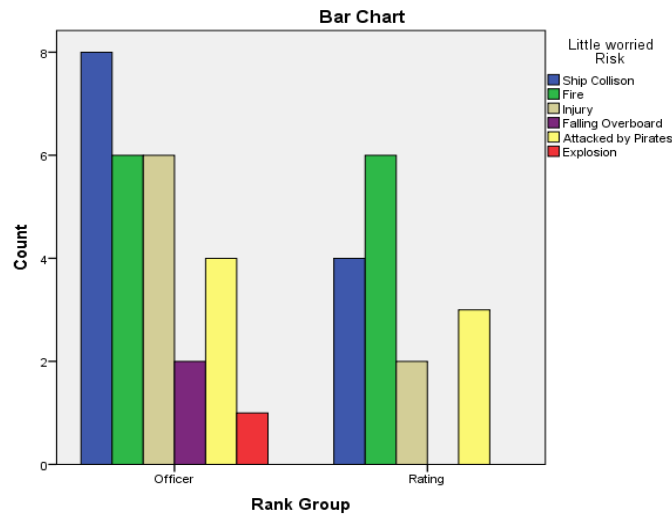


Figure 27: All Officers, Ratings vs risks ‘a little worried’ about

(c) All Officers, Ratings vs risks ‘least worried’ about

The results from a Cross-tabulation of All Officers and Ratings against the occupational hazard that they were ‘least worried’ about showed that while Officers were ‘least worried’ about the risk of pirate attack, Ratings were least worried about fire. These results are illustrated in Figure 27 below.

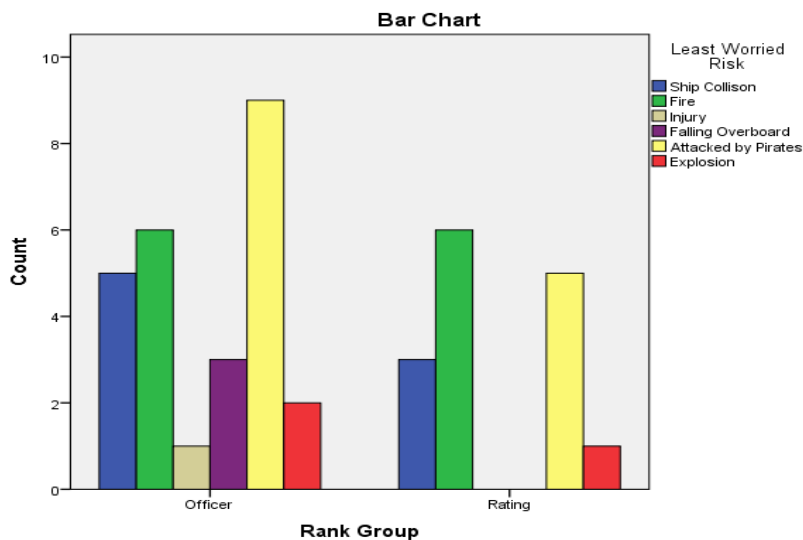


Figure 27: All Officers, Ratings vs risks ‘least worried’ about

This low regard for pirate attack by a section of the Officers contradicts the earlier result in Section 2(a) above, the risk of pirate attack was found to be the one factor that interviewees

from both the 'All Officers' and the Rating rank categories were most worried about. I have discussed this contradiction in the concluding section of this chapter. Chi-Square test results provided a probability value (p-value) of 0.660, which is greater than the significant value (0.05). Therefore, the null hypothesis that the relatively low regard for pirate attack by the Officers' group, and of fire by Ratings, is independent of rank was accepted. See *Appendix 5.3.5* for the test results.

In view of the intensification of labour in the shipping industry in the decades preceding this study (Bloor, 2011), ships, I considered the possibility that perhaps the different worry-levels about piracy could have emerged from the Officers' reflection their personal experiences or scenarios narrated to them by colleagues of characteristic of voyages through 'high-risk' shipping lanes like the coast of East Africa. In such instances, when a pirate attack is assumed to be imminent, the Captain or his designee Officer would be concerned about ensuring that additional security-enhancing best management practice measures, including crew drills, and putting additional staff 'on watch', these could add to an already-heavy officer's workload. This in itself, could cause some Officers to worry more than others. I argue here that this difference in views about the risk of pirate attacks by seafarers from the same (senior) rank, could signify a convergence point between concerns about new and unprecedented risks (the unknown), and ripple-effects of the structural changes in labour in the shipping industry. Perhaps piracy was indeed as a proxy for these other 'fears' (Giddens) that seafarers had at the time this study was carried out.

A closer look at the individual responses of the Senior and Junior Officers and in my sample provided additional information on the reasons that could help explain the different views held by individuals belonging to the same seafarer rank. The reasons that my interviewees provided for regarding pirate attacks as more worrisome, included piracy narratives in the media and by close associates, previous personal encounters with pirates/sea robbers, additional role-specific ship security responsibilities, and being privy to company risk-assessment information on the prevailing security threats to the company. The other section of Officers who regarded pirate attacks as less worrisome, attributed their views to their security training, their core business and primary role as security personnel, crew teamwork experience in thwarting pirate attacks, having armed guards on board, the ability to prioritise contracts with companies whose voyages are limited to safe (less risky) regions.

5.7 Variations in Safety Ashore vs Offshore

This study also evaluated whether the notion of ‘risk as image perception’ suggested by Jackson (2006), could be applied to the sample in order to explore further the variations in their views about occupational risk. The data was assessed to ascertain whether the research sample's views of relative safety on land and at sea could provide any additional meanings to the images that they had constructed about their ‘likelihood of victimisation’. To evaluate this facet of their risk perception, the interviewees were asked how safe they felt while working at-sea and ashore. *Figure 28* below illustrates the variations in my interviewees’ responses.

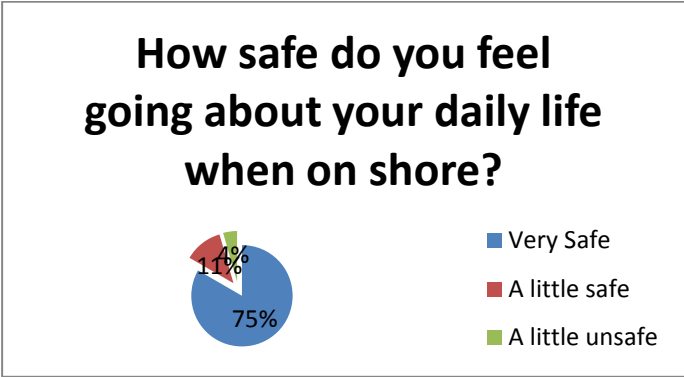


Figure 28: Variations in responses on feeling safe while ashore

Of the forty-four seafarers in my sample, 75% of them felt very safe when going about their daily life ashore stating there were fewer risks compared to the dangers associated with the maritime environment. In expounding on the offshore hazards, the absence of which made them feel safer ashore, Interviewee 12 listed the absence ashore of bad weather, big waves and pirates. Several other interviewees expressed similar sentiments. Others attributed their feeling of being more safe ashore, to the additional leisure time they have while in port, when they do not have to think about work, and when they are more relaxed and in the presence of more people, unlike while at sea (Interviewee 9) Two other interviewees expressed the same views. *Interviewee # 6* gave a more specific reply stating that how safe he felt ashore depending on the country where they were docked. He felt very safe ashore in Europe and America.

Another five interviewees stated that they felt only ‘a little safe’ ashore. One of them further explained that this low level of safety ashore largely depended on the port, the country as well as the shore where they were landing (*Interviewee #19*). Some interviewees indicated

that feelings of safety while ashore varied from country to country. They perceived themselves as 'being at risk' in certain countries, in certain ports, and of some coastal areas. How they viewed their level of risk, in turn, influenced, how safe or unsafe they felt. Different factors influenced their different and constantly changing levels of perceived risk ashore in different countries. For instance, Interviewee #8 said that he felt 'very safe' while in ashore in port and in shopping malls in South Africa due to the presence of port security and guards respectively. However, he felt 'a little unsafe' while walking the streets because of a personal mugging experience. Therefore, personal experiences of victimization on land had a similar effect on seafarer risk perception, as did the personal encounters with pirates at sea. In both instances, the perception of risk was influenced by personal experience.

On the other hand, about a fifth of the interviewees reported that they felt 'very safe' while at sea. They attributed this to know that they had modernised their vessel to make it more efficient and reduce accidents due to human error, due to safety measures on board, due to their personality and training, awareness of safety guidelines and the assurance of God's protection of them and the vessel (*Interviewee #13*). A few others in the sample also reported their reliance on divine protection. Out of the sample, twelve interviewees said that they felt a little safe while at sea mainly due to the unpredictable weather in the high seas (*Interviewee #39*). Five other interviewees expressed the same feeling. About half of the interviewees felt neither safe nor unsafe while at sea due to the vulnerability of the ship to forces of nature while at sea. The comments by *Interviewee #3* summarized the general position of this section of interviewees stating that: "the ship is floating on the sea, anything can happen". One interviewee felt a little unsafe while at sea, stating that he felt a little safe only when he knew that his ship was going towards Somalia. This variation in my interviewees' responses about their relative feelings of safety at sea is illustrated in *Figure 29* below.

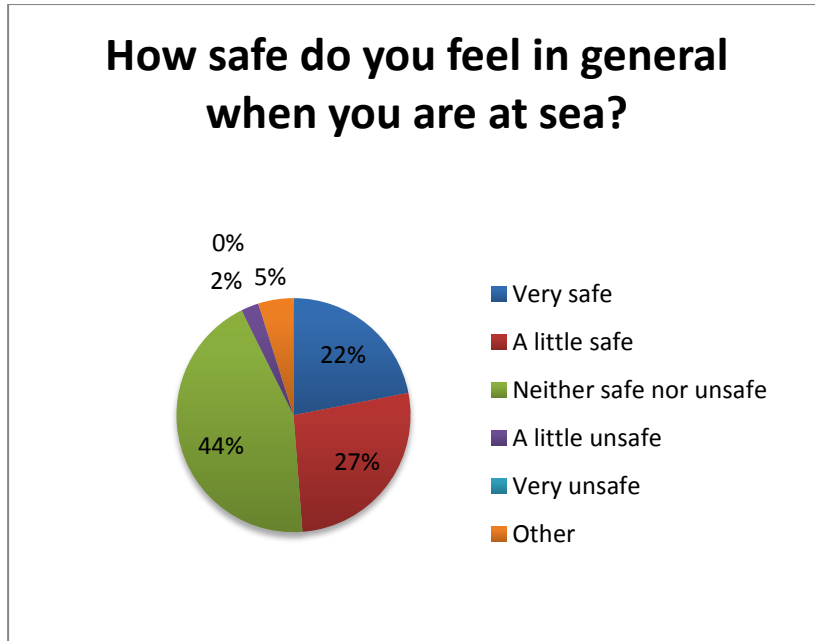


Figure 29: Responses to feeling Safe while at sea

Based on the observations on the variations in the respondents' relative feelings of safety at sea and ashore, this study found that interviewees' perception of risk at ashore was influenced by personal experienced criminal victimisation, as well as the absence of natural hazards characteristic of the maritime environment.

From the quantitative analysis presented in this section, it was established that the risk of piracy featured as a major concern among interviewees of all ages, across all ranks, and also among interviewees with different lengths of seafaring careers. The study also observed that there were differences in the levels of concern about piracy, by two sections of interviewees with the same length of seafaring experience, and also among those who belonged to the same age bracket. Acknowledging that SIRC 'risk studies' provided very helpful ideas that informed the development of my thematic propositions, with regards to how age, rank, nationality and work experience influence variations in risk perception by seafarers, however, my study found that a quantitative study alone was inadequate in explaining the different views among my sample. For while the evidence-informed findings of those earlier studies suggested that the age and work experience of seafarers were influenced the variations in seafarer risk perception, however, these reports stopped short of explaining the variations in views about the same risk of pirate attack, by crew members with the same length of work experience and age-groups.

From the observations in this section about the risk perception variations among the interviewees with less than six years' work experience, this study argues that the views about the occupational hazards by my interviewees who had between 0 and 5 years' work experience and also that of the individuals within the under 30-year age bracket, could have been influenced by other aspects of their work experience, that was beyond the scope of numbers. Based on the observations the initial thematic position was adapted to reflect these findings and concluded that *Seafarer risk perception was a complex world-view constructed from the convergence of multiple factors emanating from the work experience. Therefore, age, nationality, rank and the length of the seafarer career alone did not influence the variations in seafarer occupational risk perception.* The qualitative analysis endeavoured to further interrogate the interview data so as to find additional information within the seafarer work environment, that could identify additional seafarer work experience-related information that could better-explain the influence of age, nationality, rank and work experience on seafarer risk perception. This is the task of the qualitative data analysis, which is the subject of the section that follows.

Section B: Qualitative Data Analysis

Factors Influencing Variations in Seafarer Risk Perception

5.7 Introduction: Qualitative Data Analysis Overview

The previous section reported on the results of the statistical tests carried out to investigate whether there were any associations between the risk factors that the interviewees identified as being in their 'Top 3' concerns, and their age, nationality, rank/position on ships and the length of their work experience. The results established that a number of the interviewees had reported piracy in their 'Top 3' concerns (with a substantial proportion putting it as their number one concern). This finding presented a dilemma for the following three reasons: None of the respondents had been taken hostage by pirates; Just a handful of the respondents had been on ships that had experienced failed attempts by pirates; only a minority among the interviewees had personally witnessed armed robbery with violence against their colleagues while docked in West African ports. This was the core paradox that this section set out to explain. The study found that the suggestion by Slovic (2002) that risk perception is a complex phenomenon, requiring multiple (expert and non-expert) perspectives to help identify aspects that may not be revealed through statistical tests, was true for this study of a sample of seafarers.

Although SIRC studies had suggested that variations in seafarers' risk perception were influenced by age and work experience, they did not explain the differences in views about the same risk by crewmembers with the same length of work experience and by individuals of the same age. This section elaborates and explores issues raised in the quantitative data analysis by further examining the qualitative data for additional information that could help to explain these conflicting views about the risk of pirate attack. In order to discuss seafarer occupational risk in more concrete terms, this study has used the hazardous phenomenon of maritime piracy to illustrate how seafarer risk perception plays out in the lives of ship's crew. This choice was informed by the research observations in the previous chapter, which identified pirate attack as a consistent concern among the research interviewees.

This section reports on the qualitative analysis of interview data that explored salient elements of seafarers' lived experience that could be relevant in shaping perceptions about the risk of piracy. The qualitative data analysis in this chapter found that, when seafarers talk about their perception and concerns about piracy, they are referring to one or more of a number of distinct things (including the ABC Affect/emotion, Behavioural adaptations, and Cognitive assessments

of personal risk and/or the general problem of piracy). Secondly, there are high levels of stated concern about piracy overall in the sample of seafarers, despite the fact that none had ever experienced piracy directly, according to the official definition. When asked to rank particular occupational risks, the seafarers consistently ranked piracy higher than many other occupational hazards, even though the latter hazards were more statistically frequent. Within the sample, there appeared to be some interesting variations in the levels of fear expressed between those seafarers of different age groups, by length of career, depending on the type of ship and routes followed.

The discussion in this section revolves around the following themes-

- Piracy narratives and images facilitate both risk communication and amplification
 - Seafarers' views about risk vary in different geographic settings, in different regions, both while at sea and ashore;
 - Seafarers' family concerns influence the variation in their views about risk;
- Each theoretical proposition is analysed under a separate section.

5.8 Risk Communication and Amplification: Role of Piracy Narratives and Images

5.8.1 Piracy Risk Communication

(a) Piracy Risk Information Sources

The analysis suggested that information about the threat posed by piracy originated from three main sources: through personal accounts by colleagues and close associates, from both solicited and unsolicited piracy incident reports and news in print and electronic form, and through pre-departure briefings in their countries. Each source of information has been discussed separately in order to identify it as an avenue through which seafarers receive risk information. The first source of information on the risk of piracy mentioned by some of the interviewees was direct and indirect experiences of encounters with pirates. Failed pirate attacks, experienced by the interviewees or successful ones narrated to them, or described in media narratives, portrayed pirate incidents to them as an unpleasant and violent experience. They symbolised sources of first-hand and reliable information about the risk of harm posed by pirate attacks and hostage experiences. The experiences included their personal involvement in failed pirate attacks, and indirect experiences narrated to them by close associates.

Although none of the 44 interviewees had been taken hostage by pirates, ten of them had worked on ships that had been attacked by pirates and sea robbers in different parts of the world. The

failed pirate attacks had taken place along the coast of East Africa (Interviewees #7,8,13, 19, 29, 32, 34), and while sailing along the Malacca Strait in South East Asia (Interviewee #6). Three attacks on crewmembers by sea robbers and the theft of items were reported by two interviewees to have occurred while their ships were docked in Conakry, Freetown and Lagos ports in West Africa. One interviewee who had been a repeat victim of attacks by sea robbers a few months prior to the interview, recalling the incident said that:

“Some people boarded our ship looking for something to steal. They came like mice to steal mooring rope...they stole a watch, telephone and VHF radio and ran away...” (Interviewee #43)

Interviewee #42 had a similar experience in Lagos. From this account, apparently the sea robbers were more interested in stealing valuables (material objects) from the ships that they boarded illegally. The stolen items included personal property belonging to crewmembers, as well as items for use in work-related tasks. From the responses of these individuals who had experiences with sea robbers in West Africa, it appeared that even though at the time the interviews were held, piracy in that area was mainly a low-level enterprise crime. However, as seafarers spend a long time separated from their families, when personal items were stolen, a link with their loved ones is broken. Therefore, when sea robbers ransacked his cabin stealing seemingly insignificant items that had sentimental value to the interviewees, then it is this value of the lost item that influenced the interviewees’ piracy risk perception. Both these interviewees reported that pirate attacks were the occupational threat about which they were ‘most worried’.

Experiences narrated to the interviewees by their relatives and the interviewees indicated close associates as a source of information on the risk of pirate attack. These included fellow seafarers who were not known to them personally. A sample of the relatives who had narrated the ordeal of countering pirate attacks included members of the immediate and extended family, and other close associates. Here, three interviewees recalled that:

“Last year in 2010 my big brother was working on a ship when they were chased by pirates.....” (Interviewee #44)

My uncle has been working on three different ships when they were attacked along the coast of Somalia” (Interviewee #24).

“Last year my cousin was taken hostage by pirates.....” (Interviewee #27)

“The ship of someone I know was hijacked... (Interviewee #30). “We hear of many Ukrainians who have been on ships attacked by pirates...many of my friends have experienced a piracy attack” (Interviewee 41).

I made two inferences from these accounts. Firstly, that due to the close (family or friend) relationship between the interviewees and the piracy victims made them regard the accounts as trustworthy. Secondly, that due to the reliable character of the risk information source, even the case of failed pirate attempts was interpreted to carry a threat of harm, and it was quite a significant event in the interviewee’s mind.

Both direct and indirect experiences of failed and successful pirate attacks shaped my interviewees’ views about occupational risk. Some interviewees, who had heard about the ordeals endured by ex-hostages, indicated some of the hostage experiences that influenced how they viewed the risk of pirate attack including the uncertainty about hostage period duration, physical discomfort, and the possibility of a fatal outcome. In this regard, four interviewees stated that:

“... My cousin was held by pirates for 8 months ...the first week was the worst. he said that it was a very bad experience... ” (Interviewee #27)

“The ship of someone I know was hijacked and held for months” (Interviewee #37)

“The crew were contained in a small space with little water and food” (Interviewee #30)

“I heard from others that their ship was attacked by pirates. Also some Filipinos were killed by pirates last year...” (Interviewee #38)

Whereas a section of the interviewees had heard from a single person who had personally had a direct encounter with pirates, others learnt of piracy from multiple workmates, from fellow citizens, and from seafarers of different nationalities who had been victims of piracy (Interviewee #38), or who knew of someone who had survived an ordeal at the hands of pirates.

A second major channel through which all interviewees had received piracy risk information was through print and electronic media. This opinion was captured by the response by one interviewee who stated that:

*“I have had no personal experience with piracy but have heard about it from TV, News, *** magazine that pirates board ships and ask for ransom” (Interviewee #10).*

A number of other interviewees expressed similar views.

An evaluation of the interviewee responses disaggregated the main media modes of piracy risk information dissemination: Daily news on TV, emailed news and through printed copies of newspapers distributed on board at ports of call (*Interviewee #13*); Weekly International Maritime Organisation (IMO) reports (*Interviewee #17*), and shipping industry-specific print and electronic news, solicited and unsolicited newsletters freely distributed to seafarers through port-based seafarer leisure centres, maritime training institutes and on ships as well (*Interviewee #16*). Other interviewees also mentioned having received information on the high risk posed by pirate attacks in East Africa, and additional information on Counter-Piracy Best Management Practice, during pre-departure briefings, at seminars to disseminate information to all serving seafarers and other interactive forums where the interviewees met with colleagues at the maritime training institutions. Other new piracy information sources that emerged during this study, included the early warning/alerts issued to ships by NATO and EU NAVFOR allied naval forces along the coast of East Africa when suspicious watercraft were spotted, and also through informal discussions with armed guards and crew of other ships while travelling in convoy.

In addition, companies received reports on piracy threat levels and statistics, and email updates on hostage negotiations and releases. The interviewee responses indicated that they received piracy risk information through a number of sources. Some of the information was solicited, while most was unsolicited and freely available. The general view across the whole sample pointed to the print and electronic media as being a regular source of both solicited and unsolicited piracy information. Most of the interviewees appeared to have had access to more than one source of print and electronic piracy news and other information. The variety of media sources also included freely available seafarer newsletters and magazines, which were available on board ships in various languages and at seafarer missions. During the research period, piracy was a topical issue of concern to all stakeholders in the shipping industry. In addition, Very

High Frequency (VHF) radio exchange among ships provided real-time information to ship Captains while offshore, and especially while passing through high-risk and/or busy shipping lanes.

(b) Content of Piracy Risk Information

The previous sub-section, enumerates the interviewees' sources of piracy risk information. These included some personal experiences of failed attacks, witnessing robbery with violence against their colleagues on board, stories from colleagues and close associates, and piracy risk information received through print and electronic media. *Interviewee #27* articulated the impact on seafarers of the cumulative effect of piracy over time; whereby it created an awareness of the high risk to crew associated with pirate attacks and the ripple effects of increased crew alertness to their risk of becoming victims of piracy crime. The relationship between media piracy reports of crime and increased fear of piracy, can be explained when the potential of different sources of criminal incidents is considered in the social amplification of piracy risk. The interviewees' concern about the risk of piracy can be explained in light of the cumulative effect of regular piracy updates and other forms of news that they received on a regular basis. Such information on piracy has the potential to keep seafarers preoccupied with the dangers that maritime piracy poses to them, and to make them regard pirate attacks against them as highly probable

This section sets out to examine the means through which the research sample received information about the risk posed by maritime piracy. The responses of the interviewees describing the content of piracy information received are used to illustrate how the amount, frequency and source of information affected their piracy risk perception. Specific aspects of the content of messages portray pirate attacks as threatening, and therefore passing on such messages has the potential to influence the interviewees' perception of piracy as an occupational risk factor. From information received through the print and electronic media, the interviewees constructed mental images about 'the riskiness' of pirate attacks from piracy statistics that captured the frequency of successful pirate attacks, the large number of seafarers held hostage at any one time and their nationalities, the increasingly long hostage periods and the huge ransom amounts being paid out to pirates to free hostages. Crime statistics have the potential to steadily increase the fear of seafarers falling victim to crime. The statistics that quantified certain harmful results of pirate attacks were the main pointers of a degenerating piracy

situation. Over a period, as crew receive similar negative news of pirate attacks and related deaths, this could paint a gloomy picture on the maritime piracy trend in East Africa. From the responses, it appears that information filtering through the electronic media to seafarers communicated increased levels of risk to the interviewees, with regular announcements containing more bad news about piracy.

For instance, the following responses captures the role of pirate attack incident statistics in fuelling fear, building mental images of piracy as an increased threat to seafarers' safety:

“Statistics on piracy cause enough fear” (Interviewee #6).

*“We get weekly reports sent to seafarers by *** from which I learnt that pirates are stealing more ships, kidnapping many crew and asking for a lot of ransom money...”* (Interviewee #31)

The link suggested by Jackson (2006) between the communications of piracy risk (statistical) information was explored to evaluate its influence on the construction of seafarers' views on risk. This study found that there was a link between the sources, content, amount of piracy risk information and piracy risk perception among the sample due to the dissemination of regular piracy risk information including statistics, which sustained a growing mental image of being 'at risk' of a pirate attack. The regular piracy reports appeared to reinforce this interviewee's views about the increased risk associated with pirate attacks. The influence of media reports in fuelling the interviewees' risk perception can be better understood when analysed in light of the powerful influence of electronic media in the 21st century. Additional comments by the other interviewees focused on how their risk perception was influenced by risk information that pointed to the large number of seafarers held hostage at any one time. This painted in the interviewees' minds, an image of a worsening situation of the threat of piracy. Such that even the interviewees whose voyages did not include 'high piracy risk areas' (HRAs) were not immune to the impact of risk information in fuelling their increased awareness that crew were the targeted victims of pirate activities in East Africa. In this regard, two interviewees stated that,

“...piracy is a threat to all seafarers and I could be a victim sometime (Interviewee #38)

“.... seafarers on all ships are part of the same professional group as me.... we are all victims of pirates...” (Interviewee #33)

Information about the uncertainty surrounding ransom negotiations was also stated as a factor that influenced the views about the risky character of piracy. The interviewees reported that in some cases, the ransom negotiations took a long time, or that ship owners abandoned their employees who had been captured by pirates, claiming bankruptcy and thus an inability to pay the ransom premiums demanded by to pirates to free hostages.

“ their ship was taken over by pirates, they were held hostage, the ransom was not going to be paid so some hostages escaped by jumping into the sea and were rescued by Navy on patrol. But, the ones who did not jump into the sea were shot by the pirates” (Interviewee #38)

Some of my interviewee responses indicated that piracy risk information relayed by the media was the avenue through which they obtained detailed information on the harmful consequence faced by crew who experienced pirate attacks. From the interviewees' responses, the fear of such repercussions influenced their perception of the risk of pirate attacks. Pirate risk information portrayed situations of jeopardy resulting from both failed pirate attacks, but especially from piracy hostage experiences. The following comments capture the view that hardships befell seafarers once they were in the hands of pirates. These included physical, psychological and mental distress for long periods, occasionally with fatal consequences. Each form of piracy information, whether electronic, print or verbal, had the ability to trigger a string of negative thoughts in the interviewees' minds. These in turn could increase their awareness of, or attention to, the possible danger to their safety (Farrall, Gray and Jackson, 2008, 367). Thus through statistics, messages focusing on the negative consequences of pirate attacks helped fuel seafarers' piracy risk perception. Alaszewski and Horlick-Jones (2002) analysed the cognitive process of the Social Amplification of Risk, to illustrate how mass media narratives and images can influence the development of anxiety about 'risk'. They highlighted the role of the media in amplifying the risk associated with hazards that are of a low probability, but of high consequences, such as train crashes and terror attacks (Alaszewski and Horlick-Jones, 2002, 16).

In order to assess whether these views held true in the maritime work environment, this study considered whether seafarers and the ships they worked on could be regarded as mobile piracy ‘risk amplification centres’ that facilitate communication of maritime piracy risk. The interviewees’ accounts highlighted the influential role played by mass media in a globalised information age, as it both communicated and amplified the risk of pirate attacks in East Africa. After the initial piracy risk information had been received by the interviewees, further media reports, piracy incident statistical updates and ‘stories’ narrated by colleagues further reinforced the fact that seafarers were ‘at risk’ of pirate attacks. Therefore, regular and successive risk information facilitated a piracy risk perception ‘snowballing effect’. In this sense, ships functioned as mobile maritime piracy risk perception amplification centres.

Even after the maritime safety statistics pointed to a general reduction in the threat of pirate attacks in East Africa, media reports still portrayed piracy as a high-risk factor in spite of it having assumed a relatively-low probability risk factor in the region. As the epicentre of pirate attacks shifted from the eastern to the western part of the African continent, piracy rhetoric in the media compared the emerging trend in the latter region, to the previous trend in the former region. Through this media delivery, piracy narratives communicated by the media facilitated the transference of risk perception from East Africa to West Africa. Since these two regions were within one land mass, such comparisons portray a geographic spread, and increase in size of the area where seafarers are under the threat of pirate attack. Therefore, the media facilitated an amplification of piracy risk perception and acted as a conduit for linking high piracy risk areas within the seafarer work environment. This geographic link could have made the high piracy risk area appear to have expanded. Risk transference and linking of high risk areas around the same continent by the media, had the potential influence the seafarers’ views about piracy risk.

Interviewee responses also pointed to a link between their views about the risk of pirate attack, by implying the possible ripple effects of the communicated threats to the emotional welfare of their families as well. Risk communication travelled beyond the boundaries of the seafaring work environment, and into seafarers’ private lives, and its effects were felt among the seafarers’ families and seafarer-sending communities located in areas far-removed from piracy high-risk areas. From the responses of the interviewees, this study found that both the sources of piracy information and the content of information relayed had influenced the seafarers’ views about maritime piracy risk in different ways. While some interviewees received information about the

nature, extent and consequences of pirate attacks from print and electronic media and from tales by close associates, others stated that they had first-hand information about the threat of pirate attack from personal experiences.

5.9 Geo-Spatial Variations in ‘Risk as Image Perspective’

The quantitative analysis carried out in the previous chapter identified pirate attack as ranked among the ‘Top 3’ seafaring occupational hazards that all the interviewees with varying work experiences were concerned about. However, there were differences in the level of concern about the risk of pirate attack, among three groups of interviewees. Namely, the individuals in the under 30 years’ age bracket, among interviewees with less than six years of seafaring experience, and among the Officers in the sample. Further scrutiny of the ships that the Officers worked on at the time they were interviewed, showed that those who were ‘least worried’ about pirate attacks worked for shipping companies whose routes were mainly in the Baltic Sea, Mediterranean Sea and South America and did not include East Africa. Therefore, they worked on ships and routes where piracy was not a real reality in their geographical area of operation. On the other hand, the Officers who were ‘most worried’ about pirate attacks, included those who had worked on ships along the coast of East Africa. A quantitative data analysis failed to adequately explain these three contrasting views. This realization prompted me to seek additional information that could provide me with an expanded view of the detailed aspects of the work experience of the Officers, of the individuals in aged under 30 years, and of interviewees with less than six years of seafaring experience.

It was already established that modern seafarers are migrant workers, whose careers are developed within an evolving global, mobile and maritime work environment that has been reputed to have a high mortality and mobility rate (Sampson, 2013). In this section, I examined the interviewee responses to explore whether the differences in seafarer risk perception were influenced by geography. In this section, I gauged the interview responses to try and establish three facts: (a) Whether the differences in my respondents’ views about risk had a geospatial distribution, (b) if this geographic dispersal of risk perception was reflected in the views about their safety on land and at sea (c) to ascertain whether their views on the ‘riskiness’ or ‘non-riskiness’ of the voyage routes that they had worked on during their seafaring career could help explain their different perception of risk levels. Therefore, the discussion in this chapter was

guided by the theoretical proposition that stated that ‘*Seafarers’ views about risk vary in different geographic settings, in different regions, both while at sea and ashore*’.

(a) Variations in Perception of ‘Riskiness’ of some Routes and Ships

Due to an increase of frequency in both successful and failed pirate attacks in East Africa has earned the region the labels of 'top piracy hotspot in the world' and 'high risk area' (HRA). Therefore, a number of the interviewees who were worried about a high risk of pirate attack situated the risk of pirate attacks mainly within two geo-specific graphical maritime environments, i.e. along the coasts of East and West Africa. In this section, based on the interviewees’ responses, I have discussed the association between the variations in the perception of the risk of pirate attacks within the sample in relation to three factors: the views about ‘riskiness’ verses ‘non-riskiness’ of some geographic areas denoted by shipping route(s), ashore and off-shore, and of certain types of ships.

In light of the ‘piracy crises’ in East Africa during the research period, it was significant 40 out of the 44 interviewees reflected that they geographically associated a reduced threat of piracy with being far from the East African coast. In addition, some interviewees who often passed areas reported to have a higher number of pirate attacks regarded their likelihood of being attacked as also high (*Interviewee #31*). A few other interviewees expressed similar responses. Individuals in the sample with a higher level or concern about the risk of pirate attacks linked their increased level of risk safety to regularly passing along high risk areas in East Africa (Somalia, Gulf of Aden) and West Africa (Gulf of Guinea, Lagos, Freetown, Conakry). The following responses appeared to equate passing through these areas, with increased exposure to the risk of pirate attack:

“Attacks off the coast of Somalia, in Lagos, in Freetown.... piracy is mainly in East Africa... while Europe and America are safe” (Interviewee #16)

“Piracy is a problem but only in Somalia” (Interviewee #36).

In contrast, other interviewees equated voyages that excluded the East and West African shipping routes as being associated with a lower level of risk of pirate attack. In addition, some of those who were less worried about the risk of pirate attack had not yet had any contract with

ships whose voyages passed along the high risk areas. This view is projected in the following responses of some interviewees who had indicated that they were not concerned about piracy.

“I have never passed East Africa” (Interviewee #28)

“My ship is safe because it does not go to the piracy area..... we do not pass the Gulf of Aden... ships avoid such areas that pose security risks” (Interviewee #42)

“I am mostly in North and South Europe and till now I have never heard of any piracy” (Interviewee #31)

“My work in ten years covered mainly Europe, which was considered to be a low piracy risk area” (Interviewee #35).

“My ship travels the Baltic, the Mediterranean, South America and Britain where there is no piracy” (Interviewee 32)

“My contracts are mainly in Europe where there is no piracy” (Interviewee # 38)

This latter category of interviewees was less worried about the risk of pirate attack because their ships mainly plied European waters where, in their opinion, they were far less likely to encounter pirates. They linked their increased level of safety and lack of concern about the risk of pirate attack, to the relatively low-likelihood of piracy victimisation.

In theorising on the link between the fear of crime and how people regard the danger posed by criminal activities, Jackson (2006) suggested that ‘risk is an image perspective’ by showing how thoughts about crime are linked to the emotional responses triggered in anticipation of possible consequences of the imminent threat. He argues that the central issue is how the potential impact of the crime is portrayed in the media, i.e. the ‘image of risk of a particular victimization’, and not the statistical likelihood of falling victim to the crime. Jackson also traced how fear of crime originates and travels, by emphasizing the seamless progression of thoughts (‘worry’) about crime, into an emotional state of anxiety about crime. In my study, the chain reaction from receiving risk information to ‘worrying’ about piracy manifested itself in different forms. Some interviewees appeared to recognize their recurring emotional awareness of a fearful, nervous feeling, and recalled that this initial

reaction progressed to a sense of heightened anxiety every time they were informed that their ship would be passing along Eastern Africa. Two interviewees stated that:

“When we pass East Africa I become nervous because this is a piracy area...”
(Interviewee #14)

“I become nervous and worried. When we get near East Africa, I prepare myself for anything to happen” (Interviewee #15).

For other interviewees, the risk perception manifested itself both as physical, as well as an emotional response to piracy as a threatening mental and psychological stimulus. This was especially true of individuals who had both direct and indirect experiences of piracy and armed robbery. This intense mental preoccupation with piracy in some instances continued even when they were off-duty, and at times interfered with their sleep pattern, resulting in insomnia. One interviewee affected by an impending sense of risk of pirate attack stated that:

“I can’t sleep because I expect a pirate attack on our ship” (Interviewee #9).

This apparent preoccupation with the risk of pirate attack was also inferred from the response of another interviewee that pointed to an influence beyond seafarers’ control:

“Yes I am concerned about piracy ... you can’t help but to think about it” (Interviewee #23)

For a section of the interviewees, mental and psychological manifestations of piracy risk perception seemed to endure even after they had left East Africa. This enduring mental and psychological state was attributed to passing along ‘high risk areas’ regularly. For instance, Interviewee #14 said that fearful thoughts of the potentially-harmful consequences of pirate attacks regularly revisited him because the ship he worked on transited along the East African coast a couple of times in a given year. He admitted to recognising a heightened sense of risk manifesting itself several times, as a feeling of nervousness, especially when another ship passed near his ship as it passed along the East African coast. From the responses of three interviewees, they appeared to be so pre-occupied with the fear of pirate attack, that they saw pirate attack as an imminent threat to every vessel passing along the high-risk areas anytime. This view was projected in the responses of the three interviewees who stated as follows:

“Every ship passing East Africa is a pirate target...” (Interviewee #38)

“There is always the possibility of the ship being attacked....” (Interviewee # 29)

“When a ship is passing the area you always need to look out for pirates (Interviewee #37).

Jackson (2006) recommended an examination of whether emotion and cognition interact, or if they operate independently to form an individual’s appraisal of threat, and whether the vivid and resonant affectively tagged images of risk are fundamentally important. From the observations discussed in this section, it became apparent that the images of piracy were constructed by the individuals in my sample were important to them personally, and were also of significance to this study. To the interviewees, the images held special significance as the basis of their concern about piracy as an occupational risk. The interviewees believed the piracy risk information that they received regularly, because these had been corroborated by piracy incident statistics and ‘stories’ from close associates whom they trusted. Based on the believability of the images, the perception of piracy risk was an informed one. As a researcher, these images were important in explaining the variations in risk perception among the sample, even though none of them had any personal experiences of the consequences of pirate attacks that they had enumerated. This study found that emotion and cognition did not operate independently, but instead there was an inter-play between the two domains influenced how the interviewees viewed their vulnerability to pirate attacks, and their likelihood of victimization.

From the discussion in this section, it became clearer that the variation in seafarer risk perception was geo-specific in character. This variation was influenced by an awareness of the general safety piracy threat level in a given area, and the views about the hazardous nature of a given route based on piracy risk information in general, and on the statistics contained in piracy incident reports. Bailey (2007) established that differences in the perception of risk resulted from a greater awareness of actual incident statistics that provided a global perspective on risk levels. From the observations gathered in this section, I established that the observation by Bailey (2007) was valid for the research sample. The interviewees’ views about the risk of piracy in the ‘high risk areas’ in East and West Africa, and ashore and at sea, were influenced by actual statistics on pirate attacks.

5.10 Influence of Risk Perception on Occupational Risk Behaviour

As discussed in Chapter 3, occupational risk perception could influence risk behaviour (Rayner, 2006). The assumptions of Rayner’s study established that his respondents had exercised their discretion in making informed decisions to protect themselves from the

adverse effects of radiation hazards in their workplace (Rayner, 2006). Similarly, Douglas's Rational Actor Paradigm approach portrayed individual's decision-making as an informed decision to negotiate risks pertinent in their work environment. Interviewees were asked what they would do if they knew that their ship was going to pass along the East African coast. The interviewees' responses appeared to weigh their options in assessing the consequences of exposure to the risk of a pirate attack and the correspondingly high rewards of reducing their susceptibility by engaging in counter-piracy Best Management Practice mechanisms for which they had been trained. The majority of those whose voyages passed along 'high risk areas', and who perceived themselves as vulnerable to pirate attacks used the counter-piracy skills that they had been trained in to ward off pirates. Such informed decisions on risk-behaviour included risk-avoidance by opting out of certain ships, or selecting among an array of optional courses of action provided by the shipping companies. Although piracy risk-mitigating mechanisms varied from ship to ship, from the responses of a number of interviewees I generated a list that included various measures including counter-piracy drills on-board, carrying a number of trained security personnel (armed guards) on board, 'target-hardening' tactics to thwart attempts by pirates to board ships, ships travelling in convoys through high-risk areas.

Seafarers alter their behaviour in response to concerns about piracy. My research sample adopted a Rational Actor Paradigm approach in making informed decisions that enabled them to 'negotiate' the risk of pirate attack. Participating in the counter-piracy activities built trust among seafarers and reduced their perception of the risk of pirate attack. For instance, risk avoidance was the piracy risk behaviour of choice for some Senior Engineers in the sample mentioned in that they would avoid certain types of ships that were passing particular routes. The ships singled out by seafarers in this regard include tramping ships (Interviewee #15), such as Roll-On-Roll off (RO RO) ships and also trading ships that frequently pass between Africa and Asia (Interviewee #29) or any passing along the coast of Somalia (Interviewee #9). Three other interviewees expressed the same view. Interviewee 33, on the other hand, was adamant that:

"I would first ask the route the ship is taking. If Somalia, never. I would not do the assignment because I am not sure if my life would be safe. In case the ransom is too high, I am not sure if the owner will pay"
(Interviewee #9).

Opting out of certain routes was not a course of action available to the majority of the seafarers interviewed; however Senior Engineers were in decline in the seafarer labour force at the time this study was carried out, and so they had more flexibility in negotiating the risk of piracy. In this regard, my study found that Douglas's notion of 'grid' and 'group' could be applied to the sample to a limited extent, in explaining how the decline in Senior Engineers entering the global seafarer supply market provided seafarers in this specific position with more flexibility to negotiate their workplace risks, a decision that was influenced by their level of risk perception. On the other hand, three interviewees indicated that they would not avoid any ship passing East Africa because of additional security precautions available. In this regard, one of them stated that; *"We pass East Africa under convoy, helicopter surveillance and an armed convoy that escorts our ship, which makes me feel safe"* (Interviewee #16).

These observations raised the possibility that the piracy-avoidance behaviour of the interviewees may have been determined to a certain extent by their rank, as this in turn determines their negotiating power. In rationalising this specific power dynamic from a fear of crime perspective, I noticed that interviewees with relatively less experience, and of a lower seafaring rank, adopted a different stance than did the Senior Engineers. In this regard, *Interviewee #43* said that:

"As a Cadet, I have no choice and go wherever I am told to go. If I refuse, then it can have negative consequences to my training...". (Interviewee #43)

This interviewee had less flexible terms of employment and fewer options to respond to risk. Therefore, his perception of risk could be influenced by his powerlessness and concerns for his job security. Earlier studies by Bhattacharya (2007 and 2009) and Sampson and Wu (2007), had identified links between seafarers' risk perception, and the precarious nature of their jobs. Their fear of losing their jobs has been attributed to their vulnerable position in the seafarer job market that offered only temporary and short-term contracts under local market conditions in one's country. This was a consequence of changes in labour conditions in the global shipping industry. As a result, although seafarers have a low level of trust in their work environment, their focus is on doing whatever is necessary to retain their jobs. From this observation, I established that the differences in risk behaviour were influenced by the individual's rank and thus on the amount of power they can wield in negotiating their occupational risks. Seafarer risk perception is also affected by seafarer labour conditions, which vary by country. While seafarers rely on their employers to provide a safe working environment and adhere to

occupational health and safety regulations to minimize the potential impact of occupational hazards, as casual and mobile workers they remain vulnerable to ill treatment and exploitation.

Young males minimize risk. Some of the interviewees in the sample who were under 30 years of age stated that they were 'least worried' about piracy, also indicated that if they were informed by their captain that they were approaching the East African coast, they would rehearse precautionary pirate-repulsing measures that they had been trained to use to thwart pirate attempts to board their vessel (*Interviewee #36*). Other interviewees appeared to minimize the risk of piracy in East Africa because they had passed near the Somali coast a number of times without being attacked (*Interviewee #22*). The age and male gender of this group of less-concerned interviewees can be explained by empirical findings that outline why young males may tend to minimize risks of crime, which in this case, is the risk posed by piracy. Young men are more likely to claim they are not fearful, when their beliefs about themselves influence their perception of the possible impact of becoming a victim of crime. The young male interviewees in my sample could have been avoiding fearful thoughts and any cues pointing to negative impacts of piracy, by neutralising the impacts of possible victimization, and by convincing themselves that the crime will not have any harmful effects on them.

In a study conducted to scrutinize and differentiate how women and men perceive crime risks and fear, Smith and Torstensson (1977) found that men's perception of risk and fear of crime victimization is affected by age, injury experiences, educational attainment, social class and economic status (Smith and Torstensson, 1977; 626). Smith and Torstensson's (1977) study identified that empowerment through educational and occupational attainment and subscribing to values of physical prowess (*machismo*) among the lower class are two ways of explaining the lower level of perceived risks and fear among young men.

When neutralization techniques are employed, they can enable one to justify the criminal act either by denying any responsibility for the act, or by denying that it can injure or has injured them, or by condemning the condemners, or by appealing to higher loyalties (Agnew, 1985). These earlier studies helped to explain how one section of the interviewees might have (unconsciously) employed neutralising techniques to expound on how they viewed piracy, while others' responses did not portray any discernible techniques. Of those who used such techniques, some denied any responsibility by seafarers for being attacked by pirates. To this

effect, one seafarer stated that, seafarers were innocent victims of attacks on ships, and that the attacks were an offshore symptom of larger land-based problems in Somalia including youth unemployment, and the proliferation of arms produced and manufactured in rich countries (Interviewee #34). A second neutralising technique used by a number of the interviewees was to either directly and/or indirectly deny that pirates intended to injure seafarers. In this regard, Interviewee #43 was the only one whose responses reflected support or ‘Stockholm Syndrome-like’ empathy with the pirates. He discounted the pirates’ intention to injure crew, stating that; *“pirates do not want to kill you, just give them what they want and they will leave you alone”* (Interviewee #43). I regarded his standpoint as being in line with the neutralising technique of ‘condemning the condemners’.

5.11 Influence of Family Concerns on Piracy Risk Perception

In this section, I have assessed the extent to which any secondary effects resulting from piracy risk communication including the interviewees’ concern about possible effects of pirate attacks on family members could influence their views about occupational risk. Although seafarers ‘sacrifice’ for their families, responses by a number of the interviewees reflected their concerns about the possibility that there are potential negative ripple effects of piracy on their families. Worried about the possibility of crew members being hijacked by pirates was a mutual concern both for seafarers as direct (potential) victims, and by their families and dependents as indirect or tertiary victims of pirate attacks. This concern is reflected in the response of one seafarer who stated that:

“...My mother is very worried about me. When my ship goes to East Africa, I have to ring her at every port so she knows I am ok, or she will be worried”
(Interviewee #8)

Family members of active seafarers were bearing the psychological burden of pirate attacks. This influenced the interviewees’ perception of risk, which was already fearful for their safety. The perception of the risk of piracy was also linked to the financial repercussions that could result from a seafarer falling into the hands of pirates. Expressing this one of the interviewees stated that:

Seafaring is a nice job and enables me to support my family. Piracy attacks worry my family” (Interviewee #24).

A number of interviewees stated a similar view. Those interviewees who stated that they were the sole breadwinners for their families echoed this view. Therefore, in addition to worries about possible negative emotional consequences to seafarer family members associated with piracy, the interviewees' perception of the risk of pirate attack piracy was also due to the threat that it was perceived to pose to their livelihood. Concerns by family members for the safety of their loved ones who were working at sea compelled some family members to follow piracy updates posted on the internet and in the print and electronic media. Thus, families also accessed piracy risk information to keep up-to-date on the piracy crisis. Therefore, when an attack was reported, families would check the incident report(s) to establish the identity of the hostages, and to ascertain whether their loved one had been involved. From the observation about the possible negative emotional and financial impact of piracy on families, the interviewees' perception of risk of pirate attack was also influenced by their concern of the potential ripple effect on their families.

5.12 Influences of Broader Work Experience Factors

The quantitative data analysis in the previous chapter revealed variations in risk perception among seafarers with the same length of seafarer work experience. A closer look at the work experience of the 18 individuals who had ranked piracy as the risk that they were most worried about, indicated that 14 of them had worked as seafarers for less than ten years, while the remaining four had worked on ships for more than ten years. I also noted that out of the research sample of 44 interviewees, the 14 who had identified piracy as the risk factor that they were most concerned about had careers of less than ten years, while the other four with the same level of concern about piracy had more than ten years' experience at sea. This variation in concern about piracy in my research sample comprising of seafarers in active service in the international fleet at the same period that piracy incidents in East Africa were on the rise, can be rationalised through a discussion on 'Subjective Immunity' proposed by The Royal Society in Risk (1992).

The observation that the interviewees with relatively-longer seafaring work experience had the same fearful view of piracy as those with shorter work-experience is consistent with Mary Douglas's (1985) observation that no matter how long humans are exposed to hazards, no level of familiarization with risk can adequately equip human beings to cope with everyday hazards (Douglas, 1985, 29). However, because of this similarity in concern about

piracy by both relatively inexperienced seafarers and experienced seafarers it was difficult to ascertain whether the same criteria was being used by both sections of seafarers to estimate the risk posed by piracy. For it is possible for differences in criteria to exist within the same occupational (sub) groups (The Royal Society, 1992, 77). It is possible that those with shorter work experience will regard piracy with more concern than those with longer work experience, the latter of whom having been exposed to a wider variety of the perils of the seafaring work environment in their career. Secondly, I concluded that, those who had shorter work experiences and who were all under 40 years of age and of male gender, may have had little or no concern about piracy, as they may have unconsciously used neutralising devices to minimize the risk of piracy.

5.12.1 Influence of Ship Design Vs Type of Risk

In elaborating on seafarers' fear of piracy as a major concern, the interviewees who indicated that they were afraid of going to piracy areas also said that they were unable to avoid passing along East Africa for they could not opt out of voyages through high risk areas from fear of losing their jobs and/or not getting further work (Interviewee #25), and that risk compensation allowance paid out to seafarers when they passed piracy hotspots is good additional income (Interviewee #40). Four others in the sample expressed similar views. The interviewees also mentioned specific ships that they thought pirates had taken a liking to, and therefore these ships were regarded by seafarers as being riskier. Given a choice, they said would avoid those vessels that were specially targeted by pirates. Some ships are targeted for their design, including oil tankers, bulk carriers and container ships as they are considered slow ships with low decks near the water line that can be easily captured by pirates, who hook ladders onto the ship easily because the deck is near the waterline (Interviewee #1). Several other interviewees shared the same opinion. Interviewee responses pointed to heavily loaded bulk carriers as being highly lucrative targets for pirates as they could reap multiple benefits from both human as well as non-human elements on board. In this regard, one interviewee stated that:

“Pirates think that these ships are very good because they can take seafarers hostage and get ransom through delaying the ship from delivering its cargo”
(Interviewee #13).

Other interviewees stated that oil tankers were regarded as prime targets for pirates, because pirates could reap ransom from the capture of the crew and syphon the oil cargo for illegal re-sale. This was a significant observation, because of reports emerging as this study came to an end, which showed an increase in attacks on small tankers in Southeast Asia, by gangs interested in stealing the marine diesel and (gas/oil) cargo for re-sale. This ‘petro-piracy’ property crime was also reported to be a thriving in West Africa (*Oceans Beyond Piracy*, 2016). In view of this emerging trend, interviewees’ perceptions of the risk of pirate attack on oil tankers and of these types of vessels as being ‘more-risky’ was a valid observation. Yet, another section of the interviewees identified passenger ships (cruise liners) as possible targets, due to the high number of potential human targets aboard. One interviewee elaborated on this view when he stated that: “*Pirates equate big ships with big money*” (Interviewee #20).

This latter section of the chapter had set out to explore three theoretical propositions: That, seafarers’ views about risk varied in different geographic settings, in different regions, both while at sea and ashore; That, maritime piracy narratives and images facilitated both risk communication and amplification; That, family concerns influenced seafarers’ views about the risk of maritime piracy. The facts established through the qualitative data analysis are summarised in the section 5.13 below.

5.13 Chapter Summary

The two data analysis processes reported in this chapter generated two-inter-related sets of research findings. Section A of this chapter set out to explore the thematic proposition that: *age, nationality, rank and the length of work experience influence Variations in seafarer occupational risk perception*. SPSS was used to carry out Cross-tabulation and/or Pearson’s Chi-Square tests in order to assess whether there were any identifiable pattern(s) between the interviewees’ responses projecting their level of concern about the ‘Top 3’ seafaring risks that they had identified. The test results were interpreted based on the null hypothesis that: *Variations in risk perception are not linked to age, rank, nationality and work experience*. Five main findings reported in this section, emerged from this interpretation of the test results, and directly relate to each of these characteristics. Firstly, that although the risk of piracy was identified as the risk about which my interviewees of all age categories were either ‘a little worried about or ‘most worried’ about, the risk of piracy was independent of my sample’s age.

Results from each age-group showed that, the individuals who were under 30 years of age, identified ship collision/foundering/grounding, while interviewees in the 31 to 40-year age bracket identified pirate attack as their major concern. The individuals aged between 41 and 50 years stated that both injury and attack by pirates were their major concern. Based on this observation, I concluded that fear of being attacked by pirates, was a consistent major concern among all the age groups in my sample. The Chi-Square test results corroborated the acceptance of the Null Hypothesis. This finding contradicts with the observation in the SIRC 'risk studies' that linked the seafarer risk perception levels with their age. Secondly, that there was no identifiable link between the nationalities of my interviewees and their occupational risk perception.

The tests of the nationalities against the 'Top 3' risks, did not identify any generalisable pattern that could highlight any association between the two variables. Ship collision/foundering/grounding was indicated as the risk factor that South Asian, Western and Eastern European interviewees found most worrisome. Injury was the one risk that Eastern European and South Asian interviewees were 'a little worried' about. While pirate attack was pin-pointed as the factor about which the South Asian, Western and Eastern European nationals in my sample were least worried about. Based upon the research observations, I concluded that there was no link between nationalities of my interviewees, and their 'Top 3' risk factors. Thirdly, regarding association between my interviewees' ranks and their projected occupational risk perception, the study found that there were differences in the views held by two sections of Officers about risk that pirate attacks posed to seafarers. Based upon this result, it was established that the differences in piracy risk-perception among these individuals belonging to the same rank, could be regarded as subjective observations that were socially-constructed within the context of a hazardous occupation (Bailey and Walters, 2013, 35). This conclusion arose from an assessment of the relationship between my interviewees' relatively-senior position within the on-board hierarchy, against their risk perception levels.

Whereas the analysis established that pirate attacks were the risk that all the interviewees of all ranks were 'most worried' about, some of the interviewees in the combined Senior Officers and Junior Officers' group stated that they were 'least worried' about pirate attacks. In seeking to better understand this contradiction in how the Officers viewed the risk of pirate attack, this study considered the possibility that the impact of structural changes in general, and shrinking crew numbers in particular, on the way Officers may regard the risk of pirate attack, may have caused this seemingly contradictory view. For although Officers are positioned in the upper

rungs of the crew (Sampson, 2013, 77), the intensification of labour in the shipping industry in recent decades as a result of structural changes in the shipping industry (Bloor 2011), could have resulted in fewer crew members being available on-board, to carry out the recommended counter-piracy target-hardening activities on ships. Since Officers had responsibility for major functions on the ship, due to individual differences it is possible that thoughts about pirate attacks could worry some Officers more than others.

The basis of their different risk levels notwithstanding, this variation in the perception of the same risk factor (pirate attack), by individuals within the same rank and profession, reiterates the suggestions made by The Royal Society (1992) report about the subjective nature of the views held by employees on workplace dangers. Additionally, since the Officers in my sample hailed from different regions of the world, the subjectiveness of their views about risk could be rooted in the milieu of their diverse cultural backgrounds wherein their general worldviews are constructed.

This study concluded that the lens through which the Officers viewed the risk of piracy, was coloured by multiple factors, related to their on-board roles and responsibilities of Officers. These factors warranted a more detailed explanation to provide a more comprehensive discussion on the complexity of piracy risk perception within the same rank. This main thrust of Section B was to explain the influence of these additional factors underlying the different views about the risk of piracy by individuals of the same rank. Fourthly, from an evaluation of the length of the interviewees' seafaring experience and their 'Top 3' risks, there was no statistical evidence that risk perceptions are related to the number of years that they had worked as seafarers i.e. the length of their work experience alone, and in isolation of other work experience-related factors. This observation was informed by two different statistical test results involving the length of the interviewees' work experience against their 'Top 3' risks. In one of the tests, pirate attack was identified as the one seafaring occupational hazard that all the respondents with varying work experiences were both 'most worried' and 'least worried' about.

However, of the seventeen interviewees who comprised the group with 0 to 5 years' work experience, nine interviewees identified pirate attack as the risk that they were 'most worried' about, while the remaining eight interviewees indicated that they were 'least concerned' about the risk of pirate attack. This contradiction prompted further scrutiny of interview responses that these seventeen individuals provided during the interviews. The information obtained provided an expanded view of the detailed aspects of their work experience, which helped to shed more light on the differences in the ranking of the same risk factor by this group all of

whom have the same length of seafaring career. Additional insight on this contradiction was illuminated by assessing the information that they had provided about the routes and geographic areas where all seventeen of them had worked in the ten-year period preceding this study. From this additional information, it became apparent that, the relatively-short seafaring experience of those with less regard for piracy had not included voyages along the shipping routes that were associated with a high incidence of pirate attacks. Consideration of the possibility that the difference in views about the risk posed by pirate activities could not be explained by the length of their work experience alone, and requires a more elaborate analysis.

In Section B, a phenomenological qualitative analytical approach was adopted to obtain more information from the interviewees' responses that could help to explain the variations in piracy risk perception within my research sample. From the analysis in this section it became apparent that seafarer risk perception was a complex and multi-faceted phenomenon (Slovic, 2002). This study attempted to explain the varying opinions about occupational risk in an evolving maritime work environment. The complexity of this task was compounded by the inter-play between different related factors within the social context in which seafarers' views about risk are constructed.

The qualitative data analysis process established six facts about the influences on piracy risk perception. Firstly, broadly speaking, these views were the product of a combination of four major inter-related factors including, but not limited to, the following: Firstly, that piracy risk information overload resulting from regularly received streams of piracy risk information. This volume of information from close associates, added to piracy narratives received regularly from print and electronic media to paint images in the minds of the interviewees of a growing piracy problem, and deteriorating situation of great concern to the shipping industry. Secondly, that ships function as piracy risk information amplification centres where risk information is received, processed and passed on by the crew, the media and shipping companies. Thirdly, that the nature of the seafarer occupational culture could be regarded as a significant influential-factor on how piracy risk information is received, believed and communicated within the global seafaring community. Fourthly, that an initial awareness about the inherent risk to seafarers of harm from pirate attacks has the potential to create and fuel risk perception.

This ability was reflected in the detailed recollections that some interviewees provided about the influence of their pirate risk information sources on their views about an escalating level of piracy and its growing position as a seafarer occupational hazard. Fifthly, the way in

which seafarer labour is managed because of the structural changes within the shipping industry influences the power that individual seafarers are able to use to negotiate the risks that they face. This affects their perception of risks, and of risk behaviour options available to each rank. Sixthly, seafarers' concerns about the possible financial and emotional ripple effects of pirate attacks on seafarers' families influenced the views of the sample about the risk of pirate attacks. Although stated as six different factors, in reality, these factors actually combined to influence the sample's views about piracy as an occupational risk factor and were socially constructed within their hazardous global maritime work environment.

From the two analysis processes discussed in this chapter, this study obtained information that informed responses to the four research questions that this study sought to answer. These responses and the conclusions arrived at are discussed in the next chapter.

CHAPTER SIX: RESEARCH FINDINGS AND CONCLUSIONS

6.1 Introduction: Chapter Overview

This chapter presents research findings and conclusions that emerged from the data analysis presented in the previous chapter. The research outcomes are presented and related to each of the research objectives and questions. Two sets of research findings and conclusions that are discussed in this chapter under two separate sections. Section A covers empirical findings and conclusions informed solely by data generated from the current primary research. Section B, on the other hand, presents research implications of relevance to his study but which were not supported by the data generated during this current study. The chapter begins with a recap of the research objectives and research questions. This is followed by a summary of the research findings, conclusions, methodological reflections, policy reflections, research implications, and limitations of this research, suggestions for further research and a final note.

The fieldwork stage of this study was carried out in 2011 when the incidence of maritime piracy along the coast of East Africa was relatively high compared to the research-reporting period (2017). Therefore, although the dated nature and changes in the pattern of maritime piracy in East Africa have been acknowledged, nonetheless this study still represents a useful contribution given that when it was undertaken this was a new and under-researched field.

6.2 Summary of Research Findings

The overview of the research outcomes and conclusions presented in this section includes research outcomes with empirical, methodological and policy implications arising from both quantitative and qualitative analyses of the interview data. Empirical findings that emerged from both quantitative and qualitative explorations of the data. During the first data analysis phase, Cross-tabulation and Chi-Square tests of association proved useful as quantitative bivariate data analysis methods, in identifying links between the interviewees' ages, nationalities, ranks/positions, (seafaring) work experience, and their 'Top 3' risks. The test results helped to establish four main facts: Firstly, that the risk of pirate attack as the one seafaring occupational risk factor that all the interviewees were concerned. Secondly, that there were contradicting views about the level of concern about pirate attacks by three sections of interviewees. Namely, the interviewees with less than six years' seafaring experience, among 'All Officers' i.e. interviewees of the same rank, and among interviewees who were under 30

years of age i.e. individuals within the same age bracket. Thirdly, that the quantitative analytical methodology was inadequate in explaining these three contradictions, based on either age, nationality, rank or work experience alone. Thus, there was need for additional information to explain these variations. Fourthly, that based on a sample size of forty-four interviewees, the data was not sufficient to make inferences about the general seafarer population.

The interview data was subjected to a qualitative data analysis in an attempt to elaborate on the factors identified in the quantitative data analysis. This second level of analysis was instrumental in identifying the following as factors pertinent to the seafarer work environment with the potential to influence seafarer risk perception. Firstly, the perception of the risk of pirate attacks as being geo-specific, with regional that depended on the threat level communicated through piracy risk information. Secondly, the impact of piracy risk information overload received by seafarers both from solicited and unsolicited sources, and which portrayed piracy as a major threat that crew needed to contend with. Thirdly, that ships could be regarded as piracy risk amplification centres where piracy risk information was received, processed, communicated and amplified within the seafarer community; Fourthly, that variations in perception of the risk of pirate attack was influenced by the knowledge of ships preferred by pirates for their financially-lucrative benefits to be reaped from both the cargo and crew; Fifthly, that the geographic distribution in the perception of piracy was a risk factor that depended on the perceived levels of piracy threat inferred by seafarers from information accrued from 'stories' narrated by close associates, piracy incident statistics, piracy trend analysis, Sixthly, that concerns about possible the psychological and financial ripple effects of piracy on seafarers families and seafarer sending communities influences seafarers perception of piracy as an occupational hazard. Finally, that variation in perception of occupational risk is a complex matter influenced by the interplay of multiple factors converging upon seafarers who live and work in a hazardous work environment.

Regarding the research methodology used, vignettes proved to be a very appropriate data collection tool when applied in a phenomenological research design context. A user-friendly communication facilitator eased establishment of rapport with cold-contacted interviewees. It also enabled respondents to interviewees to speak at length in expressing express their views about the risk of pirate attacks. These detailed accounts provided the seafarer perspectives that were crucial in attaining the aim of this research. Thus capturing these views on seafarer risk perception was a treasured research outcome.

The phenomenological research approach best suited this study, for such an approach put the interviewees at the centre of the research focus so that they could air their views about their workplace risks based. These views were constructed within the seafarer lived experiences. Concerning employer policy and support, this study found that disembedding processes and precarious labour could have an influence on how the interviewees view the risk of pirate attack. This is because due to combined effect of the precarious nature of seafarers' employment conditions, the hazardous nature of the maritime work environment and lack of organisational support. These challenges put seafarers in a dilemma that could have been reinforced by a lack of viable mechanisms to channel their suggestions for risk-minimization and improvements to their occupational health and safety.

6.3 Overview of Research Findings and Conclusions

This section reports on the conclusions that emerged from the research findings obtained from the data analysis.

These research outcomes emerged from an attempt to answer the following four Research Questions: -

- (g) What were the levels of seafarer occupational risk perception within the sample?
- (h) What are the issues that influence the levels of seafarer risk perception?
- (i) How can the dynamics of the seafarer work experience explain variations in concern about the risk of pirate attack?
- (j) Were vignettes a suitable empirical research instrument in a phenomenological research on ship crew as a hard-to-reach target group in a mobile workspace?

6.3.1 Section A: Empirical Conclusions

The empirical conclusions for this study pertained to three main aspects, namely: the variations in levels of seafarer risk perception, factors influencing the variations in perception of risk of pirate attack, and other seafarer work experience-related factors that shaped the dynamics of piracy risk perception.

(a) Variations in Levels of Seafarer Occupational Risk Perception

The conclusion about levels of seafarer occupational risk perception referred to research findings that emerged from the bivariate data analysis of seafarer occupational risk perception described in chapter five. The test results formed the basis for assessing the achievement or not, of Research Objective (1) and the response to Research Question (1) indicated below:

Research Objective (1):

To identify, describe and analyse variations in levels of occupational risk perception among a diverse sample of forty-four seafarers.

Research Question (1)

What were the variations in levels of seafarer occupational risk perception within the sample?

Based on results from Cross-tabulation and Chi-Square tests of association between the ages, nationalities, ranks and work experiences of the interviewees, this study arrived at seven conclusions regarding the variations in perception of risk among the interviewees. Firstly, that ship collision/foundering/grounding, fire, injury, falling overboard and into the dock, pirate attack and explosion were the six seafaring occupational risks that the sample was concerned about. Secondly, fear of pirate attack was a consistent major concern among all the age groups in the sample. Thirdly, that there was no link between the age, nationality, rank and work experience nationalities of the interviewees and their 'Top 3' risk factors. Fourthly, that there were differences perception of the risk-level associated with pirate attacks by three groups of interviewees, namely: All those in the Officers rank, individuals with less than 5 years of seafaring work experience; Fifthly that the differences in piracy risk-perception among the Officers could be regarded as subjective observations socially-constructed within the context of a hazardous occupation (Bailey and Walters, 2013,35). Sixthly, that different views about the risk to seafarers' health and safety posed by pirate activities was beyond the scope of numbers, and therefore a quantitative study alone was inadequate in explaining the association between age, nationality, rank and work experience in isolation of other work-related aspects; Seventhly, that there wasn't sufficient evidence to make inferences about the whole seafarer population.

(b) Factors Influencing Variations in Perception of Risk of Pirate Attack

The empirical research conclusions and recommendations concerning factors that influence variations in perception of the risk of pirate refer to research findings realized from the tests in Chapter Five and qualitative analysis in Chapter Six. These findings were instrumental in gauging whether Research Objective (2) was achieved and the answer to Research Question (2). The two research objective and research question stated as follows: -

Research Objective (2)

To explain the factors that influence variations in the levels of seafarer risk perception

Research Question (2)

What are the issues that influence variations in the levels of seafarer risk perception?

The following six conclusions emerged from the qualitative and quantitative analyses carried out with regards to Research Objective (2): Firstly, that there was no statistical evidence that the interviewees' risk perception was related to the interviewees' age, nationality, rank and the length of their work experience alone, in isolation of other work experience-related factors. Secondly, that risk perception was a complex world-view constructed from the convergence of multiple factors emanating from the seafarer work experience and environment; Thirdly, that the different levels of piracy risk perception were influenced by the piracy risk information received from various regular streams of solicited and unsolicited verbal, print and electronic piracy reports, each reinforcing the view of pirate attack as a major problem; Fourthly, that the variation in perception of the risk of pirate attack resulted from the content of these messages that stated that portray seafarers as the targeted victims of pirate attacks, and the number of hostages was on the rise; Fifthly, that the different levels of concern about the threat of pirate attack were influenced by the interviewees concern for the consequences associated with the phenomenon, including the psychological toll that the piracy crisis was having on their families; And finally, that that some interviewees were concerned about the possibility that the piracy crisis threatened their job security.

In summary, this study established that piracy narratives and images facilitated both the communication of piracy risk information and amplification risk perception the media plays an influential role in a globalised information age, as it both communicated and amplified the risk of pirate attacks in East Africa. After the initial piracy risk information has been received by the interviewees, further media reports, piracy incident statistical updates and 'stories' narrated by colleagues further reinforced the fact that seafarers were 'at risk' of pirate attacks. Therefore, regular and successive risk information facilitated a piracy risk perception 'snowballing effect'. In this sense, ships functioned as mobile maritime piracy risk perception amplification centres. Based on these observations, this study concluded that the interviewees' views of piracy 'risk', was 'an image perspective' (Jackson, 2006).

(c) Explaining Dynamics of Perception of Pirate Attack

The empirical research conclusions and recommendations about the factors that explain the dynamics of perception of pirate attack are discussed in view of Research Objective (3) been and in answer to Research Question (3). These two research pillars stated as follows:

Research Objective (3)

To examine issues within the seafarer work experience underpinning variations in the interviewees' concern about the risk of pirate attack.

Research Question (3)

How can the dynamics of the seafarer work experience explain variations in concern about the risk of pirate attack?

An examination of the issues within the seafarer work experience that underpinned variations in the interviewees' concern about the risk of pirate attack, identified the following six factors: that, Ships functioned as maritime piracy risk amplification centres where piracy risk information is received, processed, communicated and amplified; Secondly, that a number of inter-related factors beyond the seafarers' control, combine together to influence the different lenses from which the sample's view piracy as an occupational risk factor was

socially-constructed; Thirdly, that structural changes in the shipping industry affected the way in which seafarer labour is managed and this influences the power and discretion that individual seafarers exercise to negotiate risks that they face. This affects their perception of piracy risks. Fourthly, that the variations observed in the perception of seafaring risk, had a geospatial distribution, whereby some routes and regions were regarded as having a higher or lower piracy threat; fifthly, that ship-design and type are associated with higher vulnerability to pirate attack. Sixthly, that personal experiences of confrontation with pirates offshore, or with sea robbers while docked in ports, and with land-based criminals while ashore, provided an explanation for the geographic distribution of the variations in the interviewees' views about 'risk'. Finally, that variations in the interviewees' perception of the risk, could be the result of a combination of factors originating in an interplay between are the disembedding processes of working in a globalised maritime industry, as well as uncertainties resulting from the structural changes in the shipping industry.

6.3.2 Methodological Reflections

The deliberations regarding the research methods applied in this study, return to the Chapter Four: Research Design and Methodology to revisit the methods applied in the research design and data production. Methodologically, this study was interested in attaining the following Research Objective (4) and Research Question (4): -

Research Objective (4)

'To explore the suitability of vignettes as a research tool in a phenomenological research on ship crew, as a hard-to-reach target group in their mobile workspace.'

In order to attain this objective, this study sought to answer the following research question arising from this objective:

Research Question (4)

Were vignettes suitable as an empirical research instrument in a phenomenological research on ship crew, as a hard-to-reach target group in their mobile workspace?

Vignettes proved to be an appropriate data-collection instrument in this study about the variations in seafarer risk perception, and especially when approached through a

phenomenological research paradigm. The phenomenological methodological paradigm was best suited to my study, for it linked the research goal to the benefits of this approach by focusing on providing seafarers with an opportunity to talk about the occupational risk they face, and then identify emerging issues from their narratives. This combined phenomenological approach and emergent research design best suited my study of a deliberately selected and small sample size (Holstein and Gubrium, 1995; Lester, 1999, 1). Therefore, this approach was appropriate for the sample of forty-four seafarers who deliberately selected from among the wider group of potential interviewees present at the fieldwork site during the research period.

This approach provided an effective line of inquiry that kept interviewees' perspectives as the focus throughout the research process. This decision helped reinforce the primary goal of this study, which was to harness the views of seafarers about the risk of pirate attack. That was the perspective that was missing from initial maritime piracy reports, as mentioned in section 2.1 of Chapter 2. As an analytical approach, phenomenological approach made it possible to use an interpretive dimension, such that the practical theoretical findings were based on the seafarers' perspectives and not on normative assumptions. In addition, this method it is easier to identify and make positive inferences in a small sample of participants (Lester, 1999, 1).

The interview guide that was used during the data collection interviews served as an aide-mémoire. It included two vignettes that made it easier for the researcher to establish rapport with the interviewees after they were identified through cold-contacting. Once the interviews got underway, the hypothetical scenarios painted through the vignettes guided the interviewees to focus on their memories about what they experienced or heard about maritime piracy. Focusing on this specific aspect of their lived experiences with the risk of piracy was instrumental in guiding them to provide detailed responses. Since seafarers' perspectives were the central focus of the phenomenological qualitative research approach adopted in this study, such detailed explanations yielded a rich harvest of relevant qualitative data. Thus, vignettes were very helpful during the data collection as well as the data analysis phases of the study. When cold-contacting potential interviewees for face-to-face interviews, the suitability of vignettes as a data collection tool in a phenomenological qualitative research, hinged on its capability to facilitate a mental 'zeroing-in' by interviewees, to focus on a specific hypothetical situation of relevance and interest to my research.

Most of the seafarers' contract period was spent offshore. Therefore, they are a hard-to-reach target group. Therefore, a robust research instrument and approach was required to make it

possible to collect as much data as possible during interviews conducted during their brief stints ashore. Therefore, the inclusions of vignettes within in the qualitative research design generated synergy that facilitated meaningful interactions with the interviewees. Vignettes aided in gathering of ‘deep’, detailed and relevant information on the interviewees’ diverse levels of risk perception, within a short interview time, and thereby acting as a time-saver. During the data analysis phase, the robustness of vignettes enhanced the benefits of this phenomenological qualitative research approach, by aiding in the understanding about the subjective lived-experience of the interviewees. In the absence of any personal seafaring work experience, the detailed interview responses provided me with important insights necessary understanding the complex process through which the interviewees’ views about ‘risk’ are constructed.

The crucial role of vignettes as an appropriate and crucial communication facilitator is best understood when considering that although the interviews were conducted in English, about 50% of the interviewees hailed from countries in the near and Far East where English is not their first language. Out of the sample of forty-four interviewees, only two were native speakers of English. Although the use of vignettes is not widespread, it is a very useful tools for generating data. The vignettes acted as a communication facilitator, by reducing communication barriers between the researcher and the interviewees during the interview process. This was crucial in allowing the interviewees to express themselves more fully as they expounded on their answers, without being self-conscious. The vignettes, therefore, enabled the collection of elaborate responses on a single issue from a heterogeneous sample, from diverse cultural backgrounds (Harvard, 2012). This intended use of the vignette was successful in enabling the interviewees to talk more freely about maritime piracy, which was a sensitive topic for seafarers at the point of time when the interviews were held.

The decision to use vignettes was in part, due to its hailed ability to establish rapport, and tease-out responses from a heterogeneous and multi-cultural sample (Barter & Renold, 1999; Harvard 2012, 1). The vignette script, that used for the two vignettes comprised of brief stories depicting scenarios of typical circumstances associated with maritime piracy attacks. These were administered to the interviewees, some of whom had limited English ability and where interview time was limited. At the time this study was undertaken, empirical research targeting seafarers, to collect their views on maritime piracy, was a new setting in the use of vignettes. As this was my first time using vignettes, as an early career social science researcher, it was an

appropriate data collection instrument to collect detailed qualitative data from the interviewees (Simons, 2014).

At the time when this study was launched, information available in the public domain about an increase in the number of pirate attacks made piracy a topical issue. Seafarers were concerned for their safety as they knew that they were the targets of these pirate attacks. Therefore, for ship's crew piracy was a sensitive topic of discussion, because discussing it conjured negative emotions. In addition, reports in the media showed that ship managers were actively discouraging seafarers from talking about piracy, therefore Piracy was then referred to merely as the 'P' word. In view of the interviewees' level of English, the efforts to discourage seafarers from talking about piracy, piracy appeared to be a sensitive topic among seafarers. Therefore, it was necessary to use a data collection tool that would improve my chances of getting more valid and reliable responses. Vignettes were the instrument of choice as more experienced researchers recommended their use as a powerful data collection tool for this purpose (Alexander and Baker, 1978).

Research can be regarded both as a learning process as well as a fact-finding activity. The inclusion of vignettes in the semi-structured questionnaire proved to be an extremely useful decision. This is because in preparing suitable vignettes and using them I learnt some lessons. These included learning how to design vignettes, establishing rapport with cold-contacted interviewees (Barter and Renold, 1999), and guiding the interview to focus on seafarer perception of risk, and learning to diversify the interview interaction while encouraging the interviewees to provide responses that are more detailed. Employing vignettes enabled probing while overcoming linguistic barriers. Each of these benefits was important in eliminating barriers that could have hindered the interviewees from expressing their views clearly, articulately and with ease.

From the successful use of vignettes as a research tool in this study involving seafarers as a hard-to-reach target group, and for whom English was a second language, the wider use of vignettes is recommended in the following research situations: For instance, in research projects where time limitations are a key factor, in participant observer research, for research involving young interviewees (Hazel, 1995) or when working with a target group for whom the language used in the research is not their first language, with vulnerable people including crime victims and possibly individuals with learning difficulties and communication challenges, and in academic and non-academic research on sensitive and/or taboo topics (Gould, 1996, 2008).

6.3.3 Policy Reflections: Maritime Labour Convention 2006 (MLC.2006)

During the research period, seafaring remained a risky profession, fraught with a cumulative interplay between inevitable forces of nature in the maritime work environment, and human factors. Concern about the risk of pirate attack expressed by the majority in the sample, and their anxieties concerning the precarious nature of their work, are compounded by the inadequate enforcement of stipulated health and safety regulations. This convergence of vicissitudes exposes the seafarers to a very dangerous work environment. Nonetheless, seafarers remain a hardworking group and retain the stoic work culture for which they have been renowned. Perhaps it is this that has empowered them to endure the perils of the sea and other occupational hazards through the ages (Bloor, 2005). Social changes in modernity, coupled with structural changes in the shipping industry and the mobile nature of seafarers' work environment could be regarded as changes increased uncertainties in the seafarers' lives.

Based on these observations, I arrived at three conclusions: firstly, that the major structural and administrative changes in the shipping industry in the last few decades and especially the lack of clarity on the line of demarcation between obligations of ship owners and seafarer recruitment companies, could cause seafarers some anxiety about who was responsible for the piracy ransom payments, information updates and financial remittances to their families should they be taken hostage, thus causing a disruption in their normal communication with their dependents. Secondly, that disembedding processes beyond the seafarers' control could have given rise to a general sense of existential anxiety or 'ontological insecurity' (Giddens, 1991). Thirdly, that the general apprehensive mind-set about one's safety and the interviewees' perception of the risk of pirate attack, could be regarded as a side-effect of the convergence of multiple factors typifying modern communities. For instance, the evolving characteristics of the current less communal and more individualised and mobile population (Beck, 1992). This study recognised that meeting the aspects of Maritime Labour Convention 2006 would require some time to implement for seafarers to realise the full benefits of the convention. Meanwhile, social changes, disembedding processes and structural changes within the shipping industry would continue to impinge on seafarers' perception of risk of pirate attack.

6.3.4 Limitations of this Study

The sample size of forty-four interviewees was a major methodological limitation if this study. This number was adequate for a simple bivariate analysis of the interviewees' bio-data, and

also in providing detailed qualitative responses that yielded rich qualitative data. However, it did not provide sufficient evidence to make inferences about the whole seafarer population. If a sampling frame were available, and if a further qualitative study including a larger seafarer sample size was used, this could provide more statistical evidence that could be used to make research inferences about the seafarer population.

As an academic endeavour, this was a time-bound research project. During the study, some idle time resulted from variations in potential interviewees' availability at the fieldwork site. This was an unforeseen and thus unavoidable development that characterised the weeks following the 2011 Japanese Tsunami. This natural disaster that occurred in an area geographically far-removed from the fieldwork site, had a ripple effect on this time-constrained study. For it affected the flow of goods to the UK and this saw a temporary drop in ships numbers docking into the port where the fieldwork site was located. This necessitated a two-month extension to the data collection stage of the research project . Later in the study, ill health further reduced the time available for data analysis and thesis writing stages of this study.

This study provided a snapshot of the impact of piracy based the varied views inferred from interview responses gathered from a sample of seafarers at a given point in time i.e. April to October 2011. Postgraduate academic research time limitations curtailed the ability to develop a Victimological discourse on the interviewees' perception of their vulnerability to the risk of piracy. This is recommended as a potential area for further study. An identification of 'harm footprints' lingering on in the seafarers, their families and the seafaring communities could provide information on the short and long-term impacts of piracy on the welfare of seafarers.

6.4 Final Conclusion

At the time when this study began, there was very little empirical research on how maritime piracy in East Africa was affecting seafarers. Furthermore, seafarers' views about the risk of pirate attack were not included in the few documented reports available in 2010. In addition, most documented piracy crime incident reports were in-house self-reports generated to inform tactical and strategic decision-making of the stakeholders in the shipping industry. However, during the course of this study, academic research reporting on different aspects of piracy began to trickle into open source electronic journals, blogs and peer-reviewed academic journals. Shipping industry-specific journals, newsletters, magazines and websites began including regular features on the piracy threat to shipping. Maritime piracy began to emerge as a regular

feature on the agenda for transport security, maritime safety and organised crime-related events at global and regional levels. Based on these general observations, this study concluded that maritime piracy had found its way into the academic discourse as a risk factor affecting ships, the global supply chain and the crew.

APPENDICES

Appendix 1: Summary of Online Literature Search

The online literature search included use of the following combinations of search words to maximise the chances of identifying articles appropriate to this study.

Seafarers + risk

ship crew + injury + perception

Crew + hazards + shipping

Seafarers + kidnap + ransom

kidnap + crew + Somalia

Pirates + crew + extortion

Seafarers + danger + Aden;

crew + welfare + pirates

Crew + ransom + East Africa

Globalization + shipping + risks

In addition, I registered online to receive automatic publication updates (new releases) on the following subject: Maritime Piracy in East Africa. I received and critically reviewed numerous articles on piracy in East Africa.

Appendix 2: Multiple views about Piracy triggers in along the coast of East Africa

Disclaimer: The researcher takes no responsibility for the views of the authors of these articles. They are included here as products of a literature search of articles posted on the internet as cited.

This appendix includes a sample of articles obtained from open sources during literature searches for information on the following as triggers for maritime piracy in East Africa.

- ✓ Illegal & Unregulated (Over) Fishing in national waters of Somalia
- ✓ Dumping of toxic waste in national waters of Somalia (officially confirmed by UNEP)
see* below
- ✓ International Community and Organisations ignoring complaints by leaders of Somalia leaders

Newspaper Articles

1. Author: Ibtisaam Ashur, *Think Africa Press* (ARTICLE | 6 MAY 2011)
Piracy initially started off as a form of coastal protection undertaken by a handful of local seamen whose livelihoods were endangered by the dumping of toxic waste and trawlers illegally fishing in Somali waters. A practice that began in self-defense has, however, spiraled into an immensely profitable piracy ‘business’.

The Situation in Somalia

Reference: Sabrina Grosse-Kettler, (2004), *External Actors in Stateless Somalia: A War Economy and its promoters*. A report by Bonn International Centre for Conversion, Paper 39 ... accessed at: http://www.bicc.de/uploads/tx_bicctools/paper39.pdf on 15/08/2013 13:18

The illegal maritime businesses actively encouraged by warlords in Somalia fuelled another security dilemma. Militias with speedboats attacked vessels that were found to engage in illegal fishing in Somali waters. These illegal fishers paid ‘protection money’ to the militia.

The militia then reinvested the protection money they extorted “to pay militias and procure arms and ammunition” Both the fishing companies and the naval militias are operating in lawlessness, as none of their actions are controlled by a third, higher authority. Their arrangements are based on greed and contribute to individual enrichment on both sides. (ibid p. 44).

Payment of protection money to militia is a commonly accepted practice on land where authority is based on military strength and trade capacity. The business of protection in the coastal zones appears to be a naval warfare (United Nations, 2003b, pp. 33-34).

Source: **Huffington Post, January 4, 2009**

Title: “You are being lied to about pirates”

Author: Johann Hari

Causes of piracy summarized (*from various articles included below*)

- Overfishing in the region, and especially by foreign shipping vessels (China, Korea, Japanese, Italian...),
- dumping of toxic waste in Somali territorial waters,
- ignoring of pleas by Somali leaders to international maritime regulating bodies IMO and UN for intervention and to manage Somali waters in the absence of a maritime authority
- UN and International Community ignored their own experts reports on a worsening overfishing and toxic waste situation in Somali waters and instead have ganged up against Somali fishermen in an international counter piracy cartel

Introduction: The muted truth about the genesis of Somali Piracy

Somali Piracy: Result of chronic Negligence of Somalia by the International Community

Author: Johann Hari

The Origin of the Somali Piracy War

The origin of the two piracies goes back to 1992 after the fall of the Gen. Siyad Barre regime and the disintegration of the Somali Navy and Police Coastguard services. Following severe draughts in 1974 and 1986, tens of thousands of nomads, whose livestock were wiped out by the draughts, were re-settled all along the villages on the long, 3300kms Somali coast. They developed into large fishing communities whose livelihood depended on inshore fishing. From the beginnings of the civil war in Somalia (as early as 1991/1992) illegal fishing trawlers started to trespass and fish in Somali waters, including the 12-mile inshore artisanal fishing waters. The poaching vessels encroached on the local fishermen's grounds, competing for the abundant rock-lobster and high value pelagic fish in the warm, up-swelling 60kms deep shelf along the tip of the Horn of Africa.

The piracy war between local fishermen and IUUs started here. Local fishermen documented cases of trawlers pouring boiling water on the fishermen in canoes, their nets cut or destroyed, smaller boats crushed, killing all the occupants, and other abuses suffered as they tried to protect their national fishing turf.

Later, the fishermen armed themselves. In response, many of the foreign fishing vessels armed themselves with more sophisticated weapons and began to overpower the fishermen. It was only a matter of time before the local fishermen reviewed their tactics and modernized their hardware. This cycle of warfare has been going on from 1991 to the present. It is now developing into fully fledged, two-pronged illegal fishing and shipping piracy conflicts.

According to the High Seas Task Force (HSTF), there were over 800 IUUs fishing vessels in Somali waters at one time in 2005 taking advantage of Somalia's inability to police and control its own waters and fishing grounds. The IUUs, which are estimated take out more than \$450 million in fish value out of Somalia annually, neither compensate the local fishermen, pay tax, royalties nor do they respect any conservation and environmental regulations – norms associated with regulated fishing. It is believed that IUUs from the EU alone take out of the country more than five times the value of its aid to Somalia every year.

Illegal foreign fishing trawlers which have been fishing in Somalia since 1991 are mostly owned by EU and Asian fishing companies – Italy, France, Spain, Greece, Russia, Britain, Ukraine, Japan, South Korea, Taiwan, India, Yemen, Egypt and many others. Illegal vessels captured on the Somali coast by Somali fishermen during 1991 and 1999 included Taiwanese trawlers Yue Fa No. 3 and Chian Yuein No.232, FV Shuen Kuo No.11; MV Airone, MV De Giosa Giuseppe and MV Antonietta, all 3 Italian vessels registered in Italy; MV Bahari Hindi, Kenyan registered but owned and managed by Marship Co. of Mombasa. A number of Italian registered SHIFCO vessels, Korean and Ukrainian trawlers, Indian, Egyptian and Yemeni boats were also captured by fishermen and ransoms of different sizes paid for their release. Many Spanish seiners, frequent violators of the Somali fishing grounds, managed to evade capture at various times.

According to a report in the Daily Nation of October 14, 2004, even Kenyan registered fishing vessels are known to have participated in the rape of the Somali fishing grounds. In October 2004, Mr Andrew Mwangura, Kenya Coordinator of the Seafarers Assistance Program (SAP) asked the Kenya Government to help stop illegal fishing in Somalia. “Since Somalia has been without government for more than 11 years, Kenya trawlers have been illegally fishing along the country's territorial waters contrary to the UNCLOS and the FAO instruments, he said. SAP further reported that 19 Kenyan registered fishing vessels also operated illegally in the Somalia waters.

In arrangements with Somali warlords, new companies were formed abroad for bogus fishing licensing purposes. Jointly owned mafia Somali-European companies set up in Europe and Arabia worked closely with Somali warlords who issued them fake fishing “licenses” to any foreign fishing pirate willing to plunder the Somali marine resources. UK and Italy based African and Middle East Trading Co. (AFMET), PALMERA and UAE based SAMICO companies were some of the corrupt vehicles issuing such counterfeit licenses as well as fronting for the warlords who shared the loot.

Somali warlords Played a part too

Among technical advisors to the Mafia companies – AFMET, PALMIRA & SAMICO - were supposedly reputable firms like MacAllister Elliot & Partners of the UK.

Warlords Gen. Mohamed Farah Aidiid, Gen. Mohamed Hersi Morgan, Osman Atto and Ex-President Ali Mahdi Mohamed officially and in writing gave authority to AFMET to issue fishing “licenses”, which local fishermen and marine experts call it simply a “deal between thieves”. According to *Africa Analysis* of November 13, 1998, AFMET alone “licensed” 43 seiners (mostly Spanish, at \$30,000 per 4-month season. Spanish Pesca Nova was “licensed” by AFMET while French Cobracaf group got theirs from SAMICO at a much discounted rate of \$15,000 per season per vessel.

Not to be outdone, in October 1999 Puntland Administration, gave carte blanche to another Mafia group known as PIDC, registered in Oman to fish, issue licenses and to police the Puntland coast. PIDC in turn contracted Hart Group of the UK and together they pillaged the Somali fishing grounds with vengeance, making over \$20 million profit within two years. The deal was to split the profits but PIDC failed to share the spoils with Puntland administration, resulting in revocation of their licenses. Having reneged on their part of the deal, PIDC/Hart quit the country with their handsomely won chips.

Chronology of Somali Complaints and Appeals on Illegal Fishing & Hazardous Waste Dumping

Early 1990s: In a proposal for action to the UNDP for Somalia in early 1990s, Mr. John Laurence, a fishery consultant with PanOceana Resources Ltd, reports the catastrophic and heartbreaking illegal foreign exploitation of the Somali seas. “With regards to the controlled exploitation of the Somali deep sea fishing grounds by the huge foreign factory ships and vessels it is our opinion that the UN must get involved. This area is recognized as one of the 5 richest fishing zones of the world and previously unexploited. It is now being ravaged, unchecked by any authority, and if it continues to be fished at the level it is at present stocks are in danger of being depleted So, a world resource is under serious threat and the UN is sitting back doing nothing to prevent it”. “Secondly, the Somali people are being denied any income from this resource due to their inability to license and police the zone” and “ the UN is turning a blind eye to the activities of the fishing vessels whose operators are not paying their dues; which in any other circumstances would be enforced by any international court of law”, argues Laurence.

***1992: UNEP WARNING Dr Mustafa Tolba, former Executive Director of UNEP, confirmed that Italian companies were dumping lethal toxic waste in Somalia which might “contribute to the loss of life in the already devastated country”.**

Dr Tolba added that the shipment of the toxic wastes from Italy that could also aggravate the destruction of the ecosystem in Somalia “earned a company, which ships the waste, between 2 to 3 million dollars in profits”, (Sunday Nation, 06/09/92) - a Kenyan newspaper.

September 1995, leaders of all the Somali political factions of the day (12 of them) and two major Somali NGO Networks jointly wrote to the UN Secretary General, Dr Boutros Boutros Ghali, with copies to the EU, Arab League, OIC, OAU and to other involved parties: -

- detailing the illegal fishing and hazardous material dumping crises in the Somali sea waters and
- requesting the UN to set up a body to manage and protect these waterways.
- They pointed out that since ICAO already manages the Somali airspace, so could IMO or a newly created organization run Somalia’s seas until an effective Somali national government is able to take control of it.

1998: In a letter to the SSDF dated January 1998, Mr. Dominic Langenbacher, UNDP Somalia Resident Representative, expressed his apprehension of the danger posed to the Somali marine resources and environment by foreign vessels. "The concern of the international community is that the threat of toxic waste dumping, pirate fishing by foreign vessels and over fishing of Somali stocks could adversely, and perhaps permanently, affect the ecosystem of the entire region" he said. "Furthermore, Somalia currently has no provision to deal with potential oil spills or other marine disasters and has no capability to monitor and control her coastal waters and, if necessary, provide sea search or rescue operations", he added.

From **1998 to 2006**, consecutive Ministers of Fisheries of Puntland State of Somalia repeatedly appealed to the international community: UN, EC, African Union, Arab League and to individual nations, advising the members states of these organizations to help keep poaching vessels and crews from their countries out of the Somali waters. The Ministers also complained of oil spills, toxic and nuclear waste dumping in the Somali coast.

FAO 2005: An FAO study, Somalia's Fishery Review by Frans Teutscher, Nov. 11, 2005, states, "In the absence of legal framework and/or for capacities for monitoring, control and surveillance, extensive illegal, unreported and unregulated (IUU) is taking place and considerable quantities of non-targeted by catch are discarded because they cannot presently be utilized". The report said that the foreign IUUs maximize their catch by fishing throughout the year without regard to the wider marine ecosystem, not respecting fish and crustacean spawning periods or irreparable damage done by their massive drift nets and use of explosives or the loss of local fishermen's livelihood.

2006: Somali fishermen in various regions of the country also complained to the international community about the illegal foreign fishing, stealing the livelihoods of poor fishermen, waste dumping and other ecological disasters, including the indiscriminate use of all prohibited methods of fishing: drift nets, under water explosives, killing all "endangered species" like sea-turtles, orca, sharks, baby whales, etc. as well as destroying reef, biomass and vital fish habitats in the sea (IRIN of March 9, 2006). Fishermen in Somalia have appealed to the United Nations and the international community to help them rid the country's shores of foreign ships engaged in illegal fishing. United Nations Food and Agriculture Organization (FAO) estimated 700 foreign-owned vessels were engaged in unlicensed fishing in Somali waters in 2005. However, FAO said it was "impossible to monitor their fishery production in general, let alone the state of the fishery resources they are exploiting....there is also strong suspicion of illegal dumping of industrial and nuclear wastes along the Somali coast", IRIN 09/03/06.

"They are not only taking and robbing us of our fish, but they are also trying to stop us from fishing," said Jeylani Shaykh Abdi, a fisherman in Merca, 100km south of Mogadishu. "They have rammed our boats and cut our nets", he added. Another Merca fisherman, Mohamed Hussein, said [Our] existence depends on the fish. He accused the international community of "talking only about the piracy problem in Somalia, but not about the destruction of our coast and our lives by these foreign ships." Jeylani noted that the number of foreign ships had increased over time. "It is now normal to see them on a daily basis, a few miles off our shores" (IRIN 09/03/06).

Describing the activity as "economic terrorism", Somali fishermen told IRIN that the poachers were not only plundering the fish but were also dumping rubbish and oil into the sea. They complained the Somali government was not strong enough to stop it. "We want the international

agencies to help us deal with this problem," said Hussein. "If nothing is done about them, there soon won't be much fish left in our coastal waters." Musse Gabobe Hassan and Mohamud Hassan Tako of the Mogadishu Maritime and Fisheries Institute accuse foreign ships of illegal fishing and dumping of hazardous waste in Somali waters. "Somalia's coastal communities who eke their livelihood from the sea are appealing to the international community for help stop the illegal fishing fleets from both the developed and developing countries that are robbing our marine wealth and destroying its habitats", they added.

Like the UN Security Council, Chatham House, an International Affairs Think-Tank, in a much publicized recent Paper on piracy in Somalia failed to present a balanced view of the issue and concentrated on the shipping piracy side of the coin. Roger Middleton, the author of the Paper, however, mentions in passing that European, Asian and African (Egypt and Kenya) illegally fish in the Somalia waters. In ignoring the principal IUU factor, the origin and the purpose of the shipping piracy, UN and Roger Middleton seem to be either misled or pressured to take this one-sided course by powerful interests who want to cover up and protect the profitable business of illegal fishing.

2008: Mr. Ould Abdalla, UN Secretary General Special Envoy for Somalia, who should know better, continued to condemn Somali shipping piracy in a number of press statements and rightly so though biased. In his latest Press Statement of 11/11/08 on the subject matter, he warmly welcomed the agreement by European Union member states to send ships to combat piracy off Somalia. "I am extremely pleased by the EU's decision," said Mr Ould-Abdallah. "Piracy off the Somali coast is posing a serious threat to the freedom of international navigation and regional security". But he forgot to condemn fishing piracy, mention the Somali fishing communities' livelihood security or to propose concrete actions to deal with the two inter-related piracies, which are like the two sides of the same coin.

2009: Somali authorities, local fishermen, civil society organizations and international organizations have reported and warned of the dangerous consequences of these criminal actions. In a Press Statement dated 16 Sept 1991, the SSDF, which then administered the Northeastern Regions of Somalia, sternly warned "all unauthorized and illegal foreign fishing vessels in the Somali waters are prohibited, with immediate effect, to undertake any further illegal fishing and to stay clear of the Somali waters". In April 1992, SSDF Chairman, Gen. Mohamed Abshir Musse wrote to the then Italian Foreign Minister, Gianni De Michelis, drawing his attention to the robbery of the Somali marine resources and ecosystem destruction by unlicensed Italian trawlers.

Another major problem closely connected with the IUUs and illegal fishing is industrial, toxic and nuclear waste dumping in both off-shore and on-shore areas of Somalia. These crises of the illegal fishing, waste dumping, warlords/mafia deals and the loud complaints of the Somali fishermen and civil society have been known to UN agencies and international organizations all along. The UN Agencies and organizations, which have been fully aware of these crises, often expressed concern and lamentations but never took any positive action against these criminal activities. It appears as if they have also failed to inform the UN Security Council of this tragedy before it passed its resolutions 1816 and 1838 early this year.

UN Strong Arming Somali Pirates provoked retaliation
Surprisingly, the UN disregarded its own findings of the violations, ignored the Somali and international appeals to act on the continued ravaging of the Somali marine resources and dumping of hazardous wastes. Instead, the UN and the big powers, invoking Charter IIV of the

UN Charter, decided to “enter the territorial waters of Somalia.....anduse, within the territorial waters of Somaliaall necessary means to identify, deter, prevent, and repress acts of piracy and armed robbery, including but not limited to boarding, searching, and seizing vessels engaged in or suspected of engaging in acts of piracy or armed robbery, and to apprehend persons engaged in such acts with a view to such persons being prosecuted” (Resolution 1816).

It should be noted that there is no mention of the illegal fishing piracy, hazardous waste dumping or the plight of the Somali fishermen in the UN Resolutions. Justice and fairness have been overlooked in these twin problems of FISHING PIRACY and SHIPPING PIRACY.

The Illegality and Impracticality of the actions of the UN, NATO and EU

This Global Armada is in the Somali waters illegally as it is not approved by the Somali Transitional Federal Parliament (TFP). It is also unlikely it will achieve its stated objectives to curb the shipping piracy as it is now conceived. The TFP and the members of the European Parliament rejected these UN and European decisions to police the Somali seas (both the Indian Ocean and the Gulf of Aden) as both illegal and unworkable. At a Press Conference in Nairobi on October 18th 2008, the Deputy Speaker of the TFP, Mohamed Omar Dalha, termed the deployment of foreign warships to the country's coast to fight piracy as invasion of its sovereignty and asked the foreign warships to “move out of the Somali waters”. The Speaker questioned the intent of the deployment and suggested that the powers involved had a hidden agenda. He said if these powers were genuine in curbing the piracy they would have supported and empowered the Somali authorities, who would be more effective in stopping the menace. “If the millions of dollars given to the pirates or wasted in the warship policing there were given to us, we would have eliminated this curse”, he said.

Several EU members of parliament (MEPs) called the EU naval mission to be deployed against pirates off the coasts of Somalia as a "military nonsense," "morally wrong" and having "no international legal basis." German green MEP Angelika Beer underlined the lack of international law to sustain the proposed European Security and Defense Policy (ESDP) mission. "There is no clarity to the limitations of this mandate. Will the EU be able to sink ships and arrest pirates?" she asked. Portuguese socialist MEP Ana Maria Gomes gave a fiery speech on the "moral problem" of the EU mission, which, in her opinion, is only about "protecting oil tankers." "Nobody gives a damn about the people in Somalia who die like flies," she said (EU Observer of 15th October 2008).

Conclusion

The EU, NATO and US Navies can, of course, Rambo and obliterate the fishermen pirates and their supporting coastal communities but that would be illegal, criminal act. Yet, it may temporarily reduce the intensity of the shipping piracy but it would not result in a long-term solution of the problem. The risk of loss of life of foreign crews and ecological impact of major oil spill would be a marine catastrophe of gigantic proportions for the whole coastal regions of East Africa and the Gulf of Aden.

In their current operations, the Somali fishermen pirates genuinely believe that they are protecting their fishing grounds (both 12-mile territorial and EEZ waters). They also feel that they exacting justice and compensation for the marine resources stolen and the destroyed ecosystem by the IUUs. And their thinking is shared and fully supported by the coastal

communities, whose protectors and providers they became.

The matter needs careful review and better understanding of the local environment. The piracy is based on local problems and it requires a number of comprehensive joint local and external partners approaches.

Firstly, practical and lasting solution lies in jointly addressing the twin problems of the shipping piracy and the illegal fishing piracy, the root cause of the crisis.

Secondly, the national institutional crisis should be reviewed along with the piracy issues.

Thirdly, local institutions should be involved and supported, particularly by helping to form coastguards, training and coastguard facilities. These may sound asking too much to donors and UN agencies. But we should ask what it meant those who paid tens of millions dollars of ransom and their loved ones held hostage for months.

Fourthly, a joint Somali and UN agency like the present ICAO for the Somali airspace should be considered.

THE TWO PIRACIES IN SOMALIA: WHY THE WORLD IGNORES THE OTHER?

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Jan. 08, 2009

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The Shipping Piracy as an additional Invasion of Somali Seas

The crises of the multiple piracies in Somalia have not diminished since my previous article (above) , "The Two Piracies in Somalia: Why the Word Ignores the Other," was written in December 2008. **All the illegal fishing piracy, the waste dumping piracy and the shipping piracy continue with new zeal.** Somali fishermen, turned pirates in reaction to armed foreign marine poachers, have intensified their war against all kinds of ships in the Gulf of Aden and the Indian Ocean.

Much of the world's attention is currently focused on the Somali sea lanes. The navies of big and small powers are converging on the Somali waters in the Gulf of Aden and Indian Ocean. The recent hijacking of the Saudi oil tanker and Ukrainian MV Faina, laden with arms for

Kenya, off the coast of Somalia by Somali pirates captured world media attention. War has been rightly declared against this notorious new shipping piracy. But the older and mother of all piracies in Somalia - illegal foreign fishing piracy - in the Somali seas is ignored, underlining the international community's misunderstanding and partiality of the underlying interdependent issues involved and the impracticality of the proposed actions to find ways to effectively resolve the piracy threat.

A chorus of calls for tougher international action resulted in multi-national and unilateral Naval stampede to invade and take control of the Somali territorial and EEZ waters. The UN Security Council, a number of whose members may have ulterior motives to indirectly protect their illegal fishing fleets in the Somali Seas, passed Resolutions 1816 and 1838, giving a license to any nation who wants a piece of the Somali marine cake. Both NATO and the EU issued Orders to the same effect and Russia, Japan, India, Malaysia, Egypt, Yemen and anyone else who could afford an armed boat and its crew on the sea for a few months joined the fray.

For years, attempts made to address piracy in the world's seas through UN resolutions have failed to pass largely because many of the member nations felt such resolutions would infringe greatly on their sovereignty and security and have been unwilling to give up control and patrol of their own waters. UN Resolutions 1816 and 1838, which were objected to by a number of West African, Caribbean and South American nations, was then tailored to apply to Somalia only, which had no strong enough Somali representation at the United Nations to demand amendments to protect its sovereignty. Also Somali civil society objections to the Draft Resolutions were ignored.

This massive "Global Armada" invasion is carried out on the pretext to protect the busy shipping trade routes of the Gulf of Aden and the Indian Ocean from Somali shipping piracy, which threatens to disrupt these international lifeline sea ways. While there are two equally nasty, criminal, inhuman and exploiting gangs of pirates in Somalia, only one of them is publicized by the western media: the Somali shipping pirates attacking merchant shipping in these sea lanes, where the illegal poachers are also actively operating.

The Illegal fishing Piracy

The other more damaging economically, environmentally and security-wise is the massive illegal foreign fishing piracy that have been poaching and destroying the Somali marine resources for the last 18 years following the collapse of the Somali regime in 1991. With its usual double standards when such matters concern Africa, the "international community" comes out in force to condemn and declare war against the Somali fishermen pirates while discreetly protecting the numerous Illegal, Unreported and Unregulated (IUU) fishing fleets there from Europe, Arabia and the Far East.

Biased UN resolutions, big power orders and news reports continue to condemn the hijackings of merchant ships by Somali pirates in the Indian Ocean and the Gulf of Aden. If response to both piracy menaces was balanced and fair, these condemnations would have been justified. European Union (EU), Russia, Japan, India, Egypt and Yemen are all on this piracy campaign, mainly to cover up and protect their illegal fishing fleets in the Somali waters.

In all these piracy ballyhoo and campaigns, why is the other key IUUs fishing piracy ignored? Why are the UN Resolutions, NATO Orders and EU Decrees to invade the Somali seas fail to include the protection of the Somali marine resources from IUU violations in the same waters? Not only is this outrageous fishing piracy disregarded but the illegal foreign marine poachers

are being encouraged to continue their loot by as none of the current Resolutions, Orders and Decrees apply to the IUUs, which can now freely fish in and violate the Somali seas. The Somali fishermen can no longer scare away the IUUs for fear of being labeled pirates and attacked by the foreign navies unlawfully controlling the Somali waters. Even the traditional Somali trading dhows are in panic of being mistaken for pirates.

a) **The IUU Menace and Fish Laundering Practice**

There is no doubt IUU is a serious global problem. According to the High Seas Task Force (HSTF), IUU does not respect national boundaries or sovereignty, puts unsustainable pressure on stocks, marine life and habitats, undermines labor standards and distorts markets. "IUU fishing is detrimental to the wider marine ecosystem because it flouts rules designed to protect the marine environment which includes restrictions to harvest Juveniles, closed spawning grounds and gear modification designed to minimize by-catch on non-target species....In so doing they steal an invaluable protein source from some of the world's poorest people and ruin the livelihoods of some legitimate fishermen; incursions by trawlers into the inshore areas reserved for artisanal fishing can result in collision with local fishing boats, destruction of fishing gear and deaths of fishermen" says HSTF. In its report, Closing the Net: Stopping Illegal Fishing on the High Seas, HSTF puts worldwide value of IUU catches at \$4 to \$9 billion, large part of it from Sub-Sahara Africa, particularly Somalia.

IUUs practice fish catch laundering through mother ship factories, trans-shipment and re-supply at sea. "This means that vessels can remain at sea for months, refuelling, re-supplying and rotating their crew. IUU fishing **vessels never need to enter ports because they transfer their catches onto transport ships**. Illegally caught fish are laundered by mixing with legally caught fish on board transport vessels", writes HSTF. Apparently, fish laundering, which generates hundreds of millions dollars in the black market is not as criminal as money laundering! Countries used for Somali fish laundering include Seychelles, Mauritius and Maldives.

As EU closed much of its fishing waters for 5 to 15 years for fish regeneration, as Asia over fished its seas, as international demand increases for nutritious marine products and as the fear of worldwide food shortage grows, the rich, uncontrolled and unprotected Somali seas became the target of the fishing fleets of many nations. Surveys by UN, Russian and Spanish assessors just before the collapse of the Barre Regime in 1991 estimated that 200,000 tonnes of fish a year could be caught by both artisanal and industrial fisheries and this is the objective of the international fishing racket

There is no doubt that the actions of the shipping pirates are reprehensible and this paper does not seek to justify or explain their odious actions. They must be stopped. But the notorious shipping piracy is unlikely to be resolved without simultaneously attending to the fraudulent IUU piracy, too.

Dumping on the Somali fishing community

Toxic Waste Behind Somali Pirates

Source: The news that didn't make news *PROJECT CENSURED*

<http://www.projectcensored.org/top-stories/articles/3-toxic-waste-behind-somali-pirates>

Allegations of the dumping of toxic waste, as well as illegal fishing, have circulated since the early 1990s, but hard evidence emerged when the tsunami of 2004 hit the country. The United Nations Environment Program (UNEP) reported that the tsunami washed rusting containers of toxic waste onto the shores of Puntland, northern Somalia.

Nick Nuttall, a UNEP spokesman, told Al Jazeera that when the barrels were smashed open by the force of the waves, the containers exposed a “frightening activity” that had been going on for more than a decade. “Somalia has been used as a dumping ground for hazardous waste starting in the early 1990s, and continuing through the civil war there,” he said. “The waste is many different kinds. There is uranium radioactive waste. There is lead, and heavy metals like cadmium and mercury. There is also industrial waste, and there are hospital wastes, chemical wastes—you name it.”

Nuttall also said that **since the containers came ashore, hundreds of residents have fallen ill, suffering from mouth and abdominal bleeding, skin infections and other ailments.** “What is most alarming here is that nuclear waste is being dumped.

Radioactive uranium waste that is potentially killing Somalis and completely destroying the ocean,” he said.

Ahmedou Ould-Abdallah, the UN envoy for Somalia, says the practice helps fuel the eighteen-year-old civil war in Somalia, as companies pay Somali government ministers and/or militia leaders to dump their waste. “There is no government control . . . and there are few people with high moral ground . . . yes, people in high positions are being paid off, but because of the fragility of the Transitional Federal Government, some of these companies now no longer ask the authorities—they simply dump their waste and leave.” In 1992 the countries of the European Union and 168 other countries signed the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal. The convention **prohibits waste trade between countries that have signed, as well as countries that have not signed the accord,** unless a bilateral agreement had been negotiated. It also prohibits the shipping of hazardous waste to a war zone.

Surprisingly, the **UN has disregarded its own findings, and has ignored Somali and international appeals to act on the continued ravaging of the Somali marine resources and dumping of toxic wastes.** Violations have also been largely ignored by the region’s maritime authorities. This is the context from which the men we are calling “pirates” have emerged.

Somali Piracy triggered by International Illegal Overfishing

Illegal, Unreported and Unregulated (IUU) fleets

Source: *The news that didn't make news* PROJECT CENSURED

<http://www.projectcensored.org/top-stories/articles/3-toxic-waste-behind-somali-pirates>

Sources:-

Al Jazeera English, October 11, 2008

Title: “Toxic waste behind Somali piracy”

Author: Najad Abdullahi

Huffington Post, January 4, 2009

Title: “You are being lied to about pirates”

Author: Johann Hari

The international community has come out in force to condemn and declare war on the Somali fishermen pirates, while discreetly protecting the **illegal, unreported and unregulated (IUU) fleets** from around the world that have been poaching and dumping toxic waste in Somali waters since the fall of the Somali government eighteen years ago.

In 1991, when the government of Somalia collapsed, foreign interests seized the opportunity to begin looting the country’s food supply and using the country’s unguarded waters as a dumping ground for nuclear and other toxic waste.

According to the High Seas Task Force (HSTF), there were over 800 IUU fishing vessels in Somali waters at one time in 2005, taking advantage of Somalia’s inability to police and control its own waters and fishing grounds. The IUUs poach an estimated \$450 million in seafood from Somali waters annually. In so doing, they steal an invaluable protein source from some of the world’s poorest people and ruin the livelihoods of legitimate fishermen.

Everyone agrees they were ordinary Somali fishermen who, at first, took speedboats to try to dissuade the dumpers and trawlers, or at least wage a “tax” on them. They call themselves the Volunteer Coast Guard of Somalia.

One of the pirate leaders, Sugule Ali, explains that their motive is “to stop illegal fishing and dumping in our waters. . . . We don’t consider ourselves sea bandits. We consider sea bandits [to be] those who illegally fish, and dump waste, and carry weapons in our seas.”

Author Johann Hari notes that, while none of this makes hostage-taking justifiable, the “pirates” have the overwhelming support of the local population for a reason. The independent Somalia news site Wardher News conducted the best research we have on what ordinary Somalis are thinking. It found that 70 percent “strongly support the piracy as a form of national defense of the country’s territorial waters.” Instead of taking action to protect the people and waters of Somalia from international transgressions, the UN has responded to the situation by passing aggressive resolutions that entitle and encourage transgressors to wage war on the Somali pirates.

It should be pointed out that both the IUUs and waste dumping are happening in other African countries. Ivory Coast is a victim of major international toxic dumping.

It is said that acts of piracy are actually acts of desperation, and, as in the case of Somalia, what is one man’s pirate is another man’s Coast Guard.

Full Article: ‘You are being lied about pirates’

Source: http://www.huffingtonpost.com/johann-hari/you-are-being-lied-to-abo_b_155147.htm | By Johann Hari, a writer for the Independent Newspaper

Summary by Hari: “Do we expect starving Somalians to stand passively on their beaches, paddling in our nuclear waste, and watch us snatch their fish to eat in restaurants in London and Paris and Rome? We didn’t act on those crimes—but when some of the fishermen responded by disrupting the transit-corridor for 20 percent of the world’s oil supply, we begin to shriek

about “evil.” If we really want to deal with piracy, we need to stop its root cause—our crimes—before we send in the gun-boats to root out Somalia’s criminals.”

Full Article: ‘You are being lied about pirates’

Source: http://www.huffingtonpost.com/johann-hari/you-are-being-lied-to-abo_b_155147.html

Who imagined that in 2009, the world's governments would be declaring a new War on Pirates? As you read this, the British Royal Navy - backed by the ships of more than two dozen nations, from the US to China - is sailing into Somalian waters to take on men we still picture as parrot-on-the-shoulder pantomime villains. They will soon be fighting Somalian ships and even chasing the pirates onto land, into one of the most broken countries on earth. But behind the arrr-me-hearties oddness of this tale, there is an untold scandal. The people our governments are labeling as "one of the great menace of our times" have an extraordinary story to tell -- and some justice on their side.

Pirates have never been quite who we think they are. In the "golden age of piracy" - from 1650 to 1730 - the idea of the pirate as the senseless, savage thief that lingers today was created by the British government in a great propaganda-heave. Many ordinary people believed it was false: pirates were often rescued from the gallows by supportive crowds. Why? What did they see that we can't? In his book *Villains of All nations*, the historian Marcus Rediker pores through the evidence to find out. If you became a merchant or navy sailor then - plucked from the docks of London's East End, young and hungry - you ended up in a floating wooden Hell. You worked all hours on a cramped, half-starved ship, and if you slacked off for a second, the all-powerful captain would whip you with the Cat O' Nine Tails. If you slacked consistently, you could be thrown overboard. And at the end of months or years of this, you were often cheated of your wages.

Pirates were the first people to rebel against this world. They mutinied against their tyrannical captains - and created a different way of working on the seas. Once they had a ship, the pirates elected their captains, and made all their decisions collectively. They shared their bounty out in what Rediker calls "one of the most egalitarian plans for the disposition of resources to be found anywhere in the eighteenth century." They even took in escaped African slaves and lived with them as equals. The pirates showed "quite clearly - and subversively - that ships did not have to be run in the brutal and oppressive ways of the merchant service and the Royal navy." This is why they were popular, despite being unproductive thieves.

The words of one pirate from that lost age - a young British man called William Scott - should echo into this new age of piracy. Just before he was hanged in Charleston, South Carolina, he said: "What I did was to keep me from perishing. I was forced to go a-pirating to live." In 1991, the government of Somalia - in the Horn of Africa - collapsed. Its nine million people have been teetering on starvation ever since - and many of the ugliest forces in the Western world have seen this as a great opportunity to steal the country's food supply and dump our nuclear waste in their seas.

Yes: nuclear waste. As soon as the government was gone, mysterious European ships started appearing off the coast of Somalia, dumping vast barrels into the ocean. The coastal population began to sicken. At first they suffered strange rashes, nausea and malformed babies. Then, after the 2005 tsunami, hundreds of the dumped and leaking barrels washed up on shore. People began to suffer from radiation sickness, and more than 300 died. Ahmedou Ould-Abdallah, the UN envoy to Somalia, tells me: "Somebody is dumping nuclear material here. There is also

lead, and heavy metals such as cadmium and mercury - you name it." Much of it can be traced back to European hospitals and factories, who seem to be passing it on to the Italian mafia to "dispose" of cheaply. When I asked Ould-Abdallah what European governments were doing about it, he said with a sigh: "Nothing. There has been no clean-up, no compensation, and no prevention."

At the same time, other European ships have been looting Somalia's seas of their greatest resource: seafood. We have destroyed our own fish-stocks by over-exploitation - and now we have moved on to theirs. More than \$300m worth of tuna, shrimp, lobster and other sea-life is being stolen every year by vast trawlers illegally sailing into Somalia's unprotected seas. The local fishermen have suddenly lost their livelihoods, and they are starving. Mohammed Hussein, a fisherman in the town of Marka 100km south of Mogadishu, told Reuters: "If nothing is done, there soon won't be much fish left in our coastal waters."

This is the context in which the men we are calling "pirates" have emerged. Everyone agrees they were ordinary Somali fishermen who at first took speedboats to try to dissuade the dumpers and trawlers, or at least wage a 'tax' on them. They call themselves the Volunteer Coastguard of Somalia - and it's not hard to see why. In a surreal telephone interview, one of the pirate leaders, Sugule Ali, said their motive was "to stop illegal fishing and dumping in our waters... We don't consider ourselves sea bandits. We consider sea bandits [to be] those who illegally fish and dump in our seas and dump waste in our seas and carry weapons in our seas." William Scott would understand those words.

No, this doesn't make hostage-taking justifiable, and yes, some are clearly just gangsters - especially those who have held up World Food Programme supplies. But the "pirates" have the overwhelming support of the local population for a reason. The independent Somali news-site WardherNews conducted the best research we have into what ordinary Somalis are thinking - and it found 70 percent "strongly supported the piracy as a form of national defence of the country's territorial waters." During the revolutionary war in America, George Washington and America's founding fathers paid pirates to protect America's territorial waters, because they had no navy or coastguard of their own. Most Americans supported them. Is this so different?

On international response, foreign governments, international organizations and mainstream media have been **united in demonizing Somalia and described its fishermen** as evil men pillaging ships and terrorizing sailors (even though no sailors were harmed). This presentation is lopsided. The media said relatively little on the other piracies of illegal fishing and waste dumping.

The allied navies of the world—fleets of over forty warships from over ten Asian, Arab, and African countries as well as from many NATO and EU member countries—stepped up their hunt for the Somali fishermen pirates, regardless of whether they are actually engaged in piracy or in normal fishing in the Somali waters. Various meetings of the International Contact Group for Somalia (ICGS) in New York, London, Cairo, and Rome continue to underline the demonization of the Somali fishermen and urge further punitive actions without a single mention of the violation of illegal fishing and toxic dumping by vessels from the countries of those sitting in the ICGS and UN forums in judgment of the piracy issue.

Appendix 3: Sample Piracy and Armed Robbery Reporting Form

Source: International Maritime Bureau (IMB) website.



ICC-INTERNATIONAL MARITIME BUREAU
(PIRACY REPORTING CENTRE)



PIRACY & ARMED ROBBERY ATTACK REPORT

The ICC - International Maritime Bureau (IMB) was established in 1981 to act as a focal point in the fight against all types of maritime fraud, malpractice and piracy. The United Nations (UN) International Maritime Organization (IMO) in its resolution A 504 (XII) (9) adopted on 20 November 1981, has among other things urged all governments, interests and organizations to exchange information and provide appropriate co-operation with the IMB. The IMB also has an observer status with the International Criminal Police Organization (ICPO – INTERPOL).

VESSEL PARTICULARS / DETAILS:

1	NAME OF SHIP:		
2	IMO NO:		
3	FLAG:		
4	TYPE OF SHIP:		
5	TONNAGES: GRT:	NRT:	DWT:
6	OWNERS (ADDRESS & CONTACT DETAILS):		
7	MANAGERS (ADDRESS & CONTACT DETAILS):		
8	LAST PORT/NEXT PORT:		
9	CARGO DETAILS (TYPE/QUANTITY) :		

DETAILS OF INCIDENT

10	DATE & TIME OF INCIDENT: UTC	LT
11	POSITION: LAT: (E/W)	(N/S) LONG:
12	NEAREST LAND MARK / LOCATION:	
13	PORT /TOWN / ANCHORAGE AREA:	
14	COUNTRY /NEAREST COUNTRY:	
15	STATUS (BERTH /ANCHORED / STEAMING):	
16	OWN SHIP'S SPEED :	
17	SHIP'S FREEBOARD DURING ATTACK :	
18	WEATHER DURING ATTACK (RAIN/FOG/MIST/CLEAR/ETC, WIND (SPEED AND DIRECTION), SEA / SWELL HEIGHT) :	
19	TYPES OF ATTACK (BOARDED/ATTEMPTED):	

20	CONSEQUENCES FOR CREW, SHIP AND CARGO: ANY CREW INJURED / KILLED: ITEMS / CASH STOLEN :
21	AREA OF THE SHIP BEING ATTACKED:

DETAILS OF RAIDING PARTY

22	NUMBER OF PIRATES / ROBBERS:
23	DRESS / PHYSICAL APPEARANCE:
24	LANGUAGE SPOKEN:
25	WEAPONS USED:
26	DESTINCTIVE DETAILS:
27	CRAFT USED:
28	METHOD OF APPROACH:
29	DURATION OF ATTACK:
30	AGGRESSIVE / VIOLENT:

FURTHER DETAILS

31	ACTION TAKEN BY MASTER AND CREW:
32	WAS INCIDENT REPORTED TO THE COASTAL AUTHORITY ? IF SO TO WHOM?
33	ACTION TAKEN BY THE AUTHORITIES:
34	NUMBER OF CREW / NATIONALITY:
35	PLEASE ATTACH WITH THIS REPORT – A BRIEF DESCRIPTION / FULL REPORT / MASTER – CREW STATEMENT OF THE ATTACK / PHOTOGRAPHS TAKEN IF ANY.

ADDRESS: ICC-INTERNATIONAL MARITIME BUREAU, PIRACY REPORTING CENTRE,

P. O. BOX 12559, 50782 KUALA LUMPUR, MALAYSIA.

CONTACT DETAILS: TEL:603 2031 0014 (HELP LINE)

FAX: 603 2078 5769 TELEX: MA 34199.

E-MAIL:imbkl@icc-ccs.org; piracy@imbpiracy.org. WEBSITE: www.icc-ccs.org

Appendix 4: Maritime Labour Convention (2006)

The specific sections of MLC (2006) discussed in this thesis are as follows: -

Title 4: Health Protection, Medical Care, Welfare and Social Security Protection

Regulation 4.1 – Medical care on board ship and ashore

Regulation 4.2 – Ship Owners' liability

Regulation 4.3 – Health and safety protection and accident prevention

Regulation 4.4 – Access to shore-based welfare facilities

Regulation 4.5 – Social Security

For the full details on each of the Maritime Labour Convention (2006) Regulations 4.1 to 4.5, visit http://www.ilo.org/wcmsp5/groups/public/---ed_norm/---normes/documents/normativeinstrument/wcms_090250.pdf

Title 4: pp. 54 – 70

Appendix 5: SWOT Analysis of potential Fieldwork Sites

Purpose of SWOT Analysis:

To assess the Strengths, Weaknesses, Opportunities and Threats presented by each potential fieldwork sites, in order to facilitate informed decision-making on researcher's safety during the data collection stage. The sites considered included Dar es Salaam (Tanzania) , Rotterdam (The Netherlands) , Portsmouth (England) and Mombasa (Kenya).

Dar es Salaam

Strengths	Opportunities	Comments
<ul style="list-style-type: none"> • Familiarity: culture and surrounding: Researcher lived here for ten years as a student • Located within Eastern Africa – the piracy target geographic region • Cost effective: accommodation easily available • Transport: relatively cheap if combined with home leave flight ticket from Nairobi • Daily local transport: cheap public transport • Security: generally a safe city 	<ul style="list-style-type: none"> • Access: contacted Seafarer Mission • Respondents: possible slow ship turnaround time providing access to a variety of seafarers 	<ul style="list-style-type: none"> • Access request letter posted in May '10 • July 2010: still no response to May letter, attempts to establish contact by phone fail (no answer at number indicated on website). • Sept 2010: MtS contact liaison sought & feedback expected by 20/12/10 • Suggestion: To visit Seafarer Mission in Dec 2010 to establish assess if it functions and its suitability for the planned fieldwork.
Weaknesses	Threats	
<ul style="list-style-type: none"> • Local mobility difficult in Feb to May high humidity & long rains season, (Feb-march) • laid back work culture 	<ul style="list-style-type: none"> • Malaria zone. 	

Rotterdam

Strengths	Opportunities	Comments
<ul style="list-style-type: none"> • Busy port: Second biggest port in the world • Transport to R: available alternatives from Cardiff 	<ul style="list-style-type: none"> • Big busy port with Seafarers hostel – possible fieldwork site • Access: contacted Seafarer Mission 	<ul style="list-style-type: none"> • Access request letter posted in May '10 • July 2010: still no response to May letter, attempts to establish

<ul style="list-style-type: none"> • Language in R: Researcher speaks local Dutch language - easy to move around • Familiarity with R city language and culture: for ease of moving around • Cost effective: local transport and accommodation alternatives available <ul style="list-style-type: none"> ▪ Security: generally safe ▪ Busy work culture 	<ul style="list-style-type: none"> • Respondents: crew change over port, many & variety of seafarers • Time: crew change, more interview time? 	<p>contact by phone fail (no answer at number indicated on website).</p> <ul style="list-style-type: none"> • Sept 2010: MtS contact liaison sought & feedback expected by 20/12/10 • Suggestion: To visit Seafarer Mission in Dec 2010 to establish assess if it functions and its suitability for fieldwork.
Weaknesses	Threats	
<ul style="list-style-type: none"> • Busy tourist city with many distractions 	<ul style="list-style-type: none"> • 	

Portsmouth

Strengths	Opportunities	Comments
<ul style="list-style-type: none"> • Mick familiar with site • Cost effective: within UK, no visa required • Accom: local B & B easily available 	<ul style="list-style-type: none"> • Access: through Mich • Many seafarers available awaiting next job 	<ul style="list-style-type: none"> • A very good site in terms of obtaining access and due to Mick's familiarity with site • Major consideration: obtaining a car to use for daily transport
Weaknesses	Threats	
<ul style="list-style-type: none"> • No public transport to mission • Will require a car 	<ul style="list-style-type: none"> • Long distance from port to accommodation • Security during evenings still not known 	

Mombasa

Strengths	Opportunities	Comments
<ul style="list-style-type: none"> • Located within the Eastern Africa piracy hotspot research target geographical region. • Interview of piracy victims possible through liaison with Seafarer Assistance Program • Kenyan researcher prior work experience in the city 	<ul style="list-style-type: none"> • A busy port but possibly slow vessel turnaround time thus possibility for meeting a number of seafarers • Liaison for local-based seafarers contacts/database access could be sought through the Seafarer Assistance Program 	<ul style="list-style-type: none"> • Earlier SWOT carried out while pirates were being tried in Kenya, thus site was deemed to be unsafe. • W.e.f. September 2010 National Constitutional amendment, pirates no longer being tried in Kenya. All pirates

<p>thus familiar with the city and local culture</p> <ul style="list-style-type: none"> • Transport: Ease of movement using local public transport • Cost effective: a variety of relatively cheap accommodation available 	<ul style="list-style-type: none"> • Possibility of Cold Calling local seafarers on the contacts list 	<p>released and repatriated to Somalia.</p> <ul style="list-style-type: none"> • Pirates 'diaspora' previously encamped in the city for court trials have moved out of Msa for Somalia & security has greatly improved. • Suggestion: Researcher to seek to establish contact with Msa Seafarer Mission and Seafarer Assistance Program in Dec 2010 to assess suitability of the site
Weaknesses	Threats	
<ul style="list-style-type: none"> • Busy tourist city with many distractions 	<ul style="list-style-type: none"> • Relatively short time available to obtain access through Msa Seafarer Mission and local Seafarer Assistance Program • Malaria zone 	

Appendix 6: Sample Interview Guide

Part 1: Personal/Professional Information

1.1 How old are you?

Age range:

- Under 30yrs 31-40yrs 41-50yrs 51-60 above 60yrs

1.2 What is your nationality?

Origin:

- Eastern Europe Africa South Asia (India, Shrilanka, Pakistan,
 Western Europe China Asia (Egypt, Turkey, Syria, Iraq, etc)
 N/S American India Philippines
 Others (State) _____

1.3 What is your marital status?

- Single Married Separated Divorced Widowed

1.4 Seafarer Work Experience:

- 0-5 yrs 6-10 yrs 11 – 20 yrs over 20 years

1.5 What is your current position on the ship you are working on?

1.6 What type of ship are you working on at the moment?

- Oil tanker Passenger & cruise ship Car carrier
 Bulk carrier Liquid bulk carrier Petroleum product carrier
 Container carrier Chemical/gas carrier
 other ships: (please state) e.g. Navy

Type of ship(s) you have worked on in the International Trade in the last 10 years:

- Oil tanker Passenger & cruise ship Car carrier
 Bulk carrier Liquid bulk carrier Petroleum product carrier
 Container carrier Chemical/gas carrier
 other ships: (please state)

1.6 Have you worked on a ship as it passed off the East African coast? Yes No

Part 2: Perceptions of Piracy - (Fears/Anxieties Vs other occupational risks)

2.1 What are some of the risks of your job?

- On board isolation from colleagues feeling homesick
- fatigue
- Ship collision/foundering/grounding fire explosion
- injury
- falling overboard & into the dock being attacked by pirates
- serious illness
- what other fears do you have

2.2 (a) How safe do you feel going about your daily life when on shore?

- very safe a little safe neither safe nor unsafe
- a little unsafe very unsafe

Explain why you feel that way

2.2 (b) How safe do you feel in general when you are at sea?

- very safe a little safe neither safe nor unsafe
- a little unsafe very unsafe

Elaborate on why you feel that way at sea

2.3 What have you heard about maritime piracy?

2.4 If you have experienced piracy then describe your most recent experience in a bit of detail.

2.6 Do you know anyone who has experienced a piracy attack? If yes, describe what did the said happened

2.7 How concerned are you about maritime piracy? Could you please elaborate on your answer

2.8 Please assign a rank from 1 to 5 to the following circumstances you might encounter while working on a ship with 1 being the one you are **LEAST** worried about and 5 being the one you are **MOST** worried about:

- ship collision/foundering/grounding fire injury
- falling overboard & into the dock attacked by pirates explosion
- What other fears do you have

- 2.9 Explain why you rank piracy in the way you have
- 2.10 Based on what you have heard on piracy, is there any type of ship you would avoid?
Explain why you would avoid that type of ship
- 2.11 How do you feel when you know that your ship will pass off the coast of East Africa?
- 2.12 What do you think about the payment of Risk Allowance to ship crew members when their ship passes along East Africa coast?

Part 3: Vignettes

- 3.1 Rajesh is a 30 year old Indian fitter on a 15 year-old liquid bulker. This is his first assignment at sea. He is a widower and the only source of income for his two children. His cousin who is also a seafarer has been held hostage for 3 months after pirates boarded his ship off the East African coast and his whereabouts are still unclear. Rajesh's ship will be stopping briefly in Alexandria.

Do you think Rajesh will be concerned about his own safety?

If you are in Rajesh's position what would you do? Elaborate on your answer

- 3.2 Bjorn is a 53 year- old Norwegian master on an 8 year-old container ship. He has been a seafarer for more than 20 years. Last week he returned from home leave where he celebrated 30th wedding anniversary with his wife, children and grandchildren. A few minutes ago he learnt that the ship he last worked on was attacked by pirates last week, the crew are still held hostage and one of the crew was shot dead last night in a failed rescue attempt. His ship will be passing off the coast of East Africa in one hour's time.

Do you think Bjorn could be concerned about the possibility of a pirate attack on his ship?

If you are in Bjorn's position what would you do? Elaborate on your answer

- 3.3 Is there anything else you would like to add to what you have already said that would help me to better understand how piracy may be affecting seafarers' welfare?

Thank you very much for sparing some time to answer my questions.

Appendix 7: Sample Ethical Approval Application

Cardiff School of Social Sciences

Ethical Approval Form

Staff, MPhil/PhD, Professional Doctorate & Integrated PhD Research Projects

**Must be submitted at least TWO WEEKS before a SREC meeting to:
Deborah Watkins, Research and Graduate Studies Administrator
(WatkinsD2@cardiff.ac.uk / Extension: 79051 / Room 0.10 Glamorgan Building)**

PLEASE NOTE BEFORE COMPLETING YOUR APPLICATION:

- 1. Illegible handwritten applications will not be processed so please type if necessary**
- 2. Do not submit an application to the SREC if your research is with the NHS or NHS - linked – refer instead to NHS Local Research Ethics Committee**
- 3. You should not submit an application to the SREC if your research involves adults who do not have capacity to consent. Such projects have to be submitted to the NRES system.**
- 4. Staff undertaking minor projects as part of a course of study (e.g. PCUTL) do not need SREC approval unless the project involves sensitive issues. This exemption does not apply to Masters dissertations or Doctoral research.**
- 5. APPLICATION ATTACHMENTS: Please attach the following, without which your application decision will be delayed:**
 - Full project proposal**
 - Participant information form and Consent form (final approval will only be given when these have been provided.)**
 - Details concerning external funding**
- 6. The School Research Ethics web pages can be accessed via:
<http://www.cf.ac.uk/socsi/research/researchethics/index.html>**
- 7. Information on data management, collecting personal data: data protection act requirements, can be accessed via: <http://www.cf.ac.uk/cocom/index.html>**
- 8. Information on Research Ethics (including Ethical Issues in Research – informed consent etc.) can be accessed via the University’s Research and Commercial Division web pages via the “Research Ethics” link on:
<http://www.cf.ac.uk/racdv/index.html>**

Title of Project:

“Analysis of Maritime Piracy in Eastern Africa between 2000 and 2010 and its Impact on Seafarers’ Welfare”.

Name of Researcher: Sarah Agneta Simons

Application Date: 18/02/2011

Signature of Lead Researcher:

Student Project (PhD Data Collection)

Project Start Date: 1 March 2011 **Student No.** 0938502

Project End Date: 10 August 2013 **Email Address:**

Supervisor(s): Professor Michael Bloor BloorMJ@cf.ac.uk

Professor Trevor Jones JonesTD2@cardiff.ac.uk,

Recruitment Procedures

		Yes	No	N/A
1	Does your project include children under 16 years of age?		X	
	If so, have you consulted the University’s guidance on child protection procedures?			X
2	Does your project include people with learning or communication difficulties?		X	
3	Does your project include people in custody?		X	
4	Is your project likely to include people involved in illegal activities?		X	
5	Does your project involve people belonging to a vulnerable group, other than those listed above?		X	
6	Do you have an up-to-date Criminal Records Bureau (CRB) check? Last check June 2010. Not needed for this project.		X	

7	Does your project include people who are, or are likely to become your clients or clients of the department in which you work?		X	
8	Does your project provide for people for whom English / Welsh is not their first language? The study involves interviewing in the UK in English		X	

Consent Procedures

		Yes	No	N/A
8	Will you tell participants that their participation is voluntary?	X		
9	Will you obtain written consent for participation?	X		
10	If the research is observational, will you ask participants for their consent to being observed?			X
11	Will you tell participants that they may withdraw from the research at any time and for any reasons?	X		
12	Will you give potential participants a significant period of time to consider participation?	X		

Possible Harm to Participants

		Yes	No	N/A
13	Is there any realistic risk of any participants experiencing either physical or psychological distress or discomfort?		X	
14	Is there any realistic risk of any participants experiencing a detriment to their interests as a result of participation?		X	

If there are any risks to the participants you must explain in your proposal how you intend to minimise these risks

Data Protection

		Yes	No	N/A

15	Will any non-anonymized and/or personalised data be generated and/or stored? All interview transcripts will be anonymized		X	
		Yes	No	N/A
16	Will you have access to documents containing sensitive ¹ data about living individuals? If “Yes” will you gain the consent of the individuals concerned?		X	

Researcher Safety

		Yes	No	N/A
17	If relevant to your research, have you taken into account the Cardiff University guidance on safety in fieldwork / for lone workers ?	X		

If there are any other potential ethical issues that you think the Committee should consider please explain them on a separate sheet. It is your obligation to bring to the attention of the Committee any ethical issues not covered on this form.

¹ Sensitive data are *inter alia* data that relates to racial or ethnic origin, political opinions, religious beliefs, trade union membership, physical or mental health, sexual life, actual and alleged offences

Appendix 8: Sample Consent form and Participant Information Sheet



SEAFARERS INTERNATIONAL RESEARCH CENTRE



“Analysis of Maritime Piracy in Eastern Africa between 2000 and 2010 and its Impact on Seafarers’ Welfare”

Introduction: The Seafarers International Research Centre

The Seafarers International Research Centre (SIRC) is part of the Cardiff University School of Social Sciences in the UK. SIRC was established in 1995 with a view to conducting research on seafarers. The Centre has a particular interest in issues of occupational health and safety. It is the only international research facility of its kind and has built up unparalleled experience of research in this field. For further information please see the SIRC website @ www.sirc.cf.ac.uk

This Research

This project is an academic research study undertaken by a student Mrs Sarah Simons to collect information for a PhD degree while based at SIRC. The research aims to explore seafarers’ perceptions of the risks posed by maritime piracy to their health and safety in relation to other risks they face in their work.

During this study, the views of Seafarers will be collected to seek to gain an understanding of how Maritime Piracy in Eastern Africa in the last decade may be affecting them. For this purpose, the researcher will interview seafarers in face to face meetings and the interviews will be recorded on audio tapes.

Research Participant Confidentiality

All information gathered in the course of this study will continue to be collected and managed in compliance with Cardiff University research Data Protection Act requirements and guidance on safety in fieldwork. The research report will not include the personal and identifiable information about the seafarers interviewed. Thus, the research findings will be presented anonymously and where it may have been necessary to use quotations or phrases used by the interviewees, this will be presented in such a way that the views will not be traceable back to the individual seafarer or their organisation.

Dissemination of Findings

Any questions about this study and requests for the research report once finalised should be sent to The Researcher: Sarah A. Simons, Seafarers’ International Research Centre, 52 Park Place, Cardiff CF10 3AT. Email: SimonsSA@cardiff.ac.uk

Participants Consent Form

The nature and the purpose of this study has been explained to me
and I consent to be interviewed.

I understand that the tape of this interview will be destroyed after
Transcription and I consent to being recorded during the interview.

I understand that the interview transcription will be anonymized
and destroyed after six years and consent to the transcription being
safely stored.

I understand that I can withdraw my consent at any time over the
period of the study.

Signature of the Interviewer: _____ Date: _____

Print Name of the Interviewee: _____ Date: _____

Signature of the Interviewee: _____ Date: _____

Supervisors

At the time the fieldwork stage of this research was undertaken, the candidate's supervisors
and their contacts were as follows:

Professor Trevor Jones JonesTD2@cardiff.ac.uk,

Cardiff Centre for Crime, Law and Justice, Cardiff University, United Kingdom

Professor Michael Bloor BloorMJ@cf.ac.uk

Seafarers International Research Centre, Cardiff University, United Kingdom

Appendix 9: Preliminary Data Analysis (Coding Schematic Index)

	Content	Section	Question	Coding/key words (Interviewee)
sample description	bio data	age	1.1	oldest = 43, youngest = 20
		nationality (by geog. region)	1.2	E. Europe (8), W. Europe (5), N. America (1), S. Asia (6), Filipines (24)
		marital status	1.3, 3.1	Single (16), married (26), separated (2)
	work experience	work experience duration	1.4	longest (29yrs Chief Engineer) shortest (1yr Cadet)
		current position	1.5	various
		current ship	1.6	
		previous ships	1.7	
E. Africa voyage	1.8			
occupational risks		ranking seafaring risks	2.1(a), 2.2, 2.5, 2.6, 2.7	Pirates are dangerous (), Hijacked by pirates a risk (23 out of forty - four)
		other fears	2.1(b), 2.12	from nature Man made
fearful situations	fearful situations	feel safe at sea	2.1 2.2, 2.7, 3.1	Modern tech = safety(36), safety measures training (forty - four,37, 32), God keeps us safe (13), etc
		feel safe ashore	2.1 2.2, 2.7, 3.1	Fewer risks (40,20) feet on land (39), near help (33, 30), relaxed mood (12,14), no pirates (13,9), no big waves, no bad weather (23,10) etc
		feel unsafe ashore	2.1 2.2, 2.7, 3.1	Depends on many factors (8,1,1,25,41) Neither safe nor unsafe (41,31,11,3,21,18,27) Fewer risks (37,35,19,29,34), etc
		feel unsafe at sea	2.1 2.2, 2.7, 3.1	Afraid, scared, seafarer's life is 50:50

		maritime piracy	1.8, 2.4, 2.5, 2.7, 3.1, 3.2	dangerous
maritime piracy	piracy information sources	personal (attempted & failed pirate attempts)	2.4, 2.5	They chased our ship/tried to board (6, 7), they attempted to board (8, 34, 32), they boarded... we fought them for our lives/ there was a confrontation (42,19,29, 43, forty - four),etc
		indirect experience	2.4, 2.5	Colleagues (8,20,43,38,41,26,23), family members (forty - four, 27,30,31,24,21), fellow nationals (28, 37,41), many of my friends (34, 35)
		Media	2.4	TV/News (36,35, 33, 31,25,16, 13,10, etc.), alerts on VHS radio (19), reports/updates (31,39,41,)
		Formal Forums	2.4	Maritime Academy (40, 21), Pre-departure drills & briefing(40, forty - four, 38, 37, 36,22,24), etc
	Fears of, or concern about...	worried, afraid, concerned about piracy	1.8, 2.4, 2.5, 2.7, 3.1, 3.2	Pirates are v. dangerous/use big guns/violent (14,13,24,39), I can get killed /crew were killed (13, 3,33, 9,19,10,31,21), pirates fired on their ship (31), they were held for months (27,18), ship still being held captive after 1 year (20), held captive by different groups (18), company can claim bankruptcy(42,33), abandoned them while held hostage (11), jobs can be lost (3, 20,), any seafarer can be attacked

				(18,19,21,22,23), worries my family (24,31,18,19,
		not concerned	1.8, 2.4, 2.5, 2.7, 3.1, 3.2, 2.9	Our ship is escorted (16), we have armed guards on board (35,40), my ship only goes to in Baltic, Europe/Mediterranean, no piracy there (41,32,24,26,38, 25, 42), never passed through piracy area (4), trained and know what to do if attacked (36, 35),
		Never experienced but worried	2.9	My ship does not go there but it happened to my brother (forty - four), messages are alarming (43), just worrisome (5), if ?I had an assignment to Gulf of Aden I would be fearful (25)
	Response to imminent Piracy attack	Uncomfortable e.g. anxiety	1.8, 2.11, 3.1, 3.2	Scared (23,40), Nervous (24,40,15), worried (31,22,12,17,19,27,26,19 ,20,21,), very concerned (32), afraid (38,28,11), I can't sleep in pirate area (9), etc.
		confront pirates	2.11	We have enough fire power to beat back pirates(35), we do drills, raise security level (35), secure yourself, be ready (26),
		mutual support	3.1	I would send money to his family; I would visit his family...

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