Effect of Piracy in the Maritime Sector

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\textbf{Abstract} - This study aims to explore the effects of piracy in the maritime industry; the precautionary measures to be taken to improve the maritime security and the actions made by the different maritime organization against piracy. Many aspects are affected by the pirate's attack. These are a loss of property, delay of shipment, changing route, and many others. There are some precautionary measures in order to prevent pirate attacks which include maintaining vigilance, the need for enhanced surveillance and the use of lighting, surveillance and detection equipment, sounding alarm, alerting other ships and coastal authorities, illuminating the suspect vessel.

\textbf{Keywords:} Piracy, Maritime Industry, Violence

\textbf{INTRODUCTION}

During the early age, there are factors that affect the maritime industry. One good example is the availability of the navigational equipment. However, nowadays, piracy and global financial crisis can be considered as two major factors that may affect the maritime industry.

Pirate is someone who commits robberies at sea, usually without being appointed to do so by any particular nation. While the word pirate brings to mind sea-fearing heroes of the last century, the truth is that piracy is still commonplace around the world. Moreover, a pirate has become a symbol of a commonplace criminal off the Somali and Singapore coasts and in the waters of the Indian and Pacific Ocean, where pirates are responsible for losses of up to $16 billion per year.

According to the United Nations Convention on the Law of the Sea (UNCLOS) of 1982, maritime piracy is any criminal acts of violence, detention, or depredation, committed for private ends by the crew or the passenger of a private ship or aircraft that is directed on the high seas against another ship, aircraft or against persons or property on board a vessel or aircraft. Hence, its history is as long as the ship has gone to sea and when people started using the oceans as trade routes. The existence of piracy itself has always been bound to the international maritime industry.

It is an act of robbery of criminal violence at sea. It also includes acts committed on land, in the air, or in other major bodies of water or on a shore. It does not normally include crimes committed against persons traveling on the same vessels as the perpetrator. The term has been used throughout history to refer to raids across land borders by non-state agents.

Whereas IMO (2005) defines piracy in shipping as an act of boarding or attempt to board any ship with the intent to commit theft or any other crime or capability to use force in the furtherance of the action. It is the problem at the present times as well as in the past that cannot be solved solely by Mariners or by any international organizations but its solution is largely based on how each country handles the situation (\texttt{bpa.odu.edu.piracy.doc}).

Unlike safety incidents, piracy incidents are intentional and include all acts of armed robbery, theft, and hijacking against a ship. Terrorist incidents are also intentional. However, piracy and terrorist incidents differ in that focus of the former is theft while that of the latter is destruction like damage to property or injury to individuals.

Piracy shipping may appear in many forms. for example, it may simply involve petty thieves who look for a quick and easy ship targets by taking the money and other valuables from the vessel. Alternatively, piracy may involve and organized-crime syndicate that seeks to hijack ships of holding the crew hostage for ransom. Piracy in the shipping is also not central to any one region. It is a worldwide problem with the higher concentration in the south.
This study analyzes key phenomena why piracy all over the world became a problem to international relation. The objectives of this study are the following: to provide information about effects of piracy to maritime industry; to show to the readers the precautionary measures taken to improve the maritime security; to tell the actions made by different maritime organization against piracy.

The researchers have been chosen this topic because of the growing piracy incidents in the world that attracts their attention. They want to inform the future mariners about the harm and effects of piracy to the maritime industry. Also to give knowledge on the actions to be taken to at least minimize if cannot be avoided the harm of piracy to the ship’s crew.

OBJECTIVE OF THE STUDY

This study aimed to explore the effects of piracy in the maritime industry; the precautionary measures to be taken to improve the maritime security and the actions made by the different maritime organization against piracy.

METHODS

Research Design

In descriptive design, the study focuses on the present condition. The purpose is to find the truth. The truth may have different forms such as increased quantity of knowledge, a new generalization or a new "law", an increased insight into factors which are operating, the discovery of a new causal relationship, a more accurate formulation of the problem to be solved, and many others (Calmarin, 2007).

Descriptive research can utilize elements of both qualitative and quantitative research methodologies, often within the same study. The term descriptive research refers to the type of research questions, design and data analysis that will be applied to a given topic. Descriptive statistics tells what is while inferential statistics tries to determine caused and effect. (www.aect.org/edtech/ed1/41/41-01.html)

Instrument

In gathering data, the researchers analyzed some researches made by individuals from the maritime industry. Internet browsing is also executed by them to provide vital information for the success of the study they have reviewed some books, magazines, term papers, periodicals, available in the institutional media center at the Lyceum International Maritime Academy. And the researchers also govern some discussions to determine what should be given stress on the said topic.

Procedure

The Researchers made the proposal for the study conducted by their research adviser to come up with the design. Before the proposal period, the researchers visited some website and searched for related topics to their designs. When the researchers finally had the ideas and concepts about the effects of piracy in the maritime industry. The researchers based their study on the different reports of various agencies regarding the impact of piracy in the maritime industry.

Data Analysis

Results from the interview data were qualitatively analyzed using content analysis. The researchers summarized and categorized themes encountered in data collection (Biggerstaff, n.d.).

RESULT AND DISCUSSION

Graph 1. Rate of Piracy per decade

The year 2001 to 2010 has the most number of theft events recorded, followed by 1981 to 1990. The last five years (2011 to 2015) ranked 3rd, and 991 to 2000 has the lowest piracy rate for the past four decades.

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Effects of Piracy to the Maritime Sector

A. Area of Concern: Growth of Maritime Industry

Statements:
- Risk of life
- Adverse effect
- Industry unfair
- Spend billions of dollars
- Disturbance of commercial shipping
- Great loss of life
- Delay of work onboard
- Reduce the number of seafarers
- Crews unable to work freely

B. Area of Concern: Financial Effect

Statements:
- Frequent kidnap and hijacking
- Ransom being paid
- Capturing of vessel
- Billions of dollars are being lost
- Risk always at their own loss
- Paying of money to pirate
- Stealing of funds from crew
- Injuries and dangers

C. Area of Concern: Affecting life of seafarers

Statements:
- Endangering their life
- Scared of pirate
- Taking of crew members
- Threat of lives on-onboard
- Lead to untimely death
- Emotional fear
- Psychological problems
- Mentally problems
- Physically disabled
- Fear of crew members

D. Area of Concern: Piracy effect of cadet’s career

Statements:
- Scared and discourage
- Fear of their lives
- Reduction of cadets
- Scared to pursue their career
- Discourage to go back onboard
- Doubt on cadets
- Reduction of cadets going onboard
- Frighten of being hurt
- Discouragement of their family
- Threat of their life

E. Area of Concern: Effect of piracy on seafarers

Statements:
- Scared of their life
- Harm to seafarers
- Family discourage seafarers because of piracy
- Causes of heart attack
- They don’t want to be attack by piracy
- Inbuilt fear of piracy
- Discourage to further their career
- Scared of being attack by pirates
- Afraid to lose their love once
- Being harm by the Pirates

F. Area of Concern: Effect of social life in seafarer

Statements:
- Reduction of socialization among mate
- Shocks of seafarers
- Fear encountered during pirates attack
- Not happy with their job
- Not allow to go ashore due to piracy
- They don't concentrate due to piracy
- Hardly socialize because piracy attack
- Mentally do to some piracy attack
- Always being scared
- They barely have time to socialize

G. Area of Concern: Effect of carrying goods from one point to another

Statements:
- Attack of piracy
- Reduction of goods from one place to another
- Delay of goods from one location to another
- Effect of time interval of goods
- Delay of delivery of goods to the owner
- Stopping of carriage of goods in pirate prone areas
- Loss of money to the ship owner
- Delivery of goods to the port early
- Time wastage
- Late arrival to port

H. Area of Concern: Effect of economic growth in the maritime industry

Statements:
- Reduction of amount in the world trade
- Trade will be significantly reduced
- Ransom money paid for labor un-accounted
- Limited to some countries
- Affect the growth of the country
- Millions and billions are lost
- Delay of economy growth
• Lots of vessels are damaged due to piracy
• Business are being delayed
• Reduction of numbers of vessel

I. Area of Concern: Effect of piracy working condition onboard

Statements:
• Damage to vessel
• Working condition onboard will be tense
• Hindering seamen on their duty post
• Suspension of work during pirates attack
• On safe working condition
• They are stress
• Unconducive environment
• Duties on board will be slow
• Working materials will be unkept
• Damage of working materials

J. Area of Concern: Effect of revenue generated in the maritime sector of a country

Statements:
• Reduction of vessel plying to such country by reducing the amount of trade
• High rate of piracy in a country
• Reduction of seafarers in the maritime sector
• Stagnant of maritime sector of a country
• Revenue in the maritime will be reduce
• Lack of improvement in the maritime sector
• Lot of money being lost due to piracy
• Shortage of facilities in the maritime sector
• Lack of revenue income due to pirates

Piracy is one of the major factors that affect the growth of Maritime Industry. Yearly, shipping companies loses billions of dollars because of the pirates attack. Piracy has affected maritime industry almost since the oceans have been used for trade. Many aspects are being affected by the pirate’s attack “Oceans Beyond Piracy”).

Oceans Beyond Piracy's report on the "Economic Cost of Somali Piracy" estimates that piracy cost nearly $7 billion in 2011. The study assesses nine different cost factors and finds that over 80% of the costs are borne by the shipping industry while governments account for 20% of the expenditures associated with countering piracy attacks.

What are the precautionary measures to be taken to improve the maritime security?

Because of the rising piracy activities, a vessel at sea has become highly vulnerable to attacks. Dealing with an armed human attack is a significant challenge faced by maritime industry today. Moreover, there are also other forms of dangers both natural and man-made that a ship at sea has to deal with. However, undoubtedly, maritime piracy if one of the biggest concerns for both ship personnel and owners (ww.ssrs.org).

To protect the cargo, ship and sailors, vessel owners can hire naval security firms. The goal is to stop pirates before they board. A key component to fighting piracy is for governments to get involved. Cooperation between different nations is also important because state's rights prevent one country from pursuing pirates into territorial waters of another. And according to the previous chapter, IMO has made some recommendations of actions ships can take to protect themselves against pirate attack. These includes: maintaining vigilance, the need for enhance surveillance and the use of lighting, surveillance and detection equipment, sounding alarm, alerting other ships and coastal authorities, illuminating the suspect vessel, undertaking evasive maneuvering, initiating response procedure and following radio alarm procedure.

One of the inventions to protect sailors and cargo is the ship security system. This collapsible electric fence is mounted on the deck, and can be activated in its entirely or by zones on either side of the ship. When triggered, it turns on the light and activates alarms and sirens to alert the crew. Anyone who touches the fence receives a 9000 volts shock, painful but not fatal. The fence works in all types of weather and salt water doesn't affect it. It is suitable for use on any ship except those carrying flammable materials such as oil. (http://imo./TCD/mainframe.asp?topic_id=362)

According to Capt. Geronimo Dolor, based on his experience dealing with pirates he stated some precautionary measures when navigating in pirated area. He’s making sure that all of the crew is awake, and everyone is functioning as a lookout and no lights are exhibited. He also says that the pirates usually boarding on the lowest part of the ship so putting the engine at full ahead can be effective.

Due to the increasing instances of hijack and ransom of cargo ships predominantly occurring in the Gulf of Aden and around the Horn of Africa Ship Security Reporting System was implemented. It's a more precise system that allows quicker backup for a ship in distress. Ship Security Report System (SSRS) is the ship security system that derives its roots from the earlier existing ship security alert system. Which contributes to International Maritime Organization's initiative to improve maritime safety through the
Safety of Life at Sea (SOLAS) convention and, more recently, through the International Ship and Port Facility Security Code (ISPS).

The SSRS build on the Ship Security Alert System (SSAS) that exist on most cargo and passenger ships over 300 gross tonnes flagged to SOLAS contracting governments by linking the SSAS to naval forces responsible for maritime security in a particular area. The SSRS continually monitors ship security alerts and transmits critical data to participating Naval Operations Centres.

The Ship Security Reporting System helps to improve the maritime security by continuous monitoring of vessels within a particular area. It allows ships to sail through the most vulnerable channels with a reassurance of much better maritime security than was offered before. Particularly in the hotspots of piracy like The Gulf of Aden and Somalia coast was imminent.

**What are the actions made by different maritime organization against piracy?**

Due to growing incidents of piracy in the maritime industry, the International Maritime Organization (IMO) has adopted some International Conventions for its member countries to implement. Some of them are The Convention for the Suppression of Unlawful Acts Against the Safety of Maritime Navigation (SUA Convention), the International Convention for the Safety of Life at Sea (SOLA), and the International Ship and Port Facility Security Code (ISPS Code). In addition, IMO assists governments lacking the technical knowledge and resources needed to operate a shipping industry safely and efficiently through the Integrated Technical Co-operation Programme (ITCP) and the Djibouti Code of Conduct.

These are the actions of the organization in implementing the anti-piracy law. First is the Rule of Law, under the Djibouti Code of Conduct, the IMO and UNODC are conducting reviews of national piracy laws and providing training to national law drafters, sea-going law enforces and justice ministry prosecutors in the procedures of a piracy arrest and providing direct assistance to states upon request.

Second is the Vessel of self-protection, IMO has issued documents containing information, guidance and recommendations to governments, ship owners, ship masters and seafarers for preventing and suppressing armed robbery against ships. In addition, the Best Management Practices developed by the shipping industry have been promulgated by IMO in the shape of Maritime Safety Committee (MSC) Circular. A code of practice for the investigation of crimes of piracy and armed robbery against ships was issued in January 2010 and IMO is working with INTERPOL to integrate crime scene investigation guidelines into IMO's package for seafarers.

Third is the Regional Response, IMO is involved in maritime security-related capacity building through the ITCP and multi-donor trust funds such as the IMO Djibouti Code of Conduct Trust Fund, the International Maritime Security Trust Fund, and the IMO Malacca and Singapore Straits Trust Fund, the entity may contribute to the fund, and in particular the IMO Member States, international and regional organizations and the maritime industry are encouraged to do so. The Train-the-Trainer programme focuses on developing the maritime security knowledge of instructors at national maritime training centers and candidates from the shipping industry to equip them to train others with the aim of enhancing implementation of IMO's Maritime security measures such as ISPS Code.

Lastly is the Coordination, in early January 2012, the Secretary-General of IMO appointed a Special Representative of the Secretary-General for Maritime Security and Anti-Piracy Programmes, Mr. Hartmut Hesse, who will be taking responsibility for the implementation of the Djibouti Code of Conduct and will also act as the IMO representative to conferences and meetings dealing with piracy issues. Following a meeting on 20 January 2012 between the UN Secretary-General and the IMO Secretary-General on the need for increased cooperation between IMO and UN, UN specialized agencies, and other relevant international organizations, IMO organized and hosted counter-piracy capacity-building conference. At the meeting, IMO signed strategic partnerships with the UN Food and Agriculture Organization (FAO), the United Nations Political Office for Somalia (UNPOS), the United Nation Office on Drugs and Crime (UNODC), The World Food Programme (WFP), and the European Union. The partnerships are intended to reaffirm the mutual commitments to improving coordination at all levels and across all relevant programmes and activities, with a view to strengthening the anti-piracy and maritime capacity of States in the Western Indian Ocean and Gulf of Aden area and developing viable and sustainable alternatives to piracy in Somalia. IMO issues monthly, quarterly and annual reports on piracy and armed robbery incidents (“Oceans Beyond Piracy”).

The information gathered shows that maritime organizations are taking preventive measures to prevent piracy. Organizations are concerned with this problem implement the anti-piracy law. The effect of
anti-piracy provisions must be considered in implementing anti-piracy laws. There are two conditions that should be met to have an effective outcome of implementing the anti-piracy laws. First, the international legal framework needs to be complemented by adequate nation legislation in all states concerned. Second the legal provision needs to be backed up by effective enforcement capacity both for the arrest and for the prosecution of suspected pirates. When these two conditions are fully implemented, there is a possibility that the case of piracy is minimized.

CONCLUSIONS
The Maritime industry is severely affected by piracy. Many aspects are affected by the pirate's attack. These are a loss of property, delay of shipment, changing route, and many others. There are some precautionary measures to prevent pirate attacks. These includes maintaining vigilance, the need for enhancing surveillance and the use of lighting, surveillance and detection equipment, sounding alarmed, alerting other ships and coastal authorities, illuminating the suspect vessel. Undertaking evasive maneuvering and the following radio alarm procedure. Maritime Piracy a problem at a present time as well as in the past that’s why the maritime organizations are taking actions to prevent attacks. They are implementing anti-piracy laws and they also suggest some tools and techniques to avoid pirate invasion. However, it cannot be solved solely by Mariners or by the maritime organizations but its solution is largely based on how each country handles the situation. IMO has adopted some international conventions for its member countries to implement.

RECOMMENDATIONS
Shipping companies may use this research to enhance the security given to their vessels, cargoes and most especially to the crew on a ship. Training agencies may conduct additional training which give the Mariners knowledge in avoiding maritime piracy. Academy for future Mariners may include subject regarding piracy to their curriculum so that the students has an idea about this. Maritime organizations may convince the countries are having the case of piracy to participate in improving maritime security at sea. Lawmakers may improve the implementation of anti-piracy laws to improve further the present anti-piracy combats efforts by using this research as their basis.

REFERENCES